ROADMAP TO EQUITY Ensuring Federal Infrastructure Investments Create Good Jobs for Women & People of Color



Sapna Mehta | December 2023

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Executive Summary

In 2021 and 2022, President Biden signed three critical bills into law—the Infrastructure Investment and Jobs Act (IIJA), the Inflation Reduction Act (IRA), and the Creating Helpful Incentives to Produce Semiconductors and Science Act (CHIPS and Science Act). They provide nearly \$2 trillion in federal infrastructure, clean energy, and technology funding with the potential to create millions of good jobs in local communities. Together they have the potential to revitalize the U.S. labor market and pave the way toward diversifying a range of occupations and industries.

These laws stand to modernize and enhance the transportation, energy, clean water, and digital sectors by directing significant funds toward these efforts.

- **IIJA** alone invests a historic \$1.2 trillion over 10 years in rebuilding crumbling roads, bridges, and public transportation systems. It also supports advanced energy technologies, environmental remediation and resilience, and clean water infrastructure; closes the digital divide; and modernizes the electric grid.
- **IRA** allocates \$369 billion over 10 years for clean energy production, climate solutions, and environmental justice.
- **The CHIPS and Science Act** authorizes \$52.7 billion over 10 years to encourage the construction of semiconductor manufacturing facilities, boosting the nation's science and technology base and bolstering national and economic security.

These measures hold promise to increase economic opportunity and security for workers with low incomes, people of color, and women. Yet jobs in many of the industries experiencing investment are disproportionately held by white men. Turning these investments into high-quality jobs for women, people of color, and persons with low incomes will require intentional efforts to address their severe underrepresentation in the industries where federal investments are flowing.

In this report, the Center for Law and Social Policy (CLASP) aims to support national, state, and community leaders and advocates in navigating these laws by:

- Providing a high-level overview of the IIJA, IRA, and CHIPS and Science Act;
- Identifying the workforce and supportive service funding opportunities within the infrastructure laws;
- Highlighting initiatives that can promote equity in infrastructure jobs; and
- Recommending a preliminary set of action steps for local and state advocates that can help ensure infrastructure jobs benefit women and people of color.

To make certain that women and people of color can access and remain in the jobs being created through these new public investments, advocates can look to existing successes in advancing workforce training, including registered apprenticeship programs and sector-based strategies discussed later in this report. They can also work with the public and private sectors to develop Project Labor Agreements and Community Benefits Agreements on new projects to create equitable training pipelines for local workers, ensure the jobs created pay family-sustaining wages, and include robust labor protections.

Producing equitable outcomes will require elected leaders, advocates, workforce practitioners, and the private sector to work closely together to ensure equitable, effective, and responsive workforce development programs and pipelines to recruit, train, hire, and retain women and people of color. This includes creating access to supportive services, like funding for tools, child care, and transportation, all of which are necessary for successful job training completion and retention.

Throughout this report, CLASP spotlights state and local policy and program examples. The report also shares guidance from the federal government and resources from partners. Appendices at the end offer links to additional federal and partner resources.



Over the next decade, the Infrastructure Investment and Jobs Act (IIJA), Inflation Reduction Act (IRA), and Creating Helpful Incentives to Produce Semiconductors and Science Act (CHIPS and Science Act) aim to invest nearly \$2 trillion to repair, rebuild, and modernize the nation's infrastructure along with its energy and technology production capabilities. These investments hold promise to increase economic opportunity and security for workers with low incomes, people of color, and women.

Yet jobs in these industries are disproportionately held by white men. While women hold 11 percent of jobs in the construction industry, they are most frequently found in administrative roles, which make up a small percentage of overall jobs in the industry.¹ The Institute for Women's Policy Research found that women hold just 4 percent of the jobs in construction trades—jobs like carpenters, electricians, pipefitters, and painters.²

The construction industry remains predominantly white,³ and racial and gender disparities compound inequities for Black, Latina, and Afro-Latina women. Women who hold these jobs face rampant workplace harassment. Nearly a quarter of women who work in the construction trades report frequent sexual harassment. Additionally, 21 percent of women of color report they frequently face racial harassment.⁴

Without deliberate efforts, these inequities will persist. The National Partnership for Women and Families estimates that, if nothing changes, women will access only 29 percent of new jobs created by IIJA. Racial disparities are even more stark, with data projecting that:

- Black women will access less than 4 percent of jobs;
- Latinas will access less than 5 percent of jobs; and
- Asian and Pacific Islander women will access less than 2 percent of jobs.⁵

At the same time, without thoughtful planning now, states, localities, and private companies may begin new projects only to discover they can't find workers with the training needed to fill the new jobs. McKinsey & Company estimates that without additional investment in worker education and training, companies across industries will face a shortfall of 300,000 engineers and 90,000 technicians by the end of the decade.⁶ The public and private sectors can collaborate with the workforce system, labor unions, and worker organizations to cultivate the workforce needed to make the United States more competitive and resilient and meet national security goals.

Attaining this workforce is possible through the development of robust, equitable, and accessible training, hiring, and retention pipelines. The IIJA, IRA and CHIPS and Science Act, collectively referred to in this paper as "the infrastructure laws," incentivize the development of training plans and encourage partnerships among local and state governments, employers, labor unions, community groups, and workforce training providers like community colleges. Successful implementation of the infrastructure laws will require strategic coordination and alignment across these entities.

Advocacy is crucial to promoting equity and progress and to reversing years of systemic misogyny and racism in many of the industries receiving federal investment, the labor market, and beyond. Only when local and state advocates, community groups, worker centers, and labor unions engage local and state governments, workforce entities, and employers will the nation ensure that women and people of color access the new jobs created through investments from the IIJA, IRA and CHIPS and Science Act.





The Infrastructure Investment and Jobs Act

The IIJA, also known as the Bipartisan Infrastructure Law (BIL), authorizes \$1.2 trillion over the next 10 years to rebuild roads, bridges, and public transportation systems; support advanced energy technologies and clean water infrastructure; close the digital divide; and modernize the electric grid.⁷ The law is estimated to create more than 700,000 jobs per year over the next 10 years.⁸

Provisions in the legislation, punctuated with additional White House guidance, enable federal agencies to implement IIJA by supporting—and often preferencing—good quality jobs with labor protections and equitable workforce training. A number of programs also have set asides for disadvantaged communities, which are discussed later in this paper.

Most construction projects are subject to wage standards under two federal laws known as the Davis-Bacon Act⁹ and the Davis-Bacon and Related Acts.¹⁰ Together, these laws require all federal and federally assisted construction projects to pay workers the prevailing wage. The Wage and Hour Division of U.S. Department of Labor (DOL) conducts surveys of local labor markets to determine prevailing wage rates. These rates are typically set to reflect the market wage for a given type of work in a given area. The prevailing wage rate reflects both the hourly wage rate and fringe benefits. It establishes a wage floor, meaning that all contractors on a project must pay at or above this rate.¹¹

IIJA funds will flow through eight federal agencies largely to states, tribes, and municipalities. They will also go to nonprofits, labor organizations, community colleges, institutions of higher education, other nonprofit training and educational institutions, public works departments, and private for-profit companies. Federal agencies will make these funds available through grants, loans, loan guarantees, cooperative agreements,* and tax incentives.

^{*} Cooperative agreements facilitate the transfer of something of value from federal executive agencies to states, local governments, and private recipients for a public benefit. While similar to grants, they include substantial involvement between the federal awarding agency and the recipient.

The largest share of IIJA money will be allocated through the U.S. Department of Transportation (DOT). DOT spending is primarily focused on investments in highways, transit, rail, airports, and port-focused infrastructure. The U.S. Environmental Protection Agency (EPA), Department of Commerce (DOC), and the Department of Energy (DOE) are responsible for managing significant programs focusing on energy efficiency and new energy technologies, enhancing broadband access, and developing clean water infrastructure, respectively.



Data Source: "Legislative Analysis for Counties: The Bipartisan Infrastructure Law," National Associations of Counties, March 2022, https://www.naco.org/resources/legislative-analysis-counties-bipartisan-infrastructure-law.

FORMULA-FUNDED & COMPETITIVE GRANTS

Large shares of federal infrastructure funding are disbursed through formula or competitive grants. For example, under IIJA, \$660 billion will flow to states and localities via formula-funded grant projects (a small amount will also go to federal agencies for predetermined activities like research or product monitoring).¹² Formula grants are awarded based on population and other set criteria written into the law. All states or localities that meet the minimum requirements outlined in the grant application are entitled to receive formula-funded grants.

Another \$204 billion is being distributed through competitive grant opportunities.¹³ Competitive or discretionary grants are chosen among a pool of applicants by teams of agency reviewers. The review process will generally involve fixed criteria as well as some degree of subjective judgment. Competitive grants can be awarded to states, localities, government entities, private companies, nonprofits, or labor unions, depending on the grant program.

The DOT created fact sheets for all 50 states and the District of Columbia outlining the type and amount of formula funding the state is eligible for under IIJA. The fact sheets also note available competitive grant opportunities. State DOT grant fact sheets can be found here: DOT Releases State by State Fact Sheets Highlighting Benefits of the Bipartisan Infrastructure Law.

The Inflation Reduction Act

Over the next decade, the IRA will invest \$369 billion into climate mitigation and resilience, clean energy, and environmental justice.¹⁴ An analysis from the Political Economy Research Institute at the University of Massachusetts Amherst, commissioned by the BlueGreen Alliance, found that the IRA is poised to create more than 9 million jobs over the next decade—an average of nearly 1 million jobs each year.¹⁵

IRA primarily uses tax incentives, rebates, and loans and guarantees to propel the development of clean energy technology and the electrification of vehicles and homes. The majority of energy and climate funding is focused on tax credits to private industry and consumers. The law also funds projects through grants, loans, and cooperative agreements.

Given the prevalence of tax credits in the IRA, most of its funding aimed at the environment will pass through the U.S. Treasury Department—more than \$250 billion. The U.S. Departments of Agriculture and Energy, along with the Environmental Protection Agency, will receive a combined \$120 billion to bolster climate, environmental justice, conservation, and resilience programs.

One of the most notable aspects of the IRA tax credits for the clean energy industry is that they are designed to incentivize the use of registered apprenticeship programs and the payment of prevailing wages. Projects are only eligible for the full tax credit if they satisfy prevailing wage and apprenticeship requirements.

The Creating Helpful Incentives to Produce Semiconductors and Science Act

The CHIPS and Science Act allocates \$52.7 billion to the National Institute for Standards and Technology (NIST), at the U.S. Department of Commerce, for semiconductor manufacturing, research, development, and workforce training. This includes \$39 billion to construct and modernize semiconductor fabrication plants.¹⁶ The investments in the semiconductors industry are projected to create an annual average of 185,000 temporary jobs as new semiconductor manufacturing facilities, or fabs, are constructed from 2021-2026, and to create 280,000 new enduring jobs by 2027.¹⁷

CHIPS and Science Act awards will take the form of direct funding (grants, cooperative agreements, or other transactions), federal loans, and/or federal guarantees of third-party loans to the private sector.¹⁸ Applicants are required to demonstrate investments in the workforce and community by creating workforce training and development plans, paying Davis-Bacon prevailing wages, and providing workers access to affordable and high-quality child care.¹⁹



Workforce Development Funding to Strengthen Job Quality & Equity

IIJA Workforce Development Components

Building equitable employment pipelines into the sectors supported by federal infrastructure investments is critical. Doing so can ensure that created jobs will be high quality and accessible to women and workers of color. The section below outlines new and existing federal funding sources that can be used to advance equity.

Formula-Funded Grant Opportunities

IIJA gives state departments of transportation the flexibility to use certain federal formula grant funds for surface transportation related training, education, and workforce development activities. Section 504(e) of title 23, U.S.C., authorizes state departments of transportation to use certain federal-aid highway program funds to support workforce development activities. States can support workforce activities with funds from four large federal aid formula-funded highway programs:

- 1. National Highway Performance Program;
- 2. Surface Transportation Block Grant Program;
- 3. Highway Safety Improvement Program and Congestion Mitigation; and
- 4. Air Quality Program.²⁰

DOT guidance provides states with added flexibility to fund evidence-based workforce development components if the projects support one of the following goals:

- 1. Increasing participation of women and people of color;
- 2. Addressing workforce gaps;
- 3. Building skills supporting emerging transportation technologies; and
- 4. Attracting new sources of job-creating investment.²¹

According to DOT Guidance for Use of Federal-aid State Core Program Funds, examples of eligible expenses for states include:

- Pre-apprenticeship programs, registered apprenticeships, incumbent worker training, and student internships;
- Funding for a university, college, community college, or vocational school to train workers;
- Direct educational expenses, like tuition, and participant supports costs, such as stipends;
- Activities associated with workforce training and employment services, including targeted outreach and partnerships with industry, economic development organizations, workforce development boards, and labor organizations; and
- Supportive service programs such as recruiting, counseling, transportation, physical examinations, remedial training, personal protective equipment, tools, child care, and temporary lodging.²²

Workforce activities are eligible for a 100 percent federal share—meaning they can be fully funded through federal dollars with no matching requirement. Approximately \$50 billion per year is made available under these four grant programs, and each state's apportionment is different based on formula. State departments of transportation have full discretion on whether to dedicate funds for workforce development; there are no maximum or minimum expenditure parameters.²³



OREGON'S HIGHWAY CONSTRUCTION WORKFORCE DEVELOPMENT PROGRAM

In 2009, the Oregon legislature took proactive efforts to diversify the construction trades by investing in programs to support apprenticeship program participants. Policymakers enacted a law to direct a portion of the state's federal highway funding to workforce development. This established the Highway Construction Workforce Development Program. Through biannual appropriations, it provides funding to support apprentices in six highway construction-related trades: carpenters, cement masons, ironworkers, laborers, operating engineers, and painters. Child care is one of 10 areas of support provided under the program.²⁴

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BROADBAND EQUITY, ACCESS, AND DEPLOYMENT PROGRAM

Another program with funding for workforce activities is the Broadband Equity, Access, and Deployment (BEAD) Program. Administered by DOC's National Telecommunications and Information Agency (NTIA), it is a formula-based grant program to expand high-speed internet access across all 50 states. Workforce development and vocational training are eligible expenses under the program. The funding notice asked applicants to provide plans to ensure strong labor standards and protections.

Applicants were also required to share plans to recruit, hire, train, and retain workers, including partnerships with union and worker organizations and quality workforce training providers.²⁵ The NTIA's Workforce Planning Guide outlines how to create workforce development and training programs to build a diverse workforce. This signals a commitment to workforce equity and job quality by the agency.

Competitive Grant-Funded Opportunities

A number of competitive grants authorized by IIJA under the DOT, DOE, DOC, and EPA have been released, and more are in development. For many of these grants, agencies have stated they will give preference in the selection process to applicants that address how they will create good-paying jobs; develop workforce training and development opportunities; outline plans to recruit women and workers of color; and build partnerships with labor and community groups. Applicants can apply for these components as an eligible expense in their grant application.

The DOT offers applicants a resource titled Grant Application Checklist for a Strong Workforce & Labor Plan. It outlines three major components the department is seeking in strong job quality and workforce plans, including:

- "Creating good-paying jobs with free and fair choice to join a union;
- Expanding high-quality training and education programs to help place people in good-paying jobs, with a focus on women, people of color, and other populations facing systemic barriers to employment, such as people with disabilities and people with convictions; and
- Implementing policies during procurement and project implementation that will promote the hiring and retention of underrepresented workers."²⁶

Grants for Job Quality and Workforce Training

Several grant programs specifically incentivize job quality and workforce training goals, such as developing training and hiring pipelines for women and people of color. These goals can also include employing proven equity tools and developing partnerships with labor, community groups, and quality workforce development training providers.

A small sampling of programs from the DOT with such incentives includes:

- DOT's Port Infrastructure Development Program
 - » Awards funding to projects that improve the safety, efficiency, or reliability of the movement of goods into, out of, around, or within a port.
- DOT's Low or No Emission Program
 - » Supports the transition of the country's transit fleet to the lowest polluting and most energy efficient transit vehicles.
- DOT's Grants for Buses and Bus Facilities Competitive Programs
 - » Assists in the financing of buses and bus facilities capital projects.

Examples from the DOE include:

- DOE's Renew America's School's Program
 - » Funds energy improvements at K-12 public schools, especially in the highest-need districts.
- DOE's Battery Materials Processing and Battery Manufacturing
 - » Supports commercial-scale domestic facilities to produce battery materials, processing, and recycling, as well as manufacturing demonstrations.

The Federal Transit Administration published frequently asked questions clarifying the use of grant funds for efforts such as workforce development. States and transit agencies applying for some formula and competitive grants can use up to 0.5 percent of the requested grant award for workforce development, including supportive services. This applies to the Low or No Emission and Grants for Buses and Bus Facilities programs mentioned above, as well as additional programs. Transit agencies applying for zero-emission fleet transition for either program can put an additional 5 percent toward workforce development activities.

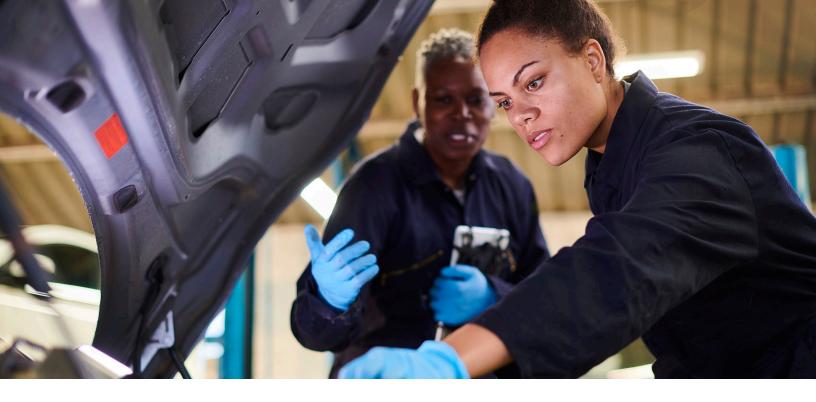


Workforce Innovation and Opportunity Act

The DOL notice, Building Pathways to Infrastructure Careers: Framework for Preparing an Infrastructure Workforce, encourages stakeholders to engage with the public workforce system to provide high-quality education, training, and employment opportunities as part of IIJA implementation. It urges infrastructure project leads to build meaningful, collaborative partnerships with communities where projects are based. Specifically, it recommends that project owners and other stakeholders pursue partnerships with organizations and coalitions that can help connect workers to good-paying jobs. Such partnerships can include community-based organizations and organizations that amplify the voices of workers who are underrepresented in infrastructure jobs. These collaborations can engage workers in the design and implementation of infrastructure workforce investment strategies.

The Workforce Innovation and Opportunity Act (WIOA) is the primary federal legislation governing the public workforce system—the myriad of policies and programs that aim to assist jobseekers in their job search through education and training opportunities, labor market information, career navigation, and other work-related support services. WIOA is geared to unemployed and underemployed adults, out-of-school youth, veterans, unhoused individuals, people with disabilities, and individuals receiving public support. Through WIOA funding, a range of public and private entities deliver education and training services. Such groups include adult basic education and GED programs, apprenticeships, community colleges, community-based organizations, labor unions, youth workforce providers, and employers. Services include job search assistance, career counseling, occupational skill training, classroom training, or on-the-job training. WIOA funds flow through states to local workforce investment areas and are administered by state and local workforce boards.²⁷





The DOL notice recommends how existing funding streams can be leveraged to braid workforce development services with IIJA funding. Specifically, this includes linking IIJA-funded projects to WIOA programs. For example, WIOA funding can support apprenticeship programs, and local workforce boards can allocate WIOA Title I formula funds[^] to apprenticeship programs, which are described in more detail in Section 5. WIOA funds can also help provide supportive services so individuals can successfully participate in apprenticeship programs. It's up to the local workforce development boards to decide how they appropriate WIOA funds. Additionally, 15 percent of WIOA formula funds go to a state's governor for discretionary activities.²⁸

WIOA programs can also be blended with IIJA funding to help connect youth to jobs. For example, YouthBuild, provides workforce training opportunities for youth workers. DOT created a fact sheet—Using State Highway Formula Funds to Support Youth Career Pathways in Construction—on how state departments of transportation can use their formula funding to support partnerships with schools and other youth-serving organizations like YouthBuild. The DOT fact sheet details how state DOTs can use federal-aid highway program formula funds to strengthen youth career pathway programs. Funds can be used to support career navigation, workforce credentials, work-based learning, and dual enrollment in academic and career connected courses.

WIOA requires that states submit a unified state plan to the U.S. Secretary of Labor every four years. Plans describe multi-year approaches to achieve workforce development goals. State plans may include:

- An analysis of current and emerging industries and occupations and the education and training required for workers to fill those positions;
- Current labor market and workforce conditions;
- The capacity of the state to meet the training needs of workers and employers; and
- Metrics to assess the state workforce system's effectiveness.²⁹

Plans were last due in March 2020 and will likely be due again in the spring of 2024.³⁰

The American Rescue Plan Act

The American Rescue Plan Act (ARPA) is a \$1.9 trillion economic stimulus bill passed in 2021. It aimed to fight the COVID-19 pandemic and facilitate the country's recovery from its health and economic effects, including the related recession. This law authorized the Coronavirus State and Local Fiscal Recovery Fund (SLFRF) program, which delivers \$350 billion in direct, flexible funding to state, local, and tribal governments. Congress made this investment to assist workers, families, and small businesses struggling with the public health and economic impacts of the pandemic, as well as build a strong, resilient, and equitable recovery.³¹

States and localities can use SLFRF program dollars for several workforce activities. Examples include job training, creating public jobs programs, and supporting access to child care and transportation to and from a jobsite or interview. Funds can also be used to develop incentives for newly employed workers, provide subsidized employment, create grants to hire underserved workers, and support job and workforce training centers.³²

Only state, territorial, metropolitan, city, county, and tribal governments can request their allocation of state and local funds from the U.S. Department of Treasury. State and local funds for workforce activities must be obligated no later than December 31, 2024, and expended by December 31, 2026.³³ According to the Treasury Department, some medium to large cities and counties still have substantial money left. At the same time, some states and localities have spent all, or nearly all, of their SLFRF program dollars.



Several entities are tracking how much of these investments states and localities have used to date:

- The Treasury Department created a dashboard of projects from reports submitted by state and local governments through April 2023. The Treasury Dashboard includes information on the recipient (state or local area), budget, and a summary of the project. The dashboard also contains links to the full dataset from the most current reporting period, as well as datasets from previous reporting periods. Information on the projects that tribal communities are undertaking can be found in Treasury's Tribal Recovery Report.
- The National Conference of State Legislatures tracks the estimated amount of SLFRF program dollars that have been disbursed to states, as well as how states have allocated funds, in its dataset, ARPA State Fiscal Recovery Fund Dashboard.
- The National League of Cities, Brookings Metro, and the National Association of Counties, compile information from local governments to track how large cities and counties are deploying SLFRF program dollars in the online resource, Local Government ARPA Investment Tracker.

States and localities with unallocated state and local funds can use SLFRF funding to create training programs to build a foundation and pipeline of trained workers for future federal investments from IIJA, IRA, and CHIPS and Science Act funding. The National Governors' Association (NGA) highlights how states can utilize federal programs to create career pathways into the construction sector. NGA's Infrastructure Workforce Resource Mapping Tool outlines prospective pathways into infrastructure careers along with federal opportunities states can access to fund training.



Wisconsin

Wisconsin invested \$100 million in the Workforce Innovation Grant Program. It enables regional teams to identify employment challenges, with a focus on equity, and supports training for in-demand jobs. The program includes funding for supportive services, including access to transit, child care, and other services.³⁴

Massachusetts

Massachusetts allocated \$50 million to train 15,000 adults and provide industry credentials in critical industries such as advanced manufacturing, health care, information technology, and construction.³⁵

Inflation Reduction Act Tax Credit Incentives and Apprenticeship Utilization Requirements

The IRA incentivizes project owners to pay prevailing wage rates and use apprentices to help ensure the clean energy and electrification jobs being created will be good quality jobs and to create the training pipelines needed to diversify the sectors. Clean energy projects and certain manufacturing facilities are eligible for significant production and investment tax credits if they adhere to certain requirements.

Facilities are only eligible for the full tax credit amount if they pay prevailing wages and fulfill apprenticeship requirements. Specifically, the base tax credit increases from 6 percent to 30 percent for all clean energy projects greater than or equal to 1 megawatt if facilities meet prevailing wage and apprenticeship requirements. If companies commit to the requirements, but fail to meet the standards, they will be forced to pay back 83 percent of the credit.³⁶

To meet the IRA's apprenticeship requirements, a set percentage of total hours worked on a construction project should be performed by registered apprentices. In 2022, 10 percent of total labor hours on a supported construction site should be completed by qualified apprentices. This requirement increases to 15 percent by 2024. Additionally, the IRA extends prevailing wage requirements to private construction projects for the first time.³⁷

Child Care Requirements and Workforce Provisions in CHIPS and Science Act Funding

In the winter of 2023, NIST released the first funding opportunity authorized under the CHIPS and Science Act to construct and modernize commercial semiconductor production facilities. Applicants requesting over \$150 million in direct funding must submit plans to provide workers who will construct and operate the facilities with access to affordable, reliable, and high-quality child care. In June, the scope of the funding opportunity was expanded to include applicants seeking to construct or modernize commercial semiconductor productor production facilities for which the capital investment is at least \$300 million.³⁸

Entities seeking this funding will also be required to submit workforce development plans for their facility and construction workers. In addition, all laborers and mechanics on CHIPS and Science Act-funded projects must be paid wages at rates not less than those prevailing on similar projects in the locality, consistent with the Davis-Bacon Act.³⁹

One of DOC's primary goals is to enhance American competitiveness and national security by increasing domestic semiconductor production. To fulfill this goal, companies receiving public funding must be able to recruit and retain workers, including women and people of color.⁴⁰ Research demonstrates that expanding access to child care is integral to increasing women's labor force participation.⁴¹

The CHIPS Workforce Development Planning Guide outlines how applicants can create quality jobs and diverse hiring and training pipelines, as well as partner with labor and community groups to ensure quality and equity.

CHIPS & SCIENCE ACT WORKFORCE PLAN REQUIREMENTS

Applicants' workforce plans must include a description of steps they will take to recruit, hire, train, and retain a diverse and skilled construction workforce, including people of color, people from rural communities, veterans, and women. The plan should include the following five elements:

- 1. A workforce needs assessment;
- 2. Strategies for worker recruitment and retention;
- 3. Plans for workforce training and wraparound services;
- 4. Metrics to measure performance and accountability; and
- 5. An approach to meeting DOL's and DOC's Good Jobs Principles. The principles cover eight core concepts of what comprises a good job, including:
 - Recruitment and hiring;
 - Benefits;
 - Diversity, equity, inclusion, and accessibility (DEIA);
 - Empowerment and representation;
 - Job security and working conditions;
 - Organizational culture;
 - Pay; and
 - Skills and career advancement.42

Applicants are required to develop partnerships with educational and training entities. The agency further encourages them to develop sectoral partnerships to ensure that applicants create immediate and long-term career pathways for local workforces to build and operate facilities. Applicants that do not include sectoral partnerships (discussed in more detail in Section 5) are asked to explain why such partnerships are infeasible and other ways that they will engage partners.⁴³ The plan should also identify existing workforce programs that are effective in training diverse employees, such as high-quality pre-apprenticeship and registered apprenticeship programs. Applicants must seek partnerships with the programs to provide training.⁴⁴

DOC also encourages applicants to use Project Labor Agreements (PLAs) in construction projects. A PLA is a legally binding, pre-hire, collective bargaining agreement negotiated between one or more construction unions and one or more construction employers (developers, contractors, etc.) on a construction project. PLAs are discussed in more detail in Section 7. Entities that do not identify PLAs in their plans will be required to show they have taken other measures to ensure workforce continuity and reduce the risk of delays in project completion.⁴⁵

Proven Workforce Strategies to Equitably Recruit, Train, and Retain Workers

Registered Apprenticeship and Pre-Apprenticeship Programs

Apprenticeship programs are a tested and proven mode of effective workforce development. They provide workers with paid, on-the-job training and related instruction to learn the skills and knowledge required for an occupation and career. Registered apprenticeship programs (RAPs) are apprenticeship programs validated by DOL or a state apprenticeship agency. They create viable pathways to high-quality jobs that offer significant economic gains, while also providing employers with an industry-driven and customizable strategy to recruit and grow the trained workforce needed to be competitive.⁴⁶

According to DOL, the average annual starting salary after the completion of a registered apprenticeship program is \$80,000. Apprenticeship graduates earn \$300,000 more over their lifetime compared to peers who did not complete an apprenticeship. And employers retain 90 percent of apprentices as employees after apprenticeship completion.⁴⁷

Unfortunately, women and workers of color are deeply underrepresented in RAPs. In 2021, just 13.4 percent of apprentices were women. These gaps are just as stark along racial lines. That same year, Black workers comprised only 7.6 percent of apprentices⁴⁸—despite making up 13 percent of the labor force overall.⁴⁹

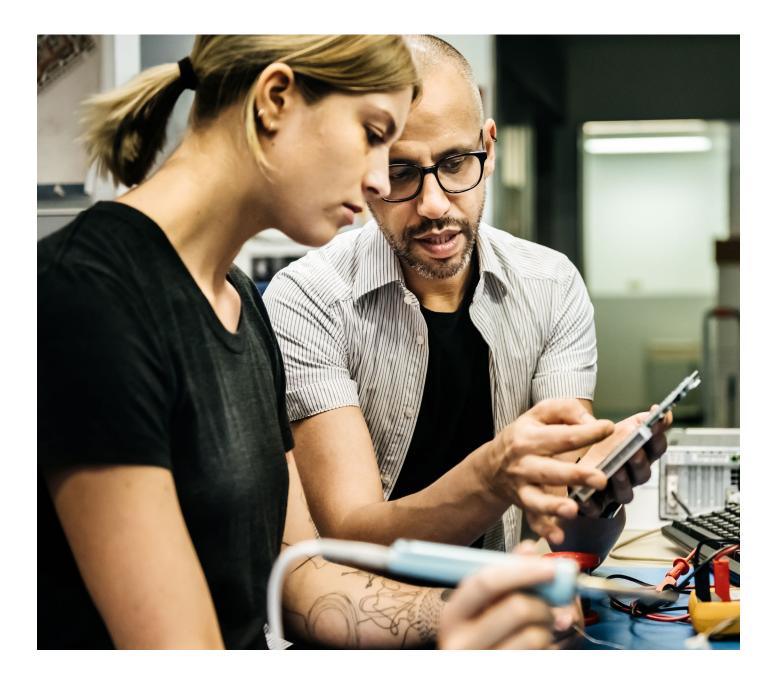
Wages among women and Black apprentices are also much lower than those of other apprentices. In 2017, women who completed a registered apprenticeship program made only 42 cents to a man's dollar. The intersection of race and gender imposes a dual penalty on Black women. Among people who completed a registered apprenticeship in 2017, Black apprentices had the lowest exit wages of all racial and ethnic groups, at \$14.35/hour.⁵⁰

However, well-designed RAPs can be effective at enrolling women and people of color and graduating participants into journey-level,⁺ or staff-level, status. **Joint labor-management apprenticeship programs** have also been shown to increase equity. They are run by unions and employers and are funded by employers who pay into apprenticeship and training trust funds that are used to cover the program costs.

⁺Journey-level generally requires previous training or experience and specific skills. Work usually is performed under moderate supervision. This level is considered staff level and not a senior-level position.

Pre-apprenticeship programs can also help recruit and prepare women and people of color to qualify for and succeed in apprenticeship programs, increasing equitable access to apprenticeships programs. These programs, which teach basic technical and job-readiness skills for a designated apprentice occupation or sector, prepare students for a formal registered apprenticeship training program. Effective pre-apprenticeship programs partner closely with RAPs, labor unions, and employers to ensure they prepare participants for the next level of training.⁵¹

Despite DOL guidance outlining how WIOA program funding and other sources of federal funding can be utilized to support registered apprenticeships, the public workforce system continues to have a persistently low rate of registered apprenticeship enrollment.⁵² Research led by Safal Partners finds that an overall lack of apprenticeship knowledge within the public workforce system is impeding its ability to incorporate RAPs into local workforce programming and hindering the scaling of registered apprenticeship programs.⁵³





Illinois

Illinois passed legislation to allocate funding for new pre-apprenticeship programs in the construction industry and building trades that are aimed at increasing the participation of people of color and women in the sector.⁵⁴ The programs' primary focus is to ensure people who have been historically underrepresented in these industries can access career pathways to quality jobs on state infrastructure projects. The pre-apprenticeship programs include supportive services designed to increase retention and successful transition into full apprenticeship programs in the sector.⁵⁵

California

California built pre-apprenticeship programs to achieve workforce equity and environmental justice goals. The Utility Pre-Craft Trainee program was jointly developed by the Los Angeles Department of Water and Power and the utility electrical workers' union—the International Brotherhood of Electrical Workers (IBEW) Local 18. It creates career pathways for participants, while helping the largest municipal utility in the country invest in energy efficient technologies.⁵⁶

The program provides pre-apprenticeship training for entry-level workers who are interested in careers with the utility, but who may not have previous experience. It also helps jobseekers who lack the background needed to pass the civil service examinations required for employment at the utility. Trainees work full-time weatherizing homes and are paid. During the program, they acquire new skills, learn about career options within the utility, and prepare for the civil service examinations.⁵⁷

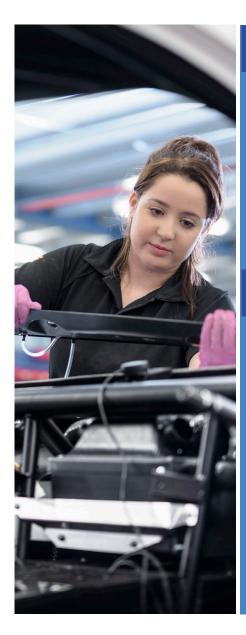
Pennsylvania

A study of Pennsylvania apprenticeship programs affirmed their effectiveness. It found that jointly sponsored labor-management apprenticeships accounted for 85 percent of all construction trade apprentices in the state. Among that apprentice pool, over 90 percent were women and people of color. Graduation rates for women and people of color were also 25 percent higher in joint labor-management programs. Upon completion of the apprenticeship, wage rates were 60 percent higher for union apprentices compared to non-union apprentices.⁵⁸

Sector Partnerships

Sector-based training is another proven workforce development strategy that brings together multiple stakeholders to collaboratively meet industry employment needs as well as the needs of workers in a region. Sector partnerships occur between many employers in an industry: education and training providers, including high schools, career and technical education providers, community colleges, and higher education institutions; the public workforce system; labor unions; and worker and community-based organizations.

Programs combine on-the-job training with a full range of support services—like child care, transportation, and funding for uniforms and tools—that increase the likelihood of workers successfully completing the training program. On-the-job training includes components like job instruction, job rotations, internships, coaching, mentoring, and apprenticeship training. Unions, worker organizations, workforce intermediaries, employers, and public entities work together to design sector partnerships to align with regional labor market, worker, and employer needs, making it more likely that participants will secure a job at the end of the training period.



Wisconsin

The Wisconsin Regional Training Partnership is a union-led, sectorbased training program. It partners with unions and employers to recruit, train, and retain workers in union construction and manufacturing jobs. The partnership includes pre-apprenticeship and apprenticeship programs. Apprentices receive three to five years of classroom instruction, on-the-job training, and access to supportive services. At the end of training, participants are supposed to have access to a union job with opportunities for career advancement.⁵⁹

Ohio

The U.S. Economic Development Association's (EDA) Good Jobs Challenge, funded under ARPA, awarded \$500 million in grants in 2022 to support sector-based training strategies. EDA announced awards to 32 partnerships in 15 key industries across 31 states.⁶⁰

The Good Jobs Challenge awarded \$23.5 million to the Ohio Manufacturers' Association Educational and Industrial Development Institute in Columbus. The Institute is a partnership between 100 employers and community-based organizations to recruit and retain women, people of color, and other individuals from underrepresented populations—including from Appalachian coal communities—into high-quality manufacturing jobs. The Institute will use the Good Jobs Challenge grant to help train workers for semiconductor and electrical vehicle manufacturing in Ohio.⁶¹

Administrative Actions Designed to Advance Equity

The trades professions have a long history of both systemic racism⁶² and sexism,⁶³ including in many apprenticeship programs that create career pipelines into the trades. Evidence continues to suggest that workplaces hiring apprentices can be hostile and inaccessible to women and people of color.⁶⁴ These realities underscore the need for intentional efforts to ensure equitable implementation of infrastructure projects to build a diverse and equitable workforce. Working together, leaders can ensure women and people of color are benefiting from the jobs created by the investments and from the projects themselves. As outlined in this section, for nearly 60 years, federal administrative actions have promoted equity.

Executive Order 11246 to Reduce Job Discrimination in Federal Contracting

Signed by President Lyndon Johnson in the aftermath of the Civil Rights Act of 1964, and further strengthened over the years, Executive Order (EO) 11246 helps ensure equal employment opportunities. It prohibits certain federal contractors and federally assisted construction contractors and subcontractors from discriminating in employment on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin. Contractors and subcontractors must adhere to this EO if they make over \$10,000 from government business in one year. The EO also requires government contractors to take affirmative action to ensure that equal opportunity is provided in all aspects of their employment.⁶⁵

The EO establishes participation rate goals for covered construction contractors on all federal, federally assisted, and nonfederal construction work. The participation rate is a percentage of hours that a contractor's total employees worked in each trade and on all construction performed in a geographic area. A covered construction contractor must apply the participation rate goals to all of its federal, federally assisted, and nonfederal construction work. If a contractor works in multiple geographic regions, it must make a good-faith effort to achieve the goals for women and people of color everywhere it works.⁶⁶

- **Goals for women:** The current goal for EO 11246 is for 6.9 percent of the hours worked by a trade to be worked by women. It applies to all of a contractor's construction sites, regardless of where the federal or federally assisted contract is performed.⁶⁷
- **Goals for people of color**: The goals for people of color are formulated in terms of work hours performed, by trade, and in a specific location based on the demographics of the area's population, known as a Standard Metropolitan Statistical Area (SMSA) or non-SMSA.⁶⁸

Goals can be found in Appendix P, "Participation Goals for Minorities and Females," of the Construction Contractors Technical Assistance Guide.

The DOL's Office of Federal Contract Compliance Programs (OFCCP) is responsible for contractor and subcontractor compliance, including monitoring and regulating nondiscrimination. It is also the entity charged with holding federal contractors and subcontractors accountable to EO 11246. Failure to meet any goal, in and of itself, does not constitute an EO violation. Contractors must demonstrate good-faith efforts toward meeting the participation rate goals they include in their bid solicitations. For the purposes of implementing infrastructure projects specifically, these goals are important benchmarks for all construction contractors doing business with the federal government.

Justice40, Advancing Environmental Justice in Marginalized Communities

In January 2021, President Biden established the Justice40 Initiative through Executive Order 14008.⁶⁹ Its goal is to help confront and address decades of underinvestment in disadvantaged communities. Under the Initiative, 40 percent of the overall benefits of certain federal investments should "flow to disadvantaged communities that are marginalized, underserved, and overburdened by pollution."⁷⁰

This could include funding prioritization or targeting of resources. The categories of investment are:

- Climate change;
- Clean energy and energy efficiency;
- Clean transit;
- Affordable and sustainable housing;
- Training and workforce development;
- Remediation and reduction of legacy pollution; and
- Clean water and wastewater infrastructure.

The Biden Administration issued Justice40 Interim Implementation Guidance in 2021 and identified existing federal programs to serve as pilot programs. Several funding notices from federal agencies tasked with implementing IIJA legislation incorporated Justice40 elements. These funding notices included priorities like:

- Fostering quality job creation and job training;
- Including the opportunity to join a union and collectively bargain;
- Prioritizing or awarding extra points to projects that meet criteria for benefiting disadvantaged communities and that include community engagement, planning, and feedback; and
- Establishing targets or minimum thresholds to benefit disadvantaged communities, such as specifying that a certain percentage of jobs created are held by local residents.⁷¹





BROWNFIELD REMEDIATION & REVITALIZATION

The EPA's Brownfields and Land Revitalization Program is covered under Justice40. The program provides grants and technical assistance to communities, states, and tribes to assess, safely clean up, and sustainably reuse properties contaminated by hazardous substances and pollutants. The program includes \$1.5 billion to scaleup community-led brownfields remediation and revitalization grant programs. Of this, \$1.2 billion is available for brownfield assessment grants, clean-up grants, technical assistance, environmental remediation job training, and reuse/economic revitalization. Further, it offers \$300 million to support state and tribal brownfield clean-up programs.⁷²

To align with Justice40, EPA has prioritized job training for underserved communities and significantly increased funding for job training.⁷³ Nonprofits, local governments, and other organizations can apply for job training grants to recruit, train, and place unemployed and underemployed residents of areas affected by brownfield sites into cleaning and remediation jobs.⁷⁴ EPA has also expanded eligible uses of grant funds to include stipends for training participants and child care subsidies.⁷⁵

Executive Order 13985, Advancing Racial Equity and Support for Underserved Communities Through the Federal Government

Also signed in January 2021, Executive Order 13985 recognizes that "entrenched disparities in our country's laws and public policies, and in our public and private institutions, have often denied equal opportunity" to Black, Latinx, and Indigenous communities. It directs federal agencies to take a comprehensive approach to advancing equity by fighting systemic racism and creating agency policies to combat racial inequities in policy implementation. This includes creating programs that increase investment in communities of color and allocating resources to address the failures to invest in them sufficiently, justly, and equally. The EO also directs agencies to increase engagement with community-based and civil rights organizations.⁷⁶

Executive Order on Further Advancing Racial Equity and Support for Underserved Communities Through the Federal Government

This Executive Order was signed in February 2023 and builds on the previous equity-related EOs by strengthening and expanding racial equity requirements for federal agencies. It requires agency heads to establish equity teams tasked with developing Equity Action Plans that outline potential barriers to underserved communities in accessing and benefitting from the agency's policies and programs. Agencies must also create strategies to address barriers, ensure equitable access and opportunity, and develop a plan to engage with underserved communities.⁷⁷

The EO also establishes the White House Steering Committee on Equity. Composed of senior White House officials, it is tasked with coordinating government-wide efforts to advance equity. The Committee must consult with agencies on their plans, monitor agencies' activities, and promote accountability to ensure that agencies take steps to deliver equitable outcomes.⁷⁸

29 CFR Part 30, Equal Employment Opportunity in Apprenticeship

Inequities, discrimination, and barriers to entry often prevent Black, Indigenous, and Latinx workers; women; youth; and people impacted by the criminal justice system from accessing and succeeding in registered apprenticeship programs. The Equal Employment Opportunity in Apprenticeship regulations promote equal opportunity for apprentices and applicants for apprenticeship in registered apprenticeship programs. These rules prohibit discrimination based on race, color, religion, national origin, sex, sexual orientation, age (40 or older), genetic information, and disability.

Sponsors of RAPs must also take steps to establish, monitor, promote, and maintain affirmative action plans to provide equal opportunity in apprenticeships. They must also provide procedures to file and process complaints and to share enforcement mechanisms. These regulations further establish protocol for deregistration of an apprenticeship program in the event of noncompliance.⁷⁹



Equity Tools to Create Good Jobs and a More Diverse Workforce

For women and people of color to be recruited, hired, and retained in emerging jobs, workforce programs must be designed and implemented more equitably. The provisions described below are intended to increase access to quality job training and development programs, as well as promote access to collective bargaining and labor unions. They also aim to raise wages, enhance transparency in hiring and job retention, and ultimately build economic opportunity and security for women and people of color.

These tools include:

- 1. Local and Targeted Hiring Agreements;
- 2. Project Labor Agreements;
- 3. Community Workforce Agreements;
- 4. Community Benefits Plans;
- 5. Community Benefits Agreements; and
- 6. Access and Opportunity Committees.

Local and Targeted Hiring Agreements

Local and targeted hiring refers to policies attached to large economic development and construction projects to ensure a percentage of jobs are set aside for local residents or job seekers that share certain economic or demographic characteristics. For example, prospective workers may be from communities that have been historically underrepresented in an industry or experience barriers to employment.

Targeted Hiring

Economically targeted hiring refers to prioritizing workers based on their economic conditions, such as individuals who make under a certain income threshold or who receive income-based public assistance, like Supplemental Nutrition Assistance Program (SNAP) benefits. This approach can also target individuals with known barriers to employment, such as people without a high school diploma, individuals impacted by the criminal legal system, or those experiencing homelessness.

Some localities have chosen to prioritize demographic groups that are protected by equal employment laws (e.g., by race or gender) and experience systemic inequities in the labor market and beyond. If a local area chooses this strategy, targeted hiring goals should connect to other economic characteristics—like underrepresentation in the industry or income level—that tend to occur among targeted communities.

If structuring a program this way, a locality will need to conduct a disparity study. Such studies determine if inequities exist for women and/or people of color in specific occupations within the local labor market. The study should examine the makeup of the local workforce and the demographics of individuals working in occupations represented on the project and in related occupations. The locality should then base its targets on these factors.



Local Hiring

One way to define local workers includes attaching economic considerations on top of geographic conditions. For example, local workers may be from areas that are economically distressed, have a high unemployment rate, or have a certain percentage of households at or below the federal poverty level.

A provision in IIJA allows policymakers to adopt preferences for local and economically targeted hiring on DOT-funded highway and transit construction projects.⁸⁰ Even prior to IIJA's passing, many cities and states implemented targeted hiring policies on locally funded projects. Jobs to Move America and its partners created a Local Hire Guidebook, which details how to establish local hire provisions.

Project Labor Agreements

A Project Labor Agreement (PLA) is a legally binding, pre-hire, collective bargaining agreement negotiated between one or more construction unions and one or more construction employers (projects developers or contractors) on a construction project. PLAs govern the terms and conditions of employment for all craft workers—union and non-union—and bind all contractors and subcontractors to the agreement.⁸¹

Essential components of PLAs include provisions that:

- Ban strikes and lockouts;
- Outline grievance and arbitration procedures;
- Establish wages and fringe benefits for all workers; and
- Require contractors to hire workers for the project through a union hiring hall that is responsible for supplying trained workers.⁸²

PLAs can also include local and targeted hiring policies and pre-apprenticeship and apprenticeship utilization requirements. These agreements provide the structure and stability needed to reduce uncertainties for the multiple parties involved in large-scale construction projects for which efficient and timely delivery is essential. The use of PLAs and Community Workforce Agreements (described in more detail below) is encouraged on many federal infrastructure projects. They support workforce equity, strengthen stability, and help ensure investments benefit the local community and economy.

PLAs have been incorporated into local, state, and federal construction projects for decades. In February 2022, President Biden signed an executive order reaffirming their use in federal construction projects, encouraging all federal agencies to use PLAs when awarding any contract in connection with a large-scale construction project.⁸³



THE LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

In 2012, the Los Angeles County Metropolitan Transportation Authority (LA Metro) became the first transit agency in the nation to adopt an agreement with targeted hiring goals for federally funded projects. LA Metro obtained special permission from the Federal Transit Administration to use a local hiring agreement as part of a federally funded project.

LA Metro created a local and economically targeted hiring program, known as the Construction Careers Policy. It is enforced and implemented through a PLA with the Los Angeles/Orange County Building Construction Trades Council. The PLA applies to locally and federally funded construction projects over \$2.5 million. The program's primary objective is to create pathways to construction jobs for local residents with low incomes and barriers to employment.⁸⁴

The PLA sets local and targeted hiring benchmarks. It includes requirements to hire people who meet the following conditions:

- 1. Forty percent participation from construction workers residing locally in economically disadvantaged areas. An economically disadvantaged area is defined by LA Metro as a zip code where the median household income is less than \$40,000 annually.
- 2. Twenty percent participation from apprentices. Additionally, 50 percent of all apprentices should reside in economically disadvantaged areas.
- 3. Ten percent participation from people living in economically disadvantaged areas and experiencing at least two barriers to employment. Barriers include:
 - Being homeless;
 - Being a custodial single parent;
 - Receiving public assistance;
 - Lacking a GED or high school diploma;
 - Having been involved with the criminal legal system;
 - Suffering from chronic unemployment;
 - Being emancipated from the foster care system; or
 - Being a veteran of the Iraq/Afghanistan war.⁸⁵

According to employment data, projects covered by the PLA consistently meet and exceed hiring goals. The program has created strong career pathways for thousands of workers since it was established.⁸⁶

Community Workforce Agreements

A Community Workforce Agreement (CWA) is a specific type of PLA. It is an agreement between the project owner and various representatives of a community. It includes community-oriented commitments relating to equitable workforce development, social justice, and small business support, among other tenets. A CWA could include provisions that require the project owner to use union labor.⁸⁷





Seattle, Washington

The City of Seattle passed an ordinance in 2015 establishing a targeted hiring program for city construction projects, known as Priority Hire. Through a CWA, Priority Hire helps workers access apprenticeship programs. In addition, it supports local hiring and retention by requiring contractors to hire workers who live in economically distressed areas. It also sets goals to create opportunities for women and people of color.⁸⁸

Since its implementation, Priority Hire reports that workers living in economically distressed communities have worked about 110 percent more hours and earned an additional \$36.7 million in wages because of their participation in the program.⁸⁹

Oregon

Oregon's Department of Transportation (ODOT) recently engaged state residents to gather input on priorities to improve the state transportation system and support communities. ODOT held listening sessions, hosted webinars, solicited public comments, and conducted targeted outreach to communities that have been marginalized. The Department incorporated this feedback in its plans to spend DOT flexible highway funds. To ensure job quality and workforce equity on IIJA funded projects, ODOT is now launching a CWA that uses local hiring agreements and invests in workforce development, training, and education.⁹⁰



Community Benefits Plans

To help foster equitable implementation of projects funded by the IIJA and IRA, the DOE requires applicants to develop and submit a Community Benefits Plan (CBP) when applying for funding.⁹¹

CBPs consist of the following components:

- Community, labor, and stakeholder engagement;
- Diversity, equity, and inclusion goals;
- Energy and environmental justice assessments of impacted communities;
- Plans to attract, train, and retain a skilled, qualified, local, and diverse workforce and to create quality jobs; and
- Provisions to support workers' rights.⁹²

Community Benefit Agreements

Community Benefit Agreements (CBAs) are legally enforceable contracts between community groups and a project developer that outline a set of community benefits the developer commits to delivering as a part of the project. CBAs are based on the premise that economic development should create tangible benefits for local residents and communities.

The benefits created through a CBA can vary and can be as broad as the needs of communities. They can include the terms and conditions of employment on the development project, such as local hiring provisions, wage requirements, and funding for training and job-readiness programs to prepare residents for jobs on the project. CBAs can also include funding for community programs and services, such as affordable housing, a child care center, or a health care clinic.

DOE created a Community Benefit Agreement (CBA) Toolkit to help applicants develop these agreements. CBAs are a possible outcome of meaningful community engagement that is part of a Community Benefits Plan.

Regional Clean Hydrogen Hubs Program

Under IIJA, DOE is authorized to administer the \$8 billion Regional Clean Hydrogen Hubs program to establish regional clean hydrogen hubs and help communities benefit from clean energy investments.⁹³ DOE is requesting grant proposals include CBPs to help expand access to quality jobs, invest in workforce training and development, and maintain labor neutrality positions. Proposals should also explain how the applicant will collect demographic data to measure success in recruiting and retaining workers from underserved communities and build in feedback loops with labor and community organizations to determine the efficacy of partnerships.⁹⁴

Rebuilding American Infrastructure with Sustainability and Equity Grants

DROGEN

DOT's Rebuilding American Infrastructure with Sustainability and Equity (RAISE) discretionary grants are designed for states, municipalities, tribal governments, counties, and others to carry out freight and passenger transportation infrastructure projects. DOT is seeking projects that promote good-paying jobs, apprenticeship pipelines, and labor partnerships. Local hiring policies, PLAs, and CBAs are important mechanisms that states and localities can include in their proposals to achieve these critical goals. A portion of funding is guaranteed for projects located in low-income communities and communities of color.⁹⁵



Access and Opportunity Committees

Project owners, contractors, unions, community groups, and other stakeholders can support equitable hiring and retention practices by establishing an Access and Opportunity Committee (AOC). According to the DOL, "AOCs are multi-stakeholder groups that regularly meet to monitor and support compliance with diversity and equity goals on a specific construction project or in a workplace." AOCs are often established by PLAs, CBAs, or other project agreements to help increase the representation of local workers or underrepresented workers in the construction industry.⁹⁶

One of the main responsibilities of an AOC is to ensure that demographically disaggregated workforce participation data is collected, reported, and reviewed.⁹⁷ Disaggregated data is important because it provides more granularity about who is getting jobs and employment opportunities, along with details about pay, benefits, etc. With this information, committees are better able to take appropriate actions to correct issues and meet equity goals.

For example, the AOC may provide compliance assistance or regularly meet with contractors or subcontractors that are underperforming on equity goals. The AOC can assist in developing strategies to advance more equitable outcomes, such as targeted outreach and engagement with specific communities or creating more inclusive workplaces.

THE MEGA CONSTRUCTION PROJECT PROGRAM

DOL's Office of Federal Contract Compliance Programs (OFCCP) considers construction megaprojects to be those spanning more than a year and having at least a \$35 million value. The OFCCP's newly relaunched Mega Construction Project (Megaproject) Program provides intensive, no-cost compliance assistance to construction contractors and subcontractors working on such projects.⁹⁸

In the initial launch, OFCCP will partner with the General Services Administration and DOT to provide extensive assistance to contractors and subcontractors working on 12 IIJA-funded projects.⁹⁹ This support aims to strengthen recruitment, hiring, and fair employment practices. The program's approach is expected to increase the employment of underrepresented communities in the construction trades, including women and people of color.¹⁰⁰



Funding is flowing to states and localities and will continue over the next 5 to 10 years. It is critical for advocates and stakeholders to align around strategies and tactics to ensure that federal investment creates economic opportunities for women and people of color. This section outlines how advocates can influence actions in their state or local area.

Monitor and Map the Flow of Federal Infrastructure Funding

Track Federal Grant Opportunities

DOL created a landing page—Open Federal Funding Opportunities with Job Quality Focus—to track open federal funding opportunities with a focus on job quality and workforce training. These opportunities are accessible via formula and competitive grants, cooperative agreements, and other arrangements.

Advocates can monitor this web page for new funding opportunities with a workforce and job quality focus. To ensure the success of infrastructure projects, unions, worker and community organizations, employers, and local and state governments must work together in applying for and implementing these opportunities.

Advocates can also monitor federal agency websites for new funding opportunities and sign up for agency listservs to be notified when new opportunities are released. These agencies include:

- U.S. Department of Transportation;
- U.S. Department of Energy;
- National Telecommunications and Information Administration;
- CHIPS for America Program Office;
- U.S. Environmental Protection Agency; and
- U.S. Army Corps of Engineers.

Track Federal Infrastructure Investments

The White House created an interactive map that shows where public investment and private sector investments mobilized by IIJA, IRA and the CHIPS and Science Act are occurring. The map details projects directly funded by the three laws, as well as private investment catalyzed by the laws.

The General Services Administration also released a national dashboard that allows users to see where IIJA funded grants have been already awarded. Using the map, users learn the project's location, who was awarded funding, which agency provided the funding, the program name, and the award amount.

Additionally, the Center for American Progress is cataloging investments made under the infrastructure laws in an interactive database. Users can filter by category, state, congressional district, amount, and/or keyword. As of publication of this paper, the database includes more than 35,000 investments.

Advocates can use these tools to gather insight into the workforce plans for the identified projects, build relationships with relevant stakeholders, and hold all project actors accountable to help ensure equitable implementation. Advocates can also inquire about compliance monitoring, tracking, and evaluation, as well as explore how to best ensure accountability toward equitable hiring and retention goals.

These tools can help advocates monitor and influence projects that have already been awarded in their communities. Understanding who is receiving funding and where projects are located may shed light on which government agencies are involved, public or private contractors to approach, and community stakeholders to engage.

Track Federal Grant Opportunities and Investments with Specific Workforce Provisions

As highlighted throughout this paper, many IIJA, IRA, and CHIPS and Science Act grant programs have specific workforce requirements.

U.S. Department of Transportation

As mentioned in Section 7, DOT's RAISE grant program provides funding to states, tribes, and other local entities for projects that promote good-paying jobs, apprenticeship pipelines, and labor partnerships. Advocates can work with state and local officials to include these provisions in a proposal, potentially increasing the likelihood the project will receive funding.

The full list of 2023 RAISE grantees is available here: RAISE 2023 Fact Sheets. Many of these projects committed to using PLAs, registered apprenticeships, and/or local hire agreements. Advocates can monitor this list and connect with project sponsors in their area about their workforce needs.

In response to a request from advocates to better facilitate understanding of who is applying for and receiving discretionary grant funding, DOT is making public lists of cities and states applying for large amounts of IIJA discretionary grant awards. The list of discretionary grant applications is available here. This spreadsheet includes information for all eligible applicants to the:

- 2022 Rebuilding American Infrastructure with Sustainability and Equity (RAISE);
- Nationally Significant Multimodal Freight & Highway Projects (INFRA);
- National Infrastructure Project Assistance (Mega);
- Rural Surface Transportation (Rural);
- Reconnecting Communities Pilot (RCP);
- Safe Streets and Roads for All (SS4A); and
- Strengthening Mobility and Revolutionizing Transportation (SMART) programs.

Advocates can monitor this list and hold cities and states that are awarded large amounts of discretionary funding accountable for implementing robust workforce plans.

U.S. Department of Energy

As noted in Section 7, DOE requires applicants for IIJA and IRA funding to include CBPs as part of their applications. Advocates can specifically track DOE funding opportunity announcements to influence the CBPs and monitor awarded projects to guarantee CPBs are equitably implemented.

U.S. Department of Commerce

Section 4 outlines how certain applicants for CHIPS and Science Act funding must include a description of how they will recruit, hire, train, and retain a diverse and skilled construction workforce, including people of color, people from rural communities, veterans, and women. Advocates can track funding opportunity announcements from NIST's CHIPS for America Initiative and partner with applicants to develop inclusive workforce plans. Advocates can also monitor awarded projects to ensure compliance with federally approved plans.

Engage Federal Agencies on Implementation of the Justice40 Initiative

As discussed in Section 6, the Justice40 Initiative specifies that 40 percent of the overall benefits of certain federal investments should be directed toward disadvantaged communities.

Advocates can see what programs and communities are covered under the Justice40 Initiative and hold federal agencies accountable for investing in these communities. Several entities have created useful assessment tools:

- 1. The White House provides a full list of Justice40 covered programs available here: Justice40 Initiative Covered Programs List.
- 2. DOT lists its specific Justice40 covered programs here: DOT Justice 40 Covered Programs.
- 3. The Climate and Economic Justice Screening Tool is a mapping tool created by the President's Council on Environmental Quality to help identify disadvantaged communities. These communities qualify for Justice40 programs.

Additionally, both IIJA and IRA provide funding to community-based organizations. The Justice40 Accelerator aggregates federal funding opportunities related to the Justice40 Initiative to help community-based organizations access the funding directed to these groups: Justice40 federal funding opportunities.

Bring Together Interested Stakeholders

Diverse stakeholders with interests in creating equitable access to quality infrastructure jobs may want to collaborate in monitoring federal funding opportunities. The specific stakeholder groups that each community will convene are likely to look different depending on local factors. The following types of stakeholders may benefit from working together:

- Worker organizations, including labor unions and worker centers;
- · Community-based organizations, including tradeswomen's organizations;
- Civil rights organizations;
- Youth-serving groups;
- Environmental and climate organizations;
- Public health advocates and other service providers;
- Groups in the workforce system, such as community colleges, career and technical education providers, and workforce intermediaries;
- State and local agencies;
- Community and economic development groups; and
- Employers, developers, and industry associations.

Advocates can bring these groups together and create coalitions working toward similar goals. Partners may want to investigate and assess the current workforce development programming. They can determine if project labor agreements, community workforce agreements, or other equity accountability levers are already in place for local projects. If not, advocates should begin to build the foundation to create these policies.

Influence the Growth of Pre-apprenticeship and Registered Apprenticeship Programs

As discussed in Section 5, ensuring pre-apprenticeship and registered apprenticeship programs are accessible to people of color and women is an important element in reaching workforce equity goals. Worker and community groups can partner with state offices, labor unions, and workforce intermediaries, such as community colleges, to access funding and set up or expand pre-apprenticeship and registered apprenticeship programs. Ideally, these programs should include wrap-around supportive services accessible to women and people of color. Whenever possible, pre-apprenticeship programs should matriculate into union-managed registered apprenticeship programs.

Advocates can assess the quality and equity of pre-apprenticeship and apprenticeship programs available in their state. They can build partnerships with their apprenticeship registration agency to improve program quality, accessibility, and supportive services for women and people of color, as well as to scale up programs.

About half of states use the DOL Office of Apprenticeship (OA) as the registration agency for apprenticeship programs in their state. The other half have independent State Apprenticeship Agencies (SAAs) for that purpose. SAAs are recognized by the OA to oversee and register state and local registered apprenticeship programs. The OA and SAAs provide direct support and technical assistance to apprenticeship program sponsors. They also connect employers to training providers and advise partners of available funding sources. DOL lists apprenticeship contacts in each state here: State Apprenticeship System Contact.

Advocates can encourage local workforce development boards to invest WIOA money into registered apprenticeships. They can request that their state's governor or secretary of labor apply for DOL apprenticeship grants through the DOL Office of Apprenticeship.

More information about applying for grants can be found on the DOL's Open Apprenticeship Funding Opportunities webpage. Additional information about apprenticeships is available at the DOL website dedicated to the program: Apprenticeship.gov.

Non-profit organizations can also apply for the Women in Apprenticeship and Nontraditional Occupations (WANTO) grant, administered by the DOL's Women's Bureau. The WANTO grant is designed to support efforts to recruit, train, and retain more women in quality pre-apprenticeship and registered apprenticeship programs in nontraditional occupations. The grant aims to encourage and increase the participation of women in these occupations. A nontraditional occupations include automotive, electronics, and welding careers—areas that are expected to experience growth under the infrastructure laws. Organizations can use the WANTO grant to increase women's access to these careers, as well as additional opportunities supported by the infrastructure laws.¹⁰¹

If partnerships do not already exist in their states, advocates can encourage their state DOTs and the applicable apprenticeship registration agencies to form partnerships. DOL and DOT created a guide for state transportation agencies to assist in developing registered apprenticeship programs in the transportation sector. Creating a Skilled and Diverse Workforce for Infrastructure Projects through Registered Apprenticeship offers helpful recommendations to support partnerships between state DOTs and state apprenticeship leads. For example, state DOTs can work with the state apprenticeship offices to develop apprenticeship programs and create apprenticeship utilization goals on DOT funded projects.

Additionally, Section 4 details how states and localities with unallocated ARPA SLFRF program dollars can access the funding to create workforce training programs, including pre-apprenticeship and apprenticeship programs. These programs could help build a pipeline of trained workers for future federal investments from IIJA, IRA, and CHIPS and Science Act funding. The Department of Treasury's website explains how to request funding, eligible uses, and other important information about SLFRF program funding. **Advocates can reach out to their state and local elected officials to determine if unallocated state and local funds are available to invest in workforce programs.**

Encourage Development of Sector Partnerships

Sector partnerships (as discussed in Section 5) are another proven workforce development strategy. Sector strategies can be funded through DOT highway funds, SLFRF program dollars, governors' discretionary WIOA funds, or philanthropic investments. Organizing sector-based training programs in the manufacturing, construction, and clean energy sectors could help women and people of color build careers in sectors where infrastructure investments are occurring.

Advocates can play a leading role in organizing sector-based training programs by working with employers, unions, and workforce intermediaries like community colleges, community-based organizations, funder collaboratives, or economic development organizations. Together, these partners can collectively apply for federal funding together, petition the governor for discretionary WIOA funds, appeal to the state legislature to appropriate or direct state funds to sector partnerships, or engage philanthropy for the funding.

Also noted in Section 5, the U.S. EDA'S Good Jobs Challenge, awarded \$500 million in grants to support sectorbased training strategies in 2022. Advocates can connect with these grantees to help place women and people of color into the existing training programs or build on the partnerships that intersect with IIJA, IRA, and CHIPS and Science Act projects.

Influence State Agencies' Planning and Priorities

As discussed above, many IIJA, IRA, and CHIPS and Science Act funding applicants and project grantees are required to engage labor and community partners and develop robust workforce equity plans to ensure diversity and stability in the work. For example, agencies including the DOT, DOE, and DOC, have released funding opportunities and workforce planning guidance that encourages applicants to adopt equity levers like PLAs and CWAs.

Advocates can reach out to their state and local agencies and offices to influence planning and priorities; work with project sponsors to identify their workforce needs; create training, hiring, and retention pipelines; ensure robust labor standards; and hold project sponsors accountable to their plans.

Key state offices for outreach include:

- State Transportation Agencies;
- State Broadband Programs;
- State Energy Offices and Organizations;
- State Health and Environmental Agencies; and
- State Workforce Agencies.

Technical Assistance Funding

The Bipartisan Infrastructure Law Technical Assistance Guide from the White House identifies \$700 million in dedicated IIJA technical assistance funding to help communities apply for and deploy federal funding. It provides details on over 65 technical assistance resources and programs available to communities. The guide, which is organized by agency, includes a description of the program, eligibility criteria, and how to learn more about the funding. In addition to the technical assistance funding, it also highlights place-based initiatives focused on specific communities and geographies, as well as technical assistance tools.

The White House also released the Investing in America Technical Assistance Guide with resources to help communities access IIJA and IRA funding. It provides information about more than 100 federal technical assistance programs that can support efforts to access funding. It also provides information on state programs designed to aid communities in accessing funding.

Depending on the program, entities including state and local governments, tribes, nonprofits, educational institutions, and the private sector can access technical assistance funds. Advocates can work with the public and private sectors and education system to access technical assistance funds and participate in project design.

State Departments of Transportation

Human Capital Plans

IIJA requires DOT to encourage states to create five-year human capital plans. States can utilize this process to outline the immediate and long-term workforce needs of the state, as well as workforce development strategies to ensure the state has capacity to deliver on transportation and public infrastructure projects. Creating these plans is voluntary for states.¹⁰²

Advocates can work with state officials to develop equitable plans that diversify the transportation workforce. They can also help create training and development pipelines to ensure workers of color and women can access the new jobs. As noted in Section 4, guidance by DOT outlines how states can use highway funds to support the development of human capital plans.

Statements of Work

On Federal-aid highway construction contracts, state DOTs are required to establish apprenticeship and training programs targeted at moving women, workers of color, and/or other groups facing barriers to employment into journey-level positions.¹⁰³ The Federal Highway Administration (FHWA) requires state DOTs to submit a statement of work (SOW) for approval on an annual basis that demonstrates how the state transportation agency plans to create career pathways for these groups. This means careers leading to journey status, not short-term or temporary jobs. In their SOWs, state DOTs must demonstrate partnership and collaboration among contractors, trade associations, educational institutions (trade schools, public schools, community colleges, and universities), state departments of labor, state departments of education, and/or advocacy, nonprofit, or veteran organizations.¹⁰⁴

Advocates can request a copy of the SOW from the state DOT. Advocates can also work with state transportation agencies to develop robust plans and hold agencies accountable to the plan. DOT provides contact information for the FHWA Federal-aid Highway Division office in each state here: State DOT FHWA Field Offices.

Engage Civil Rights Officers

Federal contractors and subcontractors performing work on federal and federally assisted highway contracts are required to comply with nondiscrimination and affirmative action requirements. State transportation agencies are responsible for assuring that contractors and subcontractors do not discriminate based on race, color, religion, sex, national origin, age, or disability in their employment, contract, or on-the-job-training programs, such as apprenticeships.¹⁰⁵ Each state transportation agency is required to have a civil rights unit that focuses on contractor compliance, on-the-job training, and anti-harassment policies, among other policies.¹⁰⁶

Advocates can work with their state's civil rights officers to conduct outreach, recruitment, and on-thejob training for women workers and workers of color, as well as pre-employment readiness training. DOT provides a list of state civil rights personnel on its website: State Departments of Transportation - Civil Rights Personnel.

Leverage Other Federal Resources

As noted in Section 4, state formula funds from four large federal DOT highway programs can be leveraged for a range of proven workforce development programs and supportive services. Approximately \$50 billion is allocated each year to these programs. States will need to proactively choose to dedicate some of their existing formula funds to workforce development activities and can include this decision in their state plans.

Advocates can work with states to access these DOT workforce development dollars for construction jobs where skills can be transferred to other programs under IIJA and IRA, such as for climate-related jobs.

State Broadband Offices

As noted in Section 4, NTIA is the federal agency administering the BEAD program. States and territories were required to submit a letter of intent to express interest in the program by July 2022. After receiving planning funds, states and territories are required to submit a Five Year Action Plan and Initial Proposal. The program requires public disclosure of the Initial Proposal with a public comment period to facilitate community engagement and input into each state's plans and proposals for using grant funds. NTIA does not require public disclosure or comment on Five Year Action Plans; however, states may choose to post their BEAD Five Year Action Plans for public notice and/ or comment. To implement the BEAD program, the NTIA also established state broadband liaisons who have been trained on equity.¹⁰⁷

Advocates can see if their states submitted plans on the NTIA website, Public Notice Posting of State and Territory BEAD and Digital Equity Plans/Proposals, and provide comments during public comment periods. Advocates can also reach out to their state broadband liaison who could be a point of contact for advocates looking to create equitable pipelines into broadband jobs.

Blending Resources Between State Departments of Labor and Other State Agencies

State DOT planning can open the doors for joint planning with state DOLs—including WIOA planning, as mentioned in Section 4—to maximize available funding sources for workforce development. This can support recruiting and retaining people of color and women in infrastructure occupations.

WIOA funds can be used to create job training programs accessible to women workers and workers of color. It is up to the local Workforce Development Boards to decide how they appropriate WIOA funds. In addition, 15 percent of WIOA formula funds go to the governor for discretionary activities. Examples of job training programs include onthe-job training, apprenticeship programs, pre-apprenticeships programs, and sector-based partnerships.

Advocates can engage workforce boards to conduct state WIOA planning and encourage the use of funds for workforce training programs that matriculate into jobs on infrastructure projects.

Advocates can also encourage coordination between state DOLs and state DOTs, DOEs, and other agencies to influence infrastructure planning that aligns workforce development and project funding opportunities. Such coordination could include blending and braiding of workforce development resources, federal agency funding to states, and project resources. This type of alignment can help workers acquire the training and skills to fill the new jobs being created through the infrastructure laws.

The Markle Foundation outlines how state transportation and energy agencies can work with workforce agencies to build an inclusive workforce in its report: Realizing the Workforce Potential of Infrastructure Investments.



Push for Comprehensive Data Reporting Requirements

Data collection and analysis is critical to ensuring transparency and accountability in the workforce recruiting, training, hiring, retention, and advancement process. Some federal grants ask applicants to include how they intend to measure project performance in their applications, and reporting on outcomes is vital to holding public and private entities accountable to the workforce plans outlined in their grant proposals.

Advocates can urge their state labor market information agency, labor agency, and/or or education agency to conduct a labor market analysis. This will help identify workforce and training needs, as well as equity gaps. Having an understanding of the labor market landscape can help ensure that training programs focus on recruiting, hiring, and retaining underrepresented populations, including women and people of color.

Advocates can also work with states, localities, and project developers to include robust data collection and reporting requirements on infrastructure projects. This includes collecting data on race, ethnicity, immigration status, gender, and geography, as well as data on wages and benefits. This data is important for assessing equity in training, hiring, advancement, and retention.

Data should be made accessible to the public. Reviewing outcomes will be important to understanding the impact of any workforce investments and to evaluate what is working—and what may need to change—to ensure equity. Developing partnerships with academic or research institutions to conduct data analysis may also be beneficial to program evaluation and generating policy and program improvements.

Help Establish Feedback Loops

The IIJA, IRA, and CHIPS and Science Act will provide multi-year project funding to states, localities, and private entities. As a result, advocacy groups, community-based organizations, worker organizations, labor unions, and other stakeholders have the opportunity to provide critical feedback on best practices, challenges, and concerns in implementing them. Providing feedback can help ensure transparency and accountability, as well as build power and coordination at the state and local levels.

Advocates have many ways to offer input. They can ask questions and share concerns at meetings and events with the White House, their governor's office, or federal and state agencies, as well as in stakeholder and technical assistance meetings. Additionally, the Biden Administration encouraged states to name infrastructure coordinators, who may be useful points of contact.



Through the IIJA, IRA, and CHIPS and Science Act, the federal government is investing significant, once-in-ageneration resources into states and communities to rebuild our country's crumbling infrastructure; modernize and enhance the transportation, energy, clean water, and digital sectors; and advance justice in many areas. These federal bills will, for example, support advanced energy technologies; conduct environmental remediation and build resilience; close the digital divide; modernize the electric grid; and help mitigate climate change.

These investments also have the potential to create millions of quality jobs in communities across the country. However, a pervasive and pernicious trend persists across the clean energy, transportation, and construction job sectors: the workforce is predominantly white and male. Only through intentional, concerted efforts will women and workers of color share in the economic opportunity created by the new investments.

State and local leaders have a high degree of discretion in the development of transportation, construction, energy, and other infrastructure projects. Creating pathways to good jobs through federal investments will require coordination across state and local stakeholders. Collaborating groups can include state agencies, labor unions, worker centers, apprenticeship and training partners, and community-based organizations, among others.

Advocates can use several strategies to promote equity and progress, as well as build partnerships across state and local government, workforce agencies, labor unions, and the private sector. State and local stakeholders can work together to invest in pre-apprenticeship and registered apprenticeship programs and sector strategies. They can work with state DOTs to pull down FHWA funding to help build training pipelines into transportation project design. Advocates can also assess whether new projects are accessible to local workers, especially women workers and workers of color.

By working together in coalition and championing effective, equitable practices, we have the potential to help reshape the labor market. It's critical that advocates work to ensure communities of color, women, and communities with low incomes share in the benefit of the historic infrastructure, climate, and national security investments.



Resources Mentioned in the Report

Overview of Recent Federal Legislation

Infrastructure Investments and Jobs Act

• DOT Releases State-by-State Fact Sheets Highlighting Benefits of the Bipartisan Infrastructure Law

Workforce Development Funding to Strengthen Job Quality and Equity

IIJA Workforce Development Components

Formula Funded Grant Opportunities

- DOT Guidance for Use of Federal-aid State Core Program Funds
- NTIA Workforce Planning Guide

Competitive Funded Grant Opportunities

• DOT Grant Application Checklist for a Strong Workforce & Labor Plan

Grants for Job Quality and Workforce Training

Federal Transit Administration FAQs on Supportive Services

Additional Federal Funding Opportunities to Support Workforce Activities

The Workforce Innovation and Opportunity Act

- DOL Building Pathways to Infrastructure Careers: Framework for Preparing an Infrastructure Workforce
- DOT Using State Highway Formula Funds to Support Youth Career Pathways in Construction

The American Rescue Plan Act

- Treasury State and Local Fiscal Recovery Fund Dashboard
- Treasury's Tribal Recovery Report
- National Conference of State Legislatures ARPA State Fiscal Recovery Fund Dashboard
- The National League of Cities, Brookings Metro, and the National Association of Counties Local Government ARPA Investment Tracker
- NGA Infrastructure Workforce Resource Mapping Tool

Child Care Requirements and Workforce Provisions in CHIPS and Science Act Funding

CHIPS Workforce Development Planning Guide

Administration Actions Designed to Advance Equity

Executive Order 11246 to Reduce Job Discrimination in Federal Contracting

Construction Contractors Technical Assistance Guide

29 CFR Part 30, Equal Employment Opportunity in Apprenticeships

• Equal Employment Opportunity in Apprenticeship Regulations

Equity Tools to Create Good Jobs and a More Diverse Workforce

Local and Targeted Hiring Agreements

• Jobs to Move America Local Hire Guidebook

Project Labor Agreements

• DOL Project Labor Agreements as Tools for Equity.

Community Workforce Agreements

DOL Community Workforce Agreements

Community Benefits Plans

• DOE Community Benefit Plans at a Glance

Community Benefits Agreements

• DOE Community Benefit Agreement (CBA) Toolkit

Access and Opportunity Committees

• DOL Access and Opportunity Committees (AOCs)

Recommendations for Advocates

Monitor and Map the Flow of Federal Infrastructure Funding

Track Federal Grant Opportunities

- DOL Open Federal Funding Opportunities with Job Quality Focus
- DOT Key Notices of Funding Opportunity
- DOE Clean Energy Infrastructure Programs.
- NTIA Broadband Funding Programs
- CHIPS for America Program Office
- EPA Funding Announcements from the Bipartisan Infrastructure Law and the Inflation Reduction Act
- U.S. Army Corps of Engineers Bipartisan Infrastructure Law

Track Federal Infrastructure Investments

- The White House interactive map of public and private sector investments mobilized by IIJA, IRA and the CHIPS and Science Act
- The General Services Administration Bipartisan Infrastructure Law (BIL) Maps Dashboard
- Center for American Progress Biden Administration Investment Tracker

Track Federal Grant Opportunities and Investments with Specific Workforce Provisions

- DOT RAISE 2023 Fact Sheet
- DOT list of cities and states applying for large amounts of IIJA discretionary grant awards

Engage Federal Agencies on Implementation of the Justice40 Initiative

- White House Justice40 Initiative Covered Programs List
- DOT Justice 40 Covered Programs
- Climate and Economic Justice Screening Tool
- The Justice40 Accelerator: Justice40 Federal Funding Opportunities

Influence the Growth of Pre-apprenticeship and Registered Apprenticeship Programs

- State Apprenticeship System Contacts
- DOL Apprenticeship Funding Opportunities
- Apprenticeship.gov
- DOL Women in Apprenticeship and Nontraditional Occupations (WANTO) grant
- DOL and DOT Creating a Skilled and Diverse Workforce for Infrastructure Projects through Registered Apprenticeship
- Treasury Coronavirus State and Local Fiscal Recovery Funds Overview

Influence State Agencies' Planning and Priorities

- State Transportation Websites
- State Broadband Programs
- State Energy Offices and Organizations
- State Health and Environmental Agencies
- State Workforce Agencies
- White House Bipartisan Infrastructure Law Technical Assistance Guide
- White House Investing in America Technical Assistance Guide

State Departments of Transportation

- Human Capital Plans: DOT Guidance for Use of Federal-aid State Core Program Funds
- Statements of Work: State DOT FHWA Field Offices
- Engage Civil Rights Officers: State Departments of Transportation Civil Rights Personnel

State Broadband Offices

- Public Notice Posting of State and Territory BEAD and Digital Equity Plans/Proposals
- State Broadband Liaisons

Blending Resources Between State Labor Agencies and Other State Agencies

• The Markle Foundation - Realizing the Workforce Potential of Infrastructure Investments



Appendix I: Additional Partner Resources

The following appendix contains additional resources not mentioned in the paper from national partner organizations that provide an in-depth overview of the infrastructure laws; their programs and funding streams; and resources on how to develop equitable workforce development programs.

Organization	Document	Summary
Blue Green Alliance	BIL User Guide	Provides an overview of IIJA funding sources and other guidance.
	IRA User Guide	Provides an overview of IRA funding sources and other guidance.
Brookings Institute	Seizing the U.S. infrastructure opportunity: Investing in current and future workers	Provides data and information to help states target, measure, and address their infrastructure workforce needs. This resource includes state-specific fact sheets.
Center for American Progress	How to Support Good Jobs and Equity on Federal Infrastructure Projects	Provides an overview and analysis of how agencies have leveraged procurement to drive equitable access to good jobs through federal IIJA spending.
Jobs to Move America	Empirical Analysis of USDOT's Local Labor Hiring Pilot	Analyzes data from the Obama-era Local Hire Pilot project. It found that using local hire does not adversely impact the number of bidders or bid price, contrary to the original justification for prohibiting this policy.
National Center for Women's Equity in Apprenticeship and Employment	Massachusetts Supply and Demand Strategy: A Successful Model for Increasing Gender Diversity in the Trades	Outlines how the Policy Group on Tradeswomen's Issues and its partners have transformed opportunity for women in construction through a comprehensive supply and demand strategy.
National Employment Law Project	Pre-Apprenticeship: Advancing Equity & Access to Good Careers	Offers advice on how to design pre-apprenticeship programs that target and support pathways to employment for people impacted by the criminal legal system. This resource includes a summary of efforts in California.
National Taskforce on Tradeswomen's Issues	Framework for Promoting Equity and Inclusion for Women and People of Color	Outlines 10 essential components to promote equity and inclusion for women and people of color working in the trades on publicly funded infrastructure projects.
Policy Group on Tradeswomen's Issues	Finishing the Job: Best Practices for a Diverse Workforce in the Construction Industry	Provides recommendations to build a diverse construction workforce at a jobsite or in a company, apprentice training program, community, or union.
Vermont Department of Transportation	On-the-Job Training Manual	Describes how the state has implemented on-the-job training programs to address labor shortfalls and recruit and retain a diverse workforce.

Appendix II: Additional Resources from the Federal Government

The following appendix contains additional resources not mentioned in the paper from the federal government that provide overviews of the programs funded under the infrastructure laws, as well as detailed guidance on how to create equitable workforce recruitment, training, and retention pipelines.

Organization	Document	Summary
Department of Labor	The Good Jobs Initiative	Offers critical information and resources for workers, employers, and government on job quality, creating access to good jobs, and open funding opportunities.
Department of Labor	High Road to the Middle Class	Spotlights high-road training program partnerships with employers and labor— progams that implement demand-driven workforce strategies to advance job quality, equity, and worker voice.
Department of Transportation	Department of Transportation Bipartisan Infrastructure Act resources and webinars	Offers fact sheets and webinars on Bipartisan Infrastructure Act (BIL) programs authorized by DOT.
White House	A Guidebook to the Bipartisan Infrastructure Law for State, Local, Tribal, and Territorial Governments and Other Partner	Roadmap to the funding available under BIL. Explains how much funding is available at the program level.
White House	Advancing Equitable Workforce Development for Infrastructure Jobs	Provides an overview of the following federal funding resources to support equitable workforce development:
		1. Funding included in the BIL to support workforce development, either through dedicated resources or flexibly through a broader funding stream; and
		2. Key federal funding sources outside of BIL to support workforce development.
White House	A Guidebook to the Inflation Reduction Act's Investments in Clean Energy and Climate Action	Provides a program-by-program overview of the IRA, including who is eligible to apply for funding and for what purposes.
White House	Bipartisan Infrastructure Law State Fact Sheets	Provides detailed information about announced BIL funding and projects in each state, along with anticipated funding by category over the next five years.



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