



# REALIZING THE WORKFORCE POTENTIAL OF INFRASTRUCTURE INVESTMENTS

State Strategies to Advance Job Quality and Build  
Inclusive Workforces in Transportation and Clean Energy



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# Table of Contents

SECTION	PAGE
<b>INTRODUCTION</b>	<b>3</b>
<b>FRAMEWORK FOR STATE ACTION</b>	<b>5</b>
<b>ABOUT THIS REPORT</b>	<b>6</b>
<b>ACKNOWLEDGEMENTS</b>	<b>7</b>
<b>SCALE OF THE OPPORTUNITY</b>	<b>8</b>
<b>CRITICAL STAKEHOLDERS AND KEY ROLES</b>	<b>10</b>
<b>FUNDING OPPORTUNITY: LEVERAGING IIJA AND IRA FUNDING</b>	<b>14</b>
<b>NOTABLE TRANSPORTATION FUNDING OPPORTUNITIES FOR WORKFORCE</b>	<b>15</b>
Opportunities to augment transportation workforce programs and services through direct expenditures	15
Opportunities to prioritize job quality, inclusion, and accountability through general state transportation spending	16
<b>NOTABLE CLEAN ENERGY FUNDING OPPORTUNITIES FOR WORKFORCE</b>	<b>17</b>
Opportunities to augment clean energy workforce partnerships and programs through direct expenditures	17
Opportunities to prioritize job quality, inclusion, and accountability through general state clean energy spending	18
<b>KEY LESSONS: MARKLE-ENO-NASEO STATE TRANSPORTATION AND CLEAN ENERGY WORKFORCE INITIATIVE</b>	<b>19</b>
<b>A FRAMEWORK FOR STATE ACTION</b>	<b>21</b>
1. Deepen Cross-Agency Coordination	25
2. Augment Workforce Program Funding	28
3. Embed Into Procurement	33
<b>CONCLUSION</b>	<b>41</b>
<b>APPENDICES</b>	<b>42</b>
Appendix A: Funding Opportunities	42
Appendix B: Embed into Infrastructure Procurement Examples	48
<b>REFERENCES</b>	<b>54</b>
<b><a href="#">⬆️ RETURN TO TABLE OF CONTENTS</a></b>	

# Introduction

**Recent federal investments will direct rare levels of funding toward transportation and clean energy infrastructure projects over the next decade, including hundreds of billions of dollars in new spending.**

- The Infrastructure Investment and Jobs Act of 2021 (IIJA) directs approximately \$591 billion and \$75 billion to transportation and clean energy, respectively, over a five-year period.<sup>1</sup>
- The Inflation Reduction Act of 2022 (IRA) also invests about \$369 billion in U.S. energy modernization, building upgrades, and technology deployment through 2032.<sup>2</sup>

If multifaceted action is taken, this rare level of funding can support millions of good quality jobs that can provide economic security and mobility to many people, including demographic groups that have long been underrepresented in these sectors.<sup>3</sup>

Transportation and clean energy sectors already represent a large share of the U.S. workforce and are anticipated to add hundreds of thousands of additional jobs per year.<sup>4</sup> Like occupations across infrastructure sectors today, the majority of transportation and clean energy jobs are likely to be attainable for workers without bachelor's degrees.<sup>5</sup> They tend to pay more than occupations with similar education credential requirements and have higher rates of unionization,<sup>6</sup> a characteristic associated with significant job quality benefits.<sup>7</sup>

While there are numerous positive workforce trends in infrastructure, there are also persistent and significant disparities in the demographic makeup of the U.S. infrastructure workforce broadly, including in these sectors.

**Women and younger workers are vastly underrepresented.<sup>8</sup> Racial/ethnic inequality is also pervasive, with Black and Latino or Hispanic workers being very overrepresented among the lowest-paying occupations in the sectors.<sup>9</sup>**

There are also pronounced job quality issues that, left unaddressed, would likely continue on many of the worksites supported by this spending. In construction, a major area of near-term infrastructure work, there are high rates of reported worksite harassment and discrimination,<sup>10</sup> a job quality issue that contributes to disparities in opportunity to thrive within these sectors.



While these investments will touch a wide range of entities from utilities to local transit agencies to ports, a large share will flow through state-level infrastructure agencies (e.g., state transportation departments and state energy offices, which for the purposes of this report are referred to as “infrastructure agencies”)<sup>11</sup>. Critically, such funding provides a meaningful amount of discretion for states to shape the ways these funds are subsequently disbursed. For example, within the aforementioned IIJA totals, state transportation departments are slated to receive at least \$250 billion by way of formula allocation. IIJA included significant changes to the eligible expenditures for this pool of funding, such that states can now use an uncapped amount for broadly defined programs and services to support access to careers in transportation.<sup>12</sup> States also have a variety of options to shape the practices of the private sector in transportation and clean energy through setting priorities within terms and expectations in the bidding of projects.



**With the potential to touch millions of jobs, the nature of the transportation and clean energy funding flowing to state governments affords significant resources and options to make their infrastructure investments a major propeller for inclusive workforces with good quality jobs.** Yet, aligning workforce goals with those of infrastructure implementation represents a significant shift from the standard priorities of state infrastructure spending. State transportation, energy, and workforce agencies will be central players in this challenge, along with other state agencies that interface with jobseekers and other stakeholders, such as local workforce boards, unions and labor-management partnerships, community-based organizations, among others.

To aid states in realizing the workforce potential of their infrastructure investments, the Markle Foundation, the Eno Center for Transportation (Eno), and the National Association of State Energy Officials (NASEO) launched an initiative to convene state transportation or energy agencies, respectively, with the counterpart state workforce agencies in six states.<sup>13</sup>

The initiative focused on opportunities in transportation in California, Illinois, and Indiana, as well as opportunities in clean energy in Colorado, Massachusetts, and Pennsylvania. Leaders from these agencies came together in 2022 to explore opportunities to build on existing systems and work toward shifting their practices to better support access and inclusion to good quality jobs in transportation and clean energy sectors. In addition to the convenings of state leaders, this initiative also issued a survey to a wider net of state transportation and energy offices in late 2022. Learnings from this initiative were used to inform this report.



# Framework for State Action

**This report offers an actionable framework of strategies that states should prioritize to raise job quality and inclusive workforce development practices to the fore of their infrastructure implementation.**

States will need to navigate a complex array of options, many of which are new ways of operating and atypical priorities for critical state agencies. To that end, this Framework for State Action highlights the need for state infrastructure and workforce decision-makers to take actions in three areas:

## 1 Deepen Cross-Agency Coordination

Building strategic partnership between agencies is an often-overlooked starting point that provides a foundation for agencies to build on and fill critical gaps in existing systems. These partnerships between infrastructure, workforce development, and other critical stakeholders support the work to create and scale programs, ensure those programs are meaningfully connected to good quality jobs with mobility potential, and operationalize using tools and data at the state government's disposal to expand access to jobs connected to state infrastructure spending.

## 2 Augment Workforce Program Funding

States have significant opportunities to use incoming federal funds through IIJA and IRA to directly augment the workforce programs and services needed to expand paths for people, especially underrepresented populations, to join and succeed in infrastructure sectors.<sup>14</sup>

## 3 Embed Into Procurement

States can integrate requirements, preferences, or encouragements into infrastructure spending to drive employers to prioritize good quality jobs and inclusive workforce practices. This could include mandating that projects use apprenticeship programs to complete projects, creating financial incentives for employers to form partnerships with community and workforce stakeholders to build inclusive paths to their jobs, or requiring a share of work-hours on projects be completed by workers of certain demographic, geographic, or economic criteria. While there is a range of options for states to embed workforce and job quality into the procurement processes and terms for their infrastructure spending, to implement any goals, states will need meaningful accountability structures to ensure intended workforce priorities go beyond goals to become outcomes.

# About This Report

The first section of this report details key elements of the opportunity before states.



## SCALE OF THE OPPORTUNITY

Discusses the scale of the opportunity for states to take more intentional action to prioritize job quality and workers in their IIJA and IRA implementation.



## CRITICAL STAKEHOLDERS AND KEY ROLES

Provides an overview of the roles of critical state transportation, energy, and workforce agencies as well as other stakeholders in supporting broad and inclusive paths to transportation or clean energy workforces connected to state spending.



## FUNDING OPPORTUNITY

Details key federal funding opportunities, available to states to support workforce development in transportation and clean energy, with a focus on IRA and IIJA.



## KEY LESSONS

Presents key findings from the Markle-Eno-NASEO initiative that convened state workforce and transportation or energy leaders.

The second section of this report offers a **Framework for State Action**.



## FRAMEWORK FOR STATE ACTION

Three categories of mutually supportive strategies for states to capitalize on incoming funds to create robust, inclusive paths to good quality jobs in key infrastructure sectors, including examples of relevant models from around the country.



This report is intended to support state decision-makers in infrastructure-related agencies, workforce development or labor agencies or advisers, and those involved in cross-agency infrastructure implementation.

However, this report is also intended to offer an actionable approach to inform leaders in parallel federal agencies, local and regional infrastructure project owners (including local governments), and economic justice and/or workforce focused organizations.

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- Indiana Department of Transportation
- Indiana Department of Workforce Development
- Massachusetts Clean Energy Center
- Massachusetts Department of Energy Resources
- Massachusetts Executive Office of Labor and Workforce Development
- MassHire
- Pennsylvania Department of Community and Economic Development
- Pennsylvania Department of Environmental Protection
- Pennsylvania Department of Labor and Industry
- Wisconsin Department of Workforce Development<sup>15</sup>
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# Scale of the Opportunity

There are several key factors that collectively create an important window of opportunity for states to prioritize job quality and workforce development in transportation and clean energy.

**Demand for U.S. infrastructure workers—particularly in transportation and clean energy—is poised for significant growth.** Though estimates of the scale of job creation from new federal investments vary, a recent analysis from the Brookings Institution predicts that the infrastructure sector (including sectors beyond transportation and clean energy) may gain up to 1.5 million jobs every year over the next decade due to new federal investments, while an estimated 1.7 million workers will leave their infrastructure jobs annually. This analysis also finds that prior to anticipated future investments, infrastructure accounted for nearly 12 percent of national employment in 2021—16.6 million workers—with most of those jobs concentrated in transportation (73 percent) and energy (12 percent).<sup>16</sup> Prior to the passage of IIJA and IRA, both sectors were experiencing steady growth (about 3 to 4 percent per year in energy<sup>17</sup> and about 2 to 3 percentage points in transportation,<sup>18</sup> not accounting for disruptions from the COVID-19 pandemic). Now, demand for transportation and clean energy workers is expected to scale drastically, especially in weatherization and energy efficiency, beneficial electrification, electric vehicles, clean energy generation, and highway construction.

**Anticipated growth in transportation and clean energy work will necessitate broader, more accessible paths to join these workforces.** If current trends continue, the anticipated demand for more workers will collide with several pronounced workforce challenges that could impact the ability to complete projects, including insufficient training and recruitment paths to meet demand for skilled workers,<sup>19</sup> aging workers nearing retirement, and large numbers of existing workers leaving their jobs and/or sectors.<sup>20</sup> Recruitment can also be challenging in rural areas where many clean energy projects are located, due to aging and declining population trends.<sup>21</sup> While only a small sample size, all state departments of transportation that responded to our survey conducted in late 2022 reported that finding skilled workers was their primary workforce concern.



**Building bigger transportation and clean energy workforces provides an opportunity to be more intentional about connecting a larger number of people to infrastructure jobs, including demographic groups that have long faced barriers to joining infrastructure sectors and/or people that face pronounced barriers to securing family-sustaining employment.** Notably, this growing workforce demand presents an opportunity to prioritize paths and inclusion within infrastructure for women, people who are not white, people in rural communities, people exiting incarceration, and people with disabilities. Doing so would break away from existing workforce trends in infrastructure.

For example:

- While women make up nearly half of the national workforce, they account for only 18.5 percent of infrastructure workers.<sup>22</sup> Underrepresentation is particularly glaring in the construction workforce, where only 3.6% of construction trade apprentices in 2019 were women, with Black and Latina women represented just 0.7% and 0.6% of all construction trade apprentices, respectively (not specific to infrastructure).<sup>23</sup>
- An analysis by the National Partnership for Women and Families projected that, should current demographic trends in infrastructure continue, women would only account for 29 percent of the jobs that IIJA is projected to create—and Black women and Latinas would account for less than 4 percent and less than 5 percent of new jobs, respectively.<sup>24</sup>



- Black and Latino or Hispanic workers are also concentrated within the lower-paying occupations within the infrastructure sector, especially among laborers and material movers, which pay an average of about \$23,000 less than the labor market’s average pay.<sup>25</sup>
- A survey of the U.S. energy workforce conducted in 2020 and 2021 indicates that women and people who are not white face a number of challenges in the industry, including lack of exposure to opportunities in the space, bias and prejudice in the workplace, and limited opportunities for promotion compared to white men.<sup>26</sup>
- There are a number of barriers for workers in rural areas that if left unaddressed would hinder workers in these areas from benefitting from the new infrastructure funds, even if major projects are based in rural areas. For example, transportation to and from jobsites and training locations in rural areas is more likely to require access to a personal vehicle and access to digital training programs is worsened when high-speed internet is unreliable. Training and credentialing programs also often do not reach rural, sparsely populated communities.<sup>27</sup>

Prioritizing job quality and planning for inclusive workforce development programs and policies attached to major clean energy and transportation projects may aid states in securing IJIA-related federal competitive grants, as the Biden-Harris Administration has included preferences in various competitive grant programs for plans that prioritize job quality and workforce development activities.<sup>28</sup> Additionally, a cross-agency strategy to prioritize good quality infrastructure jobs could also improve labor market outcomes among people seeking services from the public workforce system, which too often connects people that seek its services to jobs that pay low wages and overwhelmingly connects people to jobs where their gender is significantly overrepresented.<sup>29</sup>

**New investments present the opportunity for a broad swath of workers to secure jobs that pay a wage premium compared to other jobs that do not require a bachelor’s degree.** Jobs in these sectors tend to pay a wage premium, a difference which may be explained in part by infrastructure sectors having higher rates of unionization. In 2021, infrastructure occupations paid wages that were 30 percent higher at low income levels (the 10th and 25th percentiles) than at similar levels across the economy.<sup>30</sup> One study found that an apprenticeship in the trades in Illinois rivals a bachelor’s degree at a state university in terms of lifetime earnings.<sup>31</sup> The wage premium in infrastructure is particularly notable given that these jobs are likely to be accessible to workers without a bachelor’s degree—the majority of infrastructure workers in 2021 (54 percent) held a high school diploma or less, compared to 32 percent across all occupations.<sup>32</sup> However, there are several job quality issues, especially relevant to infrastructure sectors, that states have policy levers to combat, such as discrimination and harassment on jobsites,<sup>33</sup> safety concerns,<sup>34</sup> and adherence to workplace laws<sup>35</sup> are all prevalent issues. States can address these problems through a variety of actions (as discussed in [Embed Into Procurement](#)).

**The state infrastructure agencies that will receive the vast majority of federal funds going to states, including those with flexibilities to be used toward workforce development, often do not view workforce or job quality as one of their primary objectives.** As previously mentioned, a significant portion of IJIA and IRA funds will flow through grants and programs administered or implemented by state agencies, in particular state departments of transportation and energy offices. For example, about \$250 billion from IJIA will be sent to state transportation departments in the form of formula surface transportation funds, which have new, uncapped, broad workforce flexibilities.<sup>36</sup> While state energy offices will not receive formula funding through IJIA at the scale of transportation departments, such agencies will still see important boosts in incoming mandatory funds. Plus, the IRA allocates nearly \$9 billion directly to state energy offices for the implementation of energy efficiency and electrification rebate programs ([see Funding Opportunity: Leveraging IJIA and IRA Funding](#)).<sup>37</sup> State transportation and energy agencies are also well-positioned to influence other state agencies and convene critical partners (e.g., contractors, labor leaders) to address workforce challenges and opportunities. Though job quality and workforce inclusion have not always been viewed by these agencies as central goals, they are interlinked with successful project completion: Research suggests that prevailing wage requirements, for example, can help companies lower turnover and may help ensure on-budget project delivery.<sup>38</sup>

# Critical Stakeholders and Key Roles

With a focus on transportation and clean energy jobs supported by state spending, this section provides an overview of critical stakeholders that have a central role to play in influencing job quality and building broader, more inclusive access to relevant jobs. It also highlights example functions those agencies have that are opportunities to influence these practices in those sectors. Many of these functions are shared across numerous stakeholder types.

The Framework for Action and related funding opportunities discussed in this report are most applicable to states' departments of transportation, energy offices, and workforce agencies. Additional stakeholders, discussed after these three state agency types, also play an important role in this challenge.



These stakeholders are particularly relevant to actions identified in the Framework for Action's

[First Set of Strategies: Deepen Cross-Agency Coordination](#)

## CRITICAL STAKEHOLDER

### State Departments of Transportation (State DOTs)

**ROLE:** State departments of transportation are responsible for the statewide planning and management of transportation infrastructure, assets, and programs. They are primarily focused on the highway and roadway network, though some are also responsible for local streets, public transit, aviation, and ports. They plan and allocate resources for building and maintaining transportation infrastructure using federal and state funding.

#### Opportunities to Promote Job Quality and Workforce Inclusion:

- **Directly hiring workers**, which provides the opportunity to set terms of recruitment, training, and employment.
- **Sponsoring or funding training programs** for transportation occupations and bolstering support services for trainees.
- **Gathering and sharing key data and information** on anticipated projects, in-demand occupations, and hiring and retention on agency projects.
- **Encouraging, mandating, and enforcing job quality and inclusive workforce standards and practices** by incorporating terms into competitive contracting and procurement processes.
- **Encouraging and shining a spotlight on best workforce practices** among regional transportation entities.

## CRITICAL STAKEHOLDER

### State Energy Offices

**ROLE:** State, territory, and District of Columbia energy offices (referred to in this report as “state energy offices”) advance energy policies and programs, inform regulatory processes, support energy system planning, and promote energy technology research, demonstration, and deployment. In recognition of the critical role that energy plays in state and local economies, many state energy offices shape policies, plans, programs, and investments that aim not only to address climate and environmental goals but also to support economic growth and competitiveness, resilience, and energy affordability and reliability. Several state energy offices have opted to treat workforce development as a focus of their work.

### ● Opportunities to Promote Job Quality and Workforce Inclusion:

- **Providing direct expenditures (grants) for workforce training and readiness programs** in a variety of clean energy technologies and occupations.
- **Embedding job quality and workforce requirements or preferences into state clean energy spending**, such as family-supporting wages, childcare, health care and retirement benefits, and strategies to maximize the involvement of local workers, worker-owned cooperatives, and women- and minority-owned businesses.
- **Convening stakeholders, overseeing energy market assessments and analyses, and developing energy and climate policies and plans** gives unique insight into the urgent need for skilled workers. This allows energy offices to partner with workforce systems and partnerships to inform clean energy transition plans and support effective approaches to workforce development.
- **Supporting clean energy entrepreneurship and increasing STEM education, mentoring, and career awareness programs** to support the growth of a strong energy sector.

**ROLE:** In this report, the term “state workforce agencies” includes state workforce and labor agencies (involved in delivering labor market information, employer services, training grants, overseeing apprenticeship programs, career navigation, recruitment, and business services), as well as workforce development boards and their staff (which oversee a network of activities with local workforce development boards to coordinate workforce investments in economic regions). In many cases, state workforce boards are housed within a broader workforce and labor agency; in other cases, they are housed within a state’s economic development department or equivalent.

### ● Opportunities to Promote Job Quality and Workforce Inclusion:

- **Producing an accounting of relevant offerings in the state’s public workforce development system.** This includes the state’s available training programs and related funding streams, insight on which programs have strong performance for jobseekers, and any existing analyses on workforce projections.
- **Spending state and federal workforce dollars to support pathways into infrastructure careers, particularly for underrepresented groups.** Additionally, these agencies can highlight areas that are not covered that could be addressed using federal infrastructure funding. State workforce agencies have data and insights on what may be holding back the workforce system from more effectively preparing and connecting workers to in-demand infrastructure careers—whether it is insufficient supportive services in training programs, insufficient slots in highly effective training programs, insufficient connections between pre-apprenticeship programs and highly sought registered apprenticeship slots and good quality jobs.
- **Offering insight into the types of workforce development investments and approaches to shifting employer practice** that have proven most effective in the state to inform the broader strategy for infrastructure workforce implementation.
- **Directing jobseekers to high-quality jobs and training programs**, which creates pressure on employers to improve job quality to benefit from the public workforce system’s services.
- **Identifying priority workforce requirements** that infrastructure agencies could embed in their spending on projects in the aim of making those requirements realistic.

### ● **Governors' Offices**

Governors and their staff, especially those involved in infrastructure implementation and workforce or education policy, are uniquely positioned to coordinate across state agencies to advance infrastructure workforce goals. They can convene cabinet-level leadership, create working groups, or implement executive orders to further a state-level strategy. More generally, these offices can set priorities across agencies that can make it more realistic to actualize the actions discussed in the framework for state action.

### ● **Local Workforce Development Boards**

Local workforce development boards—overseen by state workforce development boards—consist of business, education, and workforce representatives. They direct workforce development investments, priorities, and strategy for use of WIOA funds in a county or multi-county region. They facilitate connections between employers and training providers to address skills development needs, especially in high-growth industries. They also oversee American Job Centers, which provide mostly in-person services to jobseekers, such as career counseling and job search assistance.

- As an example of how these entities could be involved in a state strategy, a state DOT or energy office could issue a competitive grant program for local workforce development boards to create a sector partnership geared toward building recruitment, training, and vital supports to prepare people for in-demand occupations in the relevant sector.
- They could also leverage WIOA funds to meet training needs and aid infrastructure project owners—including private developers taking advantage of IRA's tax credits—to meet workforce goals on their projects, such as apprenticeship utilization or targeted hiring requirements.

### ● **Pre-Apprenticeship Programs**

Pre-apprenticeship programs prepare people for registered apprenticeship, family-wage sustaining employment, or in some cases further education programs, often with the goal of broadening access to the trades for underrepresented groups.

These programs—which are typically operated by entities described in this section, such as unions or worker-focused organizations—can develop meaningful partnerships with registered apprenticeship programs and with public agencies to ensure that after completing training, graduates have a direct pathway into apprenticeship or other type of employment.

- Approaches to create those meaningful paths include having apprenticeship programs that define direct entry or preferences for graduates of the partnered pre-apprenticeship programs, plus fostering transparency and clarity on the availability of future registered apprenticeship slots so that these can align with completion of the pre-apprenticeship program.

### ● **Private Sector Firms that are Contractors or Subcontractors on Infrastructure Projects**

In addition to prioritizing inclusive hiring practices and advancing job quality (e.g., through wages, benefits, and strong safety standards), contractors can engage with public infrastructure agencies, the workforce development system, community-based organizations, and other entities in this list to broaden their recruitment and training offerings.

- Contractors could, for example, partner with local pre-apprenticeship programs or community-based groups to improve recruitment and training, especially for people that are underrepresented in the sector; or engage with state and local agencies on the planning for workforce needs for anticipated projects.

### ● **Regional and Local Infrastructure Agencies**

As infrastructure project owners that are receiving their own IIJA funds, regional and local agencies can use similar strategies available to state agencies to advance workforce priorities: partnerships with the local workforce development system, direct spending on workforce development, and procurement practices focused on job quality and inclusion.

### ● **State Agencies that Provide Services to or Otherwise Interface with Jobseekers**

*e.g., departments of Corrections and departments of Human Services*

Agencies that serve populations likely to benefit from connections to quality jobs can be key partners in a state's infrastructure workforce strategy. State infrastructure agencies can partner with these agencies to develop pathways into infrastructure jobs.

- For example, a state department of transportation could work with the state corrections system to offer training and wraparound services to people returning from incarceration.
- An energy office could partner with an agency overseeing vocational rehabilitation services to identify ways the agency could intentionally include people with disabilities in state-related clean energy jobs.

### ● **Training Institutions** *e.g., community and technical colleges, K-12 education systems, and stakeholders elsewhere in this list that may serve in a training capacity*

These educational institutions provide workforce training and education programs. They can partner with local workforce development boards, employers and business groups, or other public agencies to align workforce training with industry needs.

- For example, a state community college system could develop training pathways specifically focused on in-demand clean energy careers.

### ● **Unions and Labor-Management Partnerships**

Unions represent the voice of workers, negotiate job terms and expectations, and enter into legally binding agreements with public and private entities. They are parties to Project Labor Agreements. Unions and labor-management partnerships also commonly offer trainings, often through apprenticeship programs, and have significant insight into recruitment and retention challenges within workforces touched by state spending in these areas. In terms of improving diversity within training paths, there is also evidence to suggest that union apprenticeship programs may be more effective at recruiting and retaining women and underrepresented racial groups to apprenticeship programs in construction trades.<sup>39</sup>

### ● **Worker-Focused Organizations and Community-Based Organizations**

Worker-focused organizations—including civil rights groups, advocacy organizations, and tradeswomen's groups—advocate for worker interests in infrastructure sectors and have insight on barriers that prevent people from underrepresented demographic groups from succeeding in the sectors.

- Community-based organizations can similarly provide insight on local communities' priorities and barriers, and can be key partners in achieving targeted hiring standards.

# Funding Opportunity

## Leveraging IIJA and IRA Funding

A foundational step for state leaders in developing a plan of action is to understand opportunities in funding flowing to state transportation and energy offices that could be used toward workforce goals. IIJA and IRA do not contain new funds for state or local workforce agencies; as such, the focus in this report is on funds flowing to state transportation and energy offices.

This section highlights key provisions in IIJA and IRA that offer states opportunities in two categories of funding. Described in greater detail in [Appendix A: Funding Opportunities](#)

### 1. Funds to spend directly on workforce development:

Federal dollars where workforce development, education, or wraparound supports are eligible expenditures. This could be used by states to make specific, direct expenditures on workforce programming to augment existing activities and offerings for workers. These investments could build on programs that are currently supported by state funds, WIOA Title I, Perkins V, etc.

These dollars are directly relevant to actions identified in the Framework for Action's [Second Set of Strategies: Augment Workforce Program Funding](#)

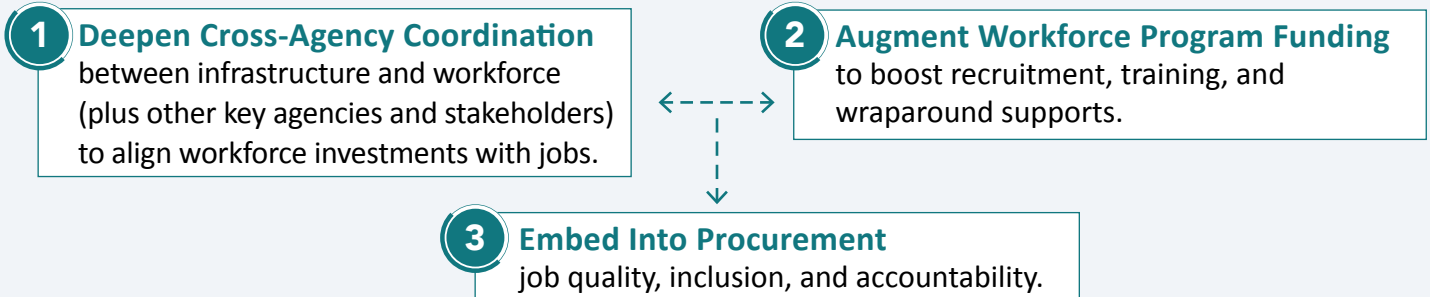
### 2. Funds where procurement can be leveraged for workforce priorities:

Federal funding flowing through states where states have an opportunity to embed job quality and inclusive workforce development practices into the terms of the competitive bidding process. This could be attached to infrastructure investments supported by formula, competitive, or other forms of federal funding.

These dollars are directly relevant to actions identified in the Framework for Action's [Third Set of Strategies: Embed Into Procurement](#)

## A Framework for State Action

### Prioritizing Job Quality and Inclusive Workforce Practices in Infrastructure Implementation



## Notable Transportation Funding Opportunities for Workforce

State departments of transportation have multiple funding opportunities in IIJA to bolster workforce development programming and activities, including about \$250 billion in formula funds with significant flexibilities as well as large amounts of funding flowing through state DOTs where state discretion could embed workforce priorities. Though IRA will spur new clean transportation jobs, it does not allocate funding specifically to state DOTs.

### Opportunities to augment transportation workforce programs and services through direct expenditures

#### | [Second Set of Strategies: Augment Workforce Program Funding](#)

#### ● Key Formula Funds

**The largest opportunity for state departments of transportation to make direct expenditures in workforce development comes in the form of 504(e) formula funding.** Under section 504(e) of the FAST Act, state DOTs have the flexibility to apportion federal funding from four core Federal Highway Administration (FHWA) programs to support workforce development activities (NHPP, STBG, HSIP, and CMAQ).<sup>40</sup>

- Between 2022 and 2026, around \$250 billion in formula funding will be allocated to states under these four core programs, including boosted funding from IIJA.
- The scope of opportunity under 504(e) has been expanded under IIJA, insofar as more highway funding can be used toward workforce and the options for how to use those funds have been expanded.
- States can now use unlimited funds from these four core programs for workforce development, training, and education activities that support surface transportation without any state match.<sup>41</sup>
- In terms of new, broadened eligible workforce activities, IIJA specifies that states can now use 504(e) funds for pre-apprenticeships, apprenticeships, career opportunities for on-the-job training, and partnerships with industry, workforce development boards, and labor organizations.<sup>42</sup>
- The Federal Highway Administration has since issued guidance allowing state DOTs to spend 504(e) funds on “supportive services programs in connection with workforce development,” including childcare and transportation for workforce program participants<sup>43</sup> as well as “participant support costs, such as stipends.”<sup>44</sup>

#### ● Key Competitive Funds

**While IIJA did not authorize competitive transportation grants focused exclusively on workforce development, workforce priorities are elevated in some competitive funding opportunities available to states, local governments, and other entities.**<sup>45</sup>

- For example, under the Low or No Emission Vehicle Program, 0.5 percent of the funding is available for workforce development activities, and applicants proposing projects related to zero emission vehicles are required to use 5 percent of funding for preparing the workforce for the electric vehicle (EV) transition through apprenticeship and other training programs.<sup>46</sup>
- The Consolidated Rail Infrastructure and Safety Improvements (CRISI) grant allows applicants to seek funding for training activities that will prepare workers for jobs in the rail sector.<sup>47</sup>
- Finally, the \$1 billion Clean Heavy-Duty Vehicles program, implemented through the EPA, will offer grants and rebates for workforce development.<sup>48</sup>

## Opportunities to augment transportation workforce programs and services through direct expenditures *(continued)*

### Another opportunity for direct expenditures is the **On-the-Job Training Support Services (OJT-SS) program**.<sup>49</sup>

- This is an additional source of funding administered by FHWA for workforce programming targeted toward disadvantaged and minority populations, including women and underrepresented racial groups, for highway construction jobs.
- This program—totaling about \$50 million over the next five years—supports job placements, childcare, transportation to worksites, jobsite mentoring and other activities. State DOTs are typically familiar with this long-standing program.

## Opportunities to prioritize job quality, inclusion, and accountability through general state transportation spending

### | [SEE: Third Set of Strategies: Embed Into Procurement](#)

The aforementioned four core highway programs (about \$250 billion over five years) as well as other programs operated by state DOTs both offer an opportunity for states to incorporate strong job quality and inclusion standards into their highway spending.

States also have an opportunity to drive job quality and inclusion in their applications for IIJA competitive grants.<sup>50</sup>

- Applicants for U.S. DOT discretionary grant programs are more recently asked to address job quality and workforce plans related to how the project will create good-paying jobs “with free and fair choice to join a union,” expand training and placement of various underrepresented demographic groups in good-paying jobs, and “promote the hiring and retention of underrepresented workers.”<sup>51</sup>

While there are numerous ways states can embed workforce and job quality broadly into their transportation spending, it is particularly relevant that IIJA newly allows the use of local and other geographic or economic hiring preferences on projects connected to funding from the U.S. Department of Transportation.<sup>52</sup>





## Notable Clean Energy Funding Opportunities for Workforce

IJJA invests nearly \$75 billion in the clean energy sector, including about \$21 billion for delivering clean power, \$8.6 billion for clean energy manufacturing and workforce development<sup>53</sup>, and \$6.5 billion for energy efficiency and weatherization.

Meanwhile, IRA will invest approximately \$369 billion in U.S. energy modernization, with nearly \$9 billion flowing through state energy offices and \$270 billion distributed to consumers and corporations via tax credits.<sup>54</sup>



### Opportunities to augment clean energy workforce partnerships and programs through direct expenditures

| [SEE: Second Set of Strategies: Augment Workforce Program Funding](#)

#### ● Key Formula Funds

Several provisions in IJJA provide funding opportunities for states to directly invest in new or expanded clean energy workforce partnerships and programs.

- IJJA directs additional funding for training through the Weatherization Assistance Program. Specifically, \$550 million of the \$3.5 billion in new funding for weatherization is dedicated for Training and Technical Assistance (T&TA), which can include “participation, travel, logistics of training and technical assistance, and events.”<sup>55</sup>

IJJA also allocates specific funding to states for training programs.

- Notably, the Energy Auditor Training Program provides \$40 million in direct funding to states to cover “any cost associated with” energy audit training or certification during financial years 2022 to 2026.
- Up to 10% of grant funds can be used to pay wages to trainees during their training period, and states must include a strategy for connecting trainees to job opportunities after completing their training.<sup>56</sup>

IRA also directs new funding toward state-based training programs.

- In particular, the State-Based Home Energy Efficiency Contractor Training Grants provide \$200 million to states to carry out training programs for contractors implementing home energy efficiency and electrification retrofits.<sup>57</sup>
- While states should await further guidance from the U.S. Department of Energy (DOE) on eligible uses of funding, it is possible that state energy offices could use the funds to help provide wraparound services and other supports needed to help expand access to energy training programs and ensure successful training completion.

#### ● Key Competitive Funds

**There are several competitive funds with flexibility to support workforce investments.**

States can apply for the Advancing Equity Through Workforce Partnerships grant program, which awards \$10 million to “support multi-stakeholder high-road workforce development partnerships” in the solar energy sector.<sup>58</sup>

Additionally, IJJA allocates an additional \$150 million for Industrial Research and Assessment Centers (IRACs), which help determine the needs of manufacturer plant sites and identify ways to improve the sites’ energy efficiency and environmental performance.<sup>59</sup> A portion of this funding is available to support internships and apprenticeships that help implement the goals of the IRACs. Although state agencies are not eligible to apply for the IRAC funds directly, state energy offices and state workforce agencies can help build partnerships among and encourage applications from eligible entities, including educational institutions, community colleges, and union training programs.

## Opportunities to prioritize job quality, inclusion, and accountability through general state clean energy spending

### | [SEE: Third Set of Strategies: Embed Into Procurement](#)

**While not at the scale of funds flowing to state DOTs, there are expanded funding opportunities for state energy offices that could be used toward strategies in this framework's third category of actions.**

- State energy offices will be responsible for distributing about \$8.8 billion for the Home Energy Performance-Based Whole-House Rebates (HOMES) program and the High-Efficiency Electric Home Rebate Program established by IRA.
- These programs will create significant demand for clean energy jobs and provide an opportunity for state energy offices to incorporate workforce requirements and preferences when selecting contractors or program implementers to complete the work.<sup>60</sup>
- Similarly, IIJA allocates about \$2.3 billion to states and tribes to enhance grid resilience (\$369 million to states and the District of Columbia in the first year of funding), which could provide state energy offices with an opportunity to evaluate potential contractors and sub-grantees based on job quality and workforce inclusion metrics.<sup>61</sup>
- IIJA also directs an additional \$500 million to the U.S. State Energy Program (SEP), a long-standing program that provides flexible, formula-based funding to state energy offices each year.<sup>62</sup> While states will use this funding for a variety of purposes, state energy offices can consider adding workforce development and job quality standards or preferences into grant-making and solicitations that arise from the new SEP funds.

**Key provisions within IIJA and IRA encourage applicants and funding recipients to enable more inclusive pathways to clean energy jobs and ensure the jobs created are of good quality.**

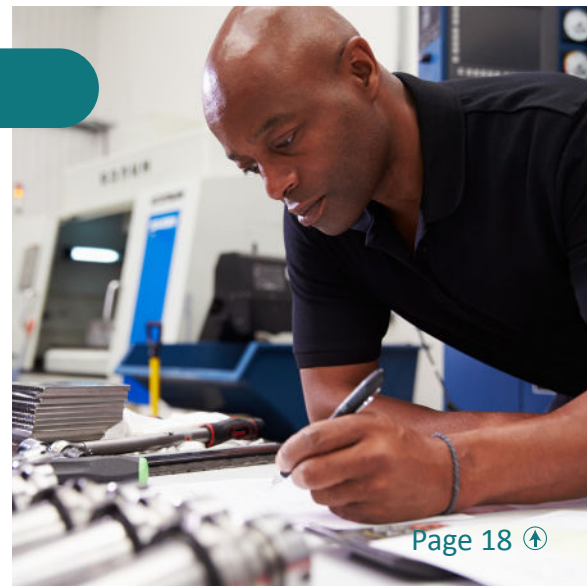
- Within IIJA, several competitive grants require or incentivize Community Benefits Plans<sup>63</sup> and key workforce development criteria as part of the application process.<sup>64</sup>
- For example, DOE requires a Community Benefits Plan as part of the application for the Regional Clean Hydrogen Hubs program.<sup>65</sup> DOE's emphasis on equitable workforce development and incorporation of workforce-related requirements into IIJA competitive grant applications provides an example of provisions that could be included in state-level solicitation and grant processes.

**The tax credit provisions within IRA further support state efforts to support a well-paid and well-trained clean energy workforce.**

- IRA offers bonus rate credits to clean energy projects that meet prevailing wage and apprenticeship requirements. While these credits do not contain incentives that would likely improve demographic representation in clean energy apprenticeships, they will increase demand for apprentices in the sector, leaving states with an important role to play in supporting inclusive paths to those apprenticeships.<sup>66</sup>

## Leveraging Existing Workforce Development System Funds

**It is important to note that there are funding opportunities to support infrastructure workforce development (beyond the funding going to state infrastructure agencies) through existing workforce development-focused federal formula funds, including WIOA Title I funds such as Governor's Reserve Funds, Reserve and Leadership Funds as afforded under the Career and Technical Education for the 21st Century Act (Perkins V), and federal competitive grant programs, including the DOL Building Pathways to Infrastructure Jobs Grant Program.<sup>67</sup>**



# Key Lessons

## Markle-Eno-NASEO State Transportation and Clean Energy Workforce Initiative

In 2022, the Markle-Eno-NASEO initiative convened teams of state transportation or energy offices in six states with their counterparts in state workforce agencies in a series of facilitated discussions around how the agencies currently work together, as well as the priorities the agencies have for supporting the workforce needed to implement IIJA and IRA infrastructure and economic goals. The lessons from those discussions are summarized below and provide the foundation for the framework for state action in the following section of this report.

There is a significant opportunity to formalize partnerships and kick-start coordination between state infrastructure, workforce development, additional state agencies, and other critical stakeholders.

**For state transportation and energy agencies, leveraging the existing workforce and education system in the state can help projects deliver on infrastructure goals, whether transportation projects, clean energy, or climate goals.** For workforce development agencies, a partnership can establish clearer paths for jobseekers in the workforce system to relatively good-paying jobs, with potential for upward mobility and higher rates of unionization compared to the rest of the labor market. Infrastructure and workforce state agencies can do more to leverage each agencies' capacities—including with additional state agencies, such as departments of education, housing, human services, or corrections—to scale both demand and supply workforce strategies.

**Despite the potential benefits of collaboration, most states in this initiative did not regularly coordinate on workforce development activities at the start of participation.** Those that had already coordinated across agencies collaborated on an analysis of anticipated workforce needs or a competitive grant opportunity focused on expanding sector-specific training programs. Several agencies expressed an openness to explore structures to formalize or strengthen cross-agency partnership, such as working together to craft a job description for a workforce development-focused staff position housed within the infrastructure agency, or working toward solidifying mutual priorities in Memorandums of Understanding (MOUs).

Prioritization of workforce development and job quality in infrastructure implementation constitutes, in many cases, a significant shift from the status quo approach.

**Infrastructure agencies' primary objectives tend to be boosting transportation access and safety or deploying clean energy, while getting projects completed with safety, timeline, and cost front and center.** In this context, investing funding toward workforce development programming, shaping grants and procurement with job quality and workforce standards, or even focusing staff resources within an infrastructure agency on the coordination of workforce development investments is frequently seen as a secondary objective, rather than a critical component of project deployment.

**While there are significant flexibilities in IIJA funds going to states that could be used for workforce development investments (as already discussed), it is not guaranteed that states will capitalize on that opportunity given that many decision-makers in key roles may be unaware or unconvinced of the range of activities that are eligible expenditures for formula funds related to IIJA.** In the survey of state departments of transportation, most respondents (four out of five) stated they were not aware that IIJA lifts the cap on using funds from four core highway formula programs for workforce development and that the list of eligible workforce development-related expenditures has been significantly expanded.

**Even if there is momentum to prioritize workforce in a state infrastructure agency’s spending, there are commonly structural challenges to change course without senior leadership engagement, buy-in, and/or directives to do so.** Centering job quality and workforce inclusion to the forefront would likely require a broad, multifaceted government shift in infrastructure project deployment. Governors’ offices and agency leadership have an opportunity to accelerate this shift by encouraging job quality and workforce investments to be considered critical components of infrastructure implementation.

State infrastructure agencies are often interested in incorporating workforce inclusion and job quality standards into the terms of their spending, though doing so will involve an intentional shift and raise some complex questions.

**In discussions with state agency staff, transportation and energy agencies were open to exploring the use of requirements and incentives to prioritize good quality jobs and spur more inclusive workforce practices in the contracted workforce.** There are also relatively new federal incentives or encouragements for states to use these levers: the U.S. Department of Labor has encouraged agencies to use many of these policy levers on infrastructure projects,<sup>68</sup> and many federal competitive grant programs (as already discussed) encourage applications to specify how they plan to use several of these policy strategies.<sup>69</sup>

**However, our engagement with states, as well as broader research, suggests that critical transportation and energy agencies have likely not used the majority of these approaches before, and those that have used them have done so—in most but not all cases—as directed by state legislation.** This initiative’s survey of state energy offices further supported the finding that these agencies are often interested in most, if not all, of the Framework for State Action’s proposed policy levers. Due to the unfamiliarity of using these levers, more guidance and technical assistance to states could help such agencies implement them.

**Some state agencies have successfully used some of these policy levers without explicit directives from legislation.** Key examples include the Colorado Department of Transportation’s C70 project, a \$1 billion highway construction project, which included a local and economic hire component and the development of a training center for local residents,<sup>70</sup> and the New York State Energy Research and Development Authority (NYSERDA)’s 2022 offshore wind solicitation, which requires awardees to provide a plan for the negotiation of one or more PLAs “to cover all construction activities on the Project.”<sup>71</sup>

**State leaders interested in embedding these policy levers into agency spending will encounter some constraints that will require them to explore new approaches.** For example, IJA explicitly allows local and economic hire on construction projects funded through the U.S. DOT,<sup>72</sup> but the law did not extend this flexibility to other areas of spending; in the federal Office of Management and Budget (OMB)’s Uniform Guidance, federal funds continue to be banned from using local or economic hire stipulations in certain forms.<sup>73</sup> Also in some contexts, infrastructure agencies are required to award contracts to the “lowest responsive and responsible bidder,”<sup>74</sup> which would affect the ways in which job quality and workforce development could be used as preferences in a competitive bidding process. For these reasons, agencies may consider adapting the terms used to target inclusion of economically disadvantaged or underrepresented populations to not be focused on geographic residency, but through the use of proxies. Agencies may choose to focus on the use of requirements, rather than preferences, in competitive bidding processes. More generally, agencies could start with piloting the use of a job quality or workforce requirement on a project or area of spending, as opposed to across numerous major programs.

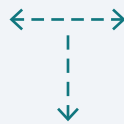


# Framework for State Action

## A Framework for State Action

### Prioritizing Job Quality and Inclusive Workforce Practices in Infrastructure Implementation

**1 Deepen Cross-Agency Coordination**  
between infrastructure and workforce  
(plus other key agencies and stakeholders)  
to align workforce investments with jobs



**2 Augment Workforce Program Funding**  
to boost recruitment, training, and  
wraparound supports

**3 Embed Into Procurement**  
job quality, inclusion, and accountability



## Critical State Actions to Prioritize Job Quality and Inclusive Workforce Development Practices in Infrastructure Implementation

CATEGORY	POTENTIAL ACTIONS
<p><b>1</b> <b>Deepen Cross-Agency Coordination</b></p> <p>Deepen coordination between infrastructure and workforce (plus other key agencies and stakeholders) to align workforce investments with jobs.</p>	<ul style="list-style-type: none"><li>• <b>Create a Memorandum of Understanding (MOU)</b> to formalize cross-agency partnership</li><li>• <b>Create dedicated staff positions</b> to facilitate cross-agency collaboration</li><li>• <b>Engage senior leaders in governors' offices</b> and at the cabinet level in key agencies to help generate buy-in and/or directives to take action</li><li>• <b>Engage additional state systems</b>, such as departments of education or departments of corrections, to reach jobseekers</li><li>• <b>Meaningfully engage critical non-state stakeholders</b> from planning to execution</li></ul> <p>Example: California's cross-agency collaboration to prepare people for jobs after incarceration, including jobs with the state's transportation department</p>
<p><b>2</b> <b>Augment Workforce Program Funding</b></p> <p>Use direct expenditures and grants to boost workforce recruitment, training, and wraparound supports.</p>	<ul style="list-style-type: none"><li>• <b>Develop plans and conduct analyses that identify gaps and challenges</b> to inform the priorities of state infrastructure workforce investments and targets</li><li>• <b>Scale high-quality training programs</b> and create new programs</li><li>• <b>Fund supportive services</b> to address common barriers to completing training</li><li>• <b>Bolster recruitment activities</b> and raise awareness of career opportunities</li></ul> <p>Example: Analyzing energy workforce needs and barriers in Pennsylvania</p> <p>Example: Providing paid training opportunities in infrastructure sectors through Indiana's Certified State Earn and Learn (SEAL) programs</p> <p>Example: Ohio's broadband workforce analysis</p> <p>Example: Diversifying the highway construction workforce through a focus on investing in supportive services for apprentices in Oregon</p>

## Critical State Actions to Prioritize Job Quality and Inclusive Workforce Development Practices in Infrastructure Implementation

### CATEGORY

### POTENTIAL ACTIONS

3

#### Embed Into Procurement

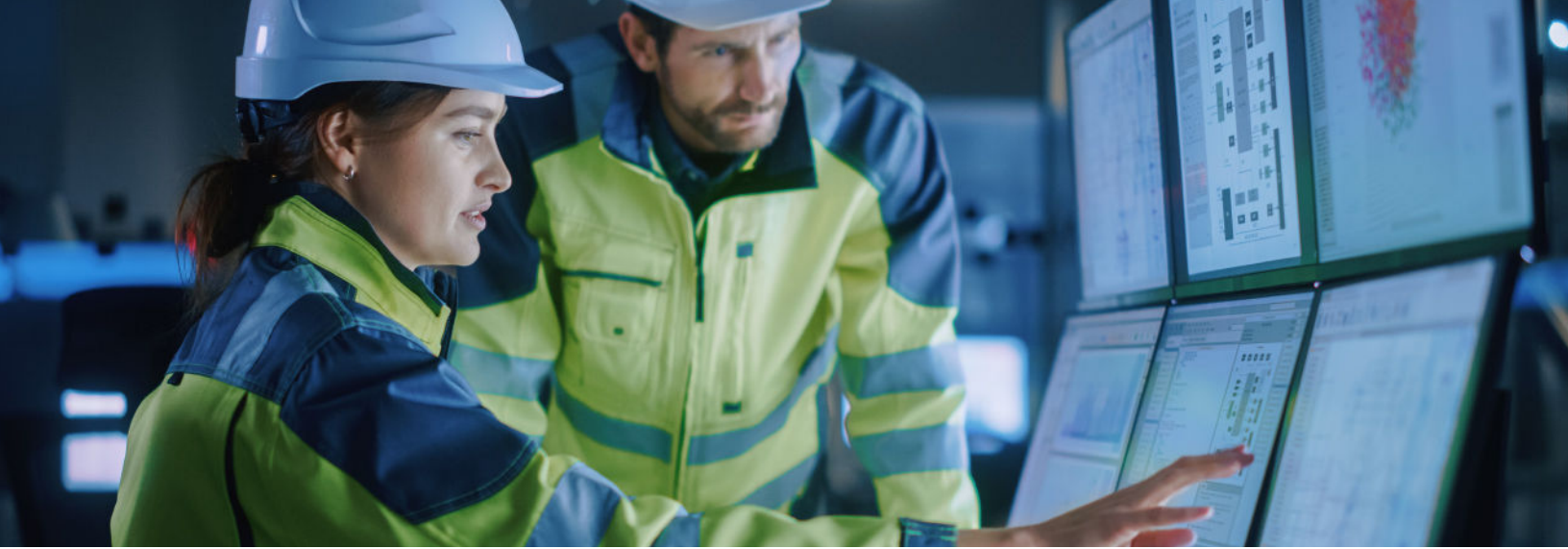
Embed job quality, inclusion, and accountability throughout state spending on infrastructure.

- **Use vehicles to incorporate job quality and workforce inclusion priorities into projects:**
  - Project Labor Agreements or other similar agreements
  - Preferences for employers with strong workforce and job quality practices
- **Incorporate specific preferences or requirements to target priorities:**
  - Apprenticeship utilization requirements
  - Local, economic, or targeted hire provisions
  - Steps taken to address harmful worksite conduct
  - Incentives to partner with worker-serving stakeholders
  - Preferences or supports to improve opportunity for women- and minority-owned businesses in the procurement process
- **Understand and address factors that have been historically critical to success:**
  - Strong oversight and accountability models
  - Involvement of community-based groups, worker-serving organizations, employers, and other critical stakeholders
  - State legislation to support longer-term adoption of provisions in procurement

Example: Embedding local and economic hire in the Colorado Central 70 Project

Example: New Mexico's apprenticeship utilization requirements for electricity facility construction projects

Example: Virginia's offshore wind project preference for plans that hire workers from local and historically economically disadvantaged communities



## ● KEY CONCEPT **Pairing supply-side investments with demand-side levers to promote an inclusive infrastructure workforce**

It is common for states to direct resources toward supply-of-labor supports—such as training, recruitment, and career awareness-building—without simultaneously taking steps on the demand side to, through the power of their spending, foster meaningful entry points or employer incentives to hire and retain workers from those programs. Yet, states oversee both networks of training and recruitment as well as significant numbers of infrastructure jobs, through directly hiring state employees in these sectors and funding jobs through procurement involving the private sector.

With this context, states can consider prioritizing both supply and demand workforce strategies as they develop comprehensive plans to meet workforce needs and prioritize job quality with their infrastructure implementation.<sup>76</sup> This approach is related to all three categories of action presented in this report.

- As one example, on the supply side, states often provide funding for pre-apprenticeship programs—short-term training programs designed to introduce often-underrepresented demographic groups to careers in construction trades, manufacturing, and other industries, and most often to prepare candidates to navigate the process of entering a highly sought registered apprenticeship program.
- But when pre-apprenticeship program participants exit such a program, they may find that there are insufficient available apprenticeship slots in their communities or the timing may not align with entry into the apprenticeship programs.
- Those who do enter apprenticeship programs may struggle to find sufficient work hours to complete their apprenticeship, (e.g., after work on one project ends).

At the same time, state agencies fund a great deal of work in occupations that are already among the most commonly connected to registered apprenticeship, such as those in construction trades. In addition to providing funding for pre-apprenticeship programs (a supply side investment), state agencies could open doors for those program participants through a variety of levers.

- For example, an agency could embed apprenticeship utilization requirements into terms for their projects, incentivizing the creation of new apprenticeship slots and potentially reducing volatility in access to work hours for existing apprentices.
- They could also incentivize or require the creation of direct pathways from pre-apprenticeship into the trades by requiring contractors or grantees to submit plans for partnering with recognized pre-apprenticeship providers, which could include direct entry or sponsorship.
- Such a requirement is, for example, used in New York City’s 2020 Project Labor Agreement on new construction projects led by city agencies.<sup>75</sup>



# Framework for State Action

## 1 Deepen Cross-Agency Coordination

Partnership and collaboration between key infrastructure and workforce development agencies provides a logical foundation for states to realize many of the priority funding strategies that follow in the second and third sets of strategies in the Framework for Action; Augment Workforce Program Funding and Embed Into Procurement.

Priority actions that support cross-agency collaboration, especially between state transportation or energy agencies and their workforce counterparts, include:

- **Create a Memorandum of Understanding (MOU)** to formalize cross-agency partnership.
- **Create dedicated staff positions** to facilitate cross-agency collaboration.
- **Engage senior leaders** in governors' offices and at the cabinet level in key agencies to help generate buy-in and/or directives to take action.
- **Engage additional state systems**, such as departments of education or departments of corrections, to reach jobseekers.
- **Meaningfully engage critical non-state stakeholders** from planning to execution.

### Priority Action

### Create an MOU to formalize cross-agency partnership

An MOU can establish goals for a formal cross-agency partnership and designate the role of each agency in achieving those goals. A formal partnership can also signal to stakeholders across this area and to agency staff that the departments are committed to prioritizing job quality, inclusive workforce practices, and related issues that the MOU may designate.

An MOU can be more durable than informal cross-agency partnership, which can end with staff turnover. It can also help to avoid duplication of efforts.

### Key Examples

- In 2020, the **California Workforce Development Board** and the state's **Public Utilities Commission** executed an MOU to "coordinate economic and workforce development planning, analysis, and implementation activities." The agreement outlines shared priorities, including regular information-sharing and the development of a near- and long-term framework for the sector's workforce development.<sup>77</sup>
- In 2018, a partnership agreement was signed between the **California Workforce Development Board**, the **California Department of Corrections and Rehabilitation**, the **California Prison Industry Authority**, and the **California Workforce Association**. This agreement resulted in the California Prison to Employment Initiative, discussed in more detail on [page 27](#).<sup>78</sup>
- The **U.S. Department of Labor (DOL)** has established MOUs with other federal agencies, which may serve as models for state-level agreements. The MOU between DOL and the **U.S. Department of Transportation** states the agencies' aims to, among other goals, "create more good-paying jobs in fair and safe workplaces" and "[c]reate a more diverse infrastructure workforce." The agreement lists specific areas where each individual agency will use their authority to advance the goals and areas where responsibility is jointly shared by both departments.<sup>79</sup> DOL also has a similar MOU with the **U.S. Department of Energy**.<sup>80</sup>

## Priority Action

### Create dedicated staff positions to facilitate cross-agency collaboration

States can create designated, funded staff roles to focus on infrastructure workforce coordination and programming, housed within the governor's office or an infrastructure agency. Housing the staff in a governor's office could help set these actions as a priority for the administration's infrastructure implementation. Housing the role in an infrastructure agency has other advantages, allowing the staff to make the case for prioritizing inclusion and job quality throughout the agency's activities, as well as identifying opportunities to use agency funds for workforce development.

#### ● Key Example

- The **Colorado Workforce Development Council (CWDC)** and **Colorado Rural Workforce Consortium (CRWC)** created a shared energy and industry consultant position that “works to connect Colorado’s energy employers with the State’s Career Pathways system, and to support community resilience through the creation of Sector Partnerships.”<sup>81</sup>

The position serves as a sector-specific liaison between state agencies (including CWDC, CRWC, and the Colorado Energy Office) and industry leaders in order to build partnerships, facilitate collaboration, and align strategy. This role is also tasked with coordinating relationships across state departments to share resources, coordinate strategies, and achieve common goals. Finally, the position assists stakeholders across the state’s workforce system and community college network in planning and coordinating activities that support energy sector businesses.<sup>82</sup>

## Priority Action

### Engage senior leaders in governors’ offices and at the cabinet level in key agencies to help generate buy-in and/or directives to take action

Governors or cabinet-level agency leaders can establish inclusive workforce development and job quality as priorities for infrastructure workforce development by, for example, initiating cross-agency coordination or steps to formalize partnerships through MOUs. A shift in the operations and priorities of agency activities would likely benefit from an executive order, directives, or other forms of support from governors and cabinet-level agency leaders within a state.

## Priority Action

### Engage additional state systems, such as departments of education or departments of corrections, to reach jobseekers

There are numerous state-operated systems where there are opportunities to foster connections to infrastructure careers, (e.g., leveraging the capacities of departments of education, community college systems, departments of corrections, and other key infrastructure agencies dealing with shared challenges.

#### ● Key Example

- In New York, the **New York State Energy Research and Development Authority (NYSERDA)** and the **New York State Department of Labor (NYSDOL)** work closely to offer the On-The-Job Training for Energy Efficiency and Clean Technology Program, which provides “wage subsidies to eligible businesses to help reduce the financial risk of hiring and training new workers.”

While the program is energy-focused and administered through NYSERDA, it leverages the unique strengths of NYSDOL, which “assists participating businesses with developing [on-the-job] training plans as well as assessing necessary skills and identifying available workers that match those skills.”<sup>83</sup>

## Spotlight

### California's cross-agency collaboration to prepare people for jobs upon exiting incarceration, including jobs with the state's transportation department

The **California Prison to Employment Initiative** is a cross-agency collaboration that aims to expand access to employment for people who will soon exit incarceration. An impetus for this initiative was, in part, the California governor's priority to reduce recidivism across the state.<sup>84</sup>

As noted in the discussion of MOUs, one facet of these efforts was establishing a partnership agreement between the California Workforce Development Board (CWDB), the California Department of Corrections and Rehabilitation (CDCR), the California Prison Industry Authority (CALPIA), and the California Workforce Association (CWA), signed in 2017.<sup>85</sup>

The following year, the state directed \$37 million over three years to the partnership to provide people connected to the criminal legal system with direct services like interview coaching and industry-recognized skills training in the construction trades, as well as supportive services like stipends for transportation, clothing, and food.<sup>86</sup>

The partnership required deep engagement between workforce and corrections leaders to leverage existing programming and insights of the workforce system with workforce training and services for people in and outside of incarceration facilities.

Since this partnership began, additional state agencies have leveraged the training programs in the incarceration facilities to make conditional offers of employment to trainees before they complete their periods of incarceration. For example, CalTrans, one of the state's transportation agencies, recently hosted hiring events in several California prisons that resulted in commitments to hire participants directly upon release.<sup>87</sup>



## Priority Action

### Meaningfully engage critical non-state stakeholders from planning to execution

Stakeholders outside of state government, such as community-based organizations, employers, educational institutions, unions, and others have knowledge and resources that can shape the goals of a state partnership and support its implementation.

As one example, local tradeswomen's groups, which advocate for women in the trades and provide resources such as training, career education, and mentorship to tradeswomen, have deep expertise in the barriers that keep women out of infrastructure careers. They could provide valuable input to a comprehensive strategy led by a state department of transportation and state workforce agency on how to better support recruitment, retention, and mobility of women in transportation.

Employers could also inform the types of workforce preferences and requirements that are prioritized, in some cases acting in partnership with the infrastructure agency to achieve shared goals and inform the workforce investments that would help to make those goals a reality.

# Framework for State Action

## 2 Augment Workforce Program Funding

State infrastructure and workforce agencies should consider opportunities to make direct expenditures on workforce development activities as one piece—but not all—of their available options to build broad and inclusive paths to join the infrastructure workforce (see Key Concept: Pairing supply-side investments with demand-side levers to promote an inclusive infrastructure workforce on [page 24](#)).

This category includes the following priority actions:

- **Develop plans and conduct analyses that identify gaps and challenges** to inform the priorities of state infrastructure workforce investments and targets.
- **Scale high-quality training programs** and create new programs.
- **Fund supportive services** to address common barriers to completing training.
- **Bolster recruitment activities** and raise awareness of career opportunities.

### Priority Action

#### Develop plans and conduct analyses that identify gaps and challenges to inform the priorities of state infrastructure workforce investments and targets

There are a variety of analyses that state agencies could prioritize that would help target future investments and identify critical gaps in a state’s existing offerings.

| [SEE: See Key Questions to Inform Workforce Investments and Targets \(page 29\)](#)

Though useful, such analyses should not be viewed as necessary before taking action on other priority investments, as some research questions can take years to answer. Given that many workforce needs related to carrying out major infrastructure projects will likely start up in 2023 and 2024, waiting for comprehensive analyses to be completed would cause agencies to miss an important window to kick-start training and recruitment necessary to achieve projects’ goals.

While the process of identifying which areas to fill in gaps would benefit from cross-agency coordination, state workforce development agencies could also proactively identify where there are gaps in their state’s workforce development services related to key infrastructure sectors. Workforce agencies could, for instance, proactively develop a list of priority approaches that they would like other agencies to consider supporting with their flexible incoming funds, even before beginning a dialogue with other agencies. These agencies may also already have developed a conception of a good quality job that the third set of strategies in this framework, Embed Into Procurement, could address.

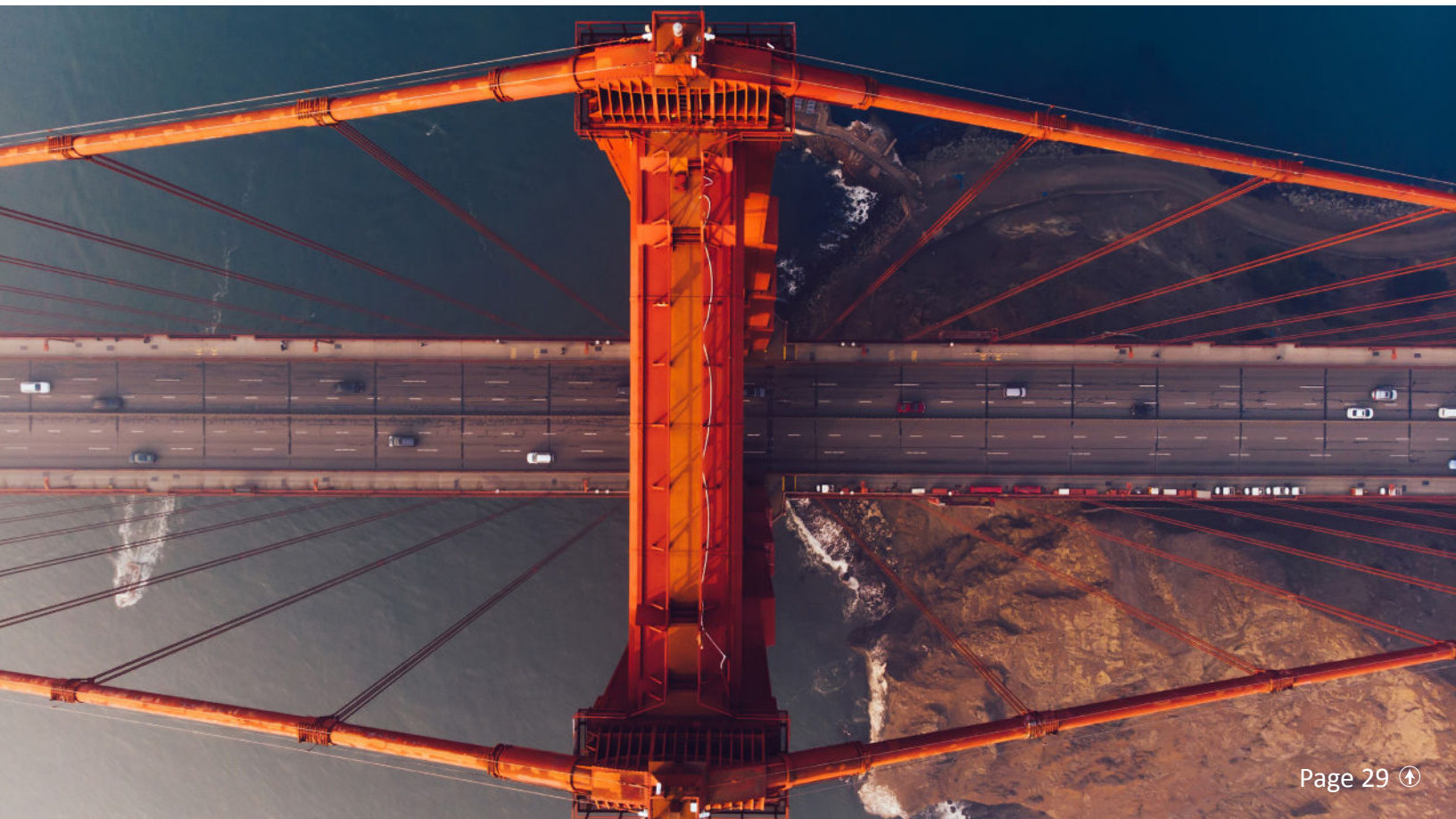
### Key Examples

- The **Pennsylvania Department of Environmental Protection’s** Energy Programs Office has released a series of analyses on the state’s energy workforce landscape, including identifying common barriers to clean energy employment.<sup>88</sup> These analyses were conducted through coordination with the Pennsylvania Department of Labor & Industry.
- The **Ohio Governor’s Office of Workforce Transformation** and **BroadbandOhio**, the state’s broadband agency, commissioned a statewide broadband workforce analysis to “evaluate the broadband and 5G workforce, identify gaps in workforce supply, and propose strategies to mitigate these gaps.”<sup>89</sup>

# Key Questions

## To Inform Workforce Investments and Targets

- 1** **What are key skills and anticipated jobs in critical infrastructure sectors given the increased federal investment** (e.g., in transportation and clean energy, and the state's priority projects)?
- 2** **What are the pathways into and within transportation and clean energy**—for both recruitment of new workers and career growth within the sectors for current workers?
- 3** **What kind of replacement needs do the state's transportation and clean energy workforces have?** Where may turnover or recruitment pose challenges and how may that be related to job quality?
- 4** **How can hiring and recruitment for high-demand occupations source for skills found in adjacent jobs?** How can the state use that information to raise awareness of these opportunities, particularly reaching workers in low-wage jobs with relevant skills that may be overlooked in common infrastructure job descriptions?
- 5** **To what extent does the state's available high-quality workforce training programs meet the needs for jobs that are anticipated to grow?** To what extent are economically disadvantaged groups finding and completing relevant training programs? What are barriers to completing training programs, including registered apprenticeship programs?
- 6** **Where will major infrastructure projects take place in the state and to what extent are community stakeholders local to those projects engaged in project planning?** Which labor unions and worker-representing organizations could be engaged to recruit, train, and support workers to connect to anticipated jobs, and how could these groups be engaged in the infrastructure project development?



When identifying ways to bolster training, agency leaders should prioritize programs that have evidence of leading to good quality jobs, providing industry-valued credentials, and that have strong completion rates across demographic groups.

States should also prioritize programs that serve underrepresented populations (e.g., training programs geared toward people exiting incarceration, young people in the K-12 system, recruitment and training programs offered by institutions focused on serving underrepresented demographic groups such as Historically Black Colleges and Universities and pre-apprenticeship programs geared toward women, etc.).

States could accomplish this by funding pre-apprenticeship programs (coupled with other state incentives to improve outcomes for participants), programs and incentives to scale apprenticeship slots,<sup>90</sup> and sectoral training partnerships that create meaningful paths to in-demand, good quality jobs.

### ● Key Examples

- The **Pennsylvania Department of Labor & Industry** (L&I) awarded \$2 million in grants to four Clean Energy Workforce Development projects across the state with the goal of expanding access to underserved communities, supporting economic recovery in the wake of the COVID-19 pandemic, and addressing employer recruitment and retention challenges in the industry.<sup>91</sup>
- The **New York State Energy Research and Development Authority's** clean energy workforce development programming has dedicated \$120 million to provide jobseekers and businesses with a variety of training opportunities. Awards are also determined via a scoring system that favors programs serving “priority populations” (including women, workers from disadvantaged communities, formerly incarcerated individuals, and others).<sup>92</sup>
- The **Maine Governor's Energy Office** provided \$2.5 million to nine organizations to help meet the state's goal of reaching 30,000 clean energy jobs by 2030. The grants will support a learn-at-work program to recruit and place local students and residents in clean energy jobs, provide funding to remove training barriers for offshore wind apprentices, and expand an existing construction immersion program to prepare graduating students for Registered Apprenticeships—among other programs and initiatives.<sup>93</sup>
- Indiana's Certified State Earn and Learn (SEAL) programs, led by the **Indiana Department of Workforce Development**, bring together employers, high schools, and postsecondary institutions to offer paid work-based learning experiences with postsecondary credit and industry certifications to both young people and adults through more than 130 SEAL programs throughout the state. The majority of the youth-focused SEAL programs are in key infrastructure subsectors, including advanced manufacturing, transportation and logistics, construction and business management, and IT. At least one of these programs is based on a partnership with the state's department of transportation.<sup>94</sup>



## Spotlight

### Coupling supply of labor investments with demand levers by supporting pre-apprenticeship and incentivizing entry to the trades in Illinois

Touching \$45 billion of state public works investments, the Illinois Works Jobs Program Act establishes several programs and practices to bolster the state's infrastructure workforce and improve access to state-funded jobs for underrepresented populations.<sup>95</sup> These include:

- (1) Funding pre-apprenticeship:** The Illinois Works Construction Pre-apprenticeship Program funds community-based organizations to create or expand pre-apprenticeship programs, with flexible funds for supportive services (see Key Examples below).
- (2) Incentivizing apprenticeship:** The Illinois Works Apprenticeship Initiative sets an expectation that public projects worth greater than \$500,000 will employ apprentices for at least 10 percent of prevailing wage work hours, creating a demand for apprentices on many state projects.
- (3) Creating a bid credit program to incentivize hiring from programs focusing on underrepresented populations:** The Illinois Works Bid Credit Program will provide contractors and subcontractors with bid credits that can be used toward future public works bids if they employ and retain apprentices who have completed a recognized pre-apprenticeship program.

## Priority Action

### Fund supportive services to address common barriers to completing training

States could bolster funding for services to break down barriers that contribute to participants dropping out of programs. This could include creating a fund for training program participants, particularly in high-priority programs, to access vital supports for childcare expenses, transportation, emergency cash assistance, mentoring/peer networking, and career navigation.

#### ● Key Examples

- As part of the **Illinois Works Pre-apprenticeship Program** (highlighted in the Spotlight above), pre-apprenticeship program participants can access flexible funds for supportive services, which may be used for expenses such as apprenticeship application fees, transportation, childcare, technology, driver's education, mentorship, among others.<sup>96</sup>
- The **Rhode Island Department of Labor and Training's Back to Work Program** partners with employers to help Rhode Island residents build skills in high-demand industries, including support services for participants such as childcare and transportation assistance. The state provided each participant with these supportive services at a cost of \$4,000 per participant, as well as access to a career navigator. The initiative saw a dropout rate of 36 percent less than programs without support services.<sup>97</sup>



## Spotlight

### Diversifying the highway construction workforce through a focus on investing in supportive services for apprentices in Oregon

In 2009, the Oregon state legislature directed the Oregon Department of Transportation to “increase diversity in the highway construction workforce and prepare individuals interested in entering the highway construction workforce” using federal On-the-Job Training and Supportive Services funding. The resulting Highway Construction Workforce Development Program, run as a partnership between the Oregon Department of Transportation and Oregon Bureau of Labor & Industries (the program administrator), is a notable example of a state allocating federal funds that flow through an infrastructure agency toward supportive services to improve inclusion and diversity in highway construction.

The program, which includes pre-apprenticeship classes, apprenticeship, and supportive services,<sup>98</sup> has seen evidence of success in improving apprenticeship retention and completion among women and people of color in highway construction trades.<sup>99</sup> The program has cost approximately \$5,000 per apprentice served since 2011. With federal On-the-Job Training Supportive Services funds, the state has invested in supportive services for apprentices, spending approximately \$850 per enrolled individual on supportive services such as transportation, childcare, and tools over a 10-year period. Additional details on supportive service costs for specific types of services are available in the following table.<sup>100</sup>

Supportive Service Type for Apprenticeship Participants	Share of Enrolled Individuals Accessing Services	Cost to Provide Services
Transportation	23% (March 2011–August 2022)	~\$850 per participant accessing this type of service
Childcare	8% (March 2011–August 2022)	~\$4,550 per participant accessing services
Job readiness (work tools, work clothes, PPE)	67% (March 2011–August 2022)	~\$300 per participant accessing this type of service
Hardship assistance	9% (October 2016–August 2022) Note: Availability began in 2016	~\$850 per participant accessing this type of service

## Priority Action

### Bolster recruitment activities and raise awareness of career opportunities

States could fund efforts to build awareness of meaningful infrastructure career opportunities and pathways. This funding could prioritize partnerships with organizations (e.g., community-based organizations) that serve workers earning low wages and displaced jobseekers, especially organizations that work with and elevate solutions to improve inclusion of underrepresented populations. It could also focus on embedding vital information about career pathways within the career navigation services offered by a variety of stakeholders in the state.

#### Key Examples

- **Washington, D.C.’s Department of Employment Services (DOES)** launched an Infrastructure Academy, aimed to improve access to infrastructure careers. Through partnerships with public and private entities, the academy offers programs such as Quick Path to Information Technology, Quick Path to Energy, Quick Path to Transportation, and Quick Path to Health Safety to prepare residents for skilled jobs.<sup>101</sup>
- **The Colorado Workforce Development Council’s** Career Pathways Program offers “industry-driven, competency-based” pathways for 12 different industries, including energy, that are designed to help businesses meet demand for skilled workers while ensuring future employees have the skills and education needed.<sup>102</sup> The resource guides users through an interactive digital pathway, while providing recommendations and additional resources based on jobseekers’ goals and interests.



# Framework for State Action

## 3 Embed Into Procurement

As major project owners, state transportation and energy agencies have an opportunity to set terms and expectations in their procurement processes to influence practices among contractors and subcontractors.

Agencies can also encourage the use of their practices among other project owners in their sectors, and raise the use of this practice as a policy priority to be explored in areas of spending where they have limited direct control. There are myriad options for states to embed job quality and workforce inclusion into their procurement, and this discussion is not intended to be exhaustive.

Below are key strategies intended to help states actually implement this broad, yet commonly overlooked, approach. This category includes the following priority actions:

- **Use vehicles to incorporate job quality and workforce inclusion priorities into projects:**
  - Project labor agreements or other types of agreements
  - Preferences for employers with strong workforce and job quality practices
- **Incorporate specific preferences or requirements to target priorities:**
  - Apprenticeship utilization requirements
  - Local, economic, or other targeted hire requirements
  - Steps taken to address harmful worksite conduct
  - Incentives to partner with worker-serving stakeholders
- **Understand and address factors that have been historically critical to success:**
  - Strong oversight and accountability models
  - Involvement of community-based groups, worker-serving organizations, employers, and other critical stakeholders
  - State legislation to support longer-term adoption of provisions in procurement

## Use vehicles to incorporate job quality and workforce inclusion into projects

### Priority Action Project Labor Agreements or other types of agreements

These types of contracts include project labor agreements (PLAs), community workforce agreements (CWAs) and community benefit agreements (CBAs) with workforce terms.<sup>103</sup> Parties involved may include labor unions, employers, and/or community groups, and may include any of the policy levers discussed in this framework, such as apprenticeship utilization, local, economic or targeted hire provisions, or workplace safety measures.

USDOT has encouraged grantees to use project labor agreements (PLAs) on their projects in recent competitive grant Notice of Funding Opportunities (NOFOs) and, as previously mentioned, the U.S. DOE similarly has encouraged the use of CBAs.<sup>104</sup>

At the same time, several states are banned or severely restricted, via state legislation, from using PLAs. In South Carolina, for example, the state government is prohibited from requiring PLAs in its contracting.<sup>105</sup> Other states regulate the content of PLAs: in California, for example, the state constitution preempts certain types of targeted hiring provisions,<sup>106</sup> and state statute regulates the content of PLAs.<sup>107</sup>

## ● Key Examples

- **New York State Energy Research and Development Authority (NYSERDA)**'s 2022 offshore wind solicitation requires proposals to include “commitments to negotiate project labor agreements, labor peace agreements, and prevailing wages.”<sup>108</sup>
- **Maryland’s Clean Energy Jobs Act** requires any approved offshore wind project use a CBA with five key guidelines, including promoting career training for and recruitment of local residents, women, and racial minorities.<sup>109</sup>

### Priority Action

## Preferences for employers with strong workforce and job quality practices

A more generalized vehicle would simply be for a state agency to give preference to or require contractors to meet workforce or job quality requirements in order to be considered a competitive bidder for a contract. This could include any of the possible preferences or requirements that follow in the discussion on specific preferences or requirements to target priorities, having a history of compliance with safety regulations and labor law,<sup>110</sup> or having other strong job quality characteristics.

## ● Key Examples

- **Connecticut** requires bidders on state-funded public works projects costing more than \$500,000—except highway or bridge projects administered by the state department of transportation—to complete a prequalification process). The process evaluates prospective bidders in five categories: integrity, work history, experience, financial condition, and record of legal compliance. Repeated safety violations disqualify potential bidders.<sup>111</sup>
- In state law, **Minnesota** requires contractors and their subcontractors to meet minimum safety, wage law compliance, and employee classification compliance history criteria for public projects larger than \$50,000.<sup>112</sup>

## Incorporate specific preferences or requirements to target priorities

### Priority Action

## Apprenticeship utilization requirements

Apprenticeship utilization requirements mandate a share of total work for contractors and subcontractors be performed by participants in registered apprenticeship programs.

When instituting apprenticeship utilization requirements, there are several factors to consider. First, are there sufficient apprenticeship programs in the area to meet these requirements and what kinds of supports could address gaps? Second, are there meaningful incentives to pair those apprenticeship slots with pre-apprenticeship programs, bolstering the opportunity for graduates of pre-apprenticeship to enter into highly sought registered apprenticeship?

## ● Key Examples

- **New Mexico’s Energy Transition Act** (2019) sets a minimum share of employees who are apprentices for electricity-generating facility construction projects, “subject to the availability of qualified applicants”: increasing from 10 percent for projects starting before 2024 to up to 25 percent for projects starting after 2025. It also directs the New Mexico Department of Workforce Solutions to set rules to encourage apprenticeship programs to diversify their student pools.<sup>113</sup>
- Since 2012, the **Los Angeles County Metropolitan Transportation Authority (LA Metro)** has required 20 percent of employee hours on their construction projects to be completed by apprentices, under a Project Labor Agreement with the region’s building trades.<sup>114</sup>

Local hire, economic hire, and targeted hire provisions include requirements or incentives that a certain share of total work for contractors and subcontractors be performed by workers meeting various criteria, such as residents of a particular geographic area, workers with low incomes, workers of certain demographic groups, or graduates of prioritized training programs, to name a few examples.

Within these provisions, states could include occupation-specific hiring and retention standards. One foundational standard that states could enforce could be around compliance with federal Executive Order 11246, which has long set a minimum share of work hours for women and “minority” workers among federal contractors and subcontractors in construction.<sup>115</sup>

These provisions create an incentive for all involved to prioritize recruitment and retention of jobseekers in the target population. As such, it would likely lead to contractors proactively partnering with community-based organizations that serve target populations.

As previously mentioned, OMB’s Uniform Guidance still bans federal funds, other than those stemming from the U.S. Department of Transportation, from incorporating local or economic hire stipulations in certain forms. However, there could be ways to target inclusion of economically disadvantaged populations on projects still under a local/economic hiring ban. For instance, prior to IJJA, regional agencies LA Metro<sup>116</sup> and the San Diego Association of Governments (SANDAG)<sup>117</sup> implemented economic hire policies that identified target ZIP codes across the nation (rather than locally) on projects with federal transportation funding.

### ● Key Examples

- The **Virginia Clean Economy Act** requires utilities purchasing new offshore wind projects to submit a plan that includes “options for utilizing local workers” and “giving priority to the hiring, apprenticeship, and training of veterans, local workers, and workers from historically economically disadvantaged communities.”<sup>118</sup>
- **California’s Department of General Services** required that contractors negotiate a project labor agreement (PLA) with the state building trades for the construction of a set of new state office buildings in Sacramento, with key elements specified by the agency. The agreement set targeted hiring goals by requiring that 25 percent of apprentice-hours worked on the project would come from disadvantaged groups, including women, veterans, and people who have been involved in the foster system or the criminal justice system. The PLA also directs unions to collaborate with community-based organizations to ensure that these target populations and graduates of state pre-apprenticeship programs are hired.<sup>119</sup>
- The **Illinois Tollway’s** Earned Credit Program allows contractors to earn bid credits by employing members of WIOA-specified target populations, which can then be used to decrease a contractor’s bid amount, upping their chances of winning a contract as a low bidder. A similar program at the Tollway, ConstructionWorks, encourages contractors to employ participants from the Chicago Cook Workforce Partnership’s training partners. ConstructionWorks offers both bid credits and cash reimbursements to contractors for each hour worked by an apprentice from these training partners.<sup>120</sup>



The **Colorado Department of Transportation's** interstate highway construction project, Central 70—the largest project CDOT had ever undertaken at \$1.2 billion—set a local hire requirement of hiring 20 percent of project employees from neighborhoods adjacent to the worksite.

Before breaking ground, the agency conducted over 300 public meetings engaging with concerns about the effects of the project on the local community, including workforce concerns. Alongside the local hire requirement, the department also set a goal to provide 200,000 training hours to employees in skilled crafts, creating a training center that offered skill-building courses for residents as part of the project.

A local foundation contributed funding for supportive services, including personal protective equipment (PPE), transportation, and childcare for trainees.<sup>121</sup> The project was part of an FHWA pilot allowing states and localities to use local hire on federally funded highway construction projects, which IJA has now allowed for all spending flowing through USDOT.<sup>122</sup>

States can spur employer practices to combat harassment and discrimination on infrastructure project worksites. Doing so, could lessen worksite hostility directed toward women, people who are not white, people with disabilities, and LGBTQI+ people, and other often marginalized populations, and thus contribute to improving inclusion in the sectors.

Despite federal law explicitly prohibiting discrimination in the workplace and in apprenticeship programs, workplace harassment remains an often-reported occurrence on construction jobsites, and a contributor to the high turnover rate for women in construction.<sup>123</sup> More than half of respondents to the Institute for Women's Policy Research's Tradeswomen's Retention and Advancement survey reported experiencing gender and sexual harassment either "sometimes" or "frequently/always" on construction jobsites. "Lack of respect/harassment" was also the most reported reason for women who had left or were considering leaving the trades.<sup>124</sup>

Strategies to foster employer prioritization of combating harmful worksite conduct may include requiring that contractors and subcontractors complete anti-discrimination and anti-harassment training (contextualized in the industry) and ensuring there are reliable reporting structures and accountability mechanisms for harassment on project worksites. After reviewing the landscape of available programming, a committee of tradeswomen, workforce development leaders, and regional planning authorities in Oregon recommended Green Dot for the Trades and RISE Up as two strong anti-harassment training models in construction trades.<sup>125</sup> Additionally, an evaluation of the use of respectful worksite models on construction jobsites found that workers that received training from such a program were more likely to intervene in instances of harassment, and levels of harassment decreased (slightly) in one study.<sup>126</sup>

### Key Examples

- The **City of Seattle and Sound Transit**, the region's transit agency, among other infrastructure project owners in the Seattle area, have required that contractors complete a training through the RISE Up campaign on practices and internal policies to combat worksite bullying and harassment.<sup>127</sup>
- In **Oregon**, property services contractors are required to complete an anti-sexual harassment training course to obtain a new license. Contractors must pass a test with a section on sexual harassment law, and all employees must complete anti-sexual harassment training upon hire and once every two years, with fines for violations.<sup>128</sup>

States may require or incentivize contractors to form partnerships with organizations focused on providing services to or representing people from populations historically and presently underrepresented in good quality infrastructure jobs.

Possible strategies could include establishing bid incentives for contractors to hire from high-quality training programs serving underrepresented groups, or requiring that bidders make plans to form similar partnerships. Partners could include local workforce boards, community-based organizations, labor-management partnerships or unions, or pre-apprenticeship programs.<sup>129</sup>

### ● Key Examples

- **New York City** established a PLA with the regional building trades council for new construction projects. Under the PLA, apprenticeship programs must set aside slots for graduates of pre-specified pre-apprenticeship programs targeting underrepresented populations.<sup>130</sup>
- The **U.S. Department of Energy's Battery Materials Processing and Battery Manufacturing** grant program preferences investments that: “identify diversity workforce training partners to foster improved access to jobs for underrepresented individuals. . . such as those with disabilities.”<sup>131</sup>
- The **U.S. Department of Interior Abandoned Mines Lands** grant directs applicants to include plans “for engaging with other Federal, State, Tribal, or local governmental agencies and nongovernmental entities on workforce training and development issues... along with the names of potential partners to support recruiting and training efforts, including community colleges, workforce partners, community-based groups, and unions.”<sup>132</sup>

States can encourage or require measures that broaden access and opportunities to benefit from state contracting opportunities for firms headed by women, business owners that are not white, and people of other underrepresented demographic groups. This is, indeed, often the current focus of state and other governmental actions to improve inclusion in the government procurement process.

The logic in using these levers is generally two-fold: expanding access to secure contracts broadens wealth-generating entrepreneurship opportunities; and firms led by members of underrepresented demographic groups may be more likely to hire and subcontract to members of underrepresented demographic groups or geographies. It is important to note that these provisions do not necessarily lead to connecting people of underrepresented demographic groups to a large number of jobs, as the focus is on the ownership of the firm.

Programs supporting disadvantaged business owners have faced legal challenges in several states, including a 2016 challenge to a program run by the Illinois Department of Transportation.<sup>133</sup> In part because of this history of litigation, agencies (in all states) must conduct disparity studies to prove programs’ necessity.<sup>134</sup> Even so, the vast majority of states have at least one program or office aimed at expanding access to state contracts to businesses with underrepresented owners.<sup>135</sup>

### ● Key Examples

- **Maryland** set a goal that 29 percent of its procurement dollars be awarded to minority-owned businesses. For projects greater than \$3 million, agencies are expected to work with the state’s Minority Business Enterprise Program to set participation goals for specific minority groups and women on a contract-by-contract basis.<sup>136</sup>

## Key Examples *(continued)*

- The **City of Buffalo, N.Y.**, used \$3.5 million in American Rescue Plan Act funds to provide support to small businesses through an existing local organization, the Beverly Gray Business Exchange Center, which provides underserved local businesses with financial and technical assistance.<sup>137</sup> The city also conducted a survey of vendors, informing future efforts to improve competitiveness of small and minority-owned businesses in the bidding processes.<sup>138</sup>
- The **Illinois Tollway’s** Technical Assistance Program supports firms competing for Tollway contracts. The program works with businesses that are; small, women-, minority-, or veteran-owned; or otherwise “disadvantaged” to provide mentorship and training in Tollway opportunities and businesses practices.<sup>139</sup>

### Spotlight

#### Tax credits for high-quality clean energy jobs in Washington State<sup>140</sup>

In 2019, **Washington** passed the **Clean Energy Transformation Act**, which commits the state to transitioning its electric grid to 100 percent clean energy by 2045. The law uses state tax incentives to influence clean energy jobs, overseen by the state’s Department of Labor & Industries:

- Projects that make a good faith effort to procure from women-, minority-, or veteran-owned businesses, high-road firms with a history of compliance with wage laws, and follow local hire preferred entry for residents of the project site: 50 percent tax credit
- Projects that also “compensate workers at prevailing wage rates determined by local collective bargaining”: 75 percent tax credit
- Projects that are developed under a project workforce agreement or community workforce agreement: 100 percent tax credit

## Understand and address factors that have historically been critical to success

### Priority Action

#### Strong oversight and accountability models

Adopting workforce goals by including preferences in RFPs, NOFOs, or other solicitations is only as effective as the follow-through. State efforts to drive workforce inclusion have faltered when enforcement is not prioritized. In Wisconsin, for example, the state’s goal to spend 5 percent of its contracting to minority-owned businesses, declared in 1983, was not reached for the first time until almost 25 years later and had been met on an annual basis four times as of 2021.<sup>141</sup> Massachusetts wrote workforce participation goals into its state law, but an audit showed insufficient monitoring and enforcement of those goals: 95 percent of active contracts did not meet the women’s workforce participation goal, and 64 percent did not meet the minority workforce participation goal.<sup>142</sup>

Advocates have pushed for a suite of strategies to bolster enforcement of workforce goals on publicly funded infrastructure projects, including community monitoring, sanctions for noncompliance, and deep engagement with contractors and subcontractors. Advocates have also pushed for stronger public data transparency of progress toward hiring and retention targets, including timely reporting of work hours by trade, project, and contractor, broken down by race, gender, and apprentice or journeyman status.<sup>143</sup>

One model to consider is an “Access and Opportunity Committee,” used by several project owners in Massachusetts (see examples below). In this model, a committee of multiple stakeholders is formed, which could include stakeholders from business, labor, government, nonprofit, and advocacy groups. This committee is tasked with overseeing workforce inclusion measures attached to a project or set of projects. Contractors report workforce inclusion data to the committee, which meets periodically to review compliance and strategize on possible improvements. The committee also typically has the power to hold contractors accountable for meeting inclusion goals, through levers such as corrective action meetings and financial penalties.<sup>144</sup>

## Key Examples

- The **Massachusetts Gaming Commission’s** Access and Opportunity Committee was established to monitor efforts to diversify the workforce for the construction of several large casinos in the state (notably, this is not an example concerning infrastructure). Contractors reported to the committee, which was empowered to hold corrective action meetings when contractors were not meeting diversity goals.<sup>145</sup>
- The **University of Massachusetts Building Authority (UMBA)** entered into a Project Labor Agreement with the Metro Boston Building Trades Council and the New England Council of Carpenters in 2010. Among other requirements, the PLA committed UMBA to meeting city workforce participation goals for women and people of color in their work to reconstruct and renovate the UMass Boston campus. It also created an Access and Opportunity Committee to “assess the obstacles to success of achieving inclusion of minority and women workers... [and] make recommendations for additional programmatic efforts to overcome some of those obstacles.”<sup>146</sup>

### Spotlight

#### LA Metro’s contractor engagement and compliance strategy

The **Los Angeles Metropolitan Transportation Authority (LA Metro)** has developed a multilayered oversight system to ensure compliance with the workforce standards—including requirements for hiring local workers, disadvantaged workers, and apprentices—contained in its Project Labor Agreement with the building trades and its Construction Careers Policy.

Contractors commit to the workforce standards at every stage of the procurement, including the bid documents, the Notice of Award, and the contract documents. The standards are also emphasized in pre-bid, pre-proposal, and kick-off meetings, as well as monthly partnership meetings after the bid is secured. Contractors are required to hire one of LA Metro’s prequalified “Jobs Coordinators” to assist with meeting and documenting local hire requirements, or to propose their own jobs coordinator. An automated reporting system provides data on local hire attainment and wages on an ongoing basis.

LA Metro conducts a monthly audit of prime contractors’ performance on workforce hiring goals. Contractors that are not in compliance are subject to a set of escalating actions: first, a notice of non-compliance; second, a request for a corrective action plan; and third, a notice of possible liquidated damages. The damages consist of the average journeyman project wages for each hour the project fell short of the targeted hiring, or \$500 per day, whichever is greater. Since implementing the policy, LA Metro has only had to issue notices of possible liquidated damages on two occasions.

The agency has exceeded its hiring goals for local workers, disadvantaged workers, and apprentices.<sup>147</sup>

### Priority Action

#### Involvement of community-based groups, worker-serving organizations, employers, and other critical stakeholders

Stakeholders outside of state government are key partners when it comes to embedding job quality and inclusion standards into state spending. These stakeholders—including community-based groups, worker-serving organizations, employers, and others—can provide valuable input starting in the planning phase of infrastructure work. For instance, an infrastructure agency could not prioritize apprenticeship utilization without the involvement of employers, employer intermediaries, and pre-apprenticeship providers in the locality of the project to support the establishment of sufficient apprenticeship slots. As work progresses, the stakeholders can help state agencies succeed in their targeted hiring goals (for example, by aiding in recruitment or monitoring hiring and retention data).

## State legislation to support longer-term adoption of provisions in procurement

Even while state transportation and energy office staffers commonly expressed interest in these strategies, a scan of existing examples of states embedding job quality and workforce inclusion provisions in infrastructure spending suggests that such provisions have usually been used in connection to specific state legislation, often attached to new clean energy spending.<sup>148</sup> State infrastructure leaders may find that explicit directives to support some of these provisions would be beneficial or help to avoid strong external pushback.

For example uses of the strategies presented in this category of actions:

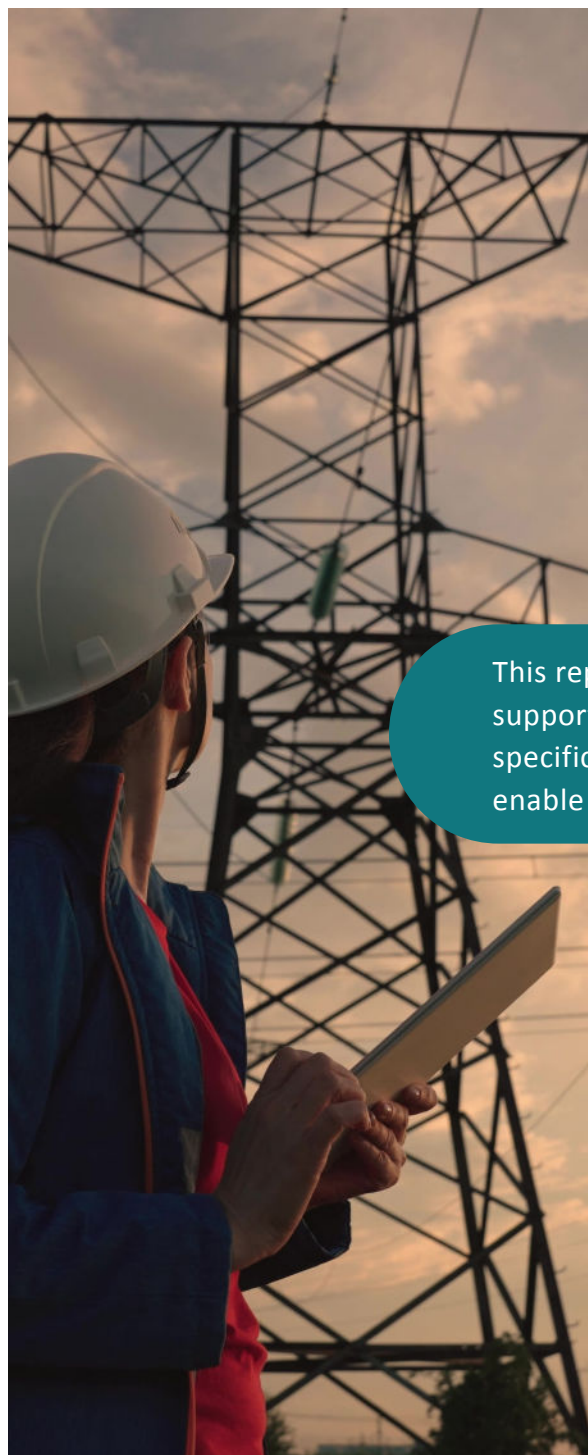
[SEE: Appendix B: Embed into Infrastructure Procurement Examples](#)





# Conclusion

Thanks to historic levels of investment through IIJA and IRA, states and communities across the United States have the chance to modernize their infrastructure, support their economic growth and competitiveness, and drive greater opportunity for workers without college degrees. However, deep and persistent disparities in the U.S. infrastructure workforce—including in the transportation and energy sectors, which have disproportionately low levels of representation of women, people who are not white, and younger workers<sup>149</sup>—suggest that broad portions of the population may continue to miss out on the job creation and economic benefits of these investments if employers and policymakers continue to follow a business-as-usual approach.



Harnessing these investments to create meaningful, accessible, and inclusive career opportunities will require deliberate action and policy, program, and process changes on the part of state governments, which are poised to receive and shepherd billions of dollars in federal and state infrastructure investment in the coming years. In their roles overseeing or influencing project development and procurement; developing transportation, clean energy, climate, and pollution mitigation policies and programs; and convening stakeholders, these agencies are uniquely poised to integrate workforce and job quality priorities into their operations, spending, and public-private partnerships. As fellow state agencies, state workforce agencies can be critical partners in these efforts by helping align training and education systems with infrastructure workforce development needs and by serving as trusted sources of information for individuals navigating workforce development systems.

This report highlights several strategies that states should consider to support workforce access, inclusion, and job quality goals, as well as specific opportunities and provisions within the IIJA and IRA that can enable state investment and action.

It offers an array of recommendations, from lower-touch policy and program adjustments, analyses, and informal partnership models to larger-scale policy, program, and procurement changes that can help state agencies navigate the various aspects of job quality and inclusion in transportation and clean energy infrastructure.

Not only jobseekers—but also communities, employers, project owners, and state governments themselves—stand to benefit. The significant challenges the United States face—from climate change, to aging infrastructure, to deep economic and demographic disparities—require greater investments in and focus on workforce access, inclusion, and job quality. Armed with historic levels of funding, state transportation, energy, and workforce agencies can and will be important champions of these changes.

## Appendix A: Funding Opportunities

### Federal Funding Opportunities for Transportation Workforce Development

#### 1. Opportunities for states to augment transportation workforce development through direct expenditures

Section No.	Grant or Program Name	Funding Amount
IIJA Section 13007	<p><b>Fixing America’s Surface Transportation (FAST) Act’s Section 504(e)</b><sup>150</sup></p> <p><b>Description:</b> IIJA expanded flexibility for state DOTs to use unlimited amounts of the core funds apportioned under each of the four highway formula programs toward workforce development, training, and education activities. These activities are eligible for 100 percent federal share with no requirement of local matching funds. Funding can be used for surface transportation workforce activities “without regard to the focus of the core program that is the source of the funds,” according to FHWA.</p> <p>IIJA also expands the scope of eligible activities by defining pre-apprenticeships, apprenticeships, career opportunities for on-the-job training, and partnerships with industry, workforce development boards, and labor organizations as eligible under workforce development. It also adds “activities to address workforce gaps, to develop robust workforce with new skills for emerging transportation technologies, and to attract new sources of job-creating investment” to the list of eligible workforce activities.</p>	<p><b>Unlimited share of four core FHWA formula funds totaling \$248 billion over five years</b><sup>151</sup></p>
IIJA Section 30018	<p><b>Low and No Emission Grant</b></p> <p><b>Description:</b> This funding can be used to prepare the workforce for the EV transition through apprenticeship and other labor-management training programs.</p>	<p><b>5 percent set-aside of \$5.6 billion total</b></p>
IIJA Section 22103	<p><b>Consolidated Rail Infrastructure and Safety Improvements (CRISI) Grant</b></p> <p><b>Description:</b> Applicants for this grant program can access funding for workforce development and training activities in freight and passenger rail. The program also encourages applicants to hire, train, and retain a workforce that is local and diverse. Past projects funded under this grant included activities toward development of an HBCU-based railroad engineering program in Baltimore, M.D. and an Amtrak apprenticeship program for mechanical craft workforce development.<sup>152</sup></p>	<p><b>\$5 billion total</b></p>
IRA Section 60101	<p><b>Clean Heavy-Duty Vehicles</b></p> <p><b>Description:</b> Amends the Clean Air Act to support the transition to Clean Heavy-Duty Vehicles. Grants and rebates will be available from the EPA to cover up to 100 percent of the costs incurred in workforce development and training to support the maintenance, charging, fueling, and operation of zero-emission vehicles. States are one of several eligible recipients.</p>	<p><b>\$1 billion through 2031</b></p>
Title 23 USC Section 140 (b)	<p><b>On-the-Job Training Support Services (OJT-SS) program</b><sup>153</sup></p> <p><b>Description:</b> This program allows states to request funding for supportive services, including apprenticeship and on-the-job training programs for women, people of color, and other historically disadvantaged populations.</p>	<p><b>\$10 million annually</b></p>

# Federal Funding Opportunities for Transportation Workforce Development

## 2. Opportunities to prioritize job quality, inclusion, and accountability through general state transportation spending

Section No.	Grant or Program Name	Funding Amount
IIJA Section 25109	<b>Geographic or economic hiring preferences<sup>154</sup></b> <b>Description:</b> This change creates an exception to the Office of Management Budget Uniform Guidance’s prohibition on geographic and economic hiring preferences, allowing project owners to use these preferences on projects funded through the U.S. DOT.	<b>All projects funded through U.S. DOT are eligible</b>
IIJA Sections 21201, 11110, and 11132	<b>Multimodal project grants (MEGA, INFRA, and Rural Grants)<sup>155</sup></b> <b>Description:</b> The combined NOFO for the multimodal project grants encourages federally assisted contractors to work toward meeting the goal of 6.9 percent of construction project hours being performed by women. It also encourages local and economic hiring, PLAs, and registered apprenticeships.	<b>\$15 billion total</b>
IIJA Section 11401	<b>Charging and Fueling Infrastructure Grants<sup>156</sup></b> <b>Description:</b> To access this grant, the applicants are directed to outline how they are planning on collaborating with infrastructure and technology providers, other states and local governments, fleet and fuel station providers, and labor unions to ensure that a properly trained workforce is available for constructing and installing electric/alternate fuel charging infrastructure.	<b>\$2.5 billion total</b>
IIJA Section 11509	<b>Reconnecting Communities Pilot Grants—Capital Construction Project Grants<sup>157</sup></b> <b>Description:</b> Under this program, states and other eligible applicants must demonstrate how the grants will help create good-paying jobs with a free and fair choice to join a union; include anti-discrimination and anti-harassment plans; and use PLAs, local hiring, and procurement preferences to support underrepresented workers. The grant also requires contractors and subcontractors to pay prevailing wages to all workers and make a good faith effort to meet the goal of 6.9 percent of construction project hours being performed by women.	<b>\$750 million total</b>
IRA Section 60501	<b>Neighborhood Access and Equity Grant Program—Investment in Economically Disadvantaged Communities</b> <b>Description:</b> This program directs funding to the FHWA for investment in economically disadvantaged communities, including funding for applications that meet one of several criteria, including having “demonstrated a plan for employing local residents in the area impacted by the activity or project.”	<b>\$1.3 billion through 2026</b>

Note: IRA does not allocate funding to state DOTs specifically for workforce development activities. However, IRA does spur new clean transportation jobs by directing significant funding to clean transportation initiatives.

# Funding Opportunities for Clean Energy Workforce Development

## 1. Opportunities for states to augment clean energy workforce development through direct expenditures

Section No.	Grant or Program Name	Funding Amount
IIJA Section 40551	<b>Weatherization Assistance Program<sup>158</sup></b>  <b>Description:</b> The Weatherization Assistance Program received an influx of new funding through IIJA, which will be distributed to State Weatherization Administrators through formula-based grants <sup>159</sup> . Along with new IRA incentives for home energy efficiency and electrification retrofits, this additional weatherization funding will increase demand for contractors, auditors, and electricians. IIJA flow-down requirements, including the Davis-Bacon prevailing wage requirement, will apply to the additional WAP funding, as will several DOE priorities, including “workforce development and diversity [and] inclusion and equity.” Applicants must also submit a Training and Technical Assistance (T&TA) plan, and each state will receive a T&TA allocation “to support workforce development activities” (\$550 million total distributed across all states). Eligible uses of the T&TA allocation include: “participation, travel, logistics of training and technical assistance activities and events.”	<b>\$3.5 billion (\$550 million for Training and Technical Assistance)</b>
IIJA Section 40503	<b>Energy Auditor Training Program</b>  <b>Description:</b> Direct funding to states to cover “any cost associated with” energy audit training or certification during financial years 2022 to 2026. Up to 10 percent of grant funds can be used to pay wages to trainees during their training period. As part of the application, states must include a plan for training curriculum and the certifications provided, as well as the cost per trainee and proposed strategy for connecting trainees to job opportunities.	<b>\$40 million</b>
IRA Section 50123	<b>State-Based Home Energy Efficiency Contractor Training Grants</b>  <b>Description:</b> State energy offices will administer these funds, which can be used for training, education, and certification costs for contractors tasked with implementing the home energy efficiency and electrification upgrades, as well as state partnership programs with nonprofits.	<b>\$200 million</b>
IIJA Section 41007(c)(1)	<b>Advancing Equity Through Workforce Partnerships<sup>160</sup></b>  <b>Description:</b> Award funding will “support multi-stakeholder high-road workforce development partnerships that help accelerate the deployment of solar energy while advancing the Administration’s priorities around worker empowerment, quality jobs with a free and fair choice for workers to join a union, and Energy and Environmental Justice (EJ) and Diversity, Equity, Inclusion, and Accessibility (DEIA) in the clean energy workforce.”	<b>\$10 million</b>
IIJA Section 40521	<b>Future of Industry Program and Industrial Research and Assessment Centers</b>  <b>Description:</b> Funding for institutions of higher education, trade schools, community colleges, and union training programs to create or expand Industrial Research and Assessment Centers (IRACs). These centers help assess the needs of small- and medium-sized manufacturer plant sites and identify ways to improve the sites’ energy efficiency and environmental performance, while promoting new technologies and coordinating research and development and technical assistance. A portion of the new IIJA funding for the IRAC program will provide 50 percent federal cost share for internships and apprenticeships that help implement the goals of the IRACs. While state energy offices will not receive Section 40521 funds directly, they can help encourage grant applications, facilitate partnerships, and support internship and apprenticeship programs receiving federal funds.	<b>\$150 million</b>

## Funding Opportunities for Clean Energy Workforce Development

### 2. Opportunities to prioritize job quality, inclusion, and accountability through general state clean energy spending

Section No.	Grant or Program Name	Funding Amount
IRA Section 50121	<b>Home Energy Performance-Based Whole-House Rebates (HOMES) program</b> <b>Description:</b> State energy offices will be responsible for administering the Home Energy Performance-Based Whole-House Rebates (HOMES) program established by IRA, which will create significant demand for clean energy jobs and provide an opportunity for state energy offices to incorporate workforce requirements and preferences when selecting contractors or program implementers to complete the work.	<b>\$4.3 billion</b>
IRA Section 50122	<b>High-Efficiency Electric Home Rebate Program</b> <b>Description:</b> State energy offices will also be responsible for administering the High-Efficiency Electric Home Rebate Program, which will create significant demand for jobs needed for home electrification and provide opportunities to embed workforce requirements and preferences in contracting and solicitations.	<b>\$4.3 billion</b>
IIJA Section 40101(d)	<b>Preventing Outages and Enhancing the Resilience of the Electric Grid<sup>161</sup></b> <b>Description:</b> Provides grants to states and territories to enhance grid resilience, allocating \$369 million to states and the District of Columbia in the first year of funding. According to the Administrative and Legal Requirements Document (ALRD), recipients must include several workforce-related objectives and metrics in the Program Narrative, with a special emphasis on inclusion of underrepresented workers, community partnerships, and job quality metrics.	<b>\$2.3 billion over five years</b>
IIJA Section 40109	<b>U.S. State Energy Program (SEP)<sup>162</sup></b> <b>Description:</b> IIJA directs an additional \$500 million to the U.S. State Energy Program (SEP), a long-standing program that provides flexible, formula-based funds to state energy offices each year. This funding can be used for a number of energy-related activities at the state level, including training and education, such as “training workshops, practice manuals, and testing for each area of energy efficiency technology.” Additionally, because SEP is covered under the Justice40 Initiative, DOE strongly recommends that at least 40 percent of the funding benefits, which include access to clean energy jobs and training, reach disadvantaged communities. The application instructions also note that DOE will provide “analysis, resources, and peer exchange opportunities to advance investments in the clean energy workforce.”	<b>\$500 million</b>
IIJA Section 40541	<b>Energy Improvements at Public School Facilities<sup>163</sup></b> <b>Description:</b> Provides \$500 million in grants for energy retrofits at public school facilities to local education agencies, in coordination with schools or other community partners, and designates up to 5 percent of awards for “operation and maintenance training” and up to 3 percent for “develop a continuing education curriculum relating to energy improvement.” In its Request for Information (RFI), DOE highlights the importance of local hire and working with labor union partners and urges applicants to plan how they will address recruitment, training, and retention of workers.	<b>\$500 million</b>

# Funding Opportunities for Clean Energy Workforce Development

## 2. Opportunities to prioritize job quality, inclusion, and accountability through general state clean energy spending

Section No.	Grant or Program Name	Funding Amount
IIJA Section 40314	<b>Regional Clean Hydrogen Hubs<sup>164</sup></b> <b>Description:</b> In the Funding Opportunity Announcement (FOA) for the Regional Clean Hydrogen Hubs program, which awards \$8 billion to six to ten recipients, DOE requires a Community Benefits Plan that includes “a statement describing any plans to negotiate a Community Benefits Agreement, Good Neighbor Agreement, Project Labor Agreement, Community Workforce Agreement, and/or other collective bargaining agreements.” The Community Benefits Plan must also include a “comprehensive plan for the creation and retention of high-paying quality jobs and development of a skilled workforce,” a Diversity Equity Inclusion and Accessibility plan, and a Justice40 section.	<b>\$8 billion</b>
IIJA Section 41007	<b>Solar and Wind Grid Services and Reliability Demonstration<sup>165</sup></b> <b>Description:</b> Funding for projects that advance solar and wind technology research, development, and deployment. Eligible activities include workforce development, and state and local governmental entities were listed as eligible applicants. Applicants were required to include a Community Benefits Plan, covering three areas: community and labor engagement; quality jobs; and diversity, equity, inclusion, and accessibility.	<b>\$26 million</b>
IIJA Section 40513	<b>Career Skills Training Program</b> <b>Description:</b> The Career Skills Training grants are intended to help cover the cost of programs through which “students concurrently receive classroom instruction and on-the-job training for the purpose of obtaining an industry-related certification to install energy efficient buildings technologies.” Nonprofit partnerships are eligible to apply.	<b>\$10 million</b>
IIJA Section 40207	<b>Battery Materials Processing and Battery Manufacturing and Recycling Grants</b> <b>Description:</b> The FOA for the Battery Materials Processing and Battery Manufacturing and Recycling grants required applicants to submit an equity plan that addresses training and job quality. <sup>166</sup>	<b>\$3.1 billion</b>
IRA (multiple sections)	<b>Bonus rate credit for meeting prevailing wage and apprenticeship requirements<sup>167</sup></b> <b>Description:</b> IRA provides a bonus rate credit for projects that meet prevailing wage and apprenticeship requirements. The prevailing wage requirement applies to contractors and subcontractors of projects greater than 1 megawatt of energy storage capacity and includes a non-compliance penalty of \$5,000 per worker paid below the prevailing wage rate.  It also requires the contractors and subcontractors to pay those workers the wage difference owed, plus interest. The apprenticeship criteria for the bonus credit requires contractors and subcontractors to ensure a specified portion of labor hours is performed by qualified apprentices (5 percent for construction beginning in 2022, 10 percent in 2023, and 15 percent from 2024 on).  Bonus tax credit recipients who do not comply will pay a \$500 fee per labor hour that did not meet the requirement. However, if the recipient makes a “good faith effort” to hire apprentices but cannot due to a lack of qualified apprentices, the project is exempt from the requirement.	<b>Bonus rate of 30% compared to 6% base rate tax credit</b>

## Funding Opportunities for Clean Energy Workforce Development

### 2. Opportunities to prioritize job quality, inclusion, and accountability through general state clean energy spending

Section No.	Grant or Program Name	Funding Amount
IRA (multiple sections)	<p><b>Credit increase for location in energy community or meeting domestic content requirements</b></p> <p><b>Description:</b> Some of the tax provisions include a 10% increase or 10 percentage point increase for projects located in energy communities<sup>168</sup> or projects that meet domestic content requirements.<sup>169</sup> By encouraging clean energy projects in energy communities and projects that use materials and components manufactured in the United States, these credit adders could expand access to clean energy jobs in economically distressed areas and increase overall demand for domestic clean energy jobs.</p>	<b>10% increase or 10 percentage point increase in tax credit</b>
IRA (multiple sections)	<p><b>Direct pay and transferability options</b></p> <p><b>Description:</b> Many of the IRA tax credits provide direct pay and transferability options, which allow non-taxable entities like state governments to leverage the financial benefits of the credits more easily.</p>	<b>N/A</b>

#### ● Workforce Development-Specific Federal Funds Awarded via Formula

States could consider using existing flexible funds specific to workforce development to strengthen pathways into infrastructure careers. These funding streams include:<sup>170</sup>

- **WIOA Title I (Youth, Adult, Dislocated Worker):** Funding for career and training services, employer relationships, and sector partnerships; 15 percent of these funds are available as “Governor’s Reserve Funds” and can be spent at the governor’s discretion.
- **Perkins V:** Funding for secondary and postsecondary career and technical education. States can reserve up to 15 percent of their Perkins V formula funding for “Reserve Funds” for programming in high-demand occupations. Perkins “State Leadership Funds” are also available for developing sector partnerships and for supporting particular populations pursuing careers in high-demand occupations.

There are also competitive grant programs that state workforce and education entities could be eligible applicants for and could be pursued to support infrastructure workforce development investments, specifically DOL’s anticipated Building Pathways to Infrastructure Jobs Grant Program.<sup>171</sup>

# Appendix B: Embed into Infrastructure Procurement Examples

## Vehicles to incorporate job quality and inclusion into projects

### PROJECT LABOR AGREEMENTS OR OTHER TYPES OF AGREEMENTS

Example	Infrastructure Type
<p><b>New York State Energy Research and Development Authority (NYSERDA)</b>'s 2022 offshore wind solicitation requires awardees to provide a “plan outlining its intentions with respect to the negotiation of one or more PLAs to cover all construction activities on the Project.”<sup>172</sup></p>	Clean energy
<p><b>Maryland’s Clean Energy Jobs Act</b> requires approved offshore wind projects use a CBA with five key guidelines, including promoting career training for and recruitment of local residents, women, and racial minorities. The Maryland Public Service commission is overseeing these requirements.<sup>173</sup></p>	Clean energy
<p><b>Washington State’s Clean Energy Transformation Act</b> exempts most renewable energy projects from sales taxes if the state certifies that “the project is developed under a community workforce agreement or project labor agreement.”<sup>174</sup></p>	Clean energy
<p><b>Massachusetts’s Expanded Gaming Act</b> directed the gaming industry to establish the Access and Opportunity Committee to monitor efforts to diversify the construction workforce during the construction of several large casinos.<sup>175</sup></p> <p>Note: This example is not a public agency and not within infrastructure, but a notable example.</p>	N/A
<p>The <b>University of Massachusetts Building Authority (UMBA)</b> entered into a Project Labor Agreement with the Metro Boston Building Trades Council and the New England Council of Carpenters in 2010. Among other requirements, the PLA committed UMBA to meeting city workforce participation goals for women and people of color in their work to reconstruct and renovate the UMass Boston campus. It also created an Access and Opportunity Committee to “assess the obstacles to success of achieving inclusion of minority and women workers... [and] make recommendations for additional programmatic efforts to overcome some of those obstacles.”<sup>176</sup></p>	Public university campus
<p>Section 1-75(c)(1)(Q)(2) of <b>Illinois’s Climate and Equitable Jobs Act</b> requires a Project Labor Agreement for all new utility-scale solar and wind, brownfield site photovoltaic (PV), and renewable energy credit (REC) facilities. The requirement is implemented by the Illinois Power Agency.<sup>177</sup></p>	Clean energy
<p>Section 1(a)(2) of <b>Connecticut’s 2019 Offshore Wind Procurement Act</b> requires “selected bidders to engage in a good faith negotiation of a project labor agreement,” overseen by the Connecticut Department of Energy and Environmental Protection.<sup>178</sup></p>	Clean energy



## PREFERENCES FOR EMPLOYERS WITH STRONG WORKFORCE AND JOB QUALITY PRACTICES

Example	Infrastructure Type
<b>Washington State’s Clean Energy Transformation Act</b> includes a 50% tax exemption incentive for clean energy projects that procure from or make a good faith effort to procure from “entities that have a history of complying with federal and state wage and hour laws and regulations,” among other requirements (Sec. 18). <sup>179</sup>	Clean energy
<b>Connecticut</b> requires bidders on state and local public works projects costing more than \$500,000 to complete a prequalification process through the Department of Administrative Services (projects administered by the state DOT are exempt). The process evaluates prospective bidders in five categories: integrity, work history, experience, financial condition, and safety. Repeated safety violations disqualify potential bidders. <sup>180</sup>	Public works (does not apply to DOT projects)
<b>Minnesota</b> requires contractors and their subcontractors to meet minimum safety, wage law compliance, and employee classification compliance history criteria for public projects larger than \$50,000. <sup>181</sup>	Public works
<b>Orlando, Florida</b> , requires contractors who bid on projects costing more than \$100,000 with service in certain industries to provide workers with health benefits, as well as to pay a “living wage,” overseen by the city’s Public Works Department. <sup>182</sup>	Public works
<b>El Paso, Texas</b> , has used preferences for bidders that provide their employees with health benefits; at one point this criterion composed 10% of the bidder’s overall score (p.15). <sup>183</sup>	Public works

### Types of preferences or requirements in contracting and procurement to target priorities

## APPRENTICESHIP UTILIZATION REQUIREMENTS

Example	Infrastructure Type
<b>Washington State</b> mandates that large public projects—those exceeding \$1 million for most public works projects and \$2 million for Department of Transportation projects—must use registered apprenticeships for a minimum of 15% of work hours. A 2019 clean energy bill also allows utilities to access a 50% tax exemption if they demonstrate a “good faith effort” to meet an apprenticeship utilization standard. <sup>184</sup>	Public works, clean energy
<b>New Mexico’s Energy Transition Act (2019)</b> sets a minimum share of employees who are apprentices for electricity-generating facility construction projects, “subject to the availability of qualified applicants,” increasing from 10% for projects starting before 2024 to up to 25% for projects starting after 2026. It also directs the New Mexico Department of Workforce Solutions to set rules encouraging apprenticeship programs to diversify their student pools. <sup>185</sup>	Clean energy
<b>Maine’s Green New Deal Act</b> requires that in the construction of new energy-generation facilities, apprentices must compose at least 10% of the construction workforce through 2024, increasing to 17.5% through 2026 and 25% starting in 2027. The requirements are overseen by the Maine Department of Labor. <sup>186</sup>	Clean energy
Since 2012, the <b>LA County Metropolitan Transportation Authority</b> has required 20% of employee hours on their construction projects to be completed by apprentices, under a Project Labor Agreement with the region’s building trades. <sup>187</sup>	Transportation
<b>Salt Lake County, Utah</b> , requires that projects larger than \$3 million use apprentices for 10% of labor hours. The county also fines contractors by the hour for failure to meet the minimum. <sup>188</sup>	Public works

## LOCAL HIRE, ECONOMIC, OR OTHER TARGETED HIRE REQUIREMENTS

Example	Infrastructure Type
<p>The <b>Colorado Department of Transportation’s</b> interstate highway construction project, Central 70, set a goal of hiring 20% of project employees from neighborhoods adjacent to the worksite. The department created a training center that offered skill-building courses for residents as part of the project. This project—the largest that CDOT had ever undertaken—was part of an FHWA pilot allowing states and localities to use local hire on federally funded projects, which U.S. DOT now allows for IJA highway formula funds.<sup>189</sup></p>	Transportation
<p>The <b>Texas Department of Transportation</b> participated in the FHWA local hire pilot, requiring 15% of contracted labor hours in its S.M. Wright highway construction project to be performed by local workers.<sup>190</sup></p>	Transportation
<p>The <b>Minnesota Department of Transportation</b> used targeted hiring incentives on several Hennepin County projects as part of the FHWA local hire pilot, with contractors receiving \$5 for every hour worked by targeted populations—residents of high-unemployment neighborhoods, residents of high-poverty neighborhoods, and veterans.<sup>191</sup></p>	Transportation
<p>The <b>Virginia Clean Economy Act</b> outlines new offshore wind projects, requiring utilities to submit a plan for “options for utilizing local workers,” and “giving priority to the hiring, apprenticeship, and training of veterans, ... local workers, and workers from historically economically disadvantaged communities.” The Virginia State Corporation Commission oversees the requirements.<sup>192</sup></p>	Clean energy
<p><b>Washington State’s Clean Energy Transformation Act</b> includes a 50% tax exemption incentive for clean energy projects to procure that include or make a good faith effort to include “preferred entry for workers living in the area where the project is being constructed,” among other requirements (Sec. 18).<sup>193</sup></p>	Clean energy
<p>The <b>Sports and Exhibition Authority of Pittsburgh and Allegheny County</b> participated in the FHWA local hiring pilot for the reconstruction of a Pittsburgh intersection, setting a goal that 20% of project hours worked by Pennsylvania residents on the project would be completed by residents of neighborhoods close to the project site.<sup>194</sup></p>	Transportation
<p><b>California’s Department of General Services</b> required that contractors negotiate a project labor agreement (PLA) for the construction of a set of new state office buildings in Sacramento. The agreement set targeted hiring goals by requiring that 25% of apprentice-hours worked on the project would come from disadvantaged groups, including women, veterans, and people who have been involved in the foster system or the criminal justice system. The PLA also directs unions to collaborate with community-based organizations to ensure that these target populations and graduates of state pre-apprenticeship programs are hired. The PLA was developed with support from the California Workforce Development Board (CWDB).<sup>195</sup></p>	State office construction

## LOCAL HIRE, ECONOMIC, OR OTHER TARGETED HIRE REQUIREMENTS *(continued)*

Example	Infrastructure Type
<p><b>California’s Department of Toxic Substances Control</b> negotiated a community workforce agreement (CWA) for a hazardous waste cleanup program in Los Angeles. A training program called the Workforce for Environmental Restoration in Communities was developed to support the local hiring requirements. The CWA was developed with support from the California Workforce Development Board (CWDB).</p> <p>The agreement set targeting hiring goals for several populations:</p> <ul style="list-style-type: none"> <li>– Community residents (20%): Workers who reside near the project site</li> <li>– Local residents (30%): Workers who reside in low-income ZIP codes within 10 miles of the project site</li> <li>– Transitional workers (25%): Workers in several categories, including being a veteran, a single parent, or a former foster youth, currently or recently experiencing homelessness, lacking a high school diploma, and having a history of involvement with the criminal justice system<sup>196</sup></li> </ul>	Hazardous waste cleanup
<p>In <b>Massachusetts</b>, state law requires all state contracts “for design, construction, reconstruction, installation, demolition, maintenance or repair” to “set forth the participation goals of minority and women workers to be employed on each such contract and the processes and procedures to ensure compliance with those workforce participation goals, including reporting and enforcement provisions.” The state’s goal for construction workforce participation for women is set at 6.9% and for minorities at 15.3%; enforcement of the law has been challenging.<sup>197</sup></p>	Public works
<p>The <b>Illinois Tollway Earned Credit Program</b> allows contractors to earn bid credits by employing members of WIOA-specified target populations, which can then be used to decrease a contractor’s bid amount, upping their chances of winning a contract as a low bidder. A similar program at the Tollway, ConstructionWorks, encourages contractors to employ participants from the Chicago Cook Workforce Partnership’s training partners. ConstructionWorks offers both bid credits and cash reimbursements to contractors for each hour worked by an apprentice from these training partners.<sup>198</sup></p>	Transportation
<p>The <b>San Diego Association of Governments (SANDAG)</b>, the San Diego area’s regional planning and transit agency, signed a Community Benefits Agreement in 2021 for work under its regional plan. The CBA requires that unions and contractors work towards a goal of employing 30% disadvantaged workers (residing in a ZIP code where the average income is less than 80% AMI, or workers who live in the project area when funding sources allow) and 10% targeted workers (including veterans, single parents, former foster youth, people currently or recently experiencing homelessness, or lacking a high school diploma).<sup>199</sup></p>	Transportation
<p><b>Seattle, Washington’s Priority Hire Program</b> through the Seattle Department of Facilities and Administrative Services sets a goal for the share of labor hours on large-scale public projects performed by “Priority Workers” from ZIP codes designated as “economically distressed” in King County. It also sets goals for the share of apprentices who are based in those ZIP codes. The County has several tools to enforce Priority Hire, including delayed payment and debarment for contractors who do not comply.<sup>200</sup></p>	Public works

## LOCAL HIRE, ECONOMIC, OR OTHER TARGETED HIRE REQUIREMENTS *(continued)*

Example	Infrastructure Type
<p><b>LA Metro County Transportation Authority</b> has a Project Labor Agreement with the building trades that sets hiring goals for residents of economically disadvantaged areas (40%), disadvantaged workers (10%), and apprentices (20%).<sup>201</sup></p>	Transportation
<p><b>Baltimore’s</b> Local Hiring Law governs city-awarded contracts over \$300,000 and city-subsidized projects over \$5 million. Under the law, a majority of all new hires must be Baltimore residents, and employers must work with staff from the Mayor’s Office of Economic Development on recruitment strategy.<sup>202</sup></p>	Public works
<p><b>San Francisco’s</b> local hire ordinance requires a minimum of 30% of hours worked within each trade on public construction projects to be by San Francisco residents, and 15% of hours worked to be by disadvantaged workers. Among apprentice-hours worked on public projects, at least 50% within each trade must be by San Francisco residents, and 25% must be by disadvantaged workers. Disadvantaged workers are defined as residents of high-unemployment census tracts, residents with income below 80% AMI, or members of other disadvantaged groups: “being homeless; being a custodial single parent; receiving public assistance; lacking a GED or high school diploma; participating in a vocational English as a second language program; or having a criminal record or other involvement with the criminal justice system.” When contractors or subcontractors can prove that it is not possible to meet these requirements, they must sponsor new apprentices to avoid penalties (the number of apprentices is specified by the city’s Office of Economic and Workforce Development).<sup>203</sup></p>	Public works
<p>In the Program Opportunity Notice (PON) for the <b>Merrimack Valley Building Excellence Grant Program</b>, Massachusetts included several requirements and preferences to ensure communities impacted by the 2018 gas explosions receive high-quality and culturally competent energy. The PON requires contractors applying for \$500,000 or more to include local workforce development commitments in their proposals, such as “utilization/hiring of local subcontractors, vendors or individuals from Lawrence, Andover, or North Andover; partnerships with or providing funding to local educational institutions or community programs for energy efficiency or clean energy workforce training programs; and the training of local residents or businesses to conduct the work included in the proposal.”<sup>204</sup></p>	Clean energy

## STEPS TAKEN TO ADDRESS HARMFUL WORKSITE CONDUCT

Example	Infrastructure Type
<p>In <b>Oregon</b>, property services contractors who perform or manage employees who perform janitorial services are required to complete an anti-sexual harassment training course to obtain a new license or renew a license, a process implemented by the state’s Bureau of Labor &amp; Industries. Contractors must pass a test with a section on sexual harassment law, and all employees must complete anti-sexual harassment training upon hire and once every two years, with fines for violations.<sup>205</sup></p>	Property services
<p>In <b>California</b>, agricultural labor contractors must complete anti-sexual harassment training in order to obtain a new license or renew a license, and employees must periodically complete anti-harassment trainings. The California Division of Labor Standards Enforcement implements these requirements.<sup>206</sup></p>	Agriculture and property services

## STEPS TAKEN TO ADDRESS HARMFUL WORKSITE CONDUCT *(continued)*

Example	Infrastructure Type
<p>The <b>City of Seattle</b> and <b>Sound Transit</b>, the region’s transit agency, among other infrastructure project owners in the Seattle area, have required that contractors complete a training through the RISE Up campaign on practices and internal policies to combat worksite bullying and harassment.<sup>207</sup></p>	<p>Public works; transportation</p>
<p>While not a procurement requirement or preference, <b>Oregon Metro</b>, the Portland-area planning commission, created a framework for the construction industry that encourages project owners to require bystander intervention training for their contractors. Metro has also convened a stakeholder group (the Regional Collaborative Committee) to conduct ongoing efforts to address worker challenges in the construction industry.<sup>208</sup></p>	<p>Public works</p>

## INCENTIVES TO PARTNER WITH WORKER-SERVING STAKEHOLDERS

Example	Infrastructure Type
<p>The <b>California Road Repair and Accountability Act</b> of 2017 directed the California Workforce Development Board to “develop guidelines for public agencies receiving Road Maintenance and Rehabilitation Account funds to participate in, invest in, or partner with, new or existing pre-apprenticeship training programs.” It also created a grant to boost pre-apprenticeship in the state.<sup>209</sup></p>	<p>Public works</p>
<p>As part of a package of workforce legislation to support state investments in infrastructure, <b>Illinois</b> is implementing a bid credit program through its Department of Commerce &amp; Economic Opportunity. The program will allow contractors to accrue bid credits by employing apprentices who have completed the state’s pre-apprenticeship curriculum and to use those credits in future bids.<sup>210</sup></p>	<p>Public works</p>

## PREFERENCES OR SUPPORTS TO IMPROVE OPPORTUNITY FOR WOMEN- AND MINORITY-OWNED BUSINESSES IN THE PROCUREMENT PROCESS

Example	Infrastructure Type
<p><b>Connecticut’s Department of Energy &amp; Environmental Protection</b> (DEEP) issued an RFP for a Program Operator for its Weatherization Barrier Remediation program, which evaluated bidders based on several cultural competency criteria, including policies that require or give preference to women- or minority-owned contractors.<sup>211</sup></p>	<p>Clean energy</p>
<p><b>Illinois</b> has set a goal to spend 20% of its total dollars with firms that have been certified through the Illinois Commission on Equity and Inclusion’s Business Enterprise Program, which includes businesses owned by women, minorities, and people with disabilities. The program was initiated by the state’s Business Enterprise for Minorities, Females, and Persons with Disabilities Act.<sup>212</sup></p>	<p>All public spending</p>
<p><b>Maryland</b> sets an overall goal that 29% of its procurement dollars be spent at minority-owned businesses. Agencies are expected to work with the Governor’s Office of Small, Minority &amp; Women Business Affairs’ Minority Business Enterprise Program to set participation goals for specific minority groups and women on a contract-by-contract basis.<sup>213</sup></p>	<p>70 participating state agencies</p>

# References

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# Strategies For Deploying Surface Transportation Funds For Workforce Development And Postsecondary Education

Apr. 17, 2023 | [Commentary](#)



*As states implement the IIJA, it will be critical that they ensure workers are equipped to participate successfully in the highway construction workforce and that education partners and the public workforce system understand employers' talent needs.*

The Infrastructure Investment and Jobs Act (IIJA) is delivering historic levels of funding for states to carry out an array of infrastructure projects, including crucial updates to roads, bridges and highways. Critically, the IIJA includes provisions that provide **new flexibility for Governors and workforce development and education policymakers** to use funds from four Federal Highway Administration programs for talent development activities. These programs – which originate in the Fixing America's Surface Transportation Act (FAST Act) – are the National Highway Performance Program, the Surface Transportation Block Grant Program, the Highway Safety Improvement Program, and the Congestion Mitigation and Air Quality Program. There is no limit on the amount of FAST Act funds states may allocate towards workforce development activities.

## **Eligible workforce development, training and education activities under the IIJA include:**

- tuition and direct educational expenses, excluding salaries, in connection with the education and training of employees of state and local transportation agencies;
- employee professional development;
- student internships;

- pre-apprenticeships, apprenticeships and career opportunities for on-the-job training;
- university, college, community college or vocational school support;
- education activities, including outreach, to develop interest and promote participation in surface transportation careers; and
- activities associated with workforce training and employment services, such as targeted outreach and partnerships with industry, economic development organizations, workforce development boards and labor organizations.

To help states allocate these funds for apprenticeship and pre-apprenticeship programs, the National Governors Association Center for Best Practices (NGA Center) extended its **Policy Academy on Scaling Work-Based Learning** and launched a new project effort with Connecticut, Idaho, North Carolina and Oregon. As part of this new initiative, these states received technical assistance and engaged in peer learning with the NGA Center from May 2022 to March 2023 as they developed strategies for investing FAST Act funds in registered apprenticeship.

## Current State Approaches

Because the IIJA does not provide dedicated funding or a legislated role for the public workforce system, formula dollars from the four surface transportation programs in the FAST Act present one of the most reliable tools states can use to develop a transportation workforce strategy. The approaches taken by Oregon and Idaho throughout their work with the NGA Center involve concepts that are both replicable and evidence-based.

In Oregon, a **legislative mandate** sets the terms by which the Oregon Department of Transportation (ODOT) allocates FAST Act funds for the state's Highway Construction Workforce Development Program. Oregon delivers a range of support to workers pursuing a career in highway construction including childcare subsidies, transportation assistance, job readiness supplies and hardship assistance. A **program evaluation published by Portland State University** in December 2022 found that the delivery of these services had a positive impact on program completion and retention as well as Oregon's overarching goal to diversify the highway construction workforce.

A proposal developed by the Idaho project team included several uses for FAST Act funds. These uses were centered around building up postsecondary trades programs in the transportation industry, the purchase of equipment for training purposes and increasing the amount of personnel certified in Heavy Equipment Operations and Commercial Drivers Licenses. The efforts to increase certifications focused on populations that are based in public

colleges, women's correctional facilities and those involved in youth- and pre-apprenticeship programs. In coordination with other state offices and agencies, Idaho also began developing a Human Capital Plan, which will serve as a tool to outline priorities such as stakeholder outreach, addressing challenges, incorporating apprenticeships and developing mechanisms to evaluate progress.

## Additional Opportunities For Governors To Consider

The strategies carried out by Idaho and Oregon demonstrate best practices for leveraging FAST Act funds for workforce development, education and training as newly allowed by the IIJA, but they are not the only opportunities states may consider. Additional opportunities for Governors to consider include:

- **Establish a strategy for making strategic investments.** Governors and education/workforce development policymakers may consider developing a strategic plan or conducting a needs assessment to better understand demand and outline the path forward. This can take shape in the form of a Human Capital Plan, which is encouraged but not required by the IIJA, and can guide transportation-related workforce investment decisions made by state departments of transportation and labor.
- **Leverage existing career pathways efforts.** Governors may consider building on Career and Technical Education strategies including dual credit, work- and project-based learning and career exploration to create outreach tied to critical transportation sector occupations.
- **Provide data for program development and impact measurement.** Governors can coordinate and share supply and demand data with regional postsecondary partners to drive the development and measurement of innovative programs and partnerships to meet emerging regional talent needs in the transportation sector.
- **Codify the terms by which FAST Act funds are spent on workforce development.** Governors may consider taking executive action or supporting legislation that dictates the level of support that workforce development activities receive from FAST Act funds and which types of workforce development activities receive support.
- **Establish a formal, interagency coordinating body.** Governors may consider appointing a group of policymakers and stakeholders to carry out or make recommendations for investing FAST Act funds in workforce and education initiatives.
- **Engage Employers.** Governors may consider engaging employers in the policymaking process or surveying employer partners to ensure the business perspective has informed investments in workforce development.

- **Call on the State Workforce Development Board.** Governors may consider calling on the business and government leaders appointed to the State Workforce Development Board to help determine funding allocations. These bodies, which are charged with setting the strategic vision for the state’s workforce development efforts and making policy recommendations to the Governor, may leverage its existing functions and processes to carry out strategic planning for investing FAST Act funds in workforce development.

As states implement the IIJA, it will be critical that they ensure workers are equipped to participate successfully in the highway construction workforce and that education partners and the public workforce system understand employers’ talent needs. States that are considering leveraging FAST Act funds to develop their highway construction workforce may look to the strategies carried out in Idaho and Oregon as examples. The NGA Center will continue to work with Governors and workforce development and education policymakers to develop strategies which best utilize IIJA funding, as well as identify other innovative approaches states may consider as they move forward.

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*This article was developed by Charlie Schonberger and Jack Porter, NGA Center for Best Practices. For more information on Governors’ workforce development efforts please contact [communications@nga.org](mailto:communications@nga.org).*

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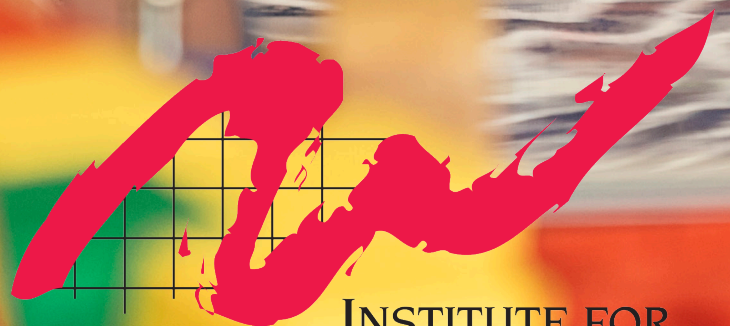
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**CHILD CARE  
SUPPORTS  
FOR THE  
CONSTRUCTION  
TRADES:**

**Building and  
Sustaining  
Diversity  
in Oregon**



**INSTITUTE FOR  
WOMEN'S POLICY RESEARCH**

## ABOUT THIS REPORT

This report profiles three Oregon initiatives to provide child care supports to pre-apprentices, apprentices in highway trades, and fully skilled workers in the construction trades. It draws on the perspectives of apprentices, labor, management, and other stakeholders to highlight the need for child care supports and their benefits for diversifying, developing, recruiting and retaining the next generation of skilled workers for Oregon's construction industry. This report was prepared with financial support from Oregon Labor and Industries.

This report was written by Ariane Hegewisch, IWPR Program Director for Employment and Earnings.

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A woman with curly hair is holding a baby in denim overalls. The image is faded and serves as a background for the document.

## CONTENTS

- 4 Introduction: The Need for Child Care for the Construction Workforce**
- 5 How Oregon Supports the Construction Trades through Child Care Supports for Apprentices in Heavy Highway Related Trades**
- 7 The Pre-Apprenticeship Child Care Initiative (PACCI)**
- 9 Labor Littles: Connecting Union Tradespeople with Union Daycare Provideo**
- 11 Investing in Child Care Supports Provides Access to Self-Sufficiency and Economic Security**
- 12 Investing in Child Care Helps the Construction Sector Grow and Improve the Bottom Line**
- 12 Child Care Helps the Construction Industry Recruit a New Set of Workers**
- 13 Child Care Helps the Construction Industry Meet Goals and Expectations for Workforce Diversity**
- 15 Child Care Helps the Construction Industry Retain its Workers and Safeguard Investments in Training**
- 15 Oregon’s Child Care Initiatives are a Model for Recruitment, Retention, and Diversity in the Trades**
- 16 BOX 1: Oregon Child Care Programs and Resources**
- 17 References**



## INTRODUCTION

### THE NEED FOR CHILD CARE FOR THE CONSTRUCTION WORKFORCE

The construction industry in Oregon is booming. Employment has grown steadily since 2010 and is now higher than during the pre-recession boom (Simonson 2019b). Yet, meeting demand is difficult for many companies. In a recent survey, close to 90 percent of construction industry employers in Oregon reported difficulties with filling hourly paid craft positions, and in many trades over half of contractors report that recruitment difficulties increased since 2018 (Simonson 2019a). To keep growing and meet demand over the coming years, the industry has to train and retain a new generation of workers to replace retiring workers, and it has to diversify its employment profile to meet stakeholder expectations for a more racially, ethnically, and gender diverse workforce.

Access to child care is an often overlooked building block for improving recruitment, retention, and diversity in the trades. Reliable child care allows an individual to develop the skills and work habits that employers look for, and broadens the pool from which the industry can recruit; without reliable child care, a parent with dependent children may find it difficult to be successful in their career, or may not even consider entering a training program.

Oregon is one of the most expensive states in the nation for child care (Child Care Aware of America 2018).<sup>1</sup> In many counties, finding child care – at whatever price—is difficult (King and Dodson 2019). A 2018 survey of construction apprentices found that 45 percent of mothers and 26 percent of fathers identified the cost of child care as a problem, with similar responses in relation to finding consistent child care (Wilkinson and Kelly 2018). Work in construction starts early and traveling to sites can often require substantial time, requiring child care drop off before formal child care centers open. Even though apprentices earn comparatively high hourly wages compared to many typically female jobs,<sup>2</sup> there may be considerable out-of-work periods especially early on during the apprenticeship, and when working, the need for care during travel and early hours may still make child care costs a substantial barrier to staying in the trades.

<sup>1</sup> In recognition of the need to tackle child care, Oregon’s legislature in 2019 passed House Bill 2346 to establish a Task Force on Access to Quality Affordable Child Care and report back by the end of 2020; see <https://olis.oregonlegislature.gov/liz/2019R1/Downloads/Measure-Document/HB2346/Enrolled>.

<sup>2</sup> The hourly pay of an apprentice increases approximately every six months (subject to the apprentice having worked a set number of hours and completed classes). An apprentice carpenter in a union apprenticeship program in Oregon starts with half the hourly rate of a journey level carpenter (after 4 years apprenticeship), at around \$18.50 in Term 1, and then increases in regular steps after each term, reaching 94% of the journey level rate ( around \$38 ) during their 8th and last term. Laborers, who complete a two-year apprenticeship, start at 63 percent of the journey level rate (between \$25.77 and \$29.70 in union apprenticeship programs in the state), and reach 90 percent of the journey-level rate in Term 4; see Oregon Labor & Industry “PWR Apprenticeship Rates Effective 1, 2019” <<https://www.oregon.gov/boli/WHD/PWR/docs/January%201,%202019%20Apprenticeship%20rates.pdf>>.

The construction industry in Oregon, however, is fortunate to have access to a range of supports to tackle the child care barriers to recruiting and retaining a more diverse workforce, with supports available at each stage of the skilled construction labor spectrum. Since 2010, Oregon Department of Transportation (ODOT) and Oregon Labor & Industries have provided public funding for Apprentice-Related Child Care (ARCC) and other supports for apprentices in highway-related trades. In 2017, Labor’s Community Service Agency instituted the Pre-Apprenticeship Child Care Initiative (PACCI), a pilot public-private program to extend child care supports to pre-apprentices. Last not least, in 2019, Labor Littles, a new privately funded non-profit supported by Oregon’s Building Trades, is helping union tradesmen and women find union in-home child care providers willing to provide care to cover the construction work day.

This briefing paper describes the three child care initiatives and discusses how these help construction businesses in Oregon recruit and retain the next generation of skilled workers.

## **HOW OREGON SUPPORTS THE CONSTRUCTION TRADES THROUGH CHILD CARE SUPPORTS FOR APPRENTICES IN HEAVY HIGHWAY RELATED TRADES**

In 2009, the Oregon legislature passed a bill to draw down a designated amount up to one half of one percent (1/2 of 1%) of Oregon’s federal highway funding to set up the Highway Construction Workforce Development Program designed to diversify the heavy highway construction trades (Hegewisch et al. 2014). The program is funded biannually, currently at up to \$2.1 million (ODOT/BOLI 2018). Registered apprentices and those preparing to enter an apprenticeship in six trades related to highway construction--Carpenters, Cement Masons, Ironworkers, Laborers, Operating Engineers, and Painters—can receive support and services; child care is one of 10 areas of supports provided under the program (Williams 2019).

Apprentices seeking child care supports through the Apprenticeship Related Child Care (ARCC) program must apply to Akana (a local provider of apprenticeship supportive services), and the application is then reviewed by both Akana and Oregon’s Department for Human Services (DHS) Employment Related Daycare Program (ERDC), which also processes any payments to child care providers for the applicants. The details of the collaboration between the DHS and Oregon



Labor & Industry are laid out in a memorandum of agreement between the departments. Applying for funds and figuring out eligibility can be daunting, filling in a number of forms and providing supporting evidence. Apprentices can draw on the help of dedicated staff to support them through the child care application and the other supports that are available under the Highway Construction Workforce Development Program. Apprentices who attend a financial planning class delivered under the program qualify for a further enhancement of their child care subsidies. These supports are provided through Akana.

**“The cost of child care is often as high if not higher than your mortgage payments. It creates this big barrier for apprentices, like somebody dropping a metal wall — and it’s three-quarter-inch thick steel — in front of them, between them and their work and their career. It’s that important.”**

Child care is not the only barrier that may keep apprentices from succeeding in their apprenticeship, but it is a very substantial one: “The cost of child care is often as high if not higher than your mortgage payments. It creates this big barrier for apprentices, like somebody dropping a metal wall — and it’s three-quarter-inch thick steel— in front of them, between them and their work and their career. It’s that important,” explains Penny Painter, who is a Project Manager at Akana, a firm which specializes in providing workforce development services to construction companies in the Oregon area and beyond. Since 2011, Akana has been a contractor for the ODOT-BOLI program to provide subsidies for child care, promoting positive outcomes for highway apprentices and their employers.

Involved since the beginning, Painter has seen many families struggle with finding adequate child care during work hours. She works to connect apprentices with child care subsidies and find creative solutions to their caregiving needs.

Supports through ARCC are available to individuals with higher household incomes than under the ERDC program, and are available to married apprentices whose partner is a full-time student (under ERDC criteria the spouse of an apprentice would also need to be employed; see Box 1 for eligibility details). Under the ERDC program, those who qualify need to pay a co-pay and are also responsible for any child care costs higher than authorized ERDC rates; through the ARCC programs, apprentices with household incomes that would qualify them for ERDC supports have their co-pays and overages paid, too, so that effectively 100 percent of their child care costs are covered. As the apprentice progresses through the apprenticeship, their co-pay increases, with the level of co-pay depending on household income (see Box 1). For an apprentice with at least one child under the age of three or of at least one older child with special needs, supports of up to \$18,000 are available during the apprenticeship; for an apprentice whose youngest child is between age six and age eleven, supports are up to \$12,000 (Painter 2019).<sup>3</sup>

Since its introduction in 2011, 169 apprentices have been supported, at a total cost of \$629,369, averaging at \$3,724 per supported apprentice (Williams 2019). Women are 27 percent of recipients, a much higher proportion than their share of all apprentices in Oregon (around 7 percent), and a reflection of the program’s effort to improve gender diversity in the trades (Williams 2019). Women of color are particularly likely to have received child care supports (Wilkinson and Kelly 2018). The large majority of recipients, however, are fathers, with men of color accounting for three in ten

<sup>3</sup> Starting January 2020.

child care recipients, which is also a higher proportion of their share of all apprenticeships though less disproportionate than for women (Williams 2019). Single fatherhood is no longer a rarity in the trades, at the same time it has become more common for mothers to be in the workforce. That said, among apprentices surveyed about receipt of child care and other supports in 2018, mothers were much more likely to report being single parents than fathers (40 compared with 11 percent; Wilkinson and Kelly 2018).

Child care subsidies are only available to child care providers who are registered with Oregon DHS, and providers are paid directly through the program. Many apprentices rely on informal care from families and friends, in response both to the cost of more formal day care and because of the need to cover construction schedules. The program has offered assistance to informal child care providers interested in registering with the DHS; registration means that the provider can receive the official child care re-imbursement rates set by the DHS. Thus, the Highway Construction Workforce Development Program has also improved livelihoods beyond the trades.

### **THE PRE-APPRENTICESHIP CHILD CARE INITIATIVE (PACCI)**

The second pillar of child care supports in Oregon is the Pre-Apprenticeship Child Care Initiative (PACCI), a pilot program run by the Labor’s Community Service Agency (LCSA), to provide child care supports to pre-apprentices. Pre-apprenticeship programs, such as those run by Oregon Tradeswomen, Inc. (OTW), Constructing Hope, Portland Youth Builders (PYB), the Pacific Northwest Carpenter Institute, and the NECA IBEW Electrical Training Center, are increasing diversity in the trades by bridging the gap in the networks and knowledge that women and men of color need to enter apprenticeships.<sup>4</sup> Entry to apprenticeship programs is typically highly competitive, requiring trades-related numeracy and literacy skills, some prior knowledge of the tools and work environment of each trade, including the routes for applying to an apprenticeship. Men are much more likely than women to have learned about tools as part of growing up, and White men are much more likely than women or men of color to have relatives (or buddies) in the trades who can help navigate the path into an apprenticeship program.

Pre-apprenticeship programs typically last 6 to 8 weeks and are offered free of charge. Yet, while the training is free, participants typically have to support themselves during

<sup>4</sup> A full list of pre-apprenticeship programs is available at [https://www.oregon.gov/BOLI/ATD/pages/A\\_AG\\_PreApprentice.aspx](https://www.oregon.gov/BOLI/ATD/pages/A_AG_PreApprentice.aspx)

**“We realized that [parents] are not even looking at these programs because they get it straight away that they cannot afford to pay child care and be unpaid for eight to ten weeks of a pre-apprenticeship program—they are not even knocking at the door.”**





the program. For those who have children, that means finding the means to support their families and provide for child care during the program. As Christina Daniels, electrician, and co-founder of the PACCI, explains: “We realized that [parents] are not even looking at these programs because they get it straight away that they cannot afford to pay child care and be unpaid for eight to ten weeks of a pre-apprenticeship program—they are not even knocking at the door.” Community based pre-apprenticeship programs can sometimes provide child care supports, or have established partnerships with organizations providing such support; yet child care is one of the most commonly stated unfulfilled needs in view of administrators of career and technical training providers (Hess et al. 2016).



The PACCI program is designed to ensure that parents from low-income households at least consider pre-apprenticeship programs among their options. The program is reaching out to churches, community centers, and other organizations and venues working with low-income parents to increase awareness of pre-apprenticeship and apprenticeship options. The program is also able to fund the child care costs of a small number

of pre-apprentices. So far, the program has supported five pre-apprentices, a single mother who since entered a sheet metal apprenticeship, a single father and ex-offender, who since then has become an ironworker apprentice, and three women who received supports during the electricians’ pre-apprenticeship program.

Oregon Tradeswomen Executive Director Kelly Kupcak stresses the importance of child care funds: “The funding that has been made available through Oregon’s Bureau of Labor and Industries to support child care for jobseekers enrolled in training programs such as ours is huge – it makes all the difference for parents who need support during this transitional time. No one should have to choose between having quality, affordable and accessible care for their children and being able to obtain the necessary training for a living wage career. Oregon is third in the nation for highest child care costs and this small piece is making a big difference in the lives of families.”

Sadie Woods, a single mother who was able to attend Oregon Tradeswomen’s pre-apprenticeship program and is now a sheet metal apprentice, explains the vital impact of the subsidies she received: “I graduated my pre-apprenticeship program with perfect attendance. I managed to come in early and stay late, which wouldn’t have been possible without the child care.” Sadie’s children were already of school age when she joined OTW’s program, but during the summer she was without care, and her usual child care arrangement, through her parents, had fallen through because her parents were experiencing a care crisis themselves. LCSA helped her apply for funding through the PACCI program to pay for a child care provider to look after her children, and who received union rates for the service.

The PACCI program started with the help of private donations. In February 2019, PACCI received a \$50,000 two-year grant from Oregon Labor & Industries. The grant will fund child care supports

for at least seven pre-apprentices, and provide funding to continue PACCI’s outreach focus and help to potential pre-apprentices with accessing funding for support such as ERDC for those who qualify. Oregon Labor & Industries is funding the grant through federal funds received by Oregon’s Higher Education Coordinating Commission from the US Department of Labor Employment and Training Administration.



**“We are working with child care professionals- we are letting the providers run their business. It creates a firewall [between the contractor and the child] – it makes contractors more comfortable to get involved with child care because there isn’t that fear of liability – what if a child should get injured - if a contractor provides a space or if [child care is provided] on site.”**

### **LABOR LITTLES: CONNECTING UNION TRADESPEOPLE WITH UNION DAYCARE PROVIDERS**

Labor Littles is the newest and third pillar in region’s initiatives to tackle the child care needs of tradespeople. It is still at a pilot stage, and was co-developed by Eryn Byram of LCSA and Christina Daniels of IBEW. It has the support of Oregon Building Trades (Northwest Labor Press 2019). While ARCC and PACCI are focused on improving apprentice diversity, Labor Littles’ goal is to improve the

retention of journey workers by helping union tradeswomen and men find child care that matches the construction industry working and commuting times.



Getting to construction sites can require leaving the house at 4:30 or 5am, but few childcare centers open before 6 am. Labor Littles builds on an informal relationship with AFCSME Local 132, the union organizing in-home daycare providers in

the greater Portland area, to identify child care providers in the greater Portland Oregon willing and able to provide 24 hour care, including when children are sick, and provide transportation to and from school. The relationship with AFCSME developed through PACCI’s work with pre-apprentices.

Labor Littles works as an intermediary; it provides tradespeople with the information about providers, but is not involved in the payments for the child care. While funding it is a problem that mostly impacts pre-apprentices and early term apprentices until their wages and hours reach a level at which they can afford care, finding reliable care to cover construction hours is a problem for tradespeople at every level. As a means of creating a more stable supply of child care, Labor Littles is reserving slots

for tradespeople with providers. Whenever reserved slots are not filled, Labor Littles is responsible for reimbursing the provider for the slot; currently it has relationships with two providers offering a slot in three locations.

Child care providers receive union negotiated rates, and must be state-registered. Having well-earning tradespeople as their clients and being paid directly is attractive for promoting market development and for providing an earning source complementary to reimbursements from the DHS and other agencies.

Working with professional in-home child care providers has the potential of increasing buy-in and support from contractors. “We are working with child care professionals- we are letting the providers run their business. It creates a firewall [between the contractor and the child] – it makes contractors more comfortable to get involved with child care because there isn’t that fear of liability – what if a child should get

injured - if a contractor provides a space or if [child care is provided] on site,” explains Labor Littles co-director Christina Daniels. Too often the discussion on employer-related child care is narrowly focused on child care centers at or close to the workplace. While that may work for some workers some of the time, many parents prefer child care closer to where they live, particularly when children are no longer infants and/or have older school age siblings (IFC 2017).

Funding for the program has come from industry and private donations. Labor Littles is working to expand its funding from industry, and is also planning to apply for grants and public funding, to help pay for its work as an intermediary and to secure child care slots across the region (Daniels 2019). As part of its goal of diversifying the trades, Labor Littles also hopes to raise funds to subsidize child care costs for women and men of color who are in apprenticeship programs not covered under the ARCC highways initiative.



**“It is make-or-break it out there it if you’re a single parent and you really want to have a better job to provide for your family. How you get [that better jobs] is through one of these apprenticeship programs.”**



## **INVESTING IN CHILD CARE SUPPORTS PROVIDES ACCESS TO SELF-SUFFICIENCY AND ECONOMIC SECURITY**

For the recipients of the supports, child care offers potentially life changing opportunities by providing a route to a career with a family supporting wage that does not require (to pay for) a college education. As PNCI Carpenter Trades Preparation program coordinator Amber McCoy put it, “It is make- or- break it out there it if you’re a single parent and you really want to have a better job to provide for your family. How you get [that better jobs] is through one of these apprenticeship programs.” A woman apprentice described the impact of receiving child care supports in the Oregon Labor & Industries sponsored evaluation of the Highway Construction Workforce Development Program, “[Receiving child care subsidies] helped immensely. It took a lot of the stress off of spending every penny I had on child care. I was able to pay for boots, clothes, equipment. I was able to better provide for my children” (Wilkinson and Kelly 2018).

Having access to reliable child care means that the apprentice is able to get to work on time. In the construction industry, punctual and regular attendance is taken as a key performance criterion. As the assistant director of PNCI explains, “The carpentry trade as well as many construction trades, is not very sympathetic to missing work. If you’re a productive member of their crew, they gauge that not by how much you produce every day but by the fact that you are producing every day.” For those who cannot make it to work because of a child care issue, “you know, one strike, two strikes- you’re out. Employers, they remember that and they don’t necessarily empathize as much as you would hope.” Child care subsidy is not a magic bullet for perfect attendance; pre-apprenticeship and apprenticeship programs drill into apprentices who are receiving such benefits that they also need back up plans for their formal child care, and a back-up plan for the back-up plan- but it gives apprentices who are parents a realistic chance to succeed in their trade.

PNCI apprenticeship administrator Azadeh Ryan describes how the supports with finding and paying for child care opened new opportunities to one of their women apprentices from a rural area. The single mother had had a hard time maintaining consistent work because she could not travel very far; the child care support from the ODOT/Oregon L&I program allowed her the opportunity to travel and to maintain employment. As she points out, “A lot of the time if you are a single parent, you only look for work within your small little radius so that if something happens, you can be there quickly. Having a reliable child care service affords the opportunity to [take more jobs] and the more you’re working, the quicker you progress through the apprenticeship- that is huge.”



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### **INVESTING IN CHILD CARE HELPS THE CONSTRUCTION SECTOR GROW AND IMPROVE THE BOTTOM LINE**

The business benefits of child care are well established. Employers who offer child care supports are better able to recruit and retain workers, improve attendance, increase productivity, and reduce accidents by ensuring that workers can fully focus on their work and are not distracted by concerns over child care. It can also improve their reputation as a good employer (BOLI 2015; IFC 2017). The child care supports available in Oregon help contractors and unions in the construction sector attract and retain a new and more diverse group of workers and allow them to acquire the skills needed to continue and sustain the growth of the sector.

### **CHILD CARE HELPS THE CONSTRUCTION INDUSTRY RECRUIT A NEW SET OF WORKERS**

Because the construction industry struggles with recruitment into the trades, it is crucial that employers tap into pools of previously excluded demographics, including women and racial and ethnic minorities (Portland Metro Workforce Development Board 2018). Apprenticeships ensure future access to skilled workers as much as providing a cost-effective means of meeting current demand for workers. Recruiting a new set of workers is a particularly high priority in Oregon because a high proportion of the current workforce is close to retirement. “Right now making sure that our [...] apprentices work out [...] is on every single one of our contractors’ minds because they are faced with a skilled worker shortage - within the next five years they’re looking at 40 percent or more of the workforce retiring,” explains Miguel Montaña, Assistant Director at Pacific Northwest Carpenters Institute (PNCI).

Yet, as Aaron Bouchane, AGC Workforce and Professional Development Manager for Oregon-Columbia, explains, at a time when demand for labor is generally high, the construction industry often is not the first career choice for young people. Other industries are more digitally intensive and innovative,<sup>5</sup> and the construction sector is also lagging behind in offering family-friendly working conditions, including to men. With a few exceptions regarding maternity leave – most recently added by Oregon Electricians IBEW local 48—paid family leave is not offered (Hegewisch 2019).<sup>6</sup> Child care supports bring a previously excluded group of workers into the industry, and

<sup>5</sup> Construction occupations on the whole have seen much less digitalization than other occupations; see Muro et al. 2017.

**“Right now making sure that our [...] apprentices work out [...] is on every single one of our contractor’s minds because they are faced with a skilled worker shortage - within the next five years they’re looking at 40 percent or more of the workforce retiring,”**



it sends a signal that workers with child care responsibilities are wanted in the industry.

### **CHILD CARE HELPS THE CONSTRUCTION INDUSTRY MEET GOALS AND EXPECTATIONS FOR WORKFORCE DIVERSITY**

The construction trades offer much better earnings opportunities than typically female occupations accessible without a college degree (Hegewisch et al. 2016). Even though there has been progress in diversifying the trades, and more women than ever work in construction occupations, the trades remain among the least gender diverse of any occupations with just 3.4 percent of workers in trades occupations being women (Hegewisch and Ahmed 2019<sup>7</sup>). While Oregon has made significant progress towards attracting more women and minority males, with women’s share of apprentices in the double digits in some joint apprenticeship programs, overall only one in 14 apprentices in the state is a woman.<sup>8</sup>

Equitable access to such jobs, particularly on projects funded through tax dollars, has long been recognized as an economic equity issue, and the construction trades have been subjects to employment targets for women and minorities

for many decades (Moir, Thompson, and Kelleher 2011). While enforcement of such targets has often been low, a number of jurisdictions, including the Greater Portland Metro Council, have recently revisited and increased their expectations of diversity on publicly funded projects. In October 2019 the Council passed ambitious new employment targets for all publicly funded projects in the Greater Metro Portland Metro Area; these include that 14 percent of hours to be worked by women (twice the current level) and 25 percent of hours by people of color (Metro News 2019; see also Oregon Metro 2019).

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<sup>6</sup> Oregon’s recently passed paid family leave program will provide 12 weeks of leave to both mothers and fathers from 2023 onwards; see Oregon Business(November 2019) <<https://www.oregonbusiness.com/article/opinion/item/18910-policy-brief-what-employers-need-to-know-about-oregon-s-paid-family-leave-law>>

<sup>7</sup> The data also show that Black and Asian workers are underrepresented in the trades, while Hispanic workers are over-represented, but they are much less likely than other workers of color in the industry to work in the well-paid non-residential sector or be union members; see Hegewisch and Ahmed 2019.

<sup>8</sup> In January 2019, women were 6.8% of all registered apprentices in construction trades, rising to 8.8% for union apprenticeship programs; data analysis based on Bureau of Labor and Industry Oregon, Portland Metropolitan Statistical Area Apprentices, Construction Only, January 2019; provided by Connie Ashbrook, independent consultant.

Individual projects already have higher targets; for example, the Central Courthouse in Multnomah County – a 17-story office building- set a goal for women to make up 25 percent of apprentices worked on the project, for 20 percent of apprentices to be men of color, and for women journey workers to work 6 percent of project hours (Multnomah County 2018). The diversity performance is monitored monthly to help contractors focus and meet their goals.

The Sellwood Bridge Project, which began in 2011 and was completed in 2016, is another example of a publicly funded project with diversity goals, of 14 percent of hours worked by women, 20 percent by minorities, and 20 percent by apprentices (Inside ODOT 2017). Jennifer Erickson, Pacific Project Partners (workforce, diversity, inclusion consulting) and former Director of Human Resources at Slayden Construction, a contractor on the project, notes, “These are big contracts. [Meeting the diversity goals] is part of the contract – if you can’t meet them, you won’t get the contract.” Erickson met the targets by being proactive, working with Oregon Tradeswomen, for example, well ahead of time to make sure women coming through the OTW were aware of job

opportunities on Slayden project. She also made sure that subcontractors were both aware of the need to meet diversity goals, and of opportunities offered for meeting them by working with organizations such as OTW. While Erickson was not aware of any single apprentice who received child care supports—as Akana workforce support manager Penny Painter explains, the purpose of the supports is to help the apprentice do her or his job like anyone else, not to make them stick out as support recipients—she acknowledges the importance of the supports from the ODOT and Oregon L&I program, particularly on projects that require travel outside of metro areas.

The Sellwood Bridge and Multnomah Courthouse Projects show that it is possible to meet diversity goals. Yet, once all larger public projects include these goals, meeting the diversity targets will become more challenging. A detailed analysis of workforce requirements for the largest publicly funded projects in the Portland Metro region in the pipeline until 2022, based on the 2016 workforce profile of the sector, showed that the industry would need an additional 1,074 men of color, 1,416 women, and 445 apprentices to meet diversity goals (and would need every

**“These are big contracts. [Meeting the diversity goals] is part of the contract – if you can’t meet them, you won’t get the contract.”**





single one of these workers to choose to work on these and not any other contracts; Portland Metro Workforce Development Board 2018). Thus, to meet these goals, the industry will not only have to sustain progress that has been made in recent years, but to further step up its efforts. Child care supports help by signaling that the industry welcomes those with child care needs, and by helping those who enter stay in the industry.

### **CHILD CARE HELPS THE CONSTRUCTION INDUSTRY RETAIN ITS WORKERS AND SAFEGUARD INVESTMENTS IN TRAINING**

Retention is a significant problem in the construction industry. Aftan Walsh of Walsh Construction notes, “To be frank, we have put a lot of focus on how to get women in the door- that is where we have been expanding our energy and have missed the full picture- [... because ] that is only half the battle and half the story.” Only about half of all apprentices complete their apprenticeships, and women’s completion rates are lower than men’s (Reed et al 2012). The supports available to apprentices through the Oregon Highway Construction Workforce Development Program are significantly increasing apprenticeship completion (ODOT/

BOLI 2018). Given that child care is only one component of the supports available, and typically apprentices receive more than one support (Wilkinson and Kelly 2018), it is not possible to isolate the impact of child care for retention, yet individual stories show its important role.

Losing an apprentice or a journeyworker is expensive. On average replacing a worker costs between 16-20 percent of their annual salary (Boushey and Glyn 2012). Replacement costs are higher in the construction sector because of the systematic approach to on-the-job and off-the-job training provided during apprenticeships. As Miguel Montaña explains, “[...] the moment an apprentice comes through the door, we’ve already invested thousands to get them to that point. And that’s just the training center. Now you get that apprentice over to a contractor and they start to invest into that apprentice and they’re training and just their on-boarding procedure and by the time that apprentice starts feeling comfortable, it may be six months, nine months down the road and if all of a sudden that apprentice says, “Mm-mm, financial difficulty- I can’t continue,” they got to start all over with a new selection and that hurts them, that hurts them badly actually right now.” Jennifer Erickson, Pacific Project Partners, formally Human Resources Manager for Slayden, explains, “Apprentices are part of the crew. We invest in them. We send them to training. We do not want them to leave.”

The majority of men and women become parents at some stage of their lives (Livingstone 2018; Monte and Knop 2019). Apprenticeship typically occurs during an age when many people have children. When child care is unobtainable, unaffordable, or of low quality, families are likely to prioritize their children over their careers. The child care supports available to construction workers in Oregon show that with the right supports, people can commit to the industry, benefiting their own career trajectory as much as the industry.



## CONCLUSION

### **OREGON'S CHILD CARE INITIATIVES ARE A MODEL FOR RECRUITMENT, RETENTION, AND DIVERSITY IN THE TRADES**

The system of child care supports in the trades in Oregon is still emerging and has many gaps, particularly because child care and other retention services for apprentices are currently limited to heavy highway trades. Yet, by supporting and piloting child care initiatives during pre-apprenticeship, apprenticeship, and for journey workers, Oregon is a model for supporting diversity in the construction trades.

The state of Oregon has spearheaded substantial improvements in the equity and accessibility of its highways construction apprenticeship programs. By linking support services to apprenticeships in the trades, the construction industry can recruit and retain more skilled workers, improve productivity, and continue its growth trajectory. Child care supports for pre-apprentices through the Pre-Apprenticeship Child Care Initiative improve access to apprenticeship programs to groups of workers previously excluded or marginalized by the industry, and collaboration between Labor Littles, the Building Trades' and child care provider union AFCSME makes it easier for tradespeople to stay in the industry by helping them find child care that matches construction hours.

Child care supports make a tangible difference in the lives of those working and training in the trades. A construction apprenticeship means an opportunity for upward economic mobility, a chance to provide for their families and to learn new skills. Child care subsidies open this possibility to more women, single parents, primary caretakers, and people of color. By supporting the recruitment and retention of a new and more diverse generation of skilled workers, child care supports are improving the bottom line for Oregon's construction industry and helping union construction trades to maintain and grow their membership.

The results of Oregon's efforts are out there for all to see. As Penny Painter, manager of Oregon's Workforce Development Support Services Program through Akana, reflects, "Now, you go to a job site, and you do see a woman, at least one. That is the blessing of it all. Before you could go to 25 job sites, and you would never see a single women. Now that is no longer the case."



# BOX 1

## Oregon Child Care Programs and Resources

### Department of Human Services (DHS) Employment Related Day Care (ERDC)

<https://www.oregon.gov/DHS/ASSISTANCE/CHILD-CARE/Pages/Parents.aspx>

### ODOT - OR Labor & Industries Apprentice Related Child Care (ARCC)

Contact penny.painter@akana.us )

Level of child care supports, for parents of children younger than 12 (2019):

- Applicant must apply to ERDC but can have higher household income.
- If the applicant qualifies for ERDC (up to 185 percent of Federal Poverty Limit) but still has a co-pay: the copay will be paid by the ARCC program. So their child care is 100 percent covered.
- Up to 280 percent of the Federal Poverty Limit (FPL): ODOT Support Service pays 75 percent of the child care costs and the applicant is responsible for 25 percent.
- More than 280 percent and up to 335 percent of the FPL: ODOT Support Service pays 50 percent of the child care costs and the applicant is responsible for 50 percent.
- More than 335 percent of the FPL, and until the apprentice is advanced to Journey level or meets the cap amount of their available child care funds: ODOT Support Service pays 25 percent of the child care costs and the applicant is responsible for 75 percent.

### Pre-Apprenticeship Child Care Initiative (PACCI)

Contact Jackie Whitt, 971-990-1142;

child care@lcsaportland.org or check website <https://www.lcsaportland.org/childcare>

### Labor Littles

Contact Christina Daniels, 360-430-2575, christina@laborlittles.org





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**CONSTRUCTION TRADES AND OCCUPATIONS FOR WHICH THERE  
ARE ACTIVE APPRENTICESHIP STANDARDS IN THE STATE OF  
OREGON**

BRICKLAYER  
CARPENTER  
CAULKER  
CEMENT MASON  
CONSTRUCTION MILLWRIGHT  
DRYWALL FINISHER  
ELEVATOR MECHANIC  
EXTERIOR-INTERIOR SPECIALIST  
FLOOR COVERER  
GLAZIER  
HEAT/FROST INSULATOR & FIRESTOP CONTAINMENT  
INSIDE ELECTRICIAN  
IRONWORKER  
LABORER  
LIMITED ENERGY TECHNICIAN, CLASS A OR B  
LIMITED RESIDENTIAL ELECTRICIAN  
MARBLE SETTER  
MASON/TILE TRADE FINISHER  
OPERATING ENGINEER AND RELATED  
PAINTER  
PILE DRIVER  
PIPEFITTER/STEAMFITTER/SPRINKLER FITTER  
PLASTERER  
PLUMBER  
RENEWABLE ENERGY TECHNICIAN  
RIGGER  
ROOFER  
SCAFFOLD ERECTOR  
SHEET METAL SERVICE/HVAC/ENVIRONMENTAL CONTROL TECHNICIAN  
SHEET METAL WORKER  
SIGN MAKER/ERECTOR/INSTALLER/ELECTRICIAN  
T A B TECHNICIAN  
TILE TRADES SETTER



REPORT MAR 29, 2023

# 3 Ways States Can Expand and Sustain the Infrastructure Workforce by Meeting Child Care Needs

## AUTHORS



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Building an Economy for All, Access to Affordable Early Care and Education, Child Care, +7 More



To improve recruitment, training, and retention in the construction industry, states should utilize infrastructure funds to address workers' child care needs.



Children participate in activities at a Head Start classroom in Frederick, Maryland, on March 13, 2023. (Getty/The Washington Post/Maansi Srivastava)

### Key takeaways



- Delivering on infrastructure commitments to communities requires a stable, well-trained, adequately sized, and diverse workforce.
- The construction industry has unique features—such as early hours and changing job sites—that make traditional child care for working parents difficult.
- Federal funding offers opportunities for states to recruit and retain more workers by supporting them in finding and paying for child care.

## Introduction and summary

The Infrastructure Investment and Jobs Act (IIJA), Inflation Reduction Act (IRA), and CHIPS and Science Act are poised to employ millions of American workers in high-quality jobs. This suite of transformative economic legislation can change the face of the American workforce by dramatically expanding the presence of women and people of color in industries—such as construction, clean energy, and manufacturing—where they are substantially underrepresented. However, industries benefiting from these historic investments face hiring challenges, with many expressing concern about whether there will be enough workers to deliver on these economic promises.<sup>1</sup> At the same time, some states have explored an underutilized recruitment and retention tool: child care for workers in training.

To expand their pool of available workers, industries such as construction must look beyond their historical labor pools and bring in new, more diverse pipelines of talent—especially women. However, many barriers exist to women's participation in this crucial work, including access to adequate child care. Even with decades of social and economic advancement, women are still more likely than men to be the primary caregivers. In households with small children, lack of access to child care impedes women's labor force participation.<sup>2</sup> Not only does the United States woefully underfund the child care system, but construction jobs have unique requirements such as early hours or changing job sites that do not fit traditional child care settings.<sup>3</sup> Moreover, many families struggle to find and afford child care, forcing parents earning lower wages out of the labor market.



To expand their pool of available workers, industries such as construction must look beyond their historical labor pools and bring in new, more diverse pipelines of talent—especially women.

To increase recruitment and retention of workers and meet industrial goals across infrastructure projects, states should utilize eligible IIJA funds—most notably a portion of core highway funding—to fund child care for workers in training programs, such as pre-apprenticeships or registered apprenticeships. This report outlines three strategies to meet child care needs for workers in training by using eligible IIJA funds:

- 1 Fund navigators to support infrastructure workers in finding and securing child care.
- 2 Provide child care payment assistance for workers.
- 3 Contract with providers to secure designated child care slots that are aligned to infrastructure industry needs.

In doing so, states will grow and diversify their training pipelines to create stronger workforces and deliver on their infrastructure commitments to constituents.

## Child care enables employment but is inadequately funded

Across all industries, access to child care enables parents of young children to work. Unstable child care arrangements can lead to workers' reduced productivity, as they worry and are distracted at work or arrive late, leave early, or miss work altogether. Indeed, research by the Council for a Strong America indicates that 64 percent of workers with infants or toddlers have been late to work or left early and that 58 percent have missed a full day of work in the past three months. As a result, 30 percent of workers with infants or toddlers have been reprimanded and 23 percent have been fired or let go during that time.<sup>4</sup> Lack of quality affordable care can keep parents out of the paid workforce altogether.

As previously noted, women—who are significantly more likely to be the primary providers of child care in the home—are particularly burdened by the lack of affordable and accessible child care, which hinders their full participation in the labor force. A recent survey by the U.S. Chamber of Commerce found that 27 percent of all people who are not working say they are not looking for work because they need to provide care at home, with the proportion jumping to 36 percent among just women.<sup>5</sup> A comprehensive literature review of academic studies on the relationship between child care and parental labor force participation found consistent evidence that reducing the price or increasing the availability of child care increases maternal employment.<sup>6</sup> In addition, a recent working paper using a randomized controlled trial for access to child care supports found a 160 percent increase in employment for women with lower socioeconomic status.<sup>7</sup> Child care access empowers parents to maintain stable employment and income, which then helps to sustain their family.



Child care access empowers parents to maintain stable employment and income, which then helps to sustain their family.

Finally, child care has critical long-term, intergenerational impacts on children and parents. While it is clear that parents need income to support their families, when child care is not available or affordable, the price of going to work can be

greater than the wages earned. It is a dynamic that poses a difficult choice, as many families are unable to survive without income but, at the same time, are unable to find or afford the child care they need to remain employed. In addition, quality child care provides an essential developmental foundation for children, spurring greater stability and success through adolescence and into adulthood, affecting health, educational attainment, wages, and more. Likewise, parents with reliable child care can participate more fully in the workforce and develop stable career paths that include greater pathways for advancement.

Despite the documented benefits, child care is dramatically underfunded. Prior to the pandemic, 51 percent of people in the United States lived in a child care desert—a neighborhood with insufficient child care spots to serve the number of children.<sup>8</sup> Adding to America's child care challenge is that only about 11 percent of children under age 6 eligible for child care assistance receive a subsidy,<sup>9</sup> leaving almost 90 percent of children who qualify for support to find a child care arrangement without assistance.

In addition, the child care workforce has yet to recover to its February 2020 employment levels. The sector remains in a precarious position as the emergency funds that supported providers, educators, and families are winding down. Moreover, early childhood educators receive low wages and few benefits for their critical work—yet another reason the child care sector struggles to attract workers.<sup>10</sup> Increasing child care capacity is a critical economic goal because of the role access to care plays in enabling parents to work.

Investments in other sectors of the workforce will rely on the country's ability to expand and sustain the child care workforce through better compensation and job quality, adding more child care options to meet the needs of all families.

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## Infrastructure-related industries need workers, and those workers need child care

The Infrastructure Investment and Jobs Act (IIJA), Inflation Reduction Act (IRA), and CHIPS and Science Act depend on industries such as construction, manufacturing, and transportation to make their promises of infrastructure and industrial growth a reality. While these industries were all facing hiring challenges before the passage of these pieces of legislation, the infusion of new federal funding and tax incentives further increases demand for workers. To meet that demand, communities must take steps to build a sufficient supply of workers for these industries.

One crucial contributing factor to these hiring challenges is the reality that these infrastructure industries overwhelmingly employ men. For example, while experts estimate that the IIJA alone will create 800,000 American jobs over 10 years, women are projected to account for only 29 percent of these jobs.<sup>11</sup> Moreover, women comprise a much smaller share of workers in the hands-on occupations critical to infrastructure work; in 2022, for instance, women made up 4.2 percent of construction and extraction occupations.<sup>12</sup> This lack of women's representation is an example of occupational segregation—when one group is over or underrepresented in a profession, reflecting societal bias regarding their role in society and the labor market as well as policy choices.<sup>13</sup> Occupational segregation, and the higher pay available in predominantly male occupations, accounts for approximately 40 percent of the gender wage gap.<sup>14</sup>



## Occupational segregation, and the higher pay available in predominantly male occupations, accounts for approximately 40 percent of the gender wage gap.

Today, various factors contribute to the low number of women working in construction. These may include young girls lacking exposure to the building and skilled trades and, as a consequence, not seeing those jobs as viable career options; social pressures that steer women toward more traditionally female-dominated careers, such as nursing and teaching; and the lack of access to pre-apprenticeship and registered apprenticeship programs that are pathways into construction. In addition, tradeswomen currently working in construction and skilled trades report challenges with working conditions. For example, a 2021 survey of tradeswomen conducted by the Institute for Women's Policy Research noted that while many women feel respected and well-treated, others report discrimination, harassment, and disrespect on the job—hostile working conditions that drive women out of the trades.<sup>15</sup> Advocacy groups such as the National Tradeswomen Taskforce, local tradeswomen groups, and labor, government, community, and industry partners see these as critical issues that must be addressed.

Many women face another challenge: When surveyed, 69.3 percent of mothers with children under 18 who considered leaving the construction trades listed difficulties finding child care as a “somewhat” or “very important” factor for leaving. Similarly, 52.4 percent of tradeswomen under 35 without children who also considered leaving the industry listed lack of child care as a “somewhat” or “very important” factor in that decision.<sup>16</sup> This survey, conducted among current tradeswomen, did not capture those who may have declined a job or an apprenticeship due to the inability to find suitable child care and therefore never entered the trades. And while the pandemic has resulted in more flexibility and remote work options for many, construction is an industry that requires workers to be fully onsite—a difference that researchers at the Opportunity and Inclusive Growth Institute found made workers more likely to take leave or exit the workforce entirely.<sup>17</sup>

# 19%

**of all workers in the construction industry have at least one child under the age of 6**

Importantly, the issue of child care is not unique to women. Nineteen percent of all workers in the construction industry have at least one child under the age of 6.<sup>18</sup> A variety of other groups who are underutilized in the labor force also have child care needs, including individuals reentering the workforce and the community after incarceration, individuals and families who qualify for child care subsidies but do not currently receive a subsidy from their state, and individuals who have low incomes but not low enough to qualify for child care subsidies.

**29%**

of the estimated 800,000 new American jobs created by the IJA over 10 years are projected to go to women

**4%**

of construction and extraction occupations in 2022 were filled by women

**69%**

of mothers with children under 18 who considered leaving the construction trades listed difficulties finding child care as a “somewhat” or “very important” factor for leaving

**52%**

of tradeswomen under 35 without children who considered leaving the construction trades listed lack of child care as a “somewhat” or “very important” factor in that decision

This is the case for many apprentices or workers who are still early in their careers. Graduates of apprenticeship programs—or journey-level workers—earn solid wages, averaging \$77,000 upon program completion.<sup>19</sup> However, a typical entry-level apprentice wage is 40 to 50 percent of the journey-level salary, meaning a worker may be paid closer to \$39,000 annually.<sup>20</sup> Eligibility for child care subsidies requires families to be at or below 85 percent of the state median income; yet states often set more narrow eligibility criteria that vary between states. In addition, states often impose lower income eligibility to prioritize families with the greatest need—as low as \$26,000 in annual income<sup>21</sup>—resulting in a lack of options for those with low incomes just above the threshold.

Infrastructure industries also have unique hours that require unique child care structures. For example, in construction trades, work often begins far earlier than the opening hours of traditional child care facilities—which have operational hours that often mirror those of office jobs or the K-12 school day. Furthermore, construction workers may work at multiple sites, which affects commuting patterns. And the project-specific, temporary nature of the industry means that workers may be busy for weeks at a time and, likewise, laid off for weeks or months at a time.<sup>22</sup>

These challenges come to a head during a unique moment in American history. Investments in American infrastructure significantly increase the need for a training pipeline of qualified workers. At the same time, legislative, executive, and administrative actions can increase the likelihood that these infrastructure jobs will be high quality and good paying and that more people will have access to them.

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## **Child care support during workforce training enables better outcomes across industries, including construction**

Despite the growing evidence that supportive services—such as child care—break down employment barriers and enable better outcomes in workforce training programs, access to these services is limited. A 2017 gold standard evaluation of the federally funded Workforce Investment Act (WIA) and Adult and Dislocated Worker programs found that workforce system customers who received supportive services—in-kind or financial assistance with supports such as child care, transportation, tools, and more—were more likely to complete training than those who did not. Despite the positive benefit of supportive services for job seekers, only about 20 percent of full WIA customers had access to them.<sup>23</sup>

This lack of access is partially driven by the fact that under WIA—and its successor, the Workforce Innovation and Opportunity Act (WIOA)—local workforce boards can set their varying policies and limits for supportive services

expenditures, regardless of the circumstance of the individual job seeker.<sup>24</sup> A more recent local rules sampling shows varied allowances and policies, ranging anywhere from \$500 to \$5,000 annual limits per job seeker on supportive service spending.<sup>25</sup> According to the U.S. Department of Labor, the median yearly child care price in 2022 dollars ranges from \$5,357 and \$17,171,<sup>26</sup> meaning that the current limits on supportive services spending cover only a fraction of the cost of child care.

The concept of industry-specific child care has been successful in other settings, most notably in the health care sector. For example, some hospitals operate on-site child care centers as a recruitment and retention strategy, and one-third of U.S. hospitals offer some type of child care benefit, such as a subsidy or backup care.<sup>27</sup> In contrast, only 1 in 10 American workers overall report access to any type of child care benefit from their employer. Many of these child care investments in the health care sector were an innovative solution during another time of critical shortage—the height of the COVID-19 pandemic. Hospital executives report these investments have seen strong returns in terms of recruitment, retention, and employee satisfaction.<sup>28</sup>

Likewise, improving access to child care during a training period in the construction industry is a particularly effective tool to increase retention.



## The unique hours and locations of infrastructure job sites require an industry-specific, worker-centered approach to child care for parents; and IIJA funding offers an opportunity to address this gap.

In Oregon, the Apprenticeship-Related Child Care program, managed by the Oregon Department of Transportation and the Oregon Bureau of Labor and Industries, offers apprentices uniquely generous subsidies for child care, at up to \$2,500 per month.<sup>29</sup> A recent analysis of Oregon's Highway Construction Workforce Development Program found that access to child care subsidies substantially increased the likelihood that registered apprentices completed their training. Notably, completion rates for women and people of color increased by 21 percent, while completion rates for white men increased by 37 percent. Oregon's program is notable in that it includes family, friend, and neighbor care as reimbursement-eligible child care providers—a structure that may be more feasible for apprentices who work hours less compatible with traditional child care settings.<sup>30</sup>

Meanwhile, in Illinois, Gov. J.B. Pritzker (D) recently announced a historic 40 percent expansion of the Illinois Works Pre-Apprentice Program, which offers training, a stipend, and supportive services to a diverse group of pre-apprentices looking to enter the skilled trades.<sup>31</sup> First launched in 2019, the program uses a cost-of-living determination to calculate the amount of a stipend received by pre-apprentices, while all enrollees with demonstrated need qualify for wraparound and supportive services, including child care, regardless of income.<sup>32</sup> This proactive approach ensures that all pre-apprentices have the opportunity to access supportive services and increases their likelihood of completing the program and joining the construction workforce.

Unions and community organizations have also developed a variety of efforts to address child care needs for infrastructure workers in the construction industry. In Boston, Care That Works, a pilot program that organizes child care for those with “nonstandard schedules,” connects construction workers to child care and provides partial subsidies to care providers who operate during early, nontraditional hours.<sup>33</sup> Moreover, North America’s Building Trade Unions has launched two child care pilots: Milwaukee’s program provides vouchers for child care near the job site, while New York City’s program provides vouchers for care in various locations.<sup>34</sup>

These pilots will enable a diverse group of apprentices and workers to access child care and employment. But the programs are small and localized, and the industry’s workforce needs are substantial. In addition, the unique hours and locations of infrastructure job sites require an industry-specific, worker-centered approach to child care for parents; IIJA funding offers an opportunity to address this gap.

### **Child care and supportive services: Spotlight on a program’s budget**

While investments in supportive services can seem daunting, a small investment on the part of a state department of transportation can yield meaningful returns for workers and projects.

In Oregon, legislation requires the Oregon Department of Transportation (ODOT) to spend half of 1 percent of federal funds every biennium—up to \$2,100,000—on preparing workers to enter the highway construction field and diversifying the workforce. These funds cover a broad array of activities, including pre-apprenticeship programs, mentoring, supportive services, child care, and others.<sup>35</sup>

Between July 2019 and December 2022, ODOT spent \$340,027 on child care services, supporting 75 apprentices during that time. Nearly two-thirds—62.7 percent—of these funds go to subsidies, while the remainder covers outreach services, assistance with paperwork, case management, connecting with child care providers, and processing paperwork.<sup>36</sup>

These expenditures are a small fraction of the agency’s total budget: ODOT receives approximately half a billion dollars every year from the Federal Highway Administration and projects to collect approximately \$5.1 billion in total revenue from 2021 to 2023.<sup>37</sup>

## **Infrastructure funding offers an opportunity to access child care for workers in training and meet employer needs**

The Infrastructure Investment and Jobs Act (IIJA), Inflation Reduction Act (IRA), and CHIPS and Science Act include legislated standards that are likely to increase equitable access to good jobs. For example, prevailing wage and benefit standards cover most IIJA funds and CHIPS and Science construction funds; the IRA requires contractors to pay prevailing standards and employ registered apprentices for a certain number of work hours to access the full amount of the

construction tax credit; and a portion of IIJA funds allow use of local and targeted economic hire policies that can ensure local communities have greater access to good jobs.<sup>38</sup>

The Biden administration has further committed to achieving these goals through implementation of executive, administrative, and policy actions. For example, the U.S. Department of Transportation, Department of Energy, Department of Commerce, and other agencies with infrastructure funds have included language in discretionary procurements that prioritize applicants with good jobs and equity standards, including applicants that plan to provide workers with access to supportive services such as child care.<sup>39</sup>

Most notably, the Department of Commerce, recognizing that access to child care is a workforce recruitment and retention strategy, recently announced that companies receiving more than \$150 million in CHIPS subsidies would be required to develop a plan to provide access to child care for workers building or operating semiconductor manufacturing facilities.<sup>40</sup> And the Department of Labor, under the umbrella of its Good Jobs Initiative, works across infrastructure agencies to support access to good jobs, including drafting standard procurement language that prioritizes “provisions for supportive services ... [that] may include, but are not limited to ... assistance with child care.”<sup>41</sup>

There are many programs across the IIJA and CHIPS and Science Act—beyond the specific ones mentioned in this report—that include workforce development as an allowable expense for applicants.<sup>42</sup> All of the Department of Energy’s IIJA-funded projects should include a community benefits plan, which means individual contractors can include access to support services, such as child care, as a way to increase equity in the workforce.<sup>43</sup>



## The Infrastructure Investment and Jobs Act, Inflation Reduction Act, and CHIPS and Science Act include legislated standards that are likely to increase equitable access to good jobs.

One of the most straightforward opportunities for states to support workforce development and supportive services for infrastructure workers lies in the IIJA’s core highway funding. The IIJA allocates \$241.6 billion to surface transportation infrastructure under four core programs: the National Highway Performance Program (NHPP), the Surface Transportation Block Grant (STBG), the Highway Safety Improvement Program (HSIP), and the Congestion Mitigation and Air Quality (CMAQ) program.<sup>44</sup>

Previously, under 23 U.S.C. 140(b), states were allowed to use half of 1 percent of surface transportation block grant funds for on-the-job training supportive services activities. In 2014, Congress passed the FAST Act, which included 23 U.S.C. 504(e), allowing states to use its large four formula funds to support workforce and education activities. Then, the IIJA expanded 504(e) to allow formula funds for activities related to workforce development needs on construction projects, meaning states could ostensibly use all formula funds for the set of supportive services previously only allowed for half of 1 percent of these core highway funds. Guidance from the Federal Highway Administration



also clarifies the types of activities that are eligible uses of funding, a wide array of services including tuition, pre-apprenticeships and apprenticeships, recruitment and outreach, technical assistance, and supportive services, inclusive of child care.<sup>45</sup> Notably, these types of eligible workforce activities do not require nonfederal matching from states; and this type of expenditure would not reduce surface transportation block grant funds suballocated to local governments.

This funding opportunity can support child care needs for pre-apprentices, apprentices, and workers involved in education, training, and workforce development activities and, in doing so, meet industry's demand for workers.

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## **Recommendations: 3 ways states can fund child care and recruit, train, and retain infrastructure workers**

Supportive services funding for child care—specifically for construction workers—must meet several criteria to be successful:

- Engage workers early to ascertain parents' needs and the funding structure and program design that would be most successful.
- Partner directly with the state's lead agency on child care, taking advantage of their expertise and care-specific relationships to navigate child care delivery.
- Facilitate actions to provide child care during nontraditional hours necessary for construction work.
- Ensure stable funding for child care providers despite the seasonal nature of construction work and fluctuating child care
- Invest in outreach activities and proactive needs assessments, ensuring that the largest number of eligible pre-apprentices and apprentices can access services.
- Implement solutions that promote sustainability in the child care sector, such as addressing recruitment and retention issues by partnering with programs that pay child care workers competitive wages.

Given the critical role of child care in enabling work and the opportunity to invest in supportive services, state and local agencies should allocate infrastructure funding to child care services. This report offers three potential funding models that would address trainee workers' needs and help contractors and infrastructure agencies hire and retain workers, thus ensuring that projects are more likely to be completed on time. These proposals provide complementary options that are designed to work within the existing child care system and that can work well separately or in combination with each other.

### **Fund child care and supportive service navigators**

State departments of transportation should fund case managers or navigators tasked with helping multiple programs or families find and maintain their child care arrangements and supporting the child care providers serving these workers. This role could complement other supports and help families utilize available benefits. The support could include assisting workers and families apply for a child care subsidy, working with child care resource and referral

(CCR&R) agencies to find openings, and helping families with backup or emergency child care.

Applying for a subsidy often requires substantial knowledge and resources discouraging families from applying even if they would qualify. Having individuals who can guide and support families through the process means they are much more likely to find an arrangement that meets their needs. The navigator role could also facilitate relations between providers and child care agencies, providing support in licensing and becoming eligible to accept child care subsidies. In areas where family, friend, and neighbor (FFN) care is eligible for subsidies, the navigator can help identify the care provider and work with them through the approval process.

Navigators for employment benefits have been successful in a variety of other areas, such as unemployment and employee benefit systems. States would likely find similar success placing navigators in educational, union, or other training settings.<sup>46</sup> Many employees do not take full advantage of the benefits offered to them because they lack the specialized knowledge of the systems. Working with individuals who understand their specific needs and whose entire goal is to help them succeed can lead to better use of benefits overall.

### **Provide child care payment assistance for infrastructure workers**

State departments of transportation could use one of several mechanisms to assist workers participating in qualifying workforce development activities in paying for child care:

- Make direct payments to the provider a family chooses to fit their needs.
- Transfer funds to the state child care agency for workforce supports.
- Provide grants to intermediaries, such as pre-apprenticeship programs and registered apprenticeship programs, that would be responsible for payments to providers. In this model, intermediaries may work to provide access to a suite of supportive services, inclusive of child care, transportation, tools, and other worker needs.

Child care assistance should not be paid directly to workers or trainees, as it could be considered additional income, complicating their standing for other benefits and support programs.

All states have existing subsidy systems that give families financial support to pay for child care. The state lead agency that maintains the child care subsidy system sets the payment rate and has a list of qualified providers that have agreed to accept a publicly funded voucher for child care. Using these resources, the state department of transportation could work with the lead child care agency and local CCR&R agencies to administer a workforce subsidy, either paying the rates already set by the state or supplementing these payments to providers. States should consider the need to pay rates greater than what has been set by the child care lead agencies, particularly given construction workers' need for nontraditional hour care. Current child care subsidy rates are often insufficient to cover the cost of providing care, resulting in insufficient supply of child care.<sup>47</sup>



## States can meet their infrastructure goals, enable employment for more workers, and provide quality services to children by investing a portion of their eligible IIJA funds in strategic child care partnerships.

This mirrors and expands the previously mentioned North America's Building Trades Unions program that has created small subsidy pilot programs on the local level, specifically for the construction workforce, as well as Oregon's Apprentice-Related Child Care program. Notably, the support provided by Oregon's program is designed to cover both copayments and other tuition costs that exceed the state subsidy rate if a worker has already qualified for Oregon's Employment Related Day Care program.<sup>48</sup>

Another approach that is not exclusive to construction or infrastructure is the Michigan Tri-Share program, a pilot that shares child care costs across three groups, combining state funding, employer funding, and employee payments to cover the cost of child care.<sup>49</sup> Employees approved for the program can select any licensed child care provider that meets their needs.<sup>50</sup> Child care providers who enroll a participating child receive their payments directly from the Michigan Tri-Share facilitator hub, an intermediary that collects funds from the state, employer, and employee.<sup>51</sup> The program has demonstrated early success. Others seeking to invest in child care to support their workforce—such as North Dakota<sup>52</sup> and Noble County, Indiana<sup>53</sup>—are exploring the idea of developing similar state-employee-employer partnerships.

This type of program would allow parents to choose a provider that fits their family's preferences or needs. However, it would not guarantee that a spot is available at a provider or that providers would have hours that match their schedules. To address this limitation, Oregon's program permits FFN care providers to receive the subsidies if they register as a provider under the Oregon Department of Human Services, allowing greater flexibility in child care arrangements.<sup>54</sup> Families working nontraditional hours have indicated stronger preferences for care in their home or someone else's home, feeling that it better meets both the family's and the child's needs.<sup>55</sup>

### **FFN and FCC providers**

Family, friend, and neighbor (FFN) and family child care (FCC) providers offer greater flexibility and matching to specific needs. FFN typically refers to an informal, unlicensed care arrangement provided by an individual with a relationship to the child or family, such as a grandparent or aunt.<sup>56</sup> They provide care for a single child or a small group, which, in combination with their preexisting relationship, allows them to match their hours directly to the family's needs. FCC providers, on the other hand, are licensed child care providers who operate out of their own home, caring for a group of children while meeting all state safety requirements.<sup>57</sup> FCC providers typically care for a smaller group of children relative to a child care center, allowing

the provider more flexibility to match the care they provide to the needs of the families they serve.

### **Contract with providers to secure designated child care slots**

Agencies could also consider developing contracts with local child care providers near job or training sites to secure dedicated spots for their eligible workforce. The contract arrangement would guarantee a certain number of spots for eligible parents engaged in workforce development activities. The identified providers would need to offer care during the same hours as the work or training.

In the case of Boston's previously referenced pilot, Care That Works, the program offers nontraditional-hour care by contracting with FCC providers who agree to open at 5:00 or 5:30 a.m.<sup>58</sup> The pilot—a partnership between labor unions, child care providers, and the city—pays a fixed amount to the providers they partner with, in addition to the standard weekly rate that families pay themselves or through the child care subsidy program.<sup>59</sup> The pilot pays FCC providers at a higher rate to work these longer or more difficult hours, an integral part of ensuring that there are providers willing to participate and meet the needs of workers.<sup>60</sup>

Identifying local child care providers—both center and family child care—serving the workforce pipeline would create strong relationships and security for parents to know they have a guaranteed care arrangement for their children. Providers would receive stable income from the contract, helping them plan for the less traditional hours of care. Moreover, having many families who all need specific hours would mean that the providers could plan for the necessary hours, dividing the costs among the group and developing a schedule that meets the construction workforce's needs.

Arranging care in this way may be difficult; most providers have waitlists of families they cannot serve because they are operating at capacity, and expanding or hiring more staff can be a challenge in the short term. Additionally, workers going to multiple job sites or working on seasonal and shorter-term projects may not have the consistency required for this arrangement. Such a solution would be most functional for those working or receiving training on a long-term basis in one consistent location.

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## **Conclusion**

States can meet their infrastructure goals, enable employment for more workers, and provide quality services to children by investing a portion of their eligible IJIA funds in strategic child care partnerships. While this may be a less traditional way to spend infrastructure funds, these are crucial investments to ensure that projects have a diverse and robust workforce pipeline.

Yet to meet these infrastructure workforce needs, there must be additional investments in the nation's child care workforce. The transportation funds available for child care as a supportive service are not able to address many of the problems in the child care sector. However, it is necessary to address the national shortage of child care, as well as the low pay and job quality that has made it difficult to attract workers to available child care jobs, in order to sustain the labor force in the long term. States should look to improve child care jobs and increase supply through their investments in supportive services,

where possible, and to integrate these investments as part of a larger approach to ensuring that workers have accessible and affordable child care.



## Investing in child care as a supportive service meets both public and private needs, resulting in a stronger workforce for a critical industry.

America's infrastructure and economy need parents to be able to go to work in essential fields. Parents should know that their children are safe and cared for while they work. Investing in child care as a supportive service meets both public and private needs, resulting in a stronger workforce for a critical industry.

### Acknowledgments

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