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In collaboration with the Center for Regional Economic Competitiveness

and the Projections Management Partnership

Sector-specific Federal Workforce Development Efforts

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Introduction

Why is this information of use?

Since January 2021, the Biden Administration has placed substantial emphasis on public policies and programs that enhance the capacity of U.S.-based businesses to compete in global markets. Since that time, a plethora of assessments, reports, and strategies have been published, and legislation (such as the CHIPS + Science Act) has been passed, to that end. Without exception, each initiative includes discussion of the need for sector-specific workforce development efforts guided by the federal government.

As a consequence, for the first time in recent memory the federal government is proactively expanding its workforce development role to include not only the traditional one from the supply side but also a new one from the demand side, based on perceptions regarding the workforce needed to make America competitive in a particular industry or technology. As a second consequence, occupational projections, to be useful, should account for demand-side federal workforce development efforts.

The purpose of this report is to describe examples of such efforts (13 programs in seven agencies). Each program profile includes mission, approach and objectives, program and activities, reports, funding and budget requests, point of contact, and other information as appropriate.

How was this information obtained?

The information provided on each effort was gathered from some combination of agency websites, reports, and budget requests.

What was learned about the Future of Work from these examples?

Observations include:

- Demand-side federal workforce development efforts do not adhere to or follow one particular approach.
- Federal program agencies responsible for such efforts do not have substantial experience in workforce development.
- In general, agencies will be open to engagement with and learning from PMP and representatives of state LMI agencies.
- PMP might consider developing a protocol for obtaining an agency's vision, objective, or expectation regarding workforce development goals and incorporating that into occupational projections.

1) Department of Energy, [Office of Energy Jobs](#)

Mission: Support the creation of jobs in the energy sector, particularly jobs that guarantee high standards and the right to collective bargaining.

Approach and Objectives:

- Work collaboratively across DOE and with other federal agencies and regulatory bodies to ensure the successful transition to a zero-emissions economy while creating meaningful job opportunities for all Americans.
- Ensure that job creation, job quality, and equitable access to jobs are taken into consideration in DOE funding, initiatives, and priorities.
- Lead efforts within DOE to align energy workforce development programs with DOE job creation goals.

Programs and Activities:

- [U.S. Energy and Employment Report](#) – The U.S. Energy and Employment Report (USEER) provides a comprehensive overview of the energy labor market. The USEER offers unique insights into the individuals who meet the nation’s energy needs, identifies important trends and skillsets for the 21st century energy workforce, and provides data on employment trends in five major energy sectors — Electric Power Generation; Transmission, Distribution, and Storage; Fuels; Energy Efficiency; and Motor Vehicles.
- [21st Century Energy Workforce Advisory Board](#) – The 21st Century Energy Workforce Advisory Board was established under the Infrastructure Investment and Jobs Act to develop a strategy for the department to support current and future energy-sector labor needs, strengthen DOE’s workforce programs, and expand energy jobs and training opportunities for students, underrepresented workers, and displaced energy workers.
- DOE Labor Working Group – The DOE Labor Working Group is an informal forum for DOE, labor unions, and other workforce organizations to engage on key energy topics.
- [Department of Energy – Department of Labor Memorandum of Understanding](#) – Through this MOU, Energy Jobs manages cross-department efforts to attract, train, retain, and empower diverse, qualified, well-compensated workers for jobs in clean energy infrastructure and supply chains, including underrepresented workers and those displaced by the energy transition.
- [Community Benefits Plan](#) – The Community Benefits Plan is DOE’s approach to accounting for the ways in which labor and community engagement, quality jobs, investing in workers, DEIA, and energy justice contribute to the successful implementation of federally-funded energy projects.
- [Battery Workforce Initiative](#) – The Battery Workforce Initiative is marquis workforce effort for DOE that brings together broad industry stakeholders, including employers and labor unions, to develop consensus on standards skills and training required to

support the rapid growth of the battery supply chain in the U.S. It is a collaborative project between Energy Jobs and the Office of Energy Efficiency and Renewable Energy.

Reports: The [U.S. Energy and Employment Report](#) (USEER) is a comprehensive summary of national and state-level employment, workforce, industry, occupation, unionization, demographic, and hiring information by energy technology groups. The USEER began in 2016 at the recommendation of the first Department of Energy Quadrennial Energy Review to better track and understand employment within key energy sectors that have been difficult to impossible to follow using other publicly available data sources. The study combines surveys of businesses with public labor data to produce estimates of employment and workforce characteristics.

Funding and Budget Request: The Office of Energy Jobs is within the DOE Office of Policy (OP). The FY2024 budget does not go below the OP level. That said, it does seem that the FY2024 request includes a substantial increase for the Office of Energy Jobs. “The FY 2024 Budget Request of \$52,037,000 is a \$28,087,000 increase above the FY 2023 Enacted Budget to reflect the growing need for OP to serve its functions and add a new data tracking capability.” In particular:

- The Office of Energy Jobs is a significant FY 2024 priority, with goals of supporting the creation of good-paying jobs in the energy workforce, while creating pathways for energy transitioning communities. This work includes:
 - a focus on workforce development standards to ensure equitable and good job creation that pays family-sustaining wages, while engaging the larger labor community on energy issues through the DOE Labor Working Group;
 - guidance to program offices and Labs throughout the DOE complex on fair labor practices, including regular workforce-related consultation on the design of DOE programs and on reports;
 - DOE-wide coordination on energy jobs and collaborates on interagency and Congressional activities;
 - administer the DOE Jobs Council and Energy Workforce Advisory Board;
 - publish the annual United States Energy and Employment Report, which is a vital and high-visibility source of data for those in the energy sector;
 - provide significant support to interagency working groups on several topics, including the Interagency Working Group on Coal and Power Plant Communities and Economic Revitalization, job creation analysis, and union stakeholder engagement.

Point of contact: Piper O’Keefe piper.o'keefe@hq.doe.gov

2) National Institute of Standards and Technology (NIST), Department of Commerce

a) Manufacturing Extension Partnership – [workforce development](#)

Mission of MEP Program and National Network: Equip small and medium-sized manufacturers with the resources needed to grow and thrive.

Workforce Development Objective: Aid MEP clients in attracting and retaining a high-quality workforce

Programs and Approach: Offer an extensive range of workforce services and resources that address every stage of the employee lifecycle. Services include:

- talent assessment and planning,
- attraction and recruitment,
- training and development for production workers as well as leadership,
- employee engagement and retention, and
- more broadly creating an effective organizational culture to become an employer of choice.

Funding:

- For FY2023, the MEP program received \$188.0 million.
- For [FY2024](#) (p. 99-106), it requests \$277.2 million. This request will be used to make noteworthy progress on three specific goals identified in the new 2023-2027 MEP National Network strategic plan to support a focused, national effort that strengthens U.S. manufacturing and empowers small and medium-sized manufacturers (SMMs). These goals are narrow the workforce gap, mitigate supply chains vulnerabilities, and leverage technology.
 - The national network of 51 MEP Centers delivers customized workforce development solutions, such as industry-related certification and leadership trainings, and comprehensive workforce services that help SMMs recruit, retrain, and retain in-demand manufacturing talent. Increased funding will be strategically invested in MEP Centers to build out apprenticeship, upskilling, and learning systems that support a globally competitive U.S. manufacturing workforce.
 - This increased funding will also drive efforts to encourage a more diverse U.S. manufacturing workforce by focusing on underserved communities through collaborative partnerships with Historically Black Colleges and Universities (HBCUs), Minority-Serving Institutes (MSIs), and community colleges to develop industry training and in-demand skills.

Reports: [The Manufacturers' Guide to Finding and Retaining Talent](#) (March 2022)

Point of contact: Jyoti Malhotra, Chief, National Programs jyoti.malhotra@nist.gov

b) CHIPS Program Office – [workforce development](#)

Program Mission: Strengthen and revitalize the U.S. position in semiconductor research, development, and manufacturing—while also investing in American workers.

Workforce Development Objective and Approach: Build a skilled and diverse domestic semiconductor workforce by:

- Investing in Manufacturing Facilities: Provide funding for the construction, expansion, and modernization of manufacturing facilities which will create new job opportunities for construction workers, technicians, engineers, and other occupations at multiple skill levels.
- Partnering with Industry and Education and Training Providers: Collaboration between education and training providers and the semiconductor industry will ensure that education and training programs are aligned with industry needs and that students are well-prepared to fill in-demand roles.
- Supporting Semiconductor Education and Training: Support semiconductor-related skills development throughout the entire education and training system—from K-12 schools and career technical education programs through community colleges and universities. Provide experiential and practical learning opportunities for students and researchers. Offer supportive services to improve access to education and training opportunities for all Americans and increase diversity in the semiconductor workforce.
- Fueling Research and Development: Increased funding for semiconductor R&D will lead to the discovery and development of new products and technologies. This will help to create more job opportunities and help to attract more workers to the field.

Funding:

- For FY2022, the CHIPS for America Fund was appropriated \$19.0 billion for the CHIPS Incentives Program and Incentive Loans and \$5.0 billion for CHIPS Research & Development.
- For FY2023, the corresponding figures were \$5.0 billion and \$2.0 billion.
- For [FY2024](#) (pp. 161-171), the corresponding figures are \$5.0 billion and \$1.3 billion.

Reports: [CHIPS for America Workforce Development Planning Guide](#) for CHIPS Incentives applicants

Point of contact: Rachel Lipson, CHIPS Workforce Development rachel.lipson@chips.gov

c) **Manufacturing USA** – [workforce development](#)

Program Mission: Help the U.S. secure global leadership in emerging technologies through [a network of 16 manufacturing institutes](#).

Workforce Development Objective and Approach: helping to define the skills and training needed to satisfy manufacturers' future requirements. These efforts include:

- Defining new careers for automation, robotics, AI and data analytics
- Retraining and upskilling the current workforce
- Attracting STEM talent for the future

Each of the 16 institutes in the Manufacturing USA network has ongoing workforce development initiatives. They are engaging with educational institutions and industry to increase interest in manufacturing careers and equip manufacturing workers with the skills they need to support the advanced manufacturing of the future. Many of the institutes have developed specialty online learning initiatives to develop career pathways that offer:

- Competency-based vs. time-based learning, which allows for more individualized curricula and targeting specific skills, and usually results in higher engagement.
- Flexibility that expands the pool of participants, an important consideration for underrepresented populations for whom traditional classroom programs may pose attendance challenges due to lack of transportation and time constraints.

Tens of thousands of workers, students, and educators in the past year have participated in institute workforce programs, including mid-career programs, apprenticeships, internships and summer camps.

Funding:

- For FY2023, Manufacturing USA was appropriated \$37 million in base.
- For [FY2024](#) (pp. 107-113), it requests \$97.7 million.
 - “The \$60.316 million increase augments the \$37.354 million in base funding to help restore the United States as the leader in technology areas essential to economic and national security.
 - The increased availability of testbeds, which can test new manufacturing techniques and serve as workforce training centers, will improve access by SMEs to specialized equipment and also extend the geographic reach of the network’s programs to regions of the country and communities, currently underrepresented in manufacturing. These shared state-of-the-art facilities to support industry sectors that increasingly rely on advanced manufacturing technologies are especially powerful for hands-on workforce training needed to build an equitable, diverse, and sustainable pipeline of skilled workers, including for veterans, women, individuals with disabilities, and minorities.”

Reports: Periodically issues papers on manufacturing workforce development.

Point of contact: Mike Molnar, Director, Manufacturing USA mike.molnar@nist.gov

3) Economic Development Administration, Department of Commerce

a) [Good Jobs Challenge Community of Practice](#)

Mission: Bolster and amplify the efforts of Good Jobs Challenge grantees.

Objectives: Equip local and regional leaders to drive equitable and inclusive recovery of workforce systems and foster long-lasting stability for citizens, businesses, and industries in grantees' regions.

Operator: Jobs for the Future in partnership with American Association of Community Colleges (AACC), the Committee for Economic Development of The Conference Board, and the National Association of Workforce Boards (NAWB)

Membership: 32 [Good Jobs Challenge \(GJC\) grantees](#) (including intermediaries, employers, economic development agencies, higher education institutions, community-based organizations, state agencies, and other)

Approach:

- Foster collaboration among Good Jobs Challenge grantees,
- Provide wraparound support for grantees throughout project implementation,
- Identify best practices to benefit the greater community of workforce, education, and economic development stakeholders,

Funding: [Good Jobs Challenge grantees](#) received \$500 million in August 2022. For [FY2024](#) (p. 25), EDA requests a \$97.0 million in grant funding to establish an annual program that builds off the work begun under the American Rescue Plan (ARP)

Act of 2021 through the Good Jobs Challenge (GJC).

Blog: [Collaboration Key to Boosting Good Jobs Challenge Workforce Systems](#)

Point of contact: Nate Humphrey, JFF nhumphrey@jff.org

b) [STEM Talent Challenge](#)

Mission: Build STEM talent training systems to strengthen regional innovation economies.

Approach: Projects should aim to identify opportunities in high-growth potential sectors, and to expand and empower the innovation economy workforce, including by:

- Engaging regional entrepreneurs, innovators, and the organizations that support them to assess and forecast current and future talent needs and to develop collaborative solutions with work-based programs;
- Building highly skilled talent and connecting it to highly technical opportunities that foster professional development and provide continuing advanced skills training to develop the technical and scientific workforce that regional innovation initiatives need;

- Strengthening collaboration among entrepreneurs, industry leaders and employers, educational organizations, established corporations, economic and/or workforce development organizations, and the public sector to enable better access to skilled workers and to develop demand-driven workforce pipelines for the innovation economy; and
- Placing new employees into immediate job openings with regional employers in need of STEM talent.

Competition applicants may request up to \$500,000 for implementation of a 24-month program. A 1:1 funding match is required.

Funding:

- The [FY23 STEM Talent Challenge](#) will award a total of \$4.5 million in grants to organizations that are creating and implementing STEM talent development strategies that complement their region’s innovation economy. (Funding comes from \$2 million for FY 2022 and \$2.5 million for FY2023.)
- [FY2024 STEM Apprenticeship budget request](#) (pp. 91-95) is \$10 million.
 - “EDA is requesting an increase of \$7.5 million from the 2024 base level for a total of \$10 million. The Program is significantly oversubscribed, 10 times by budget. EDA received 78 applications valued at \$20.6 million from 38 different states in the Program’s first year and EDA received 77 applications requesting \$23.0 million from 35 different states in its second. With the \$2 million appropriated for the program in FY 2021, EDA was able to award just 8 grants. With this additional funding, EDA will expand its STEM apprenticeship by increasing the number of grantees, expanding the range of support available to grantees, and ultimately expanding the STEM workforce to meet the public and private sectors’ growing demand.”

Reports: [FY2021 STEM Challenge recipients](#).

Point of contact: Eric Smith, Director, Office of Innovation and Entrepreneurship, EDA
ESmith2@eda.gov

4) National Science Foundation

a) [Technology, Innovation, and Partnerships Directorate \(TIP\)](#)

Mission: Harness the nation's vast and diverse talent pool to advance critical and emerging technologies, address pressing societal and economic challenges, and accelerate the translation of research results from lab to market and society. Improve U.S. competitiveness, growing the U.S. economy and training a diverse workforce for future, high-wage jobs.

Programs:

- [Accelerating Research Translation](#)
- [America's Seed Fund](#)
- [Convergence Accelerator](#)
- [Enabling Partnerships to Increase Innovation Capacity](#)
- [Experiential Learning for Emerging and Novel Technologies](#)
- [Innovation Corps \(I-Corps™\)](#)
- [Partnerships for Innovation](#)
- [Pathways to Enable Open-Source Ecosystems](#)
- [Regional Innovation Engines](#)

Workforce Development Objective: Ignite partnerships among academia, industry, government, nonprofits, civil society and communities of practice to cultivate regional innovation ecosystems, create technology solutions, support future STEM leaders who reflect the rich cultural and geographic diversity of the country, and ultimately advance our nation's economy and competitiveness.

Funding: For FY2024, NSF requests \$1.19 billion for the TIP Directorate, up from \$670 million in FY2023 and \$413 million in FY2022.

Reports: N/A

Point of contact: Tess DeBlanc-Knowles, Staff Associate for Technology Policy and Strategy (703) 292-4647 tdeblanc@nsf.gov

b) [Advanced Technological Education \(ATE\)](#)

Mission: Support the education of technicians for the high-technology fields that drive our nation's economy.

Objective and Approach: The program involves partnerships between academic institutions (grades 7-12, IHEs), industry, and economic development agencies to promote improvement in the education of science and engineering technicians at the undergraduate and secondary institution school levels.

The ATE program supports curriculum development; professional development of college faculty and secondary school teachers; career pathways; and other activities. The program

invites applied research proposals that advance the knowledge base related to technician education. It is required that projects be faculty driven and that courses and programs are credit bearing, although materials developed may also be used for incumbent worker education.

The ATE program encourages partnerships with other entities that may impact technician education. For example, with

- the National Institute of Standards and Technology (NIST) Manufacturing Extension Partnerships (MEPs) (<http://www.nist.gov/mep/index.cfm>) as applicable to support technician education programs and the industries they serve;
- Manufacturing USA Institutes (<https://manufacturing.gov/>) addressing workforce development issues (also see DCL NSF 16-007); and
- NSF Industry University Cooperative Research Centers Program (I/UCRC) awardees.

Funding: The FY2024 budget request was \$75 million, the same as for FY2022 and slightly less than the \$77 million for FY2023.

Reports: [ATE Central](#)

Point of contact: Celeste Carter (703) 292-4651 vcarter@nsf.gov

c) [Skilled Technical Workforce Initiative](#), National Center for Science and Engineering Statistics (NCSES)

Mission: Provide broad understanding of the policy issues that concern skilled technical workers.

Objective and Approach: To meet this goal, NCSES has created a framework for measuring and understanding the STW by undertaking five activities: 1) developing a definition of the STW, 2) performing stakeholder outreach, 3) documenting current federal STW-related activities and data collections, 4) identifying potential STW-related administrative data, and 5) developing a new, national STW survey.

Funding: For FY2024, NCSES requests \$90.2 million, up from \$78.9 million in FY2023 and \$56.5 million in FY2022. The NCSES budget request does not break out spending for the STW Initiative.

Reports: See <https://www.nsf.gov/statistics/stw/skilled-technical-workforce.cfm>

Point of contact: Gigi Jones gijones@nsf.gov

5) Department of Defense

a) Assistant Secretary for Industrial Base Policy, [National Imperative for Industrial Skills](#)

Mission: Build a robust industrial skills workforce development ecosystem in the defense industrial base

Programs and Approach:

- Identify industry needs and driving collaboration with education, as well as look at mutual reliance on like facilities, equipment and processes driven by relevant industry needs.
- Focus on developing a deeper and sustained collaboration among all levels of education (K-12, 2-year post high school, and 4-year post high school) and industry (small and medium manufacturers, large original equipment manufacturers), as well as non-profit and governmental support activities.
- Focus on developing trade skills through national competitions
- Contracting vehicle: [Cornerstone OTA](#) Sector Area 16: Industrial Base and Manufacturing Skills—Collaborative efforts to engage the highest industrial, academic, and Government technical resources to define and address strategic manufacturing value chain vulnerabilities and program specific technical issues in support of the defense industrial base.

Funding: The NIIS was funded at \$27M when [announced](#) in 2020.

Reports: [IBAS Program slide deck Feb 2022](#) (slides 5-9)

Points of contact:

- Adele Ratcliffe, Director, Innovation Capability & Modernization (ICAM) [formerly Industrial Base Analysis and Sustainment (IBAS)] a.a.ratcliff.civ@mail.mil
- Jeannine Kunz, Vice President, Tooling U, SME, Chair, [Workforce Committee](#), Manufacturing Division, National Defense Industries Association

b) Manufacturing Technology Program (ManTech), [Education and Workforce Development \(EWD\)](#)

Mission:

- The DoD Manufacturing Technology (ManTech) enterprise attempts to utilize advanced manufacturing to secure a more lethal force, strengthen alliances and new partnerships, and reform the Department for greater performance and affordability.
- The Mission of ManTech EWD is to work through stakeholders to build an educated and skilled advanced manufacturing workforce that is prepared to meet the needs of an advanced technology-enabled manufacturing sector.

Program and Approach: Building a Collaboration Network to Strengthen the Defense Industrial Base Initiative

- M-EWD provides strategic leadership of advanced manufacturing talent development within the Defense Industrial Base (DIB) with three mission objectives: (1) invest in strategic education and workforce development capabilities, (2) expand the talent acquisition pool to promote diversity equity and inclusion (DEI), (3) modernize manufacturing EWD by driving action within DIB-critical regional economies with a focus on Career & Technical Education (CTE).
- ManTech EWD is leading multiple initiatives to build a skilled and capable advanced manufacturing workforce. Key to this work is the [DoD Manufacturing Innovation Institutes](#) (MIIs). Each institute, in its role as innovator developing and disseminating new cutting-edge technologies, plays a unique and critical role in connecting and aligning industry, education, and regional stakeholders.
- The challenge facing the Nation is a complex "system of systems" challenge that requires collaborating to develop and execute shared strategies to affect greater impact on an accelerated timetable. These organizations include three networks:
 - DoD MIIs and Manufacturing USA;
 - DoD's Office of Local Defense Community Cooperation (formerly known as the "Office of Economic Adjustment"), Defense Industry Adjustment Program's Learning Community Exchange; and
 - The American Manufacturing Communities Collaborative (formerly known as the "Investing in Manufacturing Communities Partnership" under the U.S. Department of Commerce's Economic Development Administration) now operating as a private sector collaborative.
- This initiative will align the efforts of these three networks, and potentially others, is to collaboratively address the need for an educated and skilled American workforce capable of employing cutting-edge industrial technology at scale to revitalize the domestic manufacturing industry.
- FY 2023 Plans: The M-EWD program will sponsor a project to expand the pool of talent and promote equity and inclusion in manufacturing careers by building upon Minority-Serving Institution (MSI) and Historically Black Colleges and Universities (HBCU) partnerships developed beginning in FY 2021. A second key effort will be a pilot project to build regional economic and talent development alliances. The program will also continue to sustain and enhance the Open edX digital learning platform for industry and DoD personnel, as well as the labor market data portal projects.
- FY 2024 Plans: Support development of whole-of-government EWD solutions applicable to the defense advanced manufacturing workforce. Expand Diversity, Equity, and Inclusion (DEI) in the manufacturing workforce by developing and adapting tailored curricula to expand participation opportunities and increasing the availability of instructional platforms and materials.

Funding:

- FY2024 budget [request](#) (p. 362) for ManTech EWD is \$5.1M, compared to \$5.2M enacted for FY2023.
- FY2023 congressional earmark added \$5M for University of Maine (UMaine) Advanced Manufacturing Center to establish three Manufacturing Training Innovation Centers (MTICs) at Orono, Brunswick, & South Portland, Maine. The proposed MTICs will coordinate efforts and leverage existing UMaine Advanced Manufacturing Center and Southern Maine Community College resources to help Maine businesses utilize emerging technologies such as additive manufacturing and artificial intelligence (AI).
- FY 2023 to FY 2024 Increase/Decrease Statement: The decrease of \$0.078 million between FY 2023 and FY 2024 reflects a minor re-phasing of manufacturing education platform content development.

Reports: [EWD activities and accomplishments](#) Also, from FY2024 budget request: Key M-EWD accomplishments include development of a strategic framework for DoD leadership of advanced manufacturing talent development, eight MII-led regional initiatives informed by labor market data profiles of regional economies, start of a pilot effort to develop an automated real-time labor market data portal, and launch of ManufacturingWorkforce.org, a dual-use digital learning platform with advanced manufacturing course offerings.

Point of contact: [Michael Britt-Crane](#), ManTech EWD lead michael.d.britt-crane.civ@mail.mil

6) Federal Communications Commission -- [Telecommunications Workforce Interagency Group \(TWIG\)](#)

Mission: FCC Chairwoman Rosenworcel and Labor Secretary Walsh established this interagency working group, effective January 14, 2022, under the Infrastructure Investment and Jobs Act “to develop recommendations to address the workforce needs of the telecommunications industry, including the safety of that workforce.” The Working Group presented its recommendations in a [report to Congress](#) on January 13, 2023.

Membership: Pursuant to the Infrastructure Investment and Jobs Act, the Working Group is comprised of representatives of Federal agencies (the FCC, the Occupational Safety and Health Administration, the National Telecommunications and Information Administration, and the Department of Education), as well as representatives from industry, labor, and other stakeholder organizations. Chairwoman Rosenworcel appointed five members, Secretary Walsh appointed four members, Secretary of Education Miguel Cardona appointed two members, and Evelyn Remaley, performing the non-exclusive functions and duties of the Assistant Secretary of Commerce for Communications and Information, appointed one member to the Working Group.

Members were organized into three subgroups: Education, Telecommunications Workforce Safety, and Labor

Objectives and Approach: The Infrastructure Investment and Jobs Act (Sec. 60602) directs the Working Group to develop recommendations that will:

“(1) determine whether, and if so how, any Federal laws, regulations, guidance, policies, or practices, or any budgetary constraints, may be amended to strengthen the ability of institutions of higher education . . . or for-profit businesses to establish, adopt, or expand programs intended to address the workforce needs of the telecommunications industry, including the workforce needed to build and maintain the 5G wireless infrastructure necessary to support 5G wireless technology;

“(2) identify potential policies and programs that could encourage and improve coordination among Federal agencies, between Federal agencies and States, and among States, on telecommunications workforce needs;

“(3) identify ways in which existing Federal programs, including programs that help facilitate the employment of veterans and military personnel transitioning into civilian life, could be leveraged to help address the workforce needs of the telecommunications industry;

“(4) identify ways to improve recruitment in workforce development programs in the telecommunications industry;

“(5) identify Federal incentives that could be provided to institutions of higher education, for-profit businesses, State workforce development boards . . . or other relevant stakeholders to

establish or adopt new programs, expand current programs, or partner with registered apprenticeship programs, to address the workforce needs of the telecommunications industry, including such needs in rural areas;

“(6) identify ways to improve the safety of telecommunications workers, including tower climbers; and

“(7) identify ways that trends in wages, benefits, and working conditions in the telecommunications industry impact recruitment of employees in the sector.”

Report: [Telecom Interagency Working Group Report on Workforce Needs](#) [48 pages]

Point of contact: J. Noah Brown, Chair, Subgroup on Education, Senior Advisor, Office of Career, Technical, and Adult Education, Department of Education noah.brown@ed.gov

7) Federal Highway Administration, Office of Innovation and Workforce Programs, [Center for Transportation Workforce Development](#)

Mission: Provide national leadership, coordination, and assistance that supports initiatives to develop and expand the nation's transportation workforce.

Approach and Objectives: From early education through ongoing professional development, the center provides program support, technical assistance, and workforce development activities in partnership with federal, state, and local agencies, industry organizations, schools, colleges and universities, and other education providers. The center's efforts are critical to attracting, retaining, and advancing the transportation workforce in the face of retirement, competition from other industries, and new technologies.

Programs seek to build awareness and interest in transportation career options, promote an understanding of how they positively impact our mobility, safety, and economic opportunity, and encourage professionals to take next steps in their careers through skills acquisition and enhancement. Many programs place a particular emphasis on reaching women, minorities, and other disadvantaged groups.

Programs and Activities:

- [Highway Construction Workforce Partnership \(HCWP\) / Strategic Workforce Development \(SWD\)](#): Goal is to increase the capacity and capability of the highway construction workforce. By partnering with key organizations to develop and deploy highway construction training and placement programs, this initiative will increase the number of individuals trained and hired in highway construction trades and crafts.
- [On-the-Job Training Supportive Services \(OJT/SS\)](#): On Federal-aid contracts, Federal regulations require State Departments of Transportation (State DOTs) to establish apprenticeship and training programs targeted at moving women, minorities, and disadvantaged persons into journey-level positions. The goal of the FHWA OJT/SS is to support the States' OJT programs. Congress authorized the OJT/SS program in 23 U.S.C.140(b).
- [Primary/Secondary/Postsecondary and Professional Development](#): Supports efforts to build awareness and interest in future careers in transportation among K-12 students; programs and products help provide the skills necessary to succeed as members of tomorrow's transportation workforce. The CTWD also manages activities that integrate transportation into college and university programs striving to increase the number of post-secondary students interested in pursuing transportation-related careers. The Center provides management, leadership, and coordination for student transportation education programs to support the development of highly skilled individuals for the transportation workforce.
 - [National Network for Transportation Workforce Development](#) -- The four Region Transportation Workforce Centers collectively form a National Network for

Transportation Workforce Development to provide a strategic and efficient approach to transportation workforce development. They facilitate partnerships with key public and private organizations throughout the transportation, education, labor, and workforce investment communities to identify and promote effective transportation workforce activities and programs.

- Garrett A. Morgan Transportation Technology Education Program -- improves the preparation of students, particularly women and minorities, in science, technology, engineering, and mathematics (STEM) through curriculum development and other activities related to transportation. As the nation's need for a highly skilled, diverse, and multi-disciplinary transportation workforce continues to grow, the program hopes to "Prepare today's youth to become tomorrow's transportation professionals."
- National Summer Transportation Institutes (NSTI) -- serves to increase awareness and stimulate interest in transportation to middle and high school students. NSTI is a two-to-four-week Science, Technology, Engineering and Math (STEM) - focused program that exposes students to the transportation sector and encourages them to pursue transportation-related courses of study at the college and university level.

Reports: NA

Funding: The FHWA Training & Education account received \$25.25M for FY2023 and requests \$25.50M for [FY2024](#) (p. IV-7). [The description in the budget request does not align exactly with the online text. Also, the budget request says the T&E account is run by the Office of Transportation Workforce Development and Technology Deployment.]

Point of contact: Karen Bobo, Director, Center for Transportation Workforce Development 202-366-0537 karen.bobo@dot.gov