



## U.S. Department of Commerce

## Fiscal Year 2025 Evaluation Plan





## U.S. Department of Commerce

## Fiscal Year 2025 Evaluation Plan



Compiled by the Office of the Under Secretary for Economic Affairs

www.commerce.gov // EvaluationOfficer@doc.gov

Published March 11, 2024

### **Contents**

Introduction4
Summary of FY 25 Significant Evaluation Questions by Bureau
Evaluation of Source Data for the Construction of a U.S. System of Environmental Economic Accounts
Improving Methodology for Generating Estimates from Linked Survey and Administrative Data
Outcome of Economic Development Administration CARES and ARPA Investments
Evaluating the Use of Existing Evidence in Program Implementation
Cross-Cutting Research, Themes, and Challenges
Evaluating ITA's Online Portal for the Steel and Aluminum Tariff Program
Minority Business Development Agency's Capital Readiness Program Effectiveness 30
Evaluating the U.S. Artificial Intelligence Safety Institute
Evaluating NOAA's Impact-Based Decision Support Services
Economic and Social Impacts of NOAA's Grant-Funded Investments
A Formative Evaluation in Support of NTIA's Broadband Programs
Evaluating the Unique Challenges Faced by Women and Underserved  Communities in the Invention Ecosystem
Evaluating Examiner Behaviors and the Organizational Structure of USPTO45

#### Introduction

The Foundations for Evidence-Based Policymaking Act of 2018 ("Evidence Act") requires that agency Evaluation Officers coordinate the development of an Annual Evaluation Plan that is published concurrent with the agency Annual Performance Plan. The Annual Evaluation Plan describes "significant" evaluations and related information for the subsequent fiscal year. The list to the right provides the criteria the Department of Commerce (DOC) considered when designating projects as significant. All evaluations presented in this draft FY 2025 plan are supported by funding in the FY 2025 President's Budget (PB). Revisions in the plan may be made when final appropriations levels are enacted.

In addition to Annual Evaluation Plans, CFO Act agencies are required to develop multi-year Learning Agendas. The Learning Agenda describes both evaluations and other evidence that will be developed to support effective implementation of DOC's 5-year Strategic Plan. A Capacity Assessment reporting the agencies' resources for accomplishing the Learning Agenda is also required. Both the Learning Agenda and the Capacity Assessment are published with the FY 2022/26 Department Strategic Plan.

#### **Plan Development Process**

Bureau Evaluation Leads were asked to suggest programs/initiatives/ processes for FY 2025 evaluation that support completing the Learning Agenda for FY 2022/26, with an emphasis on opportunities to conduct impact evaluations using rigorous methods, such as randomized control trials or quasi-experimental methods.

Questions were revised and refined based on Administration priorities for new and expanded programming. The Evaluation Plan was also influenced by Congressional interests, as reflected in questions posed during hearings; leadership discussions with community groups and stakeholders; and Executive Orders.



#### Significant Evaluations

Significant evaluations meet one or more of the following criteria:



Fundamental to the DOC Mission



Align with leadership priorities



Have potential to create a major advance in benefits from an investment, efficiency and/or customer experience



Support economic recovery and/or resilience



Support diversity, equity, inclusion, and accessibility Most notably, Executive Order 13985: Advancing Racial Equity and Support for Underserved Communities Through the Federal Government remains integral to the plan. Executive Order 13985 directs Federal agencies to "pursue a comprehensive approach to advancing equity for all, including people of color and others who have been historically underserved, marginalized, and adversely affected by persistent poverty and inequality." This plan emphasizes the development of information needed to ensure all Americans have full access to the services and products of the Department of Commerce. Executive Order 14091: Further Advancing Racial Equity and Support for Underserved Communities Through the Federal Government furthers these efforts, requiring Federal agencies to incorporate strategies to advance equity into evaluation and evidence-building activities undertaken pursuant to the Evidence Act. To this end, this plan includes an Equity Component of Methodology for each project.

#### **Caveat Regarding Methodologies**

The questions, methodologies and data sources presented in this plan reflect current knowledge and initial thinking and may be adjusted as evaluation activities get underway. Internal/external experts and/or academics will be engaged to develop the detailed approach to evaluating a program or policy.

#### **Dissemination of Evaluation Findings**

At significant milestones in the evaluation process, drafts and preliminary findings will be shared with internal stakeholders and staff of collaborating organizations. When evaluation projects are complete, the reports will be posted on the public-facing websites of the sponsoring bureaus. However, documents will not be posted if there are legal restrictions on access to the information, e.g., for security or privacy reasons.

Significant evaluation findings are often presented at conferences and workshops to the appropriate communities of practices. Some evaluations are published in peer-reviewed journals as an objective measure of quality and to make the results more accessible.

#### **Types of Evaluations**

The project descriptions in this Evaluation Plan describe projects as being primarily in one of four categories. The categories are defined below and are excerpted from OMB M 20–12. However, OMB M 20–12 also provides that "evaluations can also examine questions related to understanding the contextual factors surrounding a program, as well as how to effectively target specific populations or groups for a particular intervention. They can provide critical information to inform decisions about current and future programming, policies, and organizational operations. Finally, evaluations can and should be used for learning and improvement purposes, as well as accountability purposes."

✓ Formative✓ Impact✓ Outcome✓ Process or Implementation

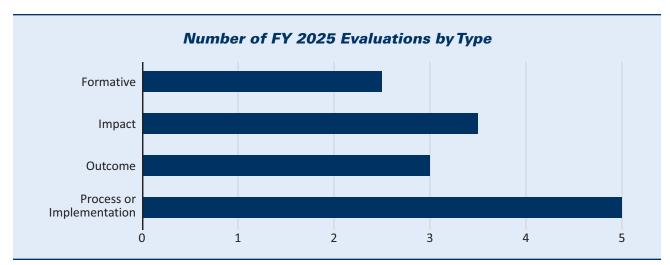
**Formative Evaluation** is typically conducted to assess whether a program, policy, or organizational approach, or aspect thereof, is feasible, appropriate, and acceptable before it is fully implemented. It may include process and/or outcome measures. However, unlike outcome and impact evaluations—which seek to answer whether the program, policy, or organization met its intended goals or had the intended impacts—a formative evaluation focuses on learning and improvement and does not aim to answer questions of overall effectiveness.

**Impact Evaluation** assesses if a program, policy, or organization, or aspect thereof, causes an increase in impact compared to those of a counterfactual. This type of evaluation estimates and compares impacts (e.g., increased jobs, business revenue) with and without the program, policy, or organization, or a feature of the program or policy. Impact evaluations include both experimental (i.e., randomized controlled trials) and quasi-experimental designs (i.e., a comparison group with similar demographics). An impact evaluation can help answer the question, "Did the intervention lead to the observed outcome or impact?"

**Outcome Evaluation** measures the extent to which a program, policy, or organization has achieved its intended outcome(s) and focuses on outputs and outcomes to assess effectiveness. Unlike an impact evaluation, it typically cannot discern causal attribution. For instance, it can report the increase in the number of jobs at a Federally assisted business but cannot conclude that the assistance caused the number of jobs to increase. An outcome evaluation can help answer the question, "Were the intended outcomes of the program, policy, or organization achieved?"

**Process or Implementation Evaluation** assesses how the program or service is delivered relative to its intended theory of change, and often includes information on content, quantity, quality, and structure of services provided. These evaluations can help answer the question, "Was the program, policy, or organization implemented as intended?" Or, "How is the program, policy, or organization operating in practice?" Process evaluations are significant because an overly complex or time-consuming service delivery process can undermine the level of outcome/impact achieved even if the basic concept underpinning a program is sound.

The chart below shows the distribution of the number of FY 2025 evaluations by type of evaluation. Four out of the fourteen evaluations (29%) are impact evaluations, where the department is trying to establish a causal link between the program (or policy) and the impact on the workers, businesses, or communities the program (or policy) is trying to assist.



The Office of the Under Secretary for Economic Affairs, where the Evaluation Officer is located, coordinated the overall development of the plan and nine bureaus have at least one evaluation in the plan. The Economic Development Administration contributed four evaluations, which was the most.

### Summary of FY 25 Significant Evaluation Questions by Bureau

Bureau of Economic Analysis (BEA)
What are the impediments and risks to gathering and synthesizing source data for the
construction of a U.S. system of environmental economic accounts?9
Census Bureau
What methods are currently used at the Census Bureau to assign a race and/or ethnicity to survey respondents and individuals in blended data products when these data are missing? How can information about the quality of race/ethnicity data from survey, decennial census,
and administrative data be used to understand and improve this process? How can predictive modeling be used to understand and improve future data?
Economic Development Administration (EDA)
To what extent did the EDA-sponsored activities funded via the American Rescue Plan Act improve the capacities of the communities they served? To what extent can early findings inform future program design?*
To what extent did regional workforce development systems achieve their targets in placing participants into good jobs?*
What impact have the EDA-sponsored activities funded via the Coronavirus Aid, Relief, and Economic Security (CARES) Act, including those from the Revolving Loan Fund (RLF) program, had on capacities of the communities they serve?*
To what extent did EDA use existing evidence in its assessment of regions' potential to become globally competitive Tech Hubs?*
International Trade Administration (ITA)
How effective has the online portal been in supporting the product exclusion process under the Section 232 steel and aluminum tariff program?

<sup>\*</sup> Evaluation builds on work in the FY 2024 Annual Evaluation Plan.

### Minority Business Development Agency (MBDA) Based on ongoing results, to what extent is the MBDA's Capital Readiness Program supporting new venture formation and scaling of business? How effective is the program in helping program National Institute of Standards and Technology (NIST) How effective are the activities of the U.S. Artificial Intelligence Safety Institute (USAISI) and related Consortium at meeting its overall goal of advancing the development of innovative methods, tools, and guidelines for evaluating, developing, and deploying safe, secure, and National Oceanic and Atmospheric Administration (NOAA) Is Impact-based Decision Support Services (IDSS) effectively serving key partners and emergency managers, especially during extreme and hazardous weather events? Is the information/support What are the economic and social impacts of NOAA's grant-funded investments to increase the **National Telecommunications and Information** Administration (NTIA) What data assets are needed to conduct high-quality impact evaluations of NTIAs broadband programs?\*.......40 United States Patent and Trademark Office (USPTO) Will additional information and guidance provided to applicants during the patent prosecution process improve applicant grants rates, and are there differential effects of this information/ What effects do examiner behaviors or organizational structure have on the office's ability to

<sup>\*</sup> Evaluation builds on work in the FY 2024 Annual Evaluation Plan.

# Evaluation of Source Data for the Construction of a U.S. System of Environmental Economic Accounts

#### Strategic Objective Supported:

4.2

Modernize economic and demographic statistics to better meet business, policymaker, and community needs

For more information on DOC Strategic Goals and Objectives, see the <u>U.S. Department of Commerce Strategic Plan 2022–2026</u>



#### Lead Bureau:

U.S. Bureau of Economic Analysis (BEA)

#### FY 25 Significant Evaluation Question:

What are the impediments and risks to gathering and synthesizing source data for the construction of a U.S. system of environmental economic accounts?

#### Related Strategic Evidence/Evaluation Research:

Research during FY 2022–24 on experimental estimates of land value, air emissions accounts, and environmental goods and services accounts provided initial lessons learned on interagency sharing of environmental economic data and the compilation of accounts consistent with BEA's existing national accounts.

#### Rationale for Topic's Priority and How the Evaluation Findings will be Used:

Understanding the link between the environment and economy is a key priority across government and society. A comprehensive system of U.S. environmental economic accounts is vital to inform evidence-based decision making on policy and business decisions. Evaluation findings will aid BEA in understanding the resources and interagency cooperation necessary for compiling a set of accounts that aligns with the structure and quality of existing BEA accounts used to calculate statistics on GDP, personal income, and a variety of other key economic measures.

Type of Evaluation:	<b>f</b> Formative	□Impact	□ Outcome	□ Process
Formative evaluation to ass economic accounts and rele	•			vironmental

#### Methodology/Approach for Evaluation:

The evaluation will include research to establish the types of datasets necessary for the construction of environmental economic accounts and potential sources of those datasets (including whether those datasets currently exist). The evaluation will assess the quality, feasibility, and appropriateness of potential data sources, as well as risks associated with data access, quality, purpose, or other factors.

#### **Equity Component of Methodology:**

Environmental economic accounts provide a key source of information about how economic activity affects communities.

#### Contractor, Academic or Unit Who Will Do the Research:

Staff (including contractor support where necessary) in the Office of the Director, the Office of the Chief Economist, and the National Economic Accounts at the Bureau of Economic Analysis.

#### **Data Sources:**

The evaluation will identify and test key data sources to determine compatibility, quality, and comprehensiveness with existing economic information. Data sources will be selected based on their effectiveness in extending the USA's economic accounts to include links with the environment.

#### Challenges:

A comprehensive system of national accounts requires a large-scale data collection effort across all levels of government and the private sector.

#### Dissemination:

Results will be published as working papers on the BEA website.

## Improving Methodology for Generating Estimates from Linked Survey and Administrative Data

#### Strategic Objective Supported:

4.2

Modernize economic and demographic statistics to better meet policymaker and community needs

For more information on DOC Strategic Goals and Objectives, see the U.S. Department of Commerce Strategic Plan 2022–2026



#### Lead Bureau:

U.S. Census Bureau

#### FY 25 Significant Evaluation Question:

What methods are currently used at the Census Bureau to assign a race and/or ethnicity to survey respondents and individuals in blended data products when these data are missing? How can information about the quality of race/ethnicity data from survey, decennial census, and administrative data be used to understand and improve this process? How can predictive modeling be used to understand and improve future data?

#### Related Strategic Evidence/Evaluation Research:

This work builds on previous Census Bureau research documenting different processes for assigning race and ethnicity, investigating the accuracy of results generated, and using these assigned values in the context of analyzing and documenting racial and ethnic inequalities. Previous work includes:

- Chetty et al. (2018), The Opportunity Atlas: Mapping the Childhood Roots of Social Mobility
- Ennis et al. (2015), <u>When Race and Hispanic Origin Reporting are Discrepant Across Administrative</u> Records and Third Party Sources: Exploring Methods to Assign Responses
- Luque et al. (2019), <u>Nonemployer Statistics by Demographics (NES-D): Exploring Longitudinal Consistency and Sub-national Estimates</u>

#### Rationale for Topic's Priority and How the Evaluation Findings will be Used:

Use of data sets with imputed race and ethnicity data is widespread throughout Census Bureau research products and official estimates. Better understanding of how race and ethnicity are assigned, and improvements to these processes, will enhance the quality of estimates produced, in particular those documenting differences in outcomes by race and ethnicity. This in turn will improve the Census Bureau's ability to more accurately measure the characteristics of the U.S. population and to communicate this information to policymakers and the general public.

Type of Evaluation:	☐ Formative	☐ Impact	□ Outcome	Process	
---------------------	-------------	----------	-----------	---------	--

#### Methodology/Approach for Evaluation:

Outcomes of this work will be one or more working papers covering the following topics:

- Documenting current uses of survey, decennial census, and administrative data to assign race and ethnicity values when they are missing for survey respondents or individuals in blended data products
- Investigating new methods and uses of data sources to improve these processes
- Empirically testing how different methods for assigning race and ethnicity may lead to variations in measured race/ethnic differences in characteristics and outcomes when population-level estimates are produced using these different methods

#### **Equity Component of Methodology:**

Improved ability to understand how race and ethnicity are assigned when they are missing from surveys and blended data products, and improvements to that process, will improve our ability to accurately capture different racial and ethnic groups. This in turn will improve our ability to better measure underrepresented groups' characteristics and outcomes.

#### Contractor, Academic or Unit Who Will Do the Research:

Staff in the Center for Economic Studies within the Research & Methodology Directorate and staff in the Population Division within the Demographic Directorate at the U.S. Census Bureau.

#### **Data Sources:**

- American Community Survey
- Current Population Survey
- · Decennial Census
- Survey of Income and Program Participation
- Administrative Records sources

#### Challenges:

Given that the undercounted and underrepresented racial and ethnic groups that we aim to count and represent better are not always well captured by administrative records data and given the extensive overlap of these groups with those who have missing information in surveys, we anticipate there may be some challenges inherent in trying to improve how race and ethnicity are assigned in the context of these data limitations.

#### Dissemination:

Working papers will be disseminated through the Center for Economic Studies working paper site on the census.gov website and discussed with stakeholders and researchers through future outreach and engagement efforts.

### Outcome of Economic Development Administration CARES and ARPA Investments<sup>1</sup>

#### Strategic Objective Supported:

**2.1** Drive equitable, resilient, place-based economic development and job growth

For more information on DOC Strategic Goals and Objectives, see the U.S. Department of Commerce Strategic Plan 2022–2026



#### Lead Bureau:

Economic Development Administration (EDA)

#### FY 25 Significant Evaluation Question:

To what extent did the EDA-sponsored activities funded via the American Rescue Plan Act improve the capacities of the communities they served? To what extent can early findings inform future program design?

#### Related Strategic Evidence/Evaluation Research:

In FY 2022, EDA implemented a new coding system to identify projects that are expected to benefit underserved communities and populations, allowing for deeper research and eventual evaluation of actual impact on those communities. Through a third-party researcher, EDA also developed an evaluation framework to serve as a rubric for future program evaluations to measure program and regional-level impacts.

In FY 2023, through third-party researchers, EDA began implementing multi-year evaluations and research of ARPA-funded programs. As an initial step to evaluating the effectiveness of program activities, research began to identify the baseline economic conditions in communities and regions that received an award as well as to what extent those awards reached underserved populations and communities.

<sup>1.</sup> Additionally, see Cross-Cutting Research, Themes, and Challenges, applicable to all EDA programs, on page 26.

In FY 2024, evaluations and research that began in FY 2023 continue to analyze baseline conditions as well as measure initial outputs and intermediate outcomes as ARPA-funded projects move into greater implementation. Analysis also begins to understand how early program activities and subsequent outputs may be strengthening communities' capacities, especially among targeted underserved populations.

Program	Торіс	Researcher	Timeline
ARPA	Good Jobs Challenge Research Project 1 (Investigating ROI)	Research Improving People's Lives (RIPL)	Start: Q4 FY 2022 Through At Least: Q4 FY 2023
ARPA	Build Back Better Regional Challenge— Research Project 1 (Case Studies)	The Brookings Institution	Start: Q4 FY 2022 Expected End: Q1 FY 2024
ARPA	Good Jobs Challenge participant linked wage, household, and demographic data for descriptive analysis	U.S. Census Bureau	Start: Q4 FY 2023 Through At Least: Q4 FY 2024
ARPA	Build Back Better Regional Challenge— Research Project 2 (Baseline Conditions and Ongoing Grantee Data Collection)	Purdue Center for Regional Development	Start: Q4 FY 2022 Expected End: Q2 FY 2025
ARPA	Equitable Economic Growth specific to Build Back Better and the Good Jobs Challenge	Regents of the University of Michigan	Start: Q4 FY 2022 Expected End: Q2 FY 2026
ARPA	Indigenous Community Support–Research and Community of Practice	Urban Institute	Start: Q4 FY 2022 Expected End: Q4 FY 2025
ARPA	Travel & Tourism - Outdoor Recreation (Baseline Conditions and Case Studies)	National Governors Association Center for Best Practices	Start: Q4 FY 2022 Expected End: Q4 FY 2024
ARPA	Good Jobs Challenge grantee survey data collection	U.S. Census Bureau	Start: Q4 FY 2022 Through At Least: Q4 FY 2024
ARPA	EDA Infrastructure & Non-Infrastructure GPRA Data Collection	EDA Staff	Start: Q3 FY 2022 Through At Least: Q4 FY 2032

Please also see Cross-Cutting Research, Themes, and Challenges on page 26.

For additional information on ARPA-funded research and evaluation activities see ARPA Research Award Information.

#### Rationale for Topic's Priority and How the Evaluation Findings will be Used:

In FY 2022, EDA awarded \$3 billion in supplemental funding from the American Rescue Plan Act across six innovative programs. While diverse in programming, from building regional industry coalitions and workforce systems to strengthening indigenous communities and resilient tourist economies, all advance EDA's mission to promote American regions' innovation and competitiveness. Award announcement was in FY 2022 but measuring the full impact of these investments on increased regional capacity, including job growth, opportunity, and increased share of cluster activity, is only feasible over the long-term.

Since award announcement, EDA and its research partners have been laying the groundwork for future impact and rigorous evaluations as well as tracking progress to understand initial outcomes. This evaluation builds on previous years' work in measuring the outputs that have resulted from ARPA investments. Additionally, this evaluation will assess how those outputs have supported outcomes that build communities' capacity for economic development. For example, this may include measuring how EDA investments in a regional cluster helped organizations conduct technical assistance and how that assistance supported the creation of new businesses. Results from this research will inform the development of leading practices and build evidence on effective approaches.

Type of Evaluation:	tive 🗆 Impact	<b>d</b> Outcome	☐ Process
---------------------	---------------	------------------	-----------

#### Methodology/Approach for Evaluation:

EDA will continue to work with third-party researchers to identify final outcomes as ARPA programs enter the final stages of implementation. EDA, in collaboration with an identified researcher, then expects to compile and aggregate results from the diverse ARPA programming into a standardized evaluation framework and assess overall outcomes on communities served. The evaluation will take a mixed-methods approach using EDA award data, program level metrics, input from the latest topic-specific research, grantee survey responses, interviews, and other third-party data.

#### **Equity Component of Methodology:**

All six ARPA programs were designed to prioritize equity; and, as a result, over 70% of all competitive awards funds are expected to directly benefit historically underserved communities and populations. Evaluation activities will include examining if and how these communities realized expected benefits.

Please see Cross-Cutting Research, Themes, and Challenges on page 26.

#### Contractor, Academic or Unit Who Will Do the Research:

This research will be conducted by an as-of-yet undetermined third-party research entity who will be selected based on the merit of their proposal through a competitive process.

#### **Data Sources:**

#### **Available**

- Universe of all EDA awards (including those in Persistent Poverty Counties) funded by the American Rescue Plan Act
- Applicable projects identified as meeting EDA's equity investment priority
- County and tract level poverty estimates via U.S. Census Bureau's American Community Survey;
   county- and tract-level poverty viewer<sup>2</sup> for ACS19 data available
- Grantee responses to EDA's required GPRA questionnaires, as collected and where applicable
- Program specific data collected by external research partners through surveys, interviews, site visits, and document review

#### **Need to Create or Find**

- Modeled, tract level, poverty estimates from the U.S. Census Bureau
- Baseline economic conditions data for up to five-years prior to award

<sup>2.</sup> Census Poverty Status Viewer developed in coordination with EDA.

#### Challenges:

- Diverse programing across the ARPA portfolio requires a cohesive and standard methodology be created for evaluation.
- EDA's flexible funding structure enables communities to invest in the activities that will most benefit their area and fill local needs. Accordingly, the outcomes resulting from this investment will vary across community, program, and the ARPA portfolio. Aggregate analysis on a regional or national level may not accurately capture all local impacts.
- Additional resources will need to be sourced to identify and collect data on the geographic areas of all communities within the ARPA portfolio.

Additionally, please also see <u>Cross-Cutting Research, Themes, and Challenges</u> on page 26.

#### **Dissemination:**

Dissemination will be primarily via third-party research reports and products. Given the unprecedented amount of funding EDA was allocated through ARPA, EDA expects a high level of interest in the evaluation findings from the public and other governmental agencies. EDA will explore additional channels of dissemination as programs progress. Channels may include, but not be limited to, communities of practice, webinars, public-facing tools (e.g., interactive maps and datasets), social media, and traditional media.

## Outcome of Economic Development Administration CARES and ARPA Investments (continued)<sup>1</sup>

#### Strategic Objective Supported:

2.2 Build sustainable, employerdriven career pathways to meet employers' need for talent and to connect Americans to quality jobs

For more information on DOC Strategic Goals and Objectives, see the <u>U.S. Department of Commerce Strategic Plan 2022–2026</u>



#### Lead Bureau:

Economic Development Administration (EDA)

#### FY 25 Significant Evaluation Question:

To what extent did regional workforce development systems achieve their targets in placing participants into good jobs?

#### Related Strategic Evidence/Evaluation Research:

Program	Торіс	Researcher	Timeline
ARPA	Good Jobs Challenge grantee survey data collection	U.S. Census Bureau	Start: Q4 FY 2022 Through At Least: Q4 FY 2024
ARPA	Good Jobs Challenge participant linked wage, household, and demographic data for descriptive analysis	U.S. Census Bureau	Start: Q4 FY 2023 Through At Least: Q4 FY 2024
ARPA	Good Jobs Challenge Research Project 1 (Investigating ROI)	Research Improving People's Lives (RIPL)	Start: Q4 FY 2022 Through At Least: Q4 FY 2024
ARPA	Equitable Economic Growth specific to Build Back Better and the Good Jobs Challenge	Regents of the University of Michigan	Start: Q4 FY 2022 Expected End: Q2 FY 2026

Please also see Cross-Cutting Research, Themes, and Challenges on page 26.

<sup>1.</sup> Additionally, see Cross-Cutting Research, Themes, and Challenges, applicable to all EDA programs, on page 26.

#### Rationale for Topic's Priority and How the Evaluation Findings will be Used:

The Good Jobs Challenge is a \$500 million program funded by the American Rescue Plan Act (ARPA). It invests in high-quality, locally led workforce systems to dramatically transform America's communities. With a focus on equity, the program is expanding career opportunities for more Americans to reach their full potential and secure good-paying jobs while producing a skilled workforce to ensure the United States is prepared to innovate, compete, and succeed in a 21st-century global economy. The program has integrated an innovative data collection system and research component to capture new insights into what types of workforce training programs may lead to good paying jobs and for whom. This program is designed to be worker-centered, with a focus on recruiting and training historically underserved populations and areas, communities of color, women, and other groups facing labor market barriers. Underserved populations and areas are defined by EDA's equity investment priority.

This outcome evaluation will allow EDA and research partners to identify leading practices for workforce training programs to successfully train and place workers into jobs. Findings from this research will support Good Jobs Challenge grantees to further enhance their approaches to support workers from underserved areas. Additionally, results will have broader application beyond the program to help inform the design and implementation of future workforce development programs. This includes other EDA workforce programs as well as across community colleges, workforce boards, non-profits, and other governmental and nongovernmental organizations.

<b>Type of Evaluation:</b> ☐ Formative ☐ Imp	act 🗹 Outcome 🗆 Process
--	-------------------------

#### Methodology/Approach for Evaluation:

EDA expects to use quantitative analyses using participant and program-level data collected from surveys and Census datasets. Through its research partner and Census, EDA will link demographic and household data of participants with training program information to assess placements across demographics and industry. Placements achieved will be compared with targets across regional workforce systems to assess if and how well program objectives were achieved. This research will be complemented with qualitative analyses using open-ended survey responses, progress reports, and participant interviews.

#### **Equity Component of Methodology:**

Please see *Cross-Cutting Research, Themes, and Challenges* on page 26.

#### Contractor, Academic or Unit Who Will Do the Research:

EDA has partnered with the U.S. Census Bureau to collect program and participant-level data through a quarterly and semi-annual survey. Census will also link participant-level data to other Census datasets and anonymize responses.

#### **Data Sources:**

#### **Available**

- Universe of all EDA awards made as part of the ARPA funded Good Jobs Challenge
- Good Jobs Challenge survey responses on program-level data (collection period from January 2023 through FY 2024)
- Anonymized participant wage, household, and demographic information (data availability starting end of FY 2023)

#### Challenges:

- There is significant lag time between when a participant is placed into a job and when wage information is available for analyses.
- Public release of Census-linked participant data (aggregated and anonymized) requires specific approvals from the U.S. Census. Additional impact evaluation will require approvals from the Internal Revenue Service and state governments.

Additionally, please see *Cross-Cutting Research, Themes, and Challenges* on page 26.

#### Dissemination:

Dissemination will be primarily via third-party research reports and products, which may include academic research and reports. EDA expects a large amount of interest in the results from this evaluation from other workforce programs and the public. Additional channels of dissemination will be formed as EDA's programs progress but will be subject to review and approval from the Census Bureau.

## Outcome of Economic Development Administration CARES and ARPA Investments (continued)<sup>1</sup>

#### Strategic Objective Supported:

2.3 Advance entrepreneurship and high-growth small and medium-sized enterprises

For more information on DOC Strategic Goals and Objectives, see the U.S. Department of Commerce Strategic Plan 2022–2026



#### Lead Bureau:

Economic Development Administration (EDA)

#### FY 25 Significant Evaluation Question:

What capacity outcomes, driven by the EDA-sponsored activities funded via the Coronavirus Aid, Relief, and Economic Security (CARES) Act, including those from the Revolving Loan Fund (RLF) program, have occurred in the communities served by these awards?

#### Related Strategic Evidence/Evaluation Research:

Program	Торіс	Researcher	Timeline
CARES	Framework for Measuring CARES Act Program Effectiveness	Argonne National Labs	Start: Q1 FY 2021 End: Q4 FY 2022
RLFs	A playbook to help development organizations find innovative financial models	Blueprint Local	Start: Q2 FY 2021 End: Q4 FY 2022
RLFs	RLF Policy Brief from Understanding Impact: An Investigation of the U.S. Economic Development Administration	Urban Institute	Start: Q3 FY 2022 Expected End: Q4 FY 2023
RLFs	Program recommendations for promoting equitable lending strategies and outcomes	Institute for Local Self Reliance (ILSR) and Recast City	Start: Q4 FY 2021 End: Q3 FY 2023
ALL	National Economic Research & Resilience Center	Argonne National Labs	Start: Q4 FY 2022 Expected End: Q2 FY 2024

Please also see <u>Cross-Cutting Research</u>, <u>Themes</u>, <u>and Challenges</u> on page 26.

<sup>1.</sup> Additionally, see Cross-Cutting Research, Themes, and Challenges, applicable to all EDA programs, on page 26.

#### Rationale for Topic's Priority and How the Evaluation Findings will be Used:

In FY 2020, the CARES Act provided EDA with \$1.5 billion for economic development assistance programs to help communities prevent, prepare for, and respond to the COVID—19 pandemic. Administered through Economic Adjustment Assistance grants, CARES funded a wide range of financial assistance activities including planning and technical assistance, construction projects, and innovation programs. Additionally, a substantial portion of CARES funding was directed to eligible participants to establish Revolving Loan Funds (RLFs).

RLFs make loans to businesses that cannot otherwise obtain traditional bank financing. These loans provide access to capital as gap financing that enables small businesses to grow and lead to new employment opportunities with competitive wages and benefits. CARES funded RLFs aimed to increase capital availability to businesses when capital became tight due to the economic consequences of COVID–19.

This evaluation will examine the portfolio of CARES-funded programs and the communities they targeted, with a focus on the RLF program. It will assess what communities received funding, the type of funding received, and the activities supported. Additionally, the research will investigate how program activities lead to outcomes that build community capacity for economic development and resilience to future economic shocks. Outcomes may include examining per capita growth, job creation, job growth, and other economic and financial indicators. Findings from this evaluation will inform more targeted approaches for RLFs to reach and support communities as well as how organizations may respond more effectively to support communities in the event of another economic crisis.

Type of Evaluation:	☐ Formative	□ Impact	<b>d</b> Outcome	□ Process	

#### Methodology/Approach for Evaluation:

Through a third-party researcher, EDA expects to employ a mixed-methods approach that uses EDA award data, program level metrics, grantee survey responses, and other third-party data. Methodology will be developed in coordination with the research partner to examine outcomes across communities and business that received funding and identify trends. Qualitative data may be incorporated as appropriate, including case studies.

#### **Equity Component of Methodology:**

Please see the Cross-Cutting Equity Component section at the end of the EDA project description.

#### Contractor, Academic or Unit Who Will Do the Research:

This research will be conducted by an identified third-party research entity who will conduct analysis on previously collected data from surveys and EDA award data.

#### **Data Sources:**

#### **Available**

- Universe of all EDA awards, including those in Persistent Poverty Counties, funded by the CARES Act
- Universe of all EDA Revolving Loan Fund (RLF) awards
- Grantee responses on EDA's Non-Infrastructure Metrics questionnaires for outputs (ED–916) and outcomes (ED–917/918)
- · Grantee responses to Revolving Loan Fund (RLF) financial reporting and lending activities
- Relevant data from financial regulatory institutions

#### Challenges:

- Consistent with its statutory requirements, EDA does not support entrepreneurs or small businesses
  directly; instead, EDA funds intermediary organizations, such as revolving loan fund providers that
  provide increased access to capital. Because we do not engage with entrepreneurs directly, we rely
  on secondhand reporting from grantees, statistical data, and proxy measures.
- Outcomes may differ across communities and businesses and therefore analysis at the aggregate may not accurately measure impact. More granular analysis may be required to understand the effects of investments on an area.

Additionally, please see <u>Cross-Cutting Research, Themes, and Challenges</u> on page 26.

#### **Dissemination:**

Dissemination will be primarily via third-party research reports and products. Additional channels of dissemination will be formed as EDA's programs progress and will include but not be limited to communities of practice, webinars, public-facing tools (ex. Interactive maps and datasets).

## Evaluating the Use of Existing Evidence in Program Implementation

#### Strategic Objective Supported:

2.3 Advance entrepreneurship and high-growth small- and medium-sized enterprises

For more information on DOC Strategic Goals and Objectives, see the U.S. Department of Commerce Strategic Plan 2022–2026



#### Lead Bureau:

Economic Development Administration (EDA)

#### FY 25 Significant Evaluation Question:

To what extent did EDA use existing evidence in its assessment of regions' potential to become globally competitive Tech Hubs?

#### Related Strategic Evidence/Evaluation Research:

Program	Торіс	Researcher	Timeline
ARPA	Build Back Better Regional Challenge– Research Project 1 (Case Studies)	The Brookings Institution	Start: Q4 FY 2022 Expected End: Q1 FY 2024
ARPA	Build Back Better Regional Challenge— Research Project 2 (Baseline Conditions and Ongoing Grantee Data Collection)	Purdue Center for Regional Development	Start: Q4 FY 2022 Expected End: Q2 FY 2025

Please also see <u>Cross-Cutting Research</u>, <u>Themes</u>, <u>and Challenges</u> on page 26.

#### Rationale for Topic's Priority and How the Evaluation Findings will be Used:

The Tech Hubs Program is an economic development initiative designed to drive regional technology- and innovation-centric growth by strengthening a region's capacity to manufacture, commercialize, and deploy critical technologies. This program will invest directly in regions with the assets, resources, capacity, and potential to transform into globally competitive innovation centers in approximately 10 years while catalyzing the creation of good jobs for American workers at all skill levels, both equitably and inclusively.

Tech Hubs is a new initiative with an initial funding amount of \$500 million. Understanding effective strategies in initial program implementation will be critical to support justification for additional program funding and the continuation of activities. Results from the process evaluation will provide insights into the strengths and opportunities for learning in program implementation as well as help improve strategies for future program design.

☐ Impact ☐ Outcome <b></b> Process
☐ Impact ☐ Outcome ☑ Process

#### Methodology/Approach for Evaluation:

EDA expects to use a mixed-methods approach using EDA award and application data, program-level metrics, and third-party data. As applicable, EDA will also incorporate document and literature review as well as the latest topic specific research. EDA will assess the feasibility of methodologies and evaluation design as the program progresses.

#### **Equity Component of Methodology:**

Please see <u>Cross-Cutting Research</u>, <u>Themes</u>, <u>and Challenges</u> on page 26.

#### Contractor, Academic or Unit Who Will Do the Research:

Research related to this evaluation will be conducted either by internal EDA staff or a third-party research entity who will be selected based on the merit of their proposal through a competitive process.

#### **Data Sources:**

#### **Available**

Universe of all EDA Tech Hub program applications and awards

#### **Need to Create or Find**

Other program specific data (collection beginning in FY 2025)

#### Challenges

• Tech Hubs is a new initiative: program metrics and standards to measure performance will need to be developed.

Additionally, please also see Cross-Cutting Research, Themes, and Challenges on page 26.

#### Dissemination:

Results will be disseminated within EDA to inform program improvements and future implementation. External channels of disseminations will be explored as EDA's program progresses and may include communities of practice, webinars, and reports.

### Cross-Cutting Research, Themes, and Challenges



#### Cross-Cutting Strategic Evidence/Evaluation Research:

EDA funds critical economic development research and resources that inform economic development decision-making. Findings from the list below of completed and ongoing activities are essential inputs into the design and implementation of all research and evaluation activities in the evaluation plan.

Program	Торіс	Researcher	Timeline
All	National Economic Research & Resilience	Argonne National Labs	Start: Q4 FY 2022 Expected End: Q2 FY 2024
All	Impact Policy Brief and Geography Policy Brief from Understanding the Economic Development Administration's Investments and Impacts	Urban Institute	Start: Q1 FY 2019 Expected End: Q3 FY 2024
All	Advancing Economic Development in Persistently Poor Communities	Economic Innovation Group	<b>Start</b> : Q4 FY 2021 <b>End</b> : Q4 FY 2023
All	Innovative Metrics for Economic Development and Toolkit for Economic Development Evaluation	SRI International	Completed in FY 2018

For more information about EDA's research and evaluation activities, please see Research and Evaluation on the EDA website.

#### **Cross-Cutting Challenges:**

- EDA funds evaluations through competitive grants as EDA appropriations sufficient for such
  purposes legally are available only for making grant awards. An appropriate, competitive application
  must be received, reviewed, and awarded prior to FY 2025. DOC is proposing a legislative language
  change in the FY 2025 PB that would allow EDA to use some program funds, including those for
  evaluations, to make contracts as well as grants. This change would be expected to widely increase
  the pool of potential evaluation partners and allow EDA to more directly engage in and steer
  evaluation projects via contractors.
- Any research with a survey component relies on reporting requirement compliance. Grantee non-response or inaccuracies in reporting could delay or bias available data for evaluation and pose a serious challenge to fulfilling the evaluation plan activities.
- Data collection may be hampered by legacy data management systems.
- EDA's flexible funding structure enables communities to invest in the activities that will most benefit
  their area and fill local needs. Accordingly, the outcomes resulting from this investment will vary
  across communities and programs. Aggregate analysis on a regional or national level may not
  accurately capture all local effects.

- There is an inherent lag time between project development, grant award, project completion, and data collection of outcomes.
  - » Infrastructure Investments—In most cases, construction projects have up to 5 years to complete project construction. Data collection on grantee outcomes then happens at 3, 6, and 9-year intervals after the completion of the project. This means a construction award made in 2022 may not have initial long-term job creation data until 2030.
  - While the reporting cadence for non-infrastructure awards is more frequent, there still exists a time lag from the grant administrative processes to project implementation and data collection. Depending on the award, non-infrastructure grantees report on a quarterly, semiannual, and/or annual basis for the duration of their period of performance. For example, a grantee with a period of performance starting in June 2022 will receive their first semiannual output questionnaire in December 2022, with the report due 30 days later in January 2023. They would receive their first outcome questionnaire in June of 2023, with reporting due 30 days later in July 2023. Even with more frequent reporting, projects still require a period of time from the award to realize outputs from project activities.

#### **Cross-Cutting Equity Component:**

EDA awards must be responsive to one or more of EDA's investment priorities, including the Equity Investment Priority. For an applicant to meet the Equity Investment Priority, they must meet EDA's <u>investment priority</u> definition. Projects that meet this definition are expected to benefit underserved populations and geographies. Integral to addressing the significant evaluation questions listed in this plan is determining how these projects lead to realized outcomes for the traditionally underserved.

Research activities will also seek to build evidence for the following supportive evaluation questions:

- What strategies were most effective in reaching underserved communities?
- What leading practices or lessons learned can be applied to improve service to these communities?

## Evaluating ITA's Online Portal for the Steel and Aluminum Tariff Program

#### Strategic Objective Supported:



Protect National Security Interests and Enforce Trade Rules

For more information on DOC Strategic Goals and Objectives, see the <u>U.S. Department of Commerce Strategic Plan 2022–2026</u>



#### Lead Bureau:

International Trade Administration (ITA)

#### FY 25 Significant Evaluation Question:

To what extent has the online portal been in supporting the product exclusion process under the Section 232 steel and aluminum tariff program?

#### Related Strategic Evidence/Evaluation Research:

Not applicable.

#### Rationale for Topic's Priority and How the Evaluation Findings will be Used:

Per Section 232 of the Trade Expansion Act of 1962, the U.S. federal government placed tariffs on steel and aluminum imports to address the impact of global overproduction on the U.S. steel and aluminum industries, which are considered essential to U.S. national defense and critical infrastructure, so that they could operate at commercially viable levels. To provide relief to U.S. industrial users and consumers affected by the tariffs, importers could request that the steel or aluminum products they import be temporarily excluded from the tariffs when domestic supply is not available. The exclusion provision was critical to DOC's strategic goal to strengthen U.S. economic and national security.

As the online portal for this exclusion process was designed to improve the customer experience and processing efficiency, results from this research are anticipated to deliver key insights on the program itself as well as inter-bureau partnerships.

Type of Evaluation:	☐ Formative	☐ Impact	☐ Outcome	Process	

#### Methodology/Approach for Evaluation:

Examination of inter-bureau processes; solicitation of feedback from governmental actors, such as ITA, Bureau of Industry and Security (BIS), and Customs and Border Protection; review of official documentation; and input from external customers (if advisable).

#### **Equity Component of Methodology:**

Not applicable.

#### Contractor, Academic or Unit Who Will Do the Research:

The evaluation will be conducted by Department of Commerce staff who are enrolled in the Excellence in Government (EIG) Fellows program, which is administered by the Partnership for Public Service (a nonprofit organization). ITA's Chief Information Officer will serve as the project sponsor.

Please note that although EIG fellows may elect to further refine their research question, which in turn may result in some adjustment to the entries below, the research group's activities are anticipated to still be able to address the overarching evaluation question identified above.

#### **Data Sources:**

The study will consider the use of internal sources of information in the form of documentation, feedback from government employees, and other programmatic data.

#### Challenges:

Potential impediments may include data accessibility and stakeholder engagement due to the size and complexity of the program, which involves multiple government entities. Regulatory or legalistic concerns may present a constraint with regard to any communications with external customers. Time parameters set by the EIG Fellows program may also influence the evaluation.

#### Dissemination:

Results of the research are anticipated to be shared with ITA, BIS, and the Partnership for Public Service.

## Minority Business Development Agency's Capital Readiness Program Effectiveness

#### Strategic Objective Supported:

- 1.2 Accelerate the development, commercialization, and deployment of critical and emerging technologies
- **2.1** Drive equitable, resilient, place-based economic development and job growth
- 2.3 Advance entrepreneurship and high-growth small and medium-sized businesses

For more information on DOC Strategic Goals and Objectives, see the <u>U.S. Department of Commerce Strategic Plan 2022–2026</u>



#### Lead Bureau:

Minority Business Development Agency (MBDA)

#### FY 25 Significant Evaluation Questions:

Based on ongoing results, to what extent is the MBDA Capital Readiness Program supporting new business formation, scaling of businesses, and access to capital? How effective is the program in helping program participants to generate business growth, job creation and wealth? Did the program impact access to networks of support that build entrepreneurial capacity?

#### Related Strategic Evidence/Evaluation Research:

According to significant research, there is a lack of diversity and equity in venture capital allocation to minority business enterprises (MBEs). For example, Crunchbase found that just 2.4% of total venture capital funding went to Black and Latino founders in a period of over five years.¹ Harlem Capital found only 305 Black and Latino firms raised over \$1 million in venture funding as of 2020.² In addition to private sources of venture capital information, MBDA will use other works from public and nonprofit organizations, recognized venture capital/industry associations, as well as anecdotal stories published by news outlets.

<sup>1.</sup> Crunchbase. (2020). Crunchbase Diversity Spotlight 2020: Funding to Black and Latinx Founders.

<sup>2.</sup> Harlem Capital. (2021). 2020 Diverse Founder Report, "The Birth of Unicorns": 305 Black and Latino Founders That Have Raised \$1M+.

This constraint in access to venture capital allocation is consistent across a range of capital sources for MBEs. MBDA will leverage its research opportunity through the Capital Readiness Program to better understand the range of constraints and opportunities to close the capital access gap and address these long-standing constraints on MBEs.

#### Rationale for Topic's Priority and How the Evaluation Findings will be Used:

The American Rescue Plan Act of 2021 re-authorized the Department of the Treasury's State Small Business Credit Initiative (SSBCI) program to help revive entrepreneurship in America after the devastation of the COVID—19 pandemic. The Department of the Treasury and the MBDA established a Memorandum of Agreement that transferred \$125 million from Treasury to MBDA. In Fiscal Year (FY) 2023, MBDA established the Capital Readiness Program (CRP) to help close the entrepreneurship gap between socially and economically disadvantaged individuals (SEDI) and non-SEDI. The CRP provides technical assistance to SEDI entrepreneurs starting or scaling their businesses and those who are seeking various forms of capital.

As such, the FY 2025 evaluation will build on MBDA's FY 2024 outcome evaluation of the Capital Readiness Program. MBDA will use these results to explore additional opportunities to create new initiatives, projects, or programs or to strengthen existing initiatives, projects, or programs to better address access to capital challenges that MBEs face. MBDA will collect qualitative and quantitative data, such as observations about program actions, as well as establish analytical criteria to determine (1) the degree to which interventions/programs work; (2) for whom it works; (3) how does it work compared to other programs designed to address access to capital; and (4) did the program lead to observed outcomes including to what extent does the program assist toward alleviating capital barriers. Additionally, MBDA will use the results of this evaluation to assist other Federal agencies on opportunities to address access to capital challenges for MBEs in other governmental programs.

Type of Evaluation:	☐ Formative	<b>Impact</b>	☐ Outcome	☐ Process	
MBDA anticipates the CRP will generate important and unique program data including (but not limited					
to): identification of SEDI participants, SEDIs that graduate from the program, services provided to SEDIs,					
and capital raised through the assistance of the CRP. The data will help benchmark SEDI demand for					
capital at a national level. Additionally, the CRP is a new program that is currently underway; therefore,					
MBDA will use an impact evaluation type for FY 2025. MBDA believes this approach best aligns with the					
timing of the program, data linkages and data limitations due to leading and lagging measures.					

#### Methodology/Approach for Evaluation:

The evaluation will include quasi-experimental design and apply a best suited solution (e.g., difference-in-difference, regression discontinuity, propensity score and other matching approaches) based on data availability. MBDA anticipates it will be able to track SEDI participation throughout the program duration, identify and create data linkages among participants, capital source providers, business formation scaling, and employment over time.

Data comparisons may include industry and firm-specific characteristics (e.g., value of capital assets, employees, firm type, financial condition, demographics, locations, size, and/or industry presence); services provided (e.g., training, consulting, coaching, etc.); and timing of outcomes (e.g., investment size, business growth, and wealth creation). The results may suggest further research and/or policy recommendations on effective ways of supporting MBEs to access venture and equity capital. The results may impact governmental technical assistance programs in venture and equity capital.

#### **Equity Component of Methodology:**

The study supports Executive Order 13985 and will help identify factors that support the resiliency of SEDI-owned businesses.

#### Contractor/Academic or Unit Who Will Do the Research:

This study will be conducted internally and in partnership with complementary agencies (e.g., GSA Office of Evaluation Services) or through collaboration with academic and research institutions engaged in this subject.

#### **Data Sources:**

#### **Available**

The study will use data from MBDA's Customer Relationship Management system which will be the repository for the MBDA CRP data. This evaluation will build on unique data sets captured by 43 service providers (i.e., incubators, accelerators, and hybrids) in different national geographies. The CRP will require service providers to capture SEDI contact, demographic, and business information; services provided; and business-related outcomes (e.g., capital awarded, and jobs created).

#### **Need to Find or Create**

Additional data may be available through organizations such as: Crunchbase, Pitchbook, RockCreek, National Venture Capital Association, Community Development Venture Capital Alliance, Small Business Administration Small Business Investment Companies, and other venture capital entities.

#### Challenges:

Availability of information pertaining to the number and size of investments issued/capital awarded may be limited due to non-disclosure agreements and/or other negotiated covenants between founders/ entrepreneurs and venture capitalists. CRP data observations may be limited given that the program will have been operating for approximately two years and it is likely there will be lag from the time a SEDI is served to an observed outcome.

#### Dissemination:

The research report and findings will be used to inform program management teams for mid-course corrections. Some data may be available on the MBDA website and will be presented to stakeholders at workshops/conferences. MBDA anticipates preliminary findings will shape final program evaluation and impact evaluation upon completion of the four-year program. Personally identifiable and business identifiable information data will be protected and not disclosed. Relevant statistical data will be published for public consumption.

## Evaluating the U.S. Artificial Intelligence Safety Institute

#### Strategic Objective Supported:

1.2

Accelerate the development, commercialization, and deployment of critical and emerging technologies

For more information on DOC Strategic Goals and Objectives, see the U.S. Department of Commerce Strategic Plan 2022–2026



#### Lead Bureau:

National Institute of Standards and Technology (NIST)

#### FY 25 Significant Evaluation Question:

To what extent are the activities of the U.S. Artificial Intelligence Safety Institute (USAISI) and related Consortium meeting their goals of advancing the development of innovative methods, tools, and guidelines for evaluating, developing, and deploying safe, secure, and trustworthy artificial intelligence (AI) systems?

#### Related Strategic Evidence/Evaluation Research:

NIST has an established track record of successfully convening and engaging stakeholders, such as the Quantum Economic Development Consortium or NIST Genome Editing Consortium. Convening the community and public consultation allows for open and transparent engagement with the private and public sectors, which leads to expedited adoption of tools, guidance, and frameworks. NIST also often develops frameworks and guidance in an open, transparent manner, with robust stakeholder engagement and requests for input and feedback with great success, as demonstrated in the development process of the AI Risk Management Framework and the Cybersecurity Framework 2.0. Finally, NIST currently assesses resources needed to support responsible design, development, and use of trustworthy AI as part of the FY 2022 Annual Evaluation Plan.

#### Rationale for Topic's Priority and How the Evaluation Findings will be Used:

NIST contributes to the research, standards, and data required to realize the full promise of artificial intelligence (AI) systems as tools that will enable American innovation, enhance economic security, and improve our quality of life. With AI and Machine Learning already changing how society addresses challenges and opportunities, these technologies must be trustworthy and embedded in responsible practice. It is also clear that safe and trustworthy AI is not just a priority of NIST, but also of the United States as a whole, as Executive Order 14110: The Safe, Secure, and Trustworthy Development and Use of AI was signed in October 2023.

As part of NIST's response to the recently released Executive Order 14110, USAISI and its consortium are being launched. USAISI will harness work already underway by NIST and others and will enable NIST to build on its long track record of working with private and public sectors as well, seeking collaborators from across society to join the consortium. Findings will be used to evaluate the USAISI and related Consortium's effectiveness, which will drive future responses and initiatives to meet stakeholder needs and ultimately promote safe and trustworthy AI throughout the United States.

☐ Formative	☐ Impact	□ Outcome	Process
	☐ Formative	☐ Formative ☐ Impact	☐ Formative ☐ Impact ☐ Outcome

#### Methodology/Approach for Evaluation:

Due to the nature of the USAISI and the embedded Consortium, constant stakeholder engagement and feedback will be used to drive the institute towards meeting its goals. Additionally, the activities of the USAISI and related Consortium will be assessed in, but not limited to, the following ways to determine effectiveness:

- Assessment of the alignment of generated guidelines, metrics, publications, guidance documents, and technology transfers resulting from the USAISI with stakeholder needs and resource gaps.
- Assessment of the breadth of USAISI stakeholder participation and engagement.
- Assessment of the effectiveness and progress of the USAISI Consortium on establishing a new
  measurement science that enables the identification of proven, scalable, and interoperable
  techniques and metrics to promote development and responsible use of safe and trustworthy AI.

#### **Equity Component of Methodology:**

NIST will ensure that input is received from a diverse and inclusive group, as well as including a broad group of disciplines, sectors, and professions from across private industry, civil society, and academia.

#### Contractor, Academic or Unit Who Will Do the Research:

NIST Program Coordination Office in tandem with staff in the USAISI.

#### **Data Sources:**

Datasets are generated by research at NIST including engagement and collaboration with commercial developers, technology consumers, academia, and government organizations. This occurs through various engagement mechanisms including workshops, requests for comments, and requests for information.

#### Challenges:

Increased visibility, scrutiny, and dynamic Federal landscape on the topic of artificial intelligence; difficulty with establishing multi-sector collaborative agreements in a timely manner.

#### Dissemination:

Research will be conducted through transparent and collaborative processes in conjunction with Cooperative Research and Development Agreement partners and other stakeholders. Research results will be publicly shared through USAISI activities and online.

## Evaluating NOAA's Impact-Based Decision Support Services

#### Strategic Objective Supported:

**3.1** Increase the impact of climate data and services for decision-makers through enhanced service delivery and improved weather, water, and climate forecasts

For more information on DOC Strategic Goals and Objectives, see the <u>U.S. Department of Commerce Strategic Plan 2022–2026</u>



#### Lead Bureau:

National Oceanic and Atmospheric Administration (NOAA)

#### FY 25 Significant Evaluation Questions:

Is Impact-based Decision Support Services (IDSS) effectively serving key partners and emergency managers, especially during extreme and hazardous weather events? Is the information/support accurate and adequate for the level of decisions made by these key partners?

#### Related Strategic Evidence/Evaluation Research:

In FY 2020–2021, a test of two IDSS core partner surveys was used to assess IDSS by the National Weather Service (NWS) Weather Forecast Offices (WFOs). The surveys examined the following IDSS performance measures: accessibility, consistency, comprehension, decision-making, timeliness, service quality, and trust. Based on the findings of the test IDSS core partner surveys, the final survey questions were developed and cleared by OMB in FY 2022. The survey platform contract was awarded in FY 2023, and the survey is to be released in FY 2024.

#### Rationale for Topic's Priority and How the Evaluation Findings will be Used:

The Nation is facing fast-growing societal needs and demands for new and expanded weather, water, and climate products and services across all sectors of communities. As a result, NOAA-provided IDSS is needed by local, state, tribal, and federal partners. Concurrently, under the influence of climate change, the nation continues to experience a growing number of record-breaking extreme weather and water events throughout the entire year. Emergency managers tell NOAA that the NWS' improved impact-based forecasts, communicated through trusted relationships, have more effectively supported their life-saving work.

The NWS' customer service-based approach allows us to meet our partners where they make decisions to deliver trusted, eye-to-eye, science-based last critical mile decision support services. Findings from the surveys will be used to make the NWS a more mobile, nimble, and flexible agency as we transform our services to meet the critical needs of our core partners and, in turn, meet our mission of protecting life and property, effectively enhancing the national economy.

Type of Evaluation:	☐ Formative	☐ Impact	☐ Outcome	Process	

#### Methodology/Approach for Evaluation:

The NWS will employ the IDSS Core Partner survey to analyze customer satisfaction with the services provided by the NWS to its core partners.

#### **Equity Component of Methodology:**

The NWS surveys will include open-ended responses that may shed light on how well NOAA services are supporting historically underserved and socially vulnerable communities (HUSVCs), and what improvements may be needed to these services.

#### Contractor, Academic or Unit Who Will Do the Research:

NWS Headquarters, Field Offices, and contractors.

#### Data Source:

#### **Available**

IDSS Core Partner survey

#### Challenges:

Assessing IDSS message consistency among partners and forecast offices with different structures and staffing.

#### Dissemination:

Findings will be published on NOAA's public facing website.

# Economic and Social Impacts of NOAA's Grant-Funded Investments

#### Strategic Objective Supported:

**3.2** Strengthen coastal resilience and advance conservation and restoration of lands and waters for current and future generations

For more information on DOC Strategic Goals and Objectives, see the U.S. Department of Commerce Strategic Plan 2022–2026



#### Lead Bureau:

National Oceanic and Atmospheric Administration (NOAA)

#### FY 25 Significant Evaluation Question:

What are the economic and social impacts of NOAA's grant-funded investments to increase the Nation's coastal resilience to weather and climate hazards?

#### Related Strategic Evidence/Evaluation Research:

NOAA will evaluate selected grant-funded climate resilience programs, partnering with the Commerce Implementation Coordination (CIC) office within the Office of the Secretary and the Census Bureau's Center of Excellence, which will provide core statistical support including demographic and business characteristics expertise.

#### Rationale for Topic's Priority and How the Evaluation Findings will be Used:

The grant-funded coastal resilience investments are expected to result in economic development and improved natural infrastructure. Projects will generate economic impact during their implementation phase as jobs, output, and value added are generated through the investments. NOAA will estimate the economic impact of selected projects that are aimed at increasing the resilience to climate change of coastal communities.

Type of Evaluation:	☐ Formative	<b>₫</b> Impact	□ Outcome	☐ Process	
-, po 01 = 1 a a a a a a a a	_ romative	= impact			

#### Methodology/Approach for Evaluation:

NOAA will use input-output models and other economic methods to estimate the annual effects of coastal investments at state and national levels. NOAA will compare the expected economic effects of grants to a counterfactual scenario of no investments for specific grants investments.

#### **Equity Component of Methodology:**

As part of the analysis of specific grant investments, NOAA will link grant investment geographic information with Census demographic and business data to identify vulnerable and underserved communities that receive or are the target of investments. Existing indices and tools will be leveraged, such as FEMA's National Risk Index and CEQ's Climate and Economic Justice Screening Tool.

#### Contractor, Academic or Unit Who Will Do the Research:

The analysis will be developed by NOAA staff in the Office of the Chief Financial Officer, Performance Risk and Social Science Office (PRSSO), under the Chief Evaluation Officer and Chief Economist, working in collaboration with staff from NOAA programs awarding grants for coastal resilience.

#### **Data Sources:**

- Grant application materials, recipient reports
- · Census data

#### Challenges:

If key information required for input-output modeling or other economic analysis is not available in applications or reports, NOAA may need to conduct a supplemental survey. This would require NOAA to seek approval of a new Information Collection Request, as required under the Paperwork Reduction Act.

#### Dissemination:

The results of the evaluation will be disseminated to the public and NOAA's stakeholders via the NOAA website, journal papers, webinars, workshops, and/or roundtable discussions.

## A Formative Evaluation in Support of NTIA's Broadband Programs

#### Strategic Objective Supported:

Expand affordable, high-quality broadband to every American

> For more information on DOC Strategic Goals and Objectives, see the U.S. Department of Commerce Strategic Plan 2022-2026



#### Lead Bureau:

**National Telecommunications** and Information Administration (NTIA)

#### FY 25 Significant Evaluation Question:

What data assets and methods are needed to conduct high-quality impact evaluations of NTIA's broadband programs?

#### Related Strategic Evidence/Evaluation Research:

Evaluation Study of the Broadband Technology Opportunities Program (BTOP); ACCESS BROADBAND Dashboard; Current Population Survey-Internet Use Supplement; Digital Equity Act Population Viewer

#### Rationale for Topic's Priority and How the Evaluation Findings will be Used:

The Infrastructure Investment and Jobs Act (IIJA) provided NTIA with over \$48 billion to extend and improve internet services and support broadband adoption and use nationally. Most of the impact of this investment will not occur for several years. However, in FY 2025 NTIA will continue to identify the information necessary to conduct impact evaluations.

Type of Evaluation:	<b>f</b> Formative	□Impact	☐ Outcome	☐ Process	

#### Methodology/Approach for Evaluation:

NTIA is leveraging several resources to inform evaluation strategy, including research reviews completed for the Federal Broadband Funding Report to Congress and for an Office of Science and Technology Policy-Social and Behavioral Sciences Subcommittee (OSTP-SBS) working group focused on incorporating research into evaluating the impacts of broadband availability and adoption that NTIA leads.

NTIA is currently reviewing feedback from the public Request for Comments on the State Digital Equity Capacity Grant Program and the Digital Equity Competitive Grant Program, which includes comments on how to effectively evaluate those programs. NTIA also solicited public comment on the design of the NTIA Internet Use Survey—a supplement to the Census Bureau's Current Population Survey—and developed two additional data tools (Digital Equity Act Population Viewer, ACCESS BROADBAND Dashboard) in partnership with the Census Bureau that will inform evaluation work.

NTIA will also leverage the State Broadband Plans and Digital Equity Plans, which will be based on various data collection methods, including interviews with key stakeholders, particularly the historically underserved, as well as empirical data on broadband availability, adoption, and use from national, state, and locally sourced data sets. This information will be used to understand anticipated critical impacts of the program and develop related evaluation questions.

Various research techniques will be employed to understand anticipated critical impacts of the program and to develop related evaluation questions. NTIA will use these inputs in designing the grant award/project performance and progress data collection/reporting efforts to support downstream program evaluation efforts. In addition to the OSTP-SBS working group, NTIA participates in OSTP's Equitable Federal Funding Interagency Working Group and the Department of Commerce's Data Governance Working Group and the Metrics Working Group aimed at sharing best practices.

#### **Equity Component of Methodology:**

This formative work will include developing an approach to measuring equity in the distribution of program benefits.

#### Contractor, Academic or Unit Who Will Do the Research:

Research related to this formative work will be conducted by internal NTIA staff and/or contractors.

#### **Data Sources:**

- Federal Communications Commission National Broadband Map and Broadband Funding Map
- Census Bureau American Community Survey, Statistics of U.S. Businesses, Business Dynamic Statistics, and Small Area Income and Poverty Estimates
- Bureau of Economic Analysis Regional Economic Accounts
- Bureau of Labor Statistics Quarterly Census of Employment and Wages
- Census Bureau-NTIA Internet Use Supplement

#### Challenges:

The impacts may not be realized for several years after grant funds have been dispersed.

#### Dissemination:

Elements of this formative work will be published in the Federal Broadband Funding Report and/or the ACCESS BROADBAND Dashboard or other data products.

# Evaluating the Unique Challenges Faced by Women and Underserved Communities in the Invention Ecosystem

#### Strategic Objective Supported:

*1.5* 

Promote accessible, strong, and effective intellectual property rights to advance innovation, creativity, and entrepreneurship

For more information on DOC Strategic Goals and Objectives, see the <u>U.S. Department of Commerce Strategic Plan 2022–2026</u>



#### Lead Bureau:

U.S. Patent and Trademark Office (USPTO)

#### FY 25 Evaluation Question:

Does providing additional information and guidance to applicants during the patent examination process improve applicant grant rates, and are there differential effects of this information/guidance between males and females?

#### Related Strategic Evidence/Evaluation Research:

In FY 2023, the USPTO assessed regional economic conditions that influenced women's choices to seek and obtain patent protections. A USPTO report ("Where are the U.S. women patentees? Assessing three decades of growth") combined and cleaned data from PatentsView.org, U.S. Census Bureau, Bureau of Economic Analysis, and Bureau of Labor Statistics, and applied to them a zero-inflated negative binomial econometric model. The report found that from 1990–1992 to 2017–2019, 411 new counties had women inventor-patentees, representing 32% growth in 30 years. Growth in the number of women inventor-patentees was robust in counties where women were already patenting in the early 1990s. The average number of women inventors in the top 10% of counties was 34 in 1990. By 2019, the average was 209, a 515% increase. Growth in the number of women inventor-patentees increased across all technology fields but varied widely. For example, the fixed constructions (buildings, structures, earth drilling and related materials) technology hub grew 2,045% over the 30-year span. Other examples of growth in technology hubs include the field of human necessities (grew by 1,781%), physics (4,288%), and electricity (7,054%) during the same period. More women inventor-patentees were observed in counties with more highly

educated women. Women's educational attainment of a bachelor's degree or higher was 63% greater in counties with women inventor-patentees. The importance of women's educational attainment carries over to counties with no previous women inventor-patentees: doubling the number of women college graduates correlates to a 61% increase in the likelihood that a county has its first woman inventor-patentee.

In FY 2024, the USPTO assessed the performance of multiple algorithmic approaches to inferring a person's male or female sex. The objective was to compare the performance and cost differences between the approaches and to see if the best performing algorithm improved upon the method USPTO used in prior research. The USPTO produced a working paper describing the ground truth data, the alternative algorithms, the performance criteria, and the results of the assessment. The evidence indicates that alternative approaches yield very similar scores across the criteria. Generally, the approach developed by the World Intellectual Property Organization (WIPO), which is available for free and is easily implemented, is preferred from a cost-benefit perspective.

#### Rationale for Topic's Priority and How the Evaluation Findings will be Used:

To expand the invention ecosystem to women and other underserved populations, it is a priority to understand whether information differences among patent applicants play a role in their success at receiving a granted patent. This evaluation will be used as input for designing new information or guidance for applicants.

Type of Evaluation:	☐ Formative	<b>Impact</b>	☐ Outcome	☐ Process	
---------------------	-------------	---------------	-----------	-----------	--

#### Methodology/Approach for Evaluation:

Quantitative analysis of how patenting success rates differ between a treatment group that receives more information during the patent examination process and a control group that does not receive the additional information.

#### **Equity Component of Methodology:**

Methods seek to identify the level of equity presently in the patenting ecosystem.

#### Contractor, Academic or Unit Who Will Do the Research:

The Office of the Chief Economist in the Office of Policy and International Affairs will do the research.

#### **Data Sources:**

PatentsView's male and female attribution approach and indicators from the FY 2024 Evaluation Question evidence will be applied to internal USPTO data on applicants to determine treatment and control groups.

#### **Challenges:**

Not applicable.

#### Dissemination:

Evidence will be compiled into a report for USPTO publication and a peer-reviewed professional journal article.

## Evaluating Examiner Behaviors and the Organizational Structure of USPTO

#### Strategic Objective Supported:

*1.5* 

Promote accessible, strong, and effective intellectual property rights to advance innovation, creativity, and entrepreneurship

For more information on DOC Strategic Goals and Objectives, see the U.S. Department of Commerce Strategic Plan 2022–2026



#### Lead Bureau:

U.S. Patent and Trademark Office (USPTO)

#### FY 25 Significant Evaluation Question:

What effects do examiner behaviors or organizational structure have on the office's ability to produce high-quality and timely examination?

#### Related Strategic Evidence/Evaluation Research:

The USPTO implemented a Research and Development Art Unit (RDAU) in FY 2023 to provide an environment for rigorous and controlled testing of proposed initiatives aimed at improving the effectiveness and efficiency of the patent examination process. Studies in FY 2024 will focus on patent examination procedures and policies geared towards USPTO Strategic Plan KPIs such as pendency and quality.

#### Rationale for Topic's Priority and How the Evaluation Findings will be Used:

Sustained performance in the ever-changing IP landscape requires an investment in the customer and employee experience. Key goals of the RDAU are to establish an evidence-base to inform examination policy and to promote a problem-solving culture at the USPTO that ensures trust, belonging, and transparency. Identification of problems and ideation of solutions must come from both customers and USTO employees. FY 2025 efforts will focus on ingesting customer input into all phases of the problem-solving process as well as exposing more examiners to the testing phase on RDAU environment.

Current RDAU examiners will transition back to their respective work units while a new cadre of examiners will be trained on best practices and problem-solving techniques. Evaluation findings in the RDAU will be used to inform patent examination procedures and policies and to identify what organizational strategies facilitate customers and employees to engage in more problem-solving activities.

Type of Evaluation:	<b>formative</b>	<b>Impact</b>	☐ Outcome	□ Process		
Formative, to establish new strategies, and impact, to evaluate impact of alternative approaches for addressing examination challenges using the new RDAU environment.						

#### Methodology/Approach for Evaluation:

Patents management and POPA will work collaboratively to collect, review, and prioritize problem statements provided by Patents employees and customers. Prioritization will be established considering factors such as number of employees or customers potentially impacted, frequency of pain point encountered, linkage to USPTO goals or objectives, and expected effects on customer or employee experience. Prioritized problems will be subjected to ideation workshops to perform root cause analysis and problem statement refinement, and design sprints will be leveraged to develop prototype solutions for the problem. Test and evaluation plans will then be constructed outlining the method for testing the solution and include clear evaluation metrics to facilitate implementation decision making upon conclusion of the test. The evaluation methods will include quasi-experimental and experimental approaches when feasible.

#### **Equity Component of Methodology:**

Evaluations will explore inclusion, active participation, and influence of all USPTO employees and customers in the problem-solving process.

#### Contractor, Academic or Unit Who Will Do the Research:

The evaluation questions will be answered by USPTO staff and contractors. Any organization structure related research will be conducted in collaboration with organization psychologists that are part of OHR's Talent Management Division.

#### **Data Sources:**

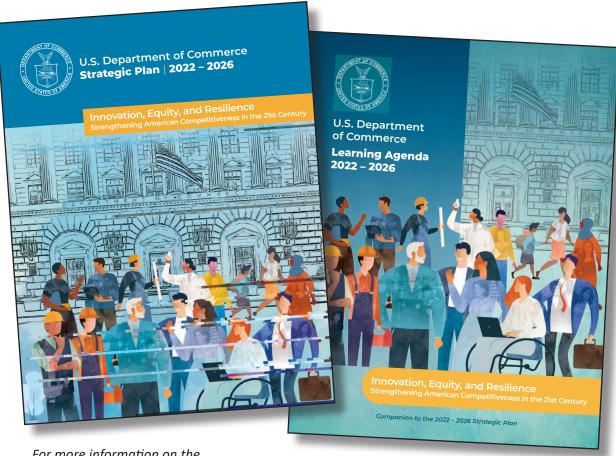
USPTO operational data such as timeliness, quality, cost, and examiner behaviors will be the primary source of data for all tested solutions. When applicable, test and evaluation plans may necessitate new data collections such as employee or customer satisfaction and experience with the proposed solution. Any new data collection will be specified in the test and evaluation plans for each proposed test.

#### Challenges:

The agreement with the bargaining unit for the implementation of the RDAU specified it would be conducted as a pilot program. As such, the agreement needs to be renewed on April 1, 2024, for continuation.

#### **Dissemination:**

The findings from RDAU evaluations will be disseminated on a dedicated USPTO web page.



For more information on the Strategic Goals and Objectives referenced in this publication, see the <u>U.S. Department of Commerce Strategic Plan 2022–2026</u>.

The <u>U.S. Department of Commerce</u>
<u>Learning Agenda</u> is a companion
document to the Strategic Plan.
It details evidence and evaluations
that will be developed to facilitate
achieving the Department's Strategic
Objectives.



Compiled by the Office of the Under Secretary for Economic Affairs

www.commerce.gov // EvaluationOfficer@doc.gov

Published March 11, 2024