THE PROJECT ON
WORKFORCE

BUILDING THE U.S. INFRASTRUCTURE WORKFORCE

A review of strategies for equitable access to construction careers

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About the Project on Workforce at Harvard
The Project on Workforce is an interdisciplinary, collaborative project between the Harvard Kennedy School's Malcolm Wiener Center for Social Policy, the Harvard Business School Managing the Future of Work Project, and the Harvard Graduate School of Education. The Project produces and catalyzes basic and applied research at the intersection of education and labor markets for leaders in business, education, and policy. The Project's research aims to help shape a postsecondary system of the future that creates more and better pathways to economic mobility and forges smoother transitions between education and careers. Learn more at www.pw.hks.harvard.edu.

Executive Summary

The Opportunity

The 2021 Bipartisan Infrastructure Investment and Jobs Act, also known as the Bipartisan Infrastructure Law (BIL), represents a once-in-a-generation investment in American infrastructure. Developed under the Biden Administration's broader Build Back Better framework, ambitious public infrastructure investment will make US transportation networks safer while posing a unique opportunity to create equitable access to good-paying jobs in the construction sector. Collectively, BIL efforts can create sustainable career pathways and strengthen the US economy.

The US Department of Transportation (US DOT) has made the inclusion of labor and workforce equity considerations in federal grant programs a top priority. US DOT intends to connect historically underrepresented communities with newly generated construction jobs and to encourage local governments and community organizations to adopt programs to encourage gender and racial diversity in the infrastructure workforce.

The Work

This report reviews strategies for growing and diversifying the infrastructure workforce from two key sources: applications for US DOT grant funding and interviews of existing construction workforce programs. Key concepts present in both sources are the use of some combination of local hire policies, working relationships or formal agreements that promote job quality, and workforce training and support programs.

For the **Local Hire Provisions in Federal Grant Applications** review, we analyzed more than 650 grant applications. We found that US DOT grant opportunities including workforce-related criteria can encourage applicants to incorporate new or to expand existing local hiring provisions into plans for federally funded infrastructure projects. We recommend that US DOT continue to provide technical assistance to grant applicants to achieve these goals.

The **Construction Workforce Best Practices** review involved summarizing the current landscape of workforce development programs supporting infrastructure investment across the US. We conducted 23 interviews with local and state-level entities across the US, and we subsequently developed a framework for building effective construction workforce programs in addition to seven program case studies. We recommend utilizing this 'Best Practice Checklist' as a tool to inspire and enable other local entities to create construction workforce programs.

The two bodies of work offer distinct and overlapping insights into promoting racial and gender equity. We conclude the report by considering three emerging challenges requiring attention in order to unlock the full potential of BIL's mandate and US DOT's vision for the future infrastructure workforce.

This report is for construction workforce advocates, local policy makers, and change-makers in communities across the country. We hope you will find inspiration in this work and the tools to create equitable access to quality construction jobs in your own community.

Introduction

## The Bipartisan Infrastructure Law

In November 2021, the Bipartisan Infrastructure Law authorized an additional $550 billion in new spending on the nation's transportation networks and other core public infrastructure.[1] Combined with existing federal allocations for the US highway system and other infrastructure projects, BIL will result in approximately $1.2 trillion in spending over the next decade to rebuild US infrastructure and support the country's economic competitiveness more broadly. Specifically, an additional $284 billion is allotted for surface transportation networks (e.g., roads, bridges, ports, and waterways) and another $266 billion is set aside for other core infrastructure projects (e.g., power grids, broadband, water infrastructure).[2]

US Department of Transportation's Strategic Role

In practical terms, BIL creates the need to fill positions for approximately 1.5 million job-years, estimating a peak employment gain of 872,000 jobs stemming directly from BIL by the fourth quarter of 2025.[3] But BIL also creates a unique opportunity for US DOT to advance equity, efficiency, and environmental goals through the infrastructure rebuild.

The US DOT has made the inclusion of labor and workforce equity considerations in federal grant programs a top priority.[4] This is particularly important since the biggest challenge facing the infrastructure workforce today is the lack of gender and racial diversity. As of 2021, the construction labor force was 87.9% white, and only 11% of workers were women.[5] Diversifying the infrastructure workforce is, therefore, not only a goal for US DOT but also a necessary step in ensuring prosperity and efficiency in the sector moving forward.

Figure 1. Racial and Gender Diversity in the Construction Labor Force
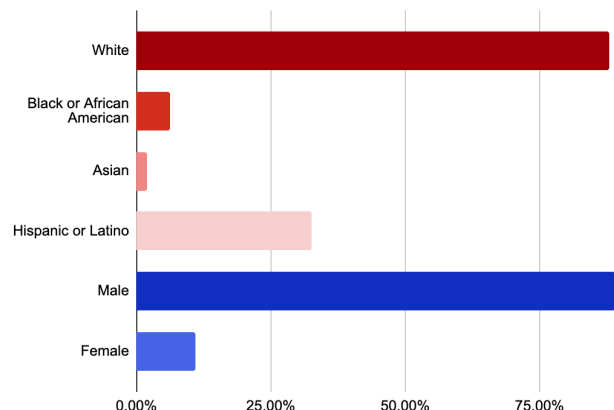
Citation: U.S. Bureau of Labor Statistics, 2022.

US DOT is responsible for approximately $274 billion of the new funding created by BIL and therefore influences the implementation of BIL through three key levers:[6]

- Federal grant programs, including announcements, evaluation methods, and awards

- Collaboration with and convening workforce development or training programs

- Provision of technical assistance to grant recipients and sub-recipients

Project Overview

Our work subsequently centered around two questions: 1) How can federal government opportunities create quality jobs and encourage racial and gender diversity in the infrastructure workforce? and 2) What is the current state of construction workforce development across the US?

The first part of this report assesses the impact of US DOT Notices of Funding Opportunity (NOFOs) encouraging labor policy or workforce development information in applications for infrastructure project funding by two grant programs that were expanded under BIL. Focused on modernizing infrastructure and making the transportation system safer and more accessible, the Rebuilding American Infrastruc-

ture with Sustainability and Equity (RAISE) grant program made available $1.5 billion in discretionary grants for the FY 2022 review cycle. This represents a 50% increase in available funds compared to FY 2021 and updated the TIGER grant program created under the American Recovery Act.[7] The Multimodal Project Discretionary Grant (MPDG) program consolidated three existing grant programs to reduce the burden on state and local applicants and prime the pipeline of shovel-worthy, transformational projects. Applying through the MPDG programs allows recipients to be considered for funding through National Infrastructure Project Assistance (MEGA), Infrastructure for Rebuilding America (INFRA), and/or Rural Surface Transportation (RURAL) grants.[8] We examine the structure and language of the NOFOs and also discuss high-level patterns observed in a sample of over 650 grant applications we reviewed.

The second section of this report evaluates common features of existing construction workforce development programs across the US. We draw on publicly available information about local hire practices, measures to ensure quality jobs, and approaches to skilling the next generation of infrastructure workers. Our work culminated in the creation of a Best Practices Checklist, which we used to develop seven case studies of model construction workforce development programs.

Both areas of this report will outline our evaluation methods, provide high-level observations, and offer potential recommendations for the US federal government moving forward.

Key Definitions

Local Hire: Program, policy, or contract provisions or practices which require a certain percentage of individuals staffed on a project to be from a given geography (e.g., residency status or proximity to the job site) or to have certain individual socioeconomic characteristics (e.g., low-income background, individuals experiencing homelessness).

Notice of Funding Opportunity (NOFO): A formal announcement of an agency's plans to consider applications for federal funding through a given grant program. This includes information about which entities are eligible to apply, expected evaluation criteria, and departmental priorities.

Project labor agreements (PLAs): Also referred to as community workforce agreements (CWAs) or community benefits agreements (CBAs), a pre-hire collective labor agreement that creates conditions for quality jobs and fair wages. PLAs are typically established between a state or local transportation entity and a local labor organization.

Workforce development programs: The wide range of government-, civic-, and nonprofit-sponsored programs that recruit, train, and prepare individuals to work for trades within a given community. This may include pre-apprenticeship programs, registered apprenticeships, direct-to-employment opportunities, on-the-job training, and wraparound support services.

Local Hire Provisions in Federal Grant Applications

Local hire provisions are programs that stipulate that publicly funded infrastructure projects should be used to hire workers based on residency or geographic proximity to an infrastructure project and/or who are from a population of interest. Attaching local hire provisions to federally funded projects represents one avenue through which public dollars can be channeled into low-income communities, bolstering the economic impact of capital projects through the creation of high-quality jobs and sustainable construction career paths. The Obama Administration DOT launched a pilot program under the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) to test local hire requirements with federal grant recipients. The Local Labor Hiring Pilot Program (LLHP) ran from 2015 to 2017 before being discontinued by the Trump Administration.

Opponents of local hire policy generally question whether "the benefits of contracting provisions that are not essential to the bidder's performance of work outweigh any potential harms, "[9] and local hire requirements were previously illegal in certain states. BIL Section 25019(a) importantly broadened the playing field for local hire programs in the US, authorizing all recipients and sub-recipients of US DOT grants to implement "a local or other geographical or economic hiring preference relating to the use of labor for the construction of a project funded by the grant." The RAISE and MPDG program funding opportunities were announced in January and March 2022 respectively, and evaluation criteria for both programs were revised to include workforce and labor-focused project elements. See the Appendix for a comparison of scoring approaches.

Methods

To assess the impact of the RAISE and MPDG NOFO language encouraging local hire practices, more than 650 grant applications were reviewed for their discussion of local hire policies and any associated project labor agreements or workforce development programs. Of the population of grant applications reviewed, approximately 30% were from the RAISE applicant pool and approximately 70% were from the MPDG applicant pool. MPDG represented a combination of existing grant programs and therefore elicited a larger number of applications. Analysis of this combined application pool, supplemented by our interviews with existing projects that utilize local hire provisions on infrastructure projects, focused on the change in prevalence of applicants that include information about local hire requirements in their grant applications as well as the regional spread of entities expressing interest in local hire policy.

Observations

Local hire provisions are an often-misunderstood topic of labor policy. This in part stems from a perception of local hire initiatives as a parochial economic tool narrowly focused on keeping jobs local and maximizing the economic impact of a project within a community. Local hire provisions are, however, a powerful mechanism for addressing historic underrepresentation and barriers to accessing careers in the construction sector.

Differences in NOFO Scoring Approaches

RAISE and MPDG were the first and fourth major grant opportunities respectively to include workforce and labor policies under grant evaluation criteria. Workforce and labor components are evaluated under two criteria for RAISE and two criteria for MPDG, providing an additional opportunity to score highly based on the inclusion of workforce or labor project initiatives. Most importantly, under the MPDG scoring approach, a project could be elevated by the senior review team if it was rated highly under any one of the six criteria while a project under the RAISE program could only be elevated if it was

scored as 'exceptional' in one of the four primary criteria, none of which are related to labor or workforce requirements. As such, grant applicants had a higher likelihood of being highly recommended or elevated by the senior review team as exceptional based on local hire provisions or associated workforce initiatives under MPDG's evaluation scheme.

Prevalence of Local Hire Provisions

Our analysis found that including labor and workforce-related details in grant NOFO scoring criteria induced local and regional entities alike to include existing local hire policies or to express interest in using local hire policies on grant-funded infrastructure projects. US DOT should continue to utilize grant opportunities and subsequent technical assistance to advance and expand local hire policies nationwide. The table below summarizes the number of applicants with existing local hire policies as well as applicants expressing interest in adopting such requirements upon receipt of RAISE or MPDG project funding.

Table 1: Local Hire Provision by Type

Local Hire Provision Type	Number of Applicants[1]
Existing Local Hire Provisions	**36** **(6.82%)**
Geographic	9 (1.70%)
Individual Characteristics	5 (0.95%)
Combination	22 (4.17%)
Potentially Adopting Local Hire Provisions	**41** **(7.77%)**

[1]Note that several applicants submitted multiple applications within and across the RAISE and MPDG programs. This column provides a composite of the two grant programs.

Local hire provisions are often strengthened in the presence of other program dimensions such as project labor agreements and construction workforce development initiatives (e.g., apprenticeship programs, and on-the-job training). From the combined population of applications, 27 (5.11%) applicants described existing project labor agreements—16 (3.03%) of which also had existing local hire provisions—and 24 (4.55%) expressed interest in adopting new project labor agreements. 74 applicants (14.02%) incorporated information about construction workforce development programs, and this sub-population varied greatly in its appearance with other program elements that support quality construction jobs. The table below summarizes applicant discussion of workforce development programs in combination with existing local hire provisions and project labor agreements.

Table 2: Workforce Development Programs by Type

Provision Type	Number of Applicants
Workforce Development with Existing Features	**24** **(4.55%)**
With Existing Local Hire Provisions	19 (3.60%)
With Existing PLAs	15 (2.84%)
With Existing Local Hire Provisions and PLAs	10 (1.89%)
Workforce Development Only	**43** **(8.14%)**

The inclusion of language around labor policies in RAISE and MPDG NOFOs has roughly doubled the total number of entities who will potentially utilize local hire provisions on projects receiving US DOT

funding. Local entities (i.e., city or county-level entities) are paving the way for introducing local hire provisions for infrastructure projects with 21 of the 36 applicants utilizing existing provisions and 26 of the 41 applicants interested in introducing local hire provisions being local entities. Notably, the percentage of MPDG applications reviewed which included workforce-related content was double that of the percentage of RAISE applications reviewed (approximately 16% and 8% respectively).

Recommendations

This analysis yielded two key recommendations to continue to deliver on US DOT's commitment to advancing racial and gender diversity in the infrastructure workforce through the creation of quality jobs and sustainable construction career pathways.

Technical assistance will be critical for grant recipients' ability to ensure project success. US DOT can help shape the future of local hire policy nationwide by guiding applicants that expressed interest in local hire provisions:

- Encourage the development of local hire provisions which focus on individual characteristics in addition to purely geographic factors; this may also include encouraging programs with existing local hire policies to expand their definition of local hire

- Collaborate with other federal agencies (e.g., Department of Labor, Department of Energy) and with workforce-focused nonprofits to integrate local hire policies with other initiatives

- Encourage cross-pollination of program ideas between entities with strong existing local hire provisions and entities interested in or unfamiliar with local hire

For future review cycles of US DOT-administered discretionary grant programs, there are two potential modifications to consider concerning NOFO language and evaluation scoring methods:

- Expand the definition of local hire in NOFOs to signal to communities that local hire policies can target specific community groups based on individual characteristics such as low-income areas, justice-involved individuals, disconnected or foster youth, people experiencing homelessness, or single parents

- Adjust weights of the evaluation criteria under which an application can be elevated to the senior review team to ensure value is attached to local hire and other labor/workforce program components

Construction Workforce Best Practices

While diversity challenges to infrastructure projects are widespread, US DOT recognized the existence of promising programs which could serve as models for new or up-and-coming construction workforce programs. The second part of our work focused on reviewing these existing programs and identifying common strategies as well as different conditions for success. We ultimately produced a Best Practice Checklist to summarize these approaches along the lines of local hire provisions, job quality mechanisms, and workforce development.

Methods

Liaising with the Office of Intergovernmental Affairs, US DOT identified a collection of promising construction workforce programs to be interviewed to inform the Best Practice Checklist. We aimed to interview a range of program stakeholders and to prioritize regional diversity. Interviewees included individuals from transportation, construction, and workforce development fields who represented 10 different programs across seven different states.

After completing 23 interviews, we drafted case studies on programs we believed to be the most scalable and sustainable in terms of funding streams, leadership, and organizational capacity. The following seven programs represented four states:

- City of Syracuse, Syracuse, NY

- KentuckianaWorks, Louisville, KY
- Los Angeles World Airports (LAWA), Los Angeles, CA
- New York City Economic Development Corporation (NYCEDC), New York, NY
- San Diego Association of Governments (SANDAG), San Diego, CA
- San Francisco Office of Workforce and Economic Development (SFOWED), San Francisco, CA
- St. Louis Development Corporation (SLDC), St. Louis, MO

Figure 2. Geographical Spread of Best Practices
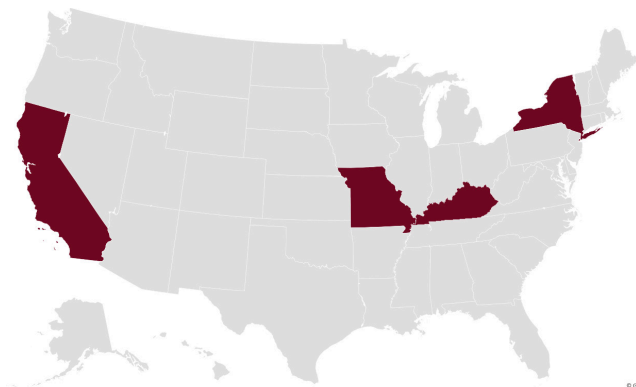
Observations

Two key observations arose from the interviews. First, we identified three dimensions of effective construction workforce programs: local hire policies, project labor agreements, and workforce development programs. Second, programs exhibit different combinations of best practice features which enable infrastructure workforce diversity. Program features will look different across communities, but commitments to racial and gender equity are program differentiators.

### *Effective Construction Workforce Program Dimensions*

In conversation with the selected promising pro-

grams, it became apparent that there are three dimensions to effective construction workforce programs. These dimensions drive efficacy—when used in isolation or conjunction—and are critical for new programs to include when creating construction workforce programs.

These dimensions include (1) utilizing local hire provisions, (2) implementing project labor agreements, and (3) bolstering workforce development programs. The utilization and combination of these dimensions vary greatly between cities, counties, states, and regions. Though there is no rule book on which dimension—or combination of dimensions—works best in a particular location, our research found that the presence of unions, a robust workforce development ecosystem, and willing and able civic leaders can successfully impact the creation and sustainability of quality construction jobs.

Each of the featured programs employs one or more of the aforementioned dimensions, exemplifying how government-funded transportation infrastructure projects can positively impact local economies through the creation of quality jobs.

Figure 3. Effective Construction Workforce Programs
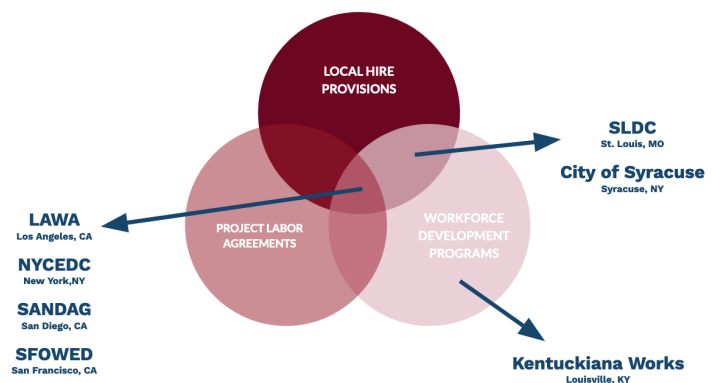
Above is a snapshot of the best practice case studies. It is notable that the programs found in the sweet spot, the center of the Venn diagram, are the larger and more well-established programs. Take LAWA for example, their program HireLAX deploys local hire provisions, utilizes PLAs, and provides power-

ful workforce development programs through their HireLAX Apprenticeship Readiness Program. While this approach is highly effective, it also comes with significant human capacity needs. LAWA meets that need with the utilization of a third-party provider who manages the partnerships, data collection, and program in general. This approach, while costly, ensures that civic and nonprofit organizations can do what they do best.

Our work also revealed that construction workforce programs can be effective when entities are unable to implement a PLA. SLDC and the City of Syracuse are great examples of how thoughtful collaborations and connecting local hire provisions to workforce programs can move the needle. While the exclusion of a PLA varies case by case, we found that the nature of unions in a particular location plays a significant role. This includes the prevalence of unions, their relationship with civic entities, and their relationship with the workforce more generally.

And the most unique best practice in our work, KentuckianaWorks, shows that while all dimensions play a role, local entities can be effective when only deploying a single dimension such as workforce development. For a variety of local conditions, KentuckianaWorks does not have a local hire provision or a PLA but instead has focused all of its efforts workforce and consequently produced very promising outcomes when it comes to racial and gender equity in the trades. For example, in 2020, 80% of their students were students of color and 25% were women.

Best Practice Checklist

In addition to observing the power of the three aforementioned dimensions, we also saw a series of key features arise from our interviews. From this, we created a best practice checklist that can be used to streamline the comparison processes of existing programs and also help inspire and guide those who are creating a new program. Similar to the dimensions of effective construction workforce programs, this checklist is not an all-or-nothing approach but rather suggests any combination of the items listed will help build equitable and effective programs.

Figure 4. Best Practice Checklist

Best Practices Checklist

Local Hire Provisions
- [ ] Geographic/residency
- [ ] Individual characteristics
- [ ] Employment mandates
- [ ] Penalties enacted if targets not met
- [ ] Employment goals

Job Quality
- [ ] Project labor agreement
- [ ] Registered apprenticeship targets
- [ ] Union partnerships

Workforce Development
- [ ] Direct-to-employment
- [ ] Underrepresented population recruitment
- [ ] Commitment to racial equity
- [ ] Supportive services

The first category is **local hire provisions**. As a relatively new driver of equity and quality job creation, local hiring can be applied in a multitude of ways. In some cases, a local hire is defined by geography or residency (e.g., utilization of zip codes to determine if an individual qualifies for program entrance in the City Syracuse and SFOWED). In other cases, local hire requirements are based on individual characteristics, such as economic disadvantage or other dimensions associated with systemic underrepresentation in the construction sector. In this work, individual characteristics include but are not limited to low-income individuals, people of color, justice-involved individuals, women, disconnected youth, individuals experiencing homelessness, veterans, and single parents. It is important to note that local hire provisions that include race and gender as characteristics within the provision are only allowable under the law if a disparity study has been conducted. Programs may also opt to use a combination of geographic and individual characteristics to link program eligibility to targeted local economic development, narrowing or widening eligibility criteria as they see fit (e.g., LAWA requires program participants to come from zip codes in a project economic impact area).

Another key feature of local hire provisions is whether the percentage of hours worked by the program's

target population is a mandate or a goal. The case studies from California provide clear examples of mandated local hire provisions under local ordinances or laws. The presence of mandates, however, is not synonymous with the presence of penalties if targets are not met. The varied combinations of local hire provisions evident in the case studies suggest that local hire provisions are not a one-size-fits-all mechanism for creating quality jobs, and programs may find it beneficial to stack, narrow, or expand provision requirements as the program matures to ensure sustainable outcomes.

The second category is **job quality**. One proven way to ensure job quality and prevailing wages is through the use of a project labor agreement (PLA), a community workforce agreement (CWA), or a community benefits agreement (CBA). These collective bargaining agreements are made in conjunction with one or more labor unions and therefore are more common in union-friendly cities such as Los Angeles, New York, San Diego, and San Francisco.

PLAs are powerful tools to increase access to registered apprenticeship programs for underrepresented individuals, as seen in the LAWA, NYCEDC, and SFOWED case studies. The Syracuse case study provides another model for emphasizing registered apprenticeship targets established independently from a PLA. Pre-apprenticeship programs and apprenticeship placement are critical because they increase the number of journeymen in the infrastructure workforce, creating sustainable career pathways with the option to join a union. The final feature of job quality is union partnerships, which may be formalized by PLAs or other formal agreements or through collaboration on workforce development programs and apprenticeship interview pipelines.

The final category is **workforce development**, which is often critical to the long-term success of local hire provisions and the creation of quality jobs. Workforce development programs can activate a new population of construction workers as well as connect program graduates and existing workers with direct employment opportunities. Program recruitment efforts focused on engaging with underrepresented populations allow quality job creation to function as a tool for promoting economic and racial equity across American communities. This sentiment is evident in each of the seven case studies, underscoring

a prominent need to supplement practical training with supportive services. These additional supports or wrap-around services enable individuals to enter and stay enrolled in training programs, removing barriers that may seem deceptively simple in theory, but which continue to prevent short- and long-term success (e.g., obtaining identification documents, financial literacy, basic construction gear, transportation fare, or childcare).

Recommendations

Utilizing the framework created from the above-mentioned observations, a best practices guide was created to provide local entities around the country with examples to turn to when creating or expanding their construction workforce programs. This guide includes the description of the framework as well as the seven unique case studies.

We recommend that the US DOT utilize this guide to encourage different infrastructure entities to identify, explore, and replicate which best practice case study may best suit their intentions or may most inspire their own program focused on advancing equity and building resiliency within their local construction workforce. We also recommend that the US DOT consider the best practice guide to be a living document that can be added to as programs expand across the nation. With a set framework—the dimensions of effective construction workforce programs and the best practice checklist—additions to the work will only further contribute to the conversation and consequentially bolster US DOT's efforts.

Note: The US DOT is currently reviewing the Best Practice Guide and working to receive the necessary approvals to make this work publicly available.

Emerging Implications

While the two bodies of work produced unique observations and recommendations, we found an inextricable link between them. Promoting local hire and workforce in US DOT grant programs and highlighting existing best practices have the potential to move the needle on creating racial and gender diversity in the infrastructure workforce, but we believe that impact can be supercharged if the following three challenges are addressed: advancing thought leadership, building organizational resiliency, and promoting equity that is actually equitable.

Thought Leadership

When it comes to local hire policy and infrastructure workforce development programs, there is a noticeable absence of thought leadership from state governments, regional civic organizations, and nonprofits alike. The federal government controls important levers for change through federal grant evaluation criteria and technical assistance, but sustainable change requires a better shared understanding of local hire provisions, job quality mechanisms, and supportive services and training nationwide.

The lack of national thought leadership on local hire policy, for example, has led to misunderstandings about what is even legal for cities or states to advance (e.g., a grant applicant may not be aware that local hire was legalized by BIL and will be hurt in the scoring process).

Thought leadership is likewise critical to the success of this work as it spans political boundaries, geographies, and cultural attitudes around workers. Demonstrated by the map below, existing progress and interest in this work is present across the US. Nonprofits or other civic leaders in particular may play an important role in convening local and state entities, encouraging them to share their own experiences with one another and to model success.

Building Resiliency

Local and state policy prioritization and preventing program overdependence are crucial to building resiliency across the nation's infrastructure workforce. In particular, the structure and legality of local hire policy has ebbed and flowed greatly alongside shifts in power at the federal level. To sustain this work, local and state entities can provide coherency and consistency in the absence of federal leadership. Building local resiliency may come in the form of codifying local hire provision or investing in union partnerships over time.

Program officials should also be wary of overreliance on any one source of funding, partner, or talent source. Two common pitfalls we identified over the course of this project were overdependence on a strong leader (also colloquially known as founder's syndrome) or on a funding source. Diversifying program partners and prioritizing the creation of a carefully sequenced coalition is critical to long-term resiliency. Pursuing braided funding also mitigates the risk associated with government priorities changing over time. While BIL can help local and state programs get started, it also begs a question as to what happens when this surge of funding runs out. By ensuring programs are built around braided funding streams rather than single-use grants, they will become more resilient and sustainable.

Equity that is Equitable

Everything that we noted in this report moves the needle toward racial and gender equity in the construction workforce, yet we found that access to these equity tools was not always equitable along other dimensions. The most successful and scalable programs required significant capital—human and financial—and we recognize that is not something all local and regional entities can provide.

Even when programs are well-established and thoughtful in recruiting strategically, many still require a high school diploma/GED and a driver's license. These requirements can be insurmountable barriers to individuals who stand to benefit the most from equity-centric workforce development efforts. For example, justice-involved individuals, refugees

and other international newcomers, and individuals experiencing homelessness may struggle to provide documentation necessary to enroll and are therefore shut out from opportunity at the start.

To ensure access to quality construction jobs is truly equitable, local entities and federal agencies are encouraged to examine how they can mitigate the barriers mentioned above and work towards creating equity that is equitable.

Conclusion

The BIL is a once-in-a-generation funding opportunity to improve America's infrastructure while promoting gender and racial equity in the construction workforce. While federal agencies and local entities alike face challenges, coupling infrastructure investment with economic equity goals has the opportunity to advance generational change.

Governmental bodies, civic organizations, and political leaders alike must work together to share institutional knowledge, to provide funding, and to create a shared vision for the future infrastructure workforce. Legalizing local hire at the federal level and providing a major infusion of grant funding are important tools for ensuring success and promoting equity through work. Project labor agreements, community partnerships, targeted recruitment, and supportive services can also be used to create a resilient ecosystem. Advancing gender and racial equity in the infrastructure workforce allows the US to compete economically and enact change for generations to come.

"Generations from now, people will look back and know this is when America won the economic competition for the 21st Century."

President Joe Biden, Statement on the House passage of the Bipartisan Infrastructure Investment and Jobs Act

Appendix

Scoring Approach for RAISE and MPDG Grant Programs

	RAISE	MPDG
Scoring Instructions	In order to receive a **Medium** or **High** score on the Economic Competitiveness and Opportunity selection criterion, the project includes implementation of "local hire agreements or the use of registered apprenticeship."	Project outcome criteria were scored on a scale of zero to three. Inclusion of local hire provisions could be scored as follows: 1. The project's claimed benefits in this outcome area are plausible but minimal OR the project's claimed benefits in this area are not plausible 2. The project produces nontrivial, positive benefits in this outcome area that are well supported by the evidence in the application 3. The project produces *significant*, transformative benefits in this outcomes area, that are well supported by the evidence in the application
Implications	Workforce and labor project components are rated under "Economic Competitiveness" or "Partnerships and Collaboration"	Workforce and labor project components are rated under "Economic Impacts, Freight Movement, and Job Creation" and "Equity, Multimodal Options, and Quality of Life"
	One of eight factors evaluated	One of six factors evaluated
	A project receiving a **High** rating in five of eight factors is considered "highly recommended"	A project receiving a **High** for three or more of any of the six criteria is considered "highly recommended"
	Projects cannot be elevated by leadership based on performance in workforce or labor project components (i.e., not included in four primary criteria)	Recommended projects can be elevated if they are exceptional in any one of the six criteria

End Notes

1   The White House, "Updated Fact Sheet: Bipartisan Infrastructure Investment and Jobs Act," August 2, 2022, https://www.whitehouse.gov/briefing-room/statements-releases/2021/08/02/updated-fact-sheet-bipartisan-infrastructure-investment-and-jobs-act/.

2   Justin Badlam, Tony D'Emidio, Adi Kumar, Sara O'Rourke, and Rob Dunn, "The US Bipartisan Infrastructure Law: Breaking it down," McKinsey & Company, November 12, 2021, https://www.mckinsey.com/industries/public-and-social-sector/our-insights/the-us-bipartisan-infrastructure-law-breaking-it-down.

3   Mark Zandi and Bernard Taros, "Macroeconomic Consequences of the Infrastructure Investment and Jobs Act & Build Back Better Framework," Moody's Analytics, November 4, 2021, https://www.moodysanalytics.com/-/media/article/2021/macroeconomic-consequences-of-the-infrastructure-investment-and-jobs-act-and-build-back-better-framework.pdf.

4   U.S. Department of Transportation, "Centering Equity at the U.S. Department of Transportation," April 18, 2022, https://www.transportation.gov/priorities/equity/equity-strategic-goal.

5   U.S. Bureau of Labor Statistics, "Labor Force Statistics from the Current Population Survey: Employer persons by detailed industry, sex, race, and Hispanic or Latino ethnicity," January 20, 2022, https://www.bls.gov/cps/cpsaat18.htm.

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7   US Department of Transportation, "U.S. Department of Transportation Announces Availability of $1.5 Billion in RAISE Grants Made Possible by President Biden's Bipartisan Infrastructure Law," January 28, 2022, https://www.transportation.gov/RAISEgrants.

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