



State Strategies to Break Down Barriers and Expand Access to Infrastructure Careers

By Maya Goodwin, Senior Manager for Policy

The opportunity afforded by infrastructure investments to connect workers with good paying, attainable careers

If enacted, the leading federal infrastructure proposal affords a generational opportunity to tackle several pressing challenges.¹ On the one hand, these investments will help to address long neglected physical infrastructure deficiencies and catalyze a move towards a cleaner energy future. At the same time, a major boost in infrastructure spending can create millions of good jobs that are attainable for workers without four-year degrees, a population that has benefited from a smaller and smaller share of the nation's good jobs over decades and that has experienced the slowest recovery from the COVID-19-induced recession.² But to realize the former goal—the physical aims of infrastructure investments—policymakers will need to be intentional about the latter—building inclusive, skilled infrastructure workforces.

At least one estimate forecasts that the leading infrastructure package would create around 1 million jobs,³ while others predict several million over a decade. This would be on top of what is already a sizable component of the workforce: in 2020, infrastructure employed roughly one in nine American workers.⁴ Most infrastructure jobs today and those of the near future can be accessed without a bachelor's degree, and these jobs offer higher wages than most other jobs attainable with that level of formal education.⁵

¹ This report focuses on physical infrastructure broadly to include sectors such as energy, transportation, telecommunications, water, green infrastructure and climate resiliency, as well as public works.

² Heather Long, "[Many left behind in this recovery have something in common: No college degree](#)," *Washington Post*, April 22, 2021.

³ Anthony Carnevale, quoted in Nancy Marshall-Genzer, "[What kind of jobs could the infrastructure bill lead to?](#)" *Marketplace*, August 2, 2021.

⁴ Anthony P. Carnevale and Nicole Smith, "[15 Million Infrastructure Jobs: An Economic Shot in the Arm to the COVID-19 Recession](#)," Georgetown Center on Education and the Workforce, 2021.

⁵ Joseph Kane, "[Biden needs to create an infrastructure talent pipeline, not just more jobs](#)," Brookings Institution, January 29, 2021.

But the benefits of these good jobs have not been equally accessible. Much like the infrastructure workforce of decades ago, today's infrastructure workforce skews heavily white, older, and male.⁶ On top of limited paths to entry, women and non-white people within the infrastructure workforce earn lower wages due to wage gaps within occupations and occupational segregation.⁷

To broaden opportunity to benefit from good quality, in-demand infrastructure jobs and mobility opportunities within the sector, policymakers at all levels will need to take deliberate, multifaceted action.

The role of states in building an inclusive infrastructure workforce

States can play a pivotal role in fostering an inclusive, skilled infrastructure workforce. Not only will a significant portion of federal infrastructure spending likely flow through states,⁸ but state governments and local governments together typically spend the majority of public investment in infrastructure and own the majority of public infrastructure assets.⁹ States also have substantial stimulus funding from the American Rescue Plan Act and some existing flexible workforce funding (e.g. WIOA Governor's Reserve Funds) that can be used to complement the infusion of federal infrastructure dollars. And at the most fundamental level, states have a role in shaping the workforce and education system to support the workforce needs of growing economic sectors and equipping residents with opportunities to connect to good quality employment.

This brief presents a framework for states towards this aim. It first provides key context on the infrastructure workforce, including demographic and wage disparities that underscore the need for states to foster inclusive pathways to good infrastructure jobs. The remainder focuses on a three-pronged framework to help state policymakers consider multifaceted, complementary approaches, centering on the following strategies:

1. Broaden exposure and recruitment.
2. Grow a supply of effective infrastructure-related training programs and improve success in those programs by bolstering key supports.
3. Spur inclusive hiring practices and combat the prevalence of harassment and discrimination in major infrastructure sectors.

⁶ *Ibid.*

⁷ Caroline George and Joseph W. Kane, "[Reversing America's poor track record on inclusivity in infrastructure jobs](#)," Brookings Institution, May 17, 2021.

⁸ Mark Wolf, "[Infrastructure Bill Update: What Could It Mean for States?](#)" National Conference of State Legislatures, August 3, 2021.

⁹ See Elizabeth McNichol "[It's Time for States to Invest in Infrastructure](#)," Center on Budget and Policy Priorities, March 19, 2019, for an overview of how federal grants fit into state infrastructure spending. See Peter G. Peterson Foundation, "[State and Local Infrastructure Spending: A Closer Look](#)," June 17, 2020, for how state and local spending compare to federal spending on infrastructure.

Context on the Infrastructure Workforce

Infrastructure is already a significant share of the workforce and touches a wide array of occupations. In 2020, infrastructure jobs were 11 percent of all jobs, and touch on a wide array of sectors and occupations.¹⁰ Brookings scholars identified over 90 distinct infrastructure occupations—roles that are directly involved in infrastructure, as opposed to spurred through indirect economic growth. Based on 2012 data, most infrastructure workers were in operation roles, followed by construction, design, and lastly governance of infrastructure-related physical assets.¹¹ By 2019, some of the occupations with the highest employment numbers included laborers and freight, stock and material movers, truck drivers, electricians, plumbers, and highway maintenance workers. Many infrastructure workers are also in office settings with logistics, managerial and administrative roles in warehouses and business services.¹²

Infrastructure subsectors are often siloed in their workforce strategies, despite having many similarities in their skills and hiring needs. To build a robust pipeline of skilled workers and facilitate mobility for workers between sectors based on common skills, states have an opportunity to foster deeper coordination across infrastructure subsectors and with workforce stakeholders, namely education providers, labor and community-based organizations.¹³

Infrastructure roles are largely attainable without a bachelor's degree and overall pay well compared to other similarly attainable jobs. In 2019 across infrastructure occupations, just 14% of workers were estimated to have a bachelor's degree or higher.¹⁴ Similarly, the vast majority of jobs created by an infrastructure investment would be attainable for people with a high school certificate who undergo some specialized short-term training.¹⁵ At both the 10th and 25th percentiles of wages, infrastructure workers see a wage premium of more than \$3 per hour when compared with workers across all occupations, explained in part by higher rates of unionization in infrastructure.¹⁶

Women, non-white people and younger workers are underrepresented in infrastructure jobs. The infrastructure workforce skews male, white and older.¹⁷ Just 18% of infrastructure workers today are women, compared to roughly half of the workforce. In many of the largest infrastructure occupations, women are less than 5% of the workforce.¹⁸ This disparity is particularly pronounced in construction, where, in 2013, women made up just 3 percent of the

¹⁰ Carnevale and Smith, 2021.

¹¹ Joseph Kane and Robert Puentes, "[Beyond Shovel-Ready: The Extent and Impact of U.S. Infrastructure Jobs](#)," May 2014.

¹² Kane, 2021.

¹³ See discussion of the siloed nature of infrastructure subsectors and need for greater collaboration in Joseph W. Kane and Lara Fishbane, "[Can 'infrastructure academies' solve our most pressing workforce challenges?](#)" Brookings Institution, October 12, 2018.

¹⁴ Kane, 2021.

¹⁵ This statement is based on an analysis of a proposed \$1.5 trillion investment in physical infrastructure. Anthony P. Carnevale and Nicole Smith, "15 Million Infrastructure Jobs: An Economic Shot in the Arm to the COVID-19 Recession," Georgetown Center on Education and the Workforce, 2021.

¹⁶ Kane, 2021.

¹⁷ *Ibid.*

¹⁸ Caroline George and Joseph W. Kane, "[Reversing America's poor track record on inclusivity in infrastructure jobs](#)," Brookings, May 17, 2021.

workforce, a figure that had not improved in thirty years.¹⁹ Non-white women make up even smaller shares of the construction workforce, with Hispanic women representing only 0.4% and African American women just 0.2%.²⁰ Black people overall make up just 6 percent of the construction workforce, and just 1.2 percent of its business owners, despite being 12 percent of the U.S. workforce.²¹

Women and non-white people face lower pay in infrastructure, stemming from wage gaps within occupations and occupational segregation. Women earn less than men in the same infrastructure occupation; for example, women material movers earn 88 cents for every dollar earned by a male material mover.²² Black and Latino workers are underrepresented in higher-paying occupations and overrepresented in lower-paying infrastructure occupations. Brookings scholars found, for instance, that nearly all of the infrastructure occupations with the highest shares of Black and Latino workers have median hourly wages below the infrastructure median wage.²³

A Three-Pronged Framework for States to Build a Skilled, Inclusive Infrastructure Workforce

A multi-faceted approach is needed to develop robust, inclusive pipelines and long-term success for all workers in the infrastructure workforce. The three components of this approach should be considered with equal weight, and several of the strategies can address more than one facet of the framework.

1. Broaden exposure and recruitment.

For a wide array of communities to have access to infrastructure opportunities, it is vital to support activities geared towards introducing underrepresented groups to these careers. Particularly among the occupations in infrastructure that do not require a four-year college degree—e.g. skilled building trades—it is often the case that individuals learn about opportunities to access these jobs through social networks. Relying heavily on social networking is an insufficient approach to build a larger, skilled infrastructure workforce, and will also replicate the system that leads to persistent demographic disparities in who benefits from infrastructure careers.

¹⁹ Teresa Wiltz, "[Women at Work: 'Pre-Apprenticeships' Boost Female Construction Workers](#)," *Stateline*, March 19, 2018.

²⁰ Based on 2013 data. National Women's Law Center, "[Women in Construction: still breaking ground](#)," 2014.

²¹ Taylor Telford, "Dozens of nooses have shown up on U.S. construction sites. The culprits rarely face consequences." *Washington Post*, July 22, 2021.

²² George and Kane, 2021.

²³ *Ibid.*

Below are several strategies to consider towards introducing a broad array of communities to infrastructure occupations and equipping workers with the knowledge of how to navigate pathways in infrastructure:

- a. Support work-based learning programs for young people and adults to learn about infrastructure occupations and skills required, with a focus on bringing in women and non-white people.** For young people, states can bring together employers and education institutions to offer high-quality work-based learning experiences for high school students and out of school youth that provide a mix of hands-on-training, paid work experience and postsecondary credit. A close example of this kind of effort is Indiana’s Certified State Earn and Learn (SEAL) programs, in which the state brings together employers, high schools and postsecondary institutions to offer paid work-based learning experiences with post-secondary credit to both youth and adults through more than 130 SEALs programs throughout the state. The programs are intentionally designed to deliver work-and-learn experience for participants along with the skills and industry certifications that employer’s value. 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. For young people as well as adults, states can also support more high-quality and comprehensive **pre-apprenticeship and apprenticeship** opportunities (discussed under the 2nd strategy).
- b. Create designated physical hubs for workers to learn about infrastructure opportunities, sometimes referred to as “infrastructure academies.”** Infrastructure academies are an emerging strategy to introduce workers to infrastructure careers via a physical destination where workers can connect with advisors and training programs that are closely connected to local employers in one or several subsectors of infrastructure. In addition to serving as a place for jobseekers to be introduced to careers and gain competencies, these destinations can also serve as hubs for employers and educators to coordinate on shared training and recruitment issues.²⁴ Hence, this strategy can also serve towards growing a supply of effective training programs. An example of this strategy is the D.C. Infrastructure Academy, which opened in 2018 in a former elementary school in an area of the city with fewer good quality job opportunities. The Academy is a collaboration between utilities, unions, higher education institutions and private sector partners to offer a physical hub where residents can go to learn about infrastructure occupations, participate in trainings that prepare them for infrastructure jobs, and connect with employers from several infrastructure subsectors in one location.²⁵
- c. Scale career coaching through hiring more coaches and providing them with professional development and tools to assist workers in navigating the infrastructure job market.** States can fund sufficient numbers of career coaches in the workforce system, high schools, community and technical colleges, and community-

²⁴ Kane and Fishbane, 2018.

²⁵ See “[Mayor Bowser Opens the DC Infrastructure Academy](#),” March 12, 2018; and Kane and Fishbane, 2018.

based organizations, and equip those coaches with information and tools to more successfully connect jobseekers, particularly targeting workers that face higher barriers to employment, to infrastructure opportunities.²⁶

2. Grow a supply of effective infrastructure-related training programs and improve success in those programs by bolstering key supports.

Most workers that will find newly created infrastructure jobs are estimated to need some short-term training (six months of training or less, on top of any existing postsecondary credentials).²⁷ As a result, more infrastructure projects will require an increase in the availability of targeted skills-building programs, especially short-term training. In addition to building the supply of skills for employers, meaningful access to skills-building programs should be seen as critical component of building inclusion into who benefits from infrastructure careers.

There are several strategies that states can deploy to grow a targeted supply of effective infrastructure-related training opportunities and improve success in those trainings:

Training supply:

a. Support sector and regional collaboration to foster creation of infrastructure trainings. While employers across subsectors of infrastructure—e.g. water, energy, transportation—have many similarities in terms of skills, hiring and retention needs, they are often siloed and rarely collaborate to create training programs. This limited collaboration hinders the scale of efforts to expand training capacity to build pipelines to the infrastructure workforce.²⁸

States can incentivize collaboration by having explicit incentives for public infrastructure projects to engage with local or regional workforce systems. Workforce intermediaries can help to address this multi-stakeholder challenges by being the hub for infrastructure-wide workforce strategies.²⁹

This can also take the form of states providing dedicated funding for employers within a similar area of infrastructure, e.g. water or roadway construction, to regularly collaborate to design training programs, engage with other stakeholders, and address workforce issues at a regional level. For an example, see the regional collaborative initiative of Bay Area water/wastewater agencies, [BAYWORK](#).³⁰ BAYWORK has collaborated with Jewish

²⁶ See Markle Foundation, "[Investing in High Quality Career Coaching](#)," October 5, 2020. For a discussion on the evidence of returns to jobseekers from coaching and career navigation, see Mary Anne Anderson and Sheena McConnell, "[Using Coaching and Navigation to Promote Economic Mobility: What is the Evidence?](#)" Mathematica, August 2020.

²⁷ Carnevale and Smith, 2021.

²⁸ Kane and Fishbane, 2018.

²⁹ For a similar idea related to maximizing federal infrastructure investments, see Livia Lam, "[Equity-Oriented Workforce Strategies for a Progressive Infrastructure Plan](#)," Center for American Progress, April 22, 2019.

³⁰ Joseph W. Kane, "[Investing in water infrastructure and workers: Examining the Bay Area's regional approach](#)," Brookings Institution, March 7, 2018.

Vocational and Career Counseling Service (JVS) to design training programs for the water sector that are connected to jobs across multiple area water agencies, with recruitment activities geared at other public utility systems and partnerships with union-connected pre-apprenticeship programs, among other community partners.³¹ This approach can also be deployed to support infrastructure-wide collaborative efforts, such as the aforementioned **infrastructure academies**.

- b. Fund and bolster high-quality pre-apprenticeship programs.** Perhaps no other strategy covers all three elements of the framework presented here than comprehensive, high-quality pre-apprenticeship programs. Pre-apprenticeship programs focus on preparing individuals to gain acceptance into highly sought Registered Apprenticeship (RA) programs. Such programs often provide very short-term training as well as guidance and exposure to industries and training opportunities for particularly marginalized workers, especially women, non-white people, immigrants, people with criminal legal records, veterans, military veterans, and out-of-school youth. But most pre-apprenticeship programs are not on state Eligible Training Provider Lists and do not have regular sustained funding from states (or the federal government) to provide the full breath of services they are positioned to provide, particularly case management and broader activities to combat barriers their participants face.³² An example of a state effort to significantly bolster the pre-apprenticeship landscape, California invested \$13.3 million of Proposition 39 Clean Energy Job Creation funds to build 12 construction pre-apprenticeship programs. Over the course of 5 years, these programs saw 2,100 individuals complete pre-apprenticeship programs, with 41% entering into an apprenticeship program, 23% finding direct construction or energy sector employment, and another 10% pursuing post-secondary education.³³
- c. Incentivize more earn and learn opportunities, especially apprenticeships. Make earn and learn slots inclusive of long-excluded populations via targeted hire requirements and incentivizing partnerships with pre-apprenticeship programs.**

States can incentivize employers to create more apprenticeship slots by establishing a requirement that a certain percentage of total work-hours for contractors and

³¹ [“High Road Training Partnership: Project Overview,”](#) June 2019.

³² There is a major gap in providing funding for pre-apprenticeship programs to be able to serve participants after they leave their programs and go into apprenticeships or related jobs. Yet, these providers are well-positioned to provide on-going support to improve retention and mobility for underrepresented populations. The CA Prop 39 support for pre-apprenticeship programs allowed the Rising Sun Energy Center to provide 12 months of case management and career services after participants graduate from the program. This included weekly check-ins with graduates until they are placed in an apprenticeship or job, and bi-weekly check-ins after placement. Rising Sun Energy Center finds, like many pre-apprenticeship providers, that participants tend to lose safety net benefits after placement into an apprenticeship or job, and as result are at risk of dropping of a training program, losing housing, experience food shortages, etc. In addition to the case management services, Rising Sun was able to partner with Oakland Housing Authority to connect participants with five years of rent control. The examples of extended case management and partnering with social service agencies offer a snapshot of how well-positioned pre-apprenticeship providers are to address challenges that low-income participants face, but how sustained funding for that work is uncommon. Source: California Workforce Development Board, “Building a Statewide System of High-Road Pre-Apprenticeship in California: Lessons from the Clean Energy Jobs Act,” July 2019.

³³ See [“California Clean Energy Jobs Act \(Proposition 39\): Final Report on California Workforce Development Board \(CWDB\) Pre-Apprenticeship Program”](#)

subcontractors be performed by apprentices in Registered Apprenticeships, known as **apprenticeship utilization requirements**. Alaska and Washington both require 15% of work-hours on large construction projects to be completed by apprentices.³⁴ New Mexico's Energy Transition Act, signed into law in 2019, requires a certain percentage of employees on construction projects of electricity facilities to be apprentices, rising to at least 25 percent of employees beginning in 2026.³⁵ States can also drive adoption of apprenticeship utilization requirements at a local level by creating advantage for cities in competitive funding when the city extends such a requirement to all publicly funded construction.

States can also require apprenticeship programs to include populations that have long faced barriers to entering apprenticeship programs, particularly the infrastructure-related apprenticeships that are among the most likely to lead to good journeyman wages.³⁶ States can build on the apprenticeship utilization requirements by mandating that shares of apprentices on projects need to be inclusive of underrepresented populations via a **targeted hire provision (described in more detail on page 11)**. King County Washington's Priority Hire Program, as part of the County's apprenticeship utilization requirement within its community workforce agreement, requires that on public works construction projects of \$5 million or more a certain percentage of work hours, set on a project-by-project basis, be performed by apprentices who reside in economically distressed zip codes. In 2020, projects subject to these requirements (both apprenticeship utilization and priority hire) had 16% of work-hours performed by apprentices. Within that, 42% of workhours performed by apprentices came from priority hire zip codes apprentices and 20% by women apprentices from priority hire zip codes. The priority hire requirements also extend to journeyman labor, resulting in about 30% of workhours on relevant projects performed by journeymen who reside in priority hire zip codes.³⁷ A critical piece of targeted hire provisions that are likely to be effective is to have monetary consequences for contractors and subcontractors, such as suspension of payment or denial of the ability to participate in future projects, rather than establishing such targets as merely goals.³⁸

States can also spur inclusion in apprenticeship by **incentivizing apprenticeship programs to have closer partnerships with pre-apprenticeship programs**. For instance, from 2004-2010, New Jersey implemented a program where employers who hired graduates of pre-apprenticeship programs received \$5,000 over 2 years to cover the

³⁴ See Washington State Department of Labor & Industries, "Apprenticeship Utilization Fact Sheet," July 2008; Office of Governor Mike Dunleavy, "Administrative Order No. 278," November 10, 2015.

³⁵ "Energy Transition Act (SB 489)," available at: <http://envirolaws.org/bill-file/sb-489>

³⁶ For instance, women are just 12 percent of all Registered Apprentices and also are significantly concentrated in apprenticeship opportunities that lead to lower paying positions. For share of registered apprentices, see USDOL, "[U.S. Department of Labor Announces \\$3.5M Funding Opportunity to Place More Women in Registered Apprenticeships, Nontraditional Occupations](#)," April 26, 2021. For gender and racial wage gaps in apprenticeship, see Angela Hanks, Annie McGrew, and Daniella Zessoules, "[The Apprenticeship Wage and Participation Gap](#)," Center for American Progress, July 11, 2018.

³⁷ "King County Priority Hire Program," presentation by Sandy Hanks, August 11, 2021, at Skillful State Network Summer Webinar; and direct communication with Samantha Kealoha, King County.

³⁸ See The National Taskforce on Tradeswomen's Issues, "[Framework for Promoting Equity and Inclusion for Women and Non-white people Working in the Trades on Publicly Funded Infrastructure Projects](#)," September 6, 2020.

related training instruction costs for apprenticeships. During the height of the Great Recession, this subsidy rose to \$10,000 over two years.³⁹ An added bonus of targeted hire provisions coupled with apprenticeship utilization requirements described above is this approach creates an incentive for employers to build partnerships and contribute financially to pre-apprenticeships.

Address access and success in skill-building programs:

- d. Provide targeted funding for individuals to pursue training for non-earn-and-learn trainings.** States can improve access to infrastructure jobs by funding training accounts that provide flexible funding to cover the full cost of participation in training programs connected to infrastructure occupations and with a track record of success. A close example of this model is the Indiana Next Level Jobs Workforce Ready grant program, which covers the tuition and fees of participating in certain successful training programs in in-demand industries, most of which are infrastructure-related, e.g. building and construction, transportation & logistics, and business services.

- e. Provide dedicated funding for financial supports (e.g. child care, transportation vouchers, emergency cash) and non-financial supports (e.g. case management and career counseling) for participants of high-quality infrastructure-related trainings.** Oregon's Highway Construction Workforce Development Program offers promising results from a similar approach. With about nine years of implementation in offering financial and non-financial supports, plus mentoring, to heavy highway trades apprentices, the state has seen women and non-white people comprise both greater shares of the highway construction workforce and of those completing apprenticeship programs, with the greatest impacts coming from the provision of non-financial supports.⁴⁰

States can also address childcare access that is critical for working parents to be able to pursue rigorous trainings by establishing categorical eligibility for participants of high-quality workforce trainings for existing childcare assistance programs. As childcare obligations more often fall on women, for women to be able to access construction trainings and jobs, it would also help to incentivize training programs to have partnerships with childcare providers that can provide care outside of traditional work-day hours.

- f. Improve data practices to better target support services to overcome barriers that lead to dropping out of effective training programs.** Investments in training can be accompanied by deliberate efforts to understand where gaps and deficiencies in the training landscape exist, rather than funding training with little attention to what is realizing strong returns for workers. This includes incorporating apprenticeship and pre-apprenticeship into data tracking, as well as routinely tracking outcomes for participants in workforce training programs. States can also gather information from apprenticeship

³⁹ Direct communication with Lesley Hirsch, New Jersey Department of Labor, July 23, 2021.

⁴⁰ Maura Kelly and Lindsey Wilkinson, "2020 Evaluation of the Highway Construction Workforce Development Program," October 2020, Portland State University.

coordinators and pre-apprenticeship programs on why participants cancel out of apprenticeships. This data could allow states to better target support services and identify patterns, e.g. where benefit cliffs are contributing to lower rates of success in training programs.

3. Spur inclusive hiring practices and combat the prevalence of harassment and discrimination in major infrastructure sectors.

For underrepresented populations to access and thrive in infrastructure, a factor that cannot be overlooked is the prevalence in key infrastructure sectors—namely construction and manufacturing—of discrimination, harassment, and retaliation. The dominance of these practices plays a role in keeping women, non-white people and other marginalized groups from entering and staying in infrastructure sectors. Indeed, sexual harassment on the construction worksite is often referenced by organizations working to diversify the sector as a leading reason why women drop out of construction apprenticeships or quit jobs. Likewise, racial discrimination and harassment has been seen as a factor preventing qualified racial minority applicants from being able to enter registered apprenticeship programs.⁴¹ It would be a mistake to invest in skills and recruitment without also taking deliberate action to combat pervasive hostility that underrepresented populations face as barriers to entering and thriving in these careers.

States can incentivize inclusive hiring and respectful workplaces by adjusting what is required to be eligible for awards and what is considered as beneficial factors in deciding the award of infrastructure-related contracts. There is significant spending across state government agencies that is related to infrastructure and is relevant to workforces within the respective state, as opposed to procurement that will affect predominantly workers in other states. Hence, states have significant leverage to set the terms of competition for publicly funded infrastructure that can lead to returns for underrepresented workers that relates directly to their infrastructure workforces.

Within this strategy, states can:

- a. **Establish targeted hire provisions that are requirements—as opposed to goals—on diverse hiring across trades and occupations.** As previously mentioned, targeted hire is a valuable tool to drive inclusive hiring in infrastructure work. Such provisions have been used most notably in construction, but there is little reason such a provision could not be used more broadly, e.g. in maintenance of utilities. This can be done by requiring contractors and subcontractors on all publicly funded infrastructure projects to meet and report on annually updated participation figures for shares of

⁴¹ For a sample of reports on this issue, particularly in the construction sector, see Taylor Telford, "[Dozens of nooses have shown up on U.S. construction sites. The culprits rarely face consequences.](#)" *The Washington Post*, July 22, 2021.; Joe Bousquin, "[Fixing construction's racism problem will take an industrywide effort.](#)" October 23, 2020, Construction Dive.; [#MeToo in Construction: 66% Report Sexual Harassment in ENR Survey.](#)" *Engineering News Record*, October 11, 2018.; Caroline Preston, "[You don't say things': The jobs where sexual harassment and discrimination never stopped.](#)" *USA Today*, February 1, 2021.

work-hours on projects that are performed by underrepresented populations. This includes shares of work-hours by women (overall as well as by non-white women) and non-white people across trade and positions.⁴² It is important to have metrics across trades and occupations, so that targets are not met by funneling minority workers into the lowest paying, lowest-mobility positions. Targeted hire can work in tandem with the apprenticeship utilization approach, as noted in the King County Priority Hire example, and can be structured in various ways, such as on economically disadvantaged neighborhood residency, local residency, gender identity, race and ethnicity, veteran and criminal legal background, etc.

States can also **embed accountability** by requiring the establishment of oversight committees, annual reporting on these targets that is available for public review, and have real monetary consequences for contractors that fail to meet these metrics, e.g. suspension of contracts. Massachusetts deployed this approach in connection with the development of several casinos, including the single largest private construction project in the state's history. Diversity and inclusion goals were monitored closely by an Access and Opportunity Committee, a collaboration including representatives from the local building trades unions, worker advocacy and training organizations, the casinos and construction management firms, and government. At monthly meetings, the casinos and construction management teams presented data on inclusion of women, minority and veteran work hours, and the share of subcontracts awarded to women, minority and veteran-owned enterprises. An evaluation of the workforce and contracting diversity efforts of these large casino projects cites the establishment of oversight and monitoring as essential to the outcome of exceeding the diversity goals in all categories.⁴³

- b. Incentivize or require adoption of community benefit agreements or project labor agreements with clear terms set around priority issues.**⁴⁴ States could establish eligibility for a grant on participation in a project labor agreement or community benefit agreement. But in the case of either, states can be clear on the terms for workers that are required, e.g. commitments around funding training, inclusive hiring participation metrics, and respectful workplace practices (described more below). This requirement

⁴² See The National Taskforce on Tradeswomen's Issues, 2020.

⁴³ Peg Barringer, "Built to Last: Best Practices for Diversity in the Construction Industry. The Massachusetts Casino Development Experience," June 2019.

⁴⁴ Project labor agreements are pre-hire collective bargaining agreements that set the terms of employment, typically for construction projects. For highway projects, the agreements are usually negotiated between the state department of transportation and relevant labor organizations, and the contractor must sign the project labor agreement to be awarded the contract. See U.S. Department of Transportation Federal Highway Administration, "[Construction Program Guide](#)," accessed August 10, 2021.

Community Benefit Agreements (or Community Workforce Agreements) are similar to project labor agreements but typically include community organizations as signatories and often have more specifications on the benefits to community members than project labor agreements, e.g. local or targeted hire and commitments around pre-apprenticeship and training investments. These agreements also tend to be negotiated between companies and community and labor groups, and are less often used by state governments as a condition of being awarded a contract. Both tools can be used simultaneously.

See BlueGreen Alliance, "State-Based Policies to Build a Cleaner, Safer, More Equitable Economy: A Policy Toolkit;" and Jobs to Move America, "[Community Benefit Agreements](#)," December 18, 2013.

can also be structured around projects within a certain scope, e.g. medium and large scale construction projects, or procurement of heavy machinery. Maryland's Clean Energy Jobs Act, for instance, established a regulatory process for offshore wind projects that requires any approved project to use a community benefit agreement with five key guidelines, including career training for local residents, women, racial minorities and veterans, as well as outreach efforts to underrepresented populations.⁴⁵

- c. Condition eligibility for public contracts and subsidies on employers in key infrastructure sectors adopting practices to combat on-the-job hostility and harassment:** These standards would require employers in key infrastructure sectors to: 1) participate in routine training on discrimination and harassment as well as bystander intervention; 2) have in place accountability mechanisms that require employers to have consequences for perpetrators; 3) establish an independent party reporting mechanism for workers in construction and manufacturing on publicly funded projects. In terms of the trainings and tools, a model to look to for inspiration is the RISE Up program. Created by the construction pre-apprenticeship program ANEW, RISE Up is a campaign to address lower completion rates for underrepresented populations in apprenticeship by challenging the construction industry norms that permit discrimination and harassment on the jobsite. The program provides training for contractors' staff and managers on harassment, discrimination, and bullying. States can require this kind of training on the jobsites of every construction or manufacturing worksite that is connected to public procurement. The City of Seattle, Sound Transit, Seattle Public Schools are examples of public owners that require such training for their employees.⁴⁶ Because medium and large construction projects in King County are subject to the Priority Hire requirements, construction employers in the area are especially incentivized to participate in the RISE Up programming to address retention, and contribute financially to ANEW as a key pipeline partner.
- d. Direct agencies to adopt best value contracting practices that incentivize contractors to invest in inclusive hiring and respectful workplace practices:** A different way to spur practice change is to make inclusive hiring and respectful workplace practices an incentive, as opposed to a requirement. States can score bids for public procurement in ways that give advantage to contractors that document their adoption of inclusive hiring across occupations, demographic information on hiring, and support for training programs and recruitment activities among underrepresented populations, etc.⁴⁷ Many transit agencies already use best value contracting—as opposed to finding the lowest cost bid—but more could be established on how this contracting places value on inclusion and retention. States can also publish guidance to encourage localities to adopt these practices into public procurement bidding.⁴⁸

⁴⁵ BlueGreen Alliance, "State-Based Policies to Build a Cleaner, Safer, More Equitable Economy: A Policy Toolkit," p. 7.

⁴⁶ See "Regional Respectful Workplace Model Review Committee Recommendations: Tools to Address Jobsite Culture in Construction," October 2020.

⁴⁷ For related information, see Jobs to Move America, "[U.S. Employment Plan](#)," April 10, 2020.

⁴⁸ Kevin DeGood, "[A Reform Agenda for the U.S. Department of Transportation](#)," Center for American Progress, September 2020, p. 25.