

Leveraging Federal Infrastructure Investments to Expand Registered Apprenticeship

Technical Assistance for USDOL-Funded State Apprenticeship Expansion Grantees | April 11, 2024

Notes on Virtual Platform

Thank you for joining today's session!

This session will be recorded and made available to participants and other apprenticeship professionals unable to join the event today. Any participant who prefers to participate via audio only should disable their video camera so only their audio will be captured.



Please remain on mute when not speaking to minimize noise.



We highly encourage you to use your video.



Chat to the entire group with questions/comments related to the content.



If you are having challenges connecting, message or email Kaylah Urie: kurie@air.org.

Introduce Yourself

- Please introduce yourself in the chat:
 - Name
 - State
 - What do you hope to get out of today's session?



Meet the Presenters



Ryan Thompson

*U.S. Department of Labor
Office of Apprenticeship
Program Analyst*



Martha Ross

*Brookings Metro
Sr. Fellow*



Amy Beller

*AIR
Project Director*



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*AIR
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Objectives

- Share information on the role of apprenticeship in federal infrastructure investments bills (Bipartisan Infrastructure Law, CHIPS and Science Act, and the Inflation Reduction Act).
- Discuss the roles state apprenticeship expansion grantees can play in helping states leverage these investments to expand Registered Apprenticeship.

Agenda

- Overview of federal infrastructure investments
- State perspectives
- Role of state apprenticeship teams and actions grantees can take
- Next steps

We Want to Hear from You!

How familiar are you with the Investing in America Agenda/the Bipartisan Infrastructure Law, Inflation Reduction Act, and the CHIPS and Science Act?

Select the one that best applies.

1. Very familiar and leveraging them for our apprenticeship strategy.
2. Heard about the investments and are having discussions.
3. Heard about the investments but are not engaged in any conversations.
4. Heard about the investments but do not understand them.
5. Other – tell us in the chat!



Leveraging federal investments to expand Registered Apprenticeship

BROOKINGS

Martha Ross, Senior Fellow

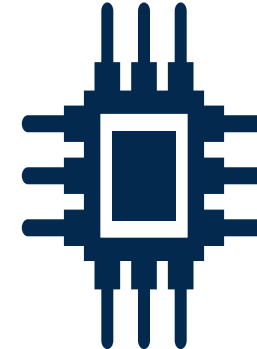
We Are Looking Ahead to a Decade of Building



BIPARTISAN
INFRASTRUCTURE LAW
\$864 BILLION



INFLATION
REDUCTION ACT
\$433 BILLION



CHIPS AND
SCIENCE ACT
\$250 BILLION

We Are Looking Ahead to a Decade of Building

BIL

Address climate needs; improve transportation, water, energy, and broadband systems

IRA

Reduce carbon emissions; support clean energy

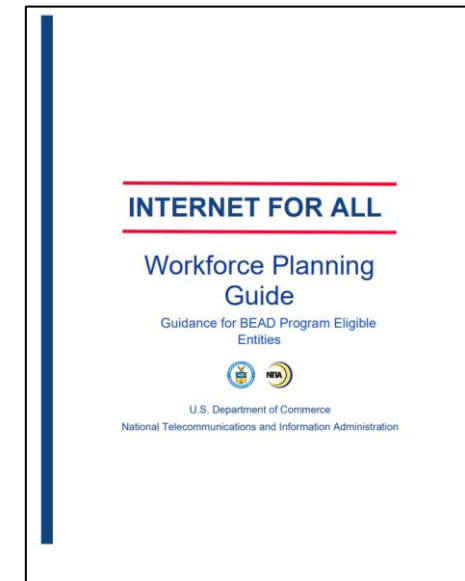
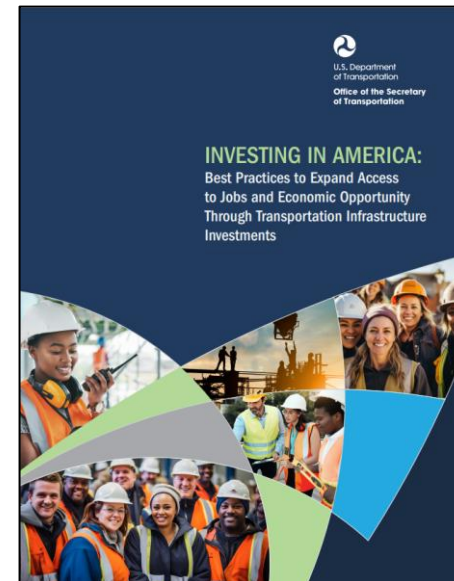
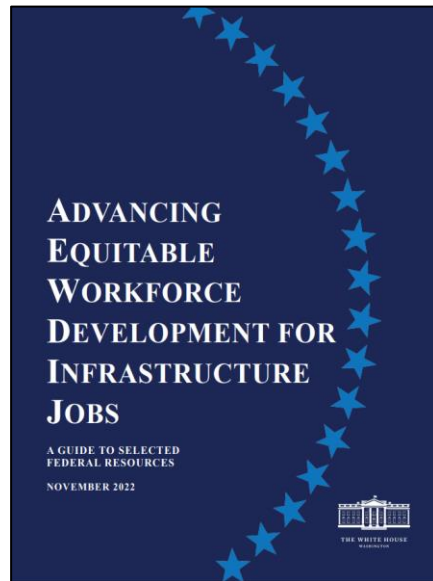
CHIPS

Strengthen the semiconductor industry; increase R&D and technological innovation

The Laws Have Three Primary Funding Mechanisms

	Formula grants to designated state agencies	Competitive grants open to various entities/consortia	Incentives for private-sector investment
BIL	XX	X	
IRA		X	XX
CHIPS		X	X

The Biden Administration Supports Integrating Workforce Development into BIL, IRA, and CHIPS Implementation



The Infrastructure Field Has Multiple Subsectors

Transportation

- *within a region*

Local bridges & roads, public transit, bike/pedestrian infrastructure

- *between regions*

Passenger rail, airports, highways

Trade and logistics

Freight rail, air cargo, trucking, seaports, warehousing, express/local deliveries

Energy

Generation, transmission, and distribution of energy

Water

Clean/drinking water, stormwater treatment

Telecommunications

Broadband and transmission infrastructure

Public Works

Streetscapes, land redevelopment, waste/landfills

Selected **BIL formula programs**
with potential linkages to Registered Apprenticeships

BIL – Formula Programs

- Through **4 highway formula programs**, the U.S. Department of Transportation channels ~\$50 billion dollars to state departments of transportation every year
 - *National Highway Performance Program*
 - *Highway Safety Improvement Program*
 - *Surface Transportation Block Grant*
 - *Congestion Mitigation and Air Quality Improvement Program*

BIL – Formula Programs

DOT can't mandate that states use these formula funds to support Registered Apprenticeships . . .

But they **actively encourage it.** 

<https://www.transportation.gov/sites/dot.gov/files/2022-06/Highway-Funding-Workforce-Development.pdf>

What Workforce Development Projects can be Funded?

Funding is flexible if projects support one of the following four goals: a) increasing women and minority participation; b) addressing workforce gaps; c) building skills supporting emerging transportation technologies; and d) attracting new sources of job-creating investment. The statute calls out the following specific options for how the funding can be used, among other activities:

- Tuition and other financial support to universities, community colleges, and vocational schools
- Apprenticeship, pre-apprenticeship, and on-the-job training
- Activities associated with industry stakeholders, workforce development boards, labor organizations, and economic development organization
- Student internships
- Outreach campaigns to develop interest in transportation careers and employment programs

BIL – Formula Programs

- The **National Electric Vehicle Infrastructure Program** (NEVI) sends \$5 billion to states through 2026 to build an EV charging network. (Joint Office of Energy and Transportation)
- The **Broadband Equity, Access, and Deployment Program** (BEAD) sends \$42.5 billion to states through 2026 to expand high-speed internet access via planning, infrastructure deployment, and adoption programs. (Department of Commerce, National Telecommunications and Information Administration)

Federal agencies urge states to incorporate workforce development into their EV charging and broadband plans and initiatives.

Selected **BIL competitive programs**
with potential linkages to Registered Apprenticeships

BIL – Competitive Programs

- Two DOT competitive grant programs, **RAISE** and **INFRA**, support transportation and multimodal highway and freight projects.

Applicants for these grants are generally units of state and local government such as departments of transportation, port authorities, and metropolitan planning organizations.



<https://www.transportation.gov/RAISEgrants/about>



<https://www.transportation.gov/grants/infra-grant-program>

BIL – Competitive Programs

- DOT wants applicants to partner with Registered Apprenticeship

Excerpt from the "Grant Application Checklist for a Strong Transportation Workforce and Labor Plan," U.S. Dept. of Transportation



Does your application put forward a strong plan for worker training and education for the good-paying jobs? How is the plan inclusive of populations that are underrepresented in the infrastructure workforce?

- ✓ Have you identified the number of skilled trade jobs needed by craft/position type and where you expect gaps? Have you identified job gaps in project management and ongoing operations and maintenance?
- ✓ Have you identified existing programs that successfully train diverse populations and that can be scaled appropriately before project implementation? This can include [high-quality pre-apprenticeship programs](#) and registered apprenticeships.
- ✓ Have you identified populations that are underrepresented in the infrastructure workforce? While underrepresented groups vary based on local demographics and specific jobs, such groups may include women; Black, Latino, Indigenous and Native American persons, Asian Americans and Pacific Islanders, and other persons of color; people with convictions; and individuals with disabilities.
- ✓ Have you identified existing, successful training programs that have specific expertise in working with these underrepresented populations? What kinds of organizations have you worked with, or do you plan to work with, to ensure that programs that are not currently inclusive of underrepresented populations can improve in this dimension?
- ✓ Did you engage regularly with education and vocational training partners, state and local [workforce development boards](#), unions, [tradeswomen](#), and community groups trusted by the communities they serve to understand which training programs are effective and which populations are not being served by these programs?

<https://www.transportation.gov/grants/dot-navigator/grant-application-checklist-for-strong-workforce-and-labor-plan>

Selected **IRA** and **CHIPS** programs
with potential linkages to Registered Apprenticeships

IRA – Tax Credits

- A number of **tax credits** incentivize private sector investment in clean energy. For many, credits are increased by 5x if applicants pay prevailing wage rates and employ registered apprentices.
- Credits are uncapped and most are authorized through 2032
 - *30C Alternative Fuel Vehicle Refueling*
 - *45 Renewable Electricity Production*
 - *45Q Carbon Oxide Sequestration*
 - *45V Production of Clean Hydrogen*
 - *45Y Clean Electricity Production*
 - *45Z Clean Fuel Production*
 - *48 Energy*
 - *48C Qualifying Advanced Energy Project*
 - *48E Clean Electricity Investment*
 - *179D Energy Efficient Commercial Buildings Deduction*

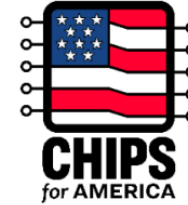
<https://www.irs.gov/pub/irs-pdf/p5855.pdf>; <https://www.apprenticeship.gov/inflation-reduction-act-apprenticeship-resources> ; <https://www.irs.gov/credits-deductions/prevailing-wage-and-apprenticeship-requirements>

CHIPS and Science – Incentives

- The **CHIPS Incentives Program** commits \$39 billion in federal subsidies to spur domestic semiconductor manufacturing
- *The NOFO requires workforce development plans for both the construction workforce and the technical workforce that will operate the facility*

CHIPS for America Fact Sheet

February 28, 2023



Funding Opportunity – Commercial Fabrication Facilities

FACT SHEET:

Building a Skilled and Diverse Workforce

On February 28, 2023, the CHIPS Program Office released its first funding opportunity to boost domestic semiconductor manufacturing, solidify America's technological leadership, and promote U.S. economic and national security. This funding opportunity seeks applications for projects for the construction, expansion, or modernization of commercial facilities for the fabrication of leading-edge, current-generation, and mature-node semiconductors, including both front-end wafer fabrication and back-end assembly, testing, and packaging.

Recruiting, training, and retaining a large, skilled, and diverse workforce will be critical to strengthening the U.S. semiconductor ecosystem. The CHIPS Program Office estimates that building and operating the semiconductor fabrication facilities eligible for awards under the first funding opportunity could require more than 100,000 construction workers to build the facilities and 90,000 workers to operate them. Building a semiconductor ecosystem in the United States will also require training and inspiring a generation of engineers and scientists to fuel the next generation of American innovation and manufacturing.

Delivering on the program's national and economic security objectives therefore demands major investments in the semiconductor workforce that will support good-paying jobs across the industry. Critically, this must include significant investments to create opportunities for Americans from historically underserved communities, including people of color, people from rural communities, veterans, and women. We need all hands on deck to meet the scale of our ambition. America's diversity is a competitive advantage, but only if everyone has an opportunity to participate and be rewarded for their talents.

https://www.nist.gov/system/files/documents/2023/02/28/CHIPS_NOFO-1_Building_Skilled_Diverse_Workforce_Fact_Sheet_0.pdf

We Want to Hear from You!

Which infrastructure sectors are you currently supporting through your State Apprenticeship Expansion Formula or Competitive grant(s)?

Select all that apply.

1. Transportation
2. Trade and Logistics
3. Energy
4. Water
5. Telecommunications
6. Public Works

Questions?



State Perspectives

Meet the Panel



Toni Giddens

*Nevada Office of the Labor
Commissioner
State Apprenticeship Director*



Julio Rodriguez

*Illinois Department of Commerce and
Economic Opportunity
Office of Employment and Training
Deputy Director*

Three Key Actions for State Apprenticeship Teams

Key Actions and A Tool to Support You

1. Information Gathering
2. Sector-Specific Outreach and Engagement
3. System Alignment and Partnership

Leveraging Federal Infrastructure Investments
to Expand Registered Apprenticeship
Insights and Planning Tool



Use this document to capture notes and help you plan next steps for helping your state leverage federal infrastructure investments to expand Registered Apprenticeship. These projects include investments to generate clean energy and reduce greenhouse gas emissions; improve transportation, water, energy, and broadband systems; and build semiconductor-related facilities.

The document is organized around three key action areas identified in the April 11, 2024 webinar on this same topic. In each section, you will find a place to capture your insights and ideas, key things to think about to start your planning, and resources related to the topic.

Information Gathering

To help position Registered Apprenticeship and quality pre-apprenticeship as go-to workforce development solutions for infrastructure occupations in your state, you'll need to do some basic information gathering about how your state is responding to Bipartisan Infrastructure Law (BIL), Inflation Reduction Act (IRA), and CHIPS and Science Act (CHIPS) investment opportunities. Your goal is not to generate comprehensive information -- there are hundreds of BIL, IRA, and CHIPS programs, they implicate many public agencies and industries, and many decisions are being made in real time. **The purpose of this exercise is to generate intelligence about the investments and factors shaping labor market demand in your state and to identify leads for you to follow given your knowledge of the politics, civics, and economics of your state.** Questions you want to answer include:

- What are the current, planned, or potential projects in your state supported by the investments made under



Information Gathering

- Understand infrastructure/clean energy/CHIPS-related priorities, activities, and challenges in your state.
- Identify apprenticeable occupations likely to become more in demand.

Sector-Specific Outreach and Engagement

- Build awareness of apprenticeship as a valuable workforce development tool in the infrastructure sectors (<https://apprenticeshipnh.com/industries/construction-infrastructure>).
- Partner with funded entities to build and operate apprenticeship programs.
- Strengthen and publicize quality pre-apprenticeship programs and Registered Apprenticeship Programs serving youth and adults.

System Alignment and Partnership

- Assess politics, where money is flowing, and current and potential future partnerships.
- Identify where and how the apprenticeship team can add value.
- Collaborate with state partners to shape funding opportunities.
- Articulate your value to help state partners and employers act more strategically in recruiting, training, hiring and retaining workers.
- Align efforts with those of your economic development, energy, and infrastructure partners and policymakers.
- Build infrastructure sector expansion into five-year State Apprenticeship Expansion Formula (SAEF) plans and other future grant plans.

Note. Placeholder for notes, sources, and permissions (if needed). "Note." (including a period) is italicized.

Specifically For IRA

- Identify employers in your state that are pursuing or have already established qualifying projects under IRA.
- Leverage your business outreach efforts to raise employer awareness about the apprenticeship requirements and your services to help them access, establish, or strengthen Registered Apprenticeship Programs.
- Help employers increase access to these apprenticeships so underrepresented populations and those with the greatest barriers to employment can benefit.



Next Steps

- Review and complete the Insights and Planning Tool.
- Communicate with partners in your state to find out what investment opportunities are available.
- Develop a plan with partners to build awareness and identify funding streams.
- Include your economic development, energy, and infrastructure partners and policymakers.
- Work with employers to develop quality pre-apprenticeship programs for talent pipelines to Registered Apprenticeship.
- May Network Meeting: Building Apprenticeship Opportunities that Support Infrastructure Expansion on Tuesday May 21, 2024, 2-3 pm (ET); Registration at: [https://air-org.zoom.us/meeting/register/tJMkcOGhpzgoGNaM3Q1SLWtGdxEkAsRXH62o](https://air.org.zoom.us/meeting/register/tJMkcOGhpzgoGNaM3Q1SLWtGdxEkAsRXH62o)

After This Webinar

Tell us one thing you learned today that seems most promising to help strengthen the role of apprenticeship in the infrastructure sectors in your state.

Enter your responses in the chat.

References

- [Apprenticeship.gov Inflation Reduction Act resources](#)
- [Webinar on the IRA's labor standards provisions](#)
- [Frequently asked questions about the prevailing wage and apprenticeship under the Inflation Reduction Act | Internal Revenue Service \(irs.gov\)](#)
- [Prevailing wage and apprenticeship requirements | Internal Revenue Service \(irs.gov\)](#)
- [Creating a Skilled and Diverse Workforce for Infrastructure Projects Through Registered Apprenticeships | US Department of Transportation](#)
- [Best Practices to Expand Access to Jobs and Economic Opportunity final.pdf \(transportation.gov\)](#)
- [How State and Local Leaders Can Harness New Infrastructure Funding to Build a Stronger, More Inclusive Workforce | Brookings](#)
- [Tools For Building An Equitable Infrastructure Workforce: Gender Equity Strategies as a Model](#)
- [WorkforceGPS—New Five-Year Planning Toolkit: A Resource for SAEF Grantees](#)
- [Battery Workforce Initiative's National Guideline Standards for battery cell production machine operators](#)
- [Clean Economy Tracker – Providing real-time information on the clean energy and technology manufacturing industry in the United States](#)
- [EV Jobs Hub \(bgafoundation.org\)](#)

THANK YOU

SPASIBO ARIGATO DO JE DANKE Asante Maita Henyu Shukriya CA'M ON Arigatou Salamats Dìkuji KAMSA HAMNIDA Jerejef Mahalo Diolch Efcharisto CHOKRANE

Achiu GRACIAS ASANTE HVALA KIA ORA Spasibo MAAKE Terima Kasih MERCI TODAY DANKIE Kiitos Aitäh ARIGATO OBRIGATO Vinaka GRAZIE THANKS Shukran

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