



U.S. Department of Commerce Equitable Data Playbook



Real-World Approaches to Improving Federal Program Design and Delivery



Produced by Shannon Arvizu, Ph.D., Senior Advisor to the Department of Commerce Chief Data Officer, Office of the Under Secretary for Economic Affairs (OUSEA), and the Equitable Measures Sub-Group of the Department of Commerce Equity Action Council



The mission of the U.S. Department of Commerce (DOC) is to create the conditions for **economic growth** and **opportunity** for **all communities**.

In the last 3 years, the DOC budget has expanded through:

- the American Rescue Plan (ARP),
- the Bipartisan Infrastructure Law (BIL),
- the Inflation Reduction Act (IRA),
- the CHIPS and Science Act,
- and more.

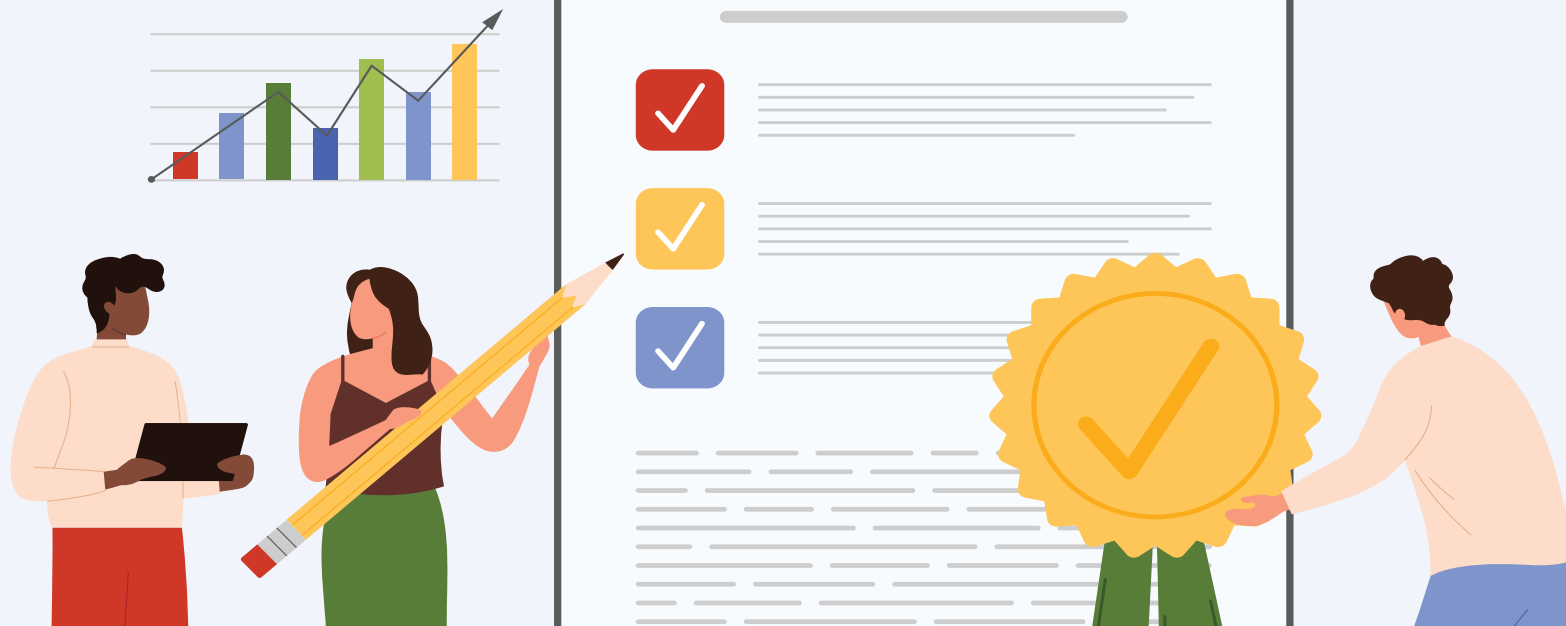
*How do we improve our **program data practices** so that we deliver these programs as equitably as possible?*

This playbook will help us do that.



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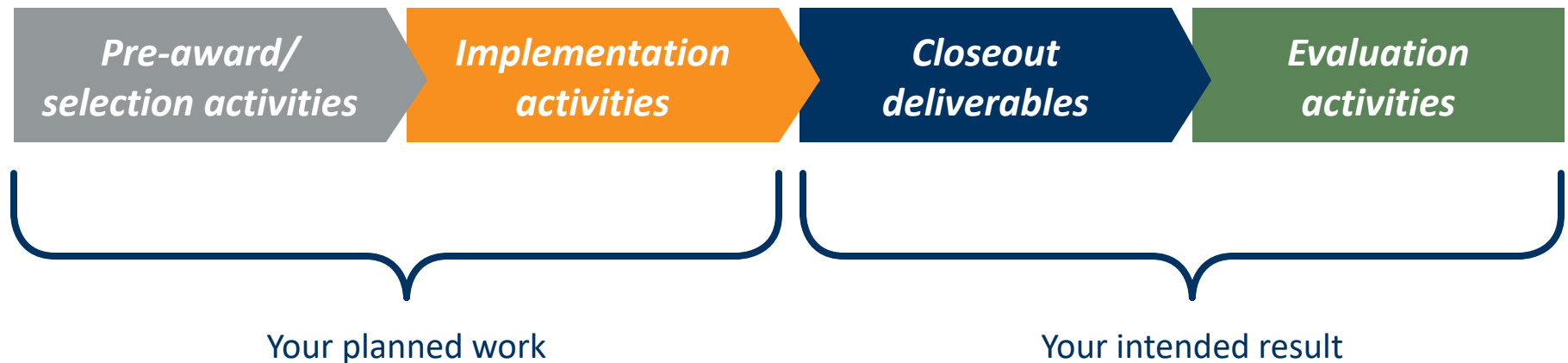
1 *Introducing the Equitable Data Playbook*

Executive Summary

If you are a **Bureau Leader, CFO, CDO, Evaluation Officer, Program Manager, Program Analyst, Statistician,** or **Economist** looking for practical approaches towards more equitable outcomes for your program, this playbook is for you. These approaches include:

1. Implement Equitable Data Practices Across the Program Lifecycle.

Ensure your program meets the needs of intended beneficiaries at the pre-award, implementation, closeout, and evaluation stage with robust data practices.





2. Design an administrative data system fit for evidence-building.

Build a program data system that informs operations, generates evidence for effective evaluations, and facilitates cross-program insights when relevant and valuable.

3. Communicate data needs in NOFOs.

Use the Notice of Funding Opportunities (NOFO) stage to communicate data needs for evidence-building to applicants.

4. Allocate funds for data, tech, and evaluation capacity.

Invest in needed tech and data capacity for effective monitoring, delivery, and evaluation. Communicate allowable funds to applicants and grantees for this purpose.

5. Engage stakeholders for ongoing improvements.

Develop meaningful opportunities for relevant stakeholders to inform program improvements across the program lifecycle.

Introduction from Oliver Wise, Chief Data Officer



Department of Commerce public servants are using the incredible power of data to illuminate opportunities to better uphold our end of the social contract so that all Americans can benefit from the programs we deliver. After a year of gathering stories from across the Department, we share this playbook for future program managers to understand how data can be applied at every stage of the program lifecycle for improving equitable program implementation.

Being good program managers is more than just about getting dollars out the door fast.

We need to ensure that our programs reach their intended communities and deliver on intended outcomes.

I hope this document provides actionable insights on how innovative data practices can continue to help us accomplish that goal.

Who is this playbook for?

This playbook is for all those within the DOC who use data and analysis to illuminate opportunities for improving outcomes for communities.

You might have specific titles such as ***CFO, Program Officer, Program Manager or Analyst, Evaluation Officer, Statistician, or Economist***, among others.



This playbook is intended to inspire your capabilities as “data entrepreneurs.”
The innovators featured in the case studies:

- **Inspire new ways of thinking** about data and analysis in program design, delivery, and evaluation;
- **Look for “low-hanging fruit”** to improve program design and delivery;
- **Find ways to institutionalize new practices** so that they become part of “how we do things.”



The origin of the DOC Equitable Data Playbook

To support the implementation of the [DOC 2022–2026 Strategic Plan](#) goals and [Executive Order 13985](#), the DOC Equity Action Council established a one-year effort called the **Equitable Measures Sub-Group** in August of 2022.

This Sub-Group was tasked with:

- **Developing a community of practice** for DOC bureaus to collaborate and learn from each other on ways to improve program design and delivery;
- **Exploring ideas to uncover more effective ways of using data and analysis** to improve equity dimensions at each stage of the program lifecycle;
- **Producing an Equitable Data Playbook** to disseminate best practices and examples.
This document is the V.1 of this effort.



How was the DOC Equitable Data Playbook developed?

- **Sourced innovation across DOC bureaus:** The Equitable Measures Sub-Group met bi-weekly over the course of the FY23 to learn from innovative data practitioners across DOC bureaus and the federal landscape writ-large.
- **Learned from state and local innovators:** The Sub-Group also invited innovators from state and local government, as well as researchers and non-profits, to share learnings and best practices from their perspectives.
- **Collaborated with relevant DOC and inter-agency working groups:** The Sub-Group also learned about relevant DOC efforts (such as the Commerce Data Governance Board Metrics Working Group) and the National Science and Technology Inter-Agency Community of Practice on Equitable Data.



What does this playbook cover?

This playbook shares best practices and innovations related to data and analytical approaches for improving program outcomes.

These practices are based on the following two premises:

- **Equitable data practices build on the same standards as program evaluation practices and program performance practices.** Pursuant to the [Foundations for Evidence-Based Policymaking Act of 2018](#), the [Government Performance and Results Act Modernization Act of 2010](#), and the [M-20-12 OMB Memo on Program Evaluation Standards and Practices](#), equitable data practices foster a culture where data and evidence play a greater role in policy, budget, and management decisions.
- **Equitable data practices are continuously evolving.** The field of equitable data practices is ripe with innovation. As such, this playbook focuses on the most recent and relevant approaches wherever possible.



What does this playbook not cover?

This playbook is not a replacement for the comprehensive set of guidelines and standards documented in the [DOC Grants and Cooperative Agreements Grants Manual](#) or in [OMB Circular No. A-11](#).

This playbook does not replace OMB guidance for the development of Agency Strategic Plans, Annual Performance Plans and Reports, Agency Performance Updates, Agency Evaluation Plans, or Agency Learning Agendas.

This playbook does not replace OMB guidance for Agency [Equity Action Plans](#), nor does it include guidance for internal Agency DEIA (Diversity, Equity, Inclusion, and Accessibility) efforts.

This playbook does not replace or alter any laws that authorize or govern the implementation of an individual bureau's programs.



2 *Equitable Data Basics*

Defining equitable data practices



What are equitable data practices?

Equitable data practices assess the extent to which government programs and policies yield consistently **fair**, **just**, and **impartial** treatment of all individuals and populations.

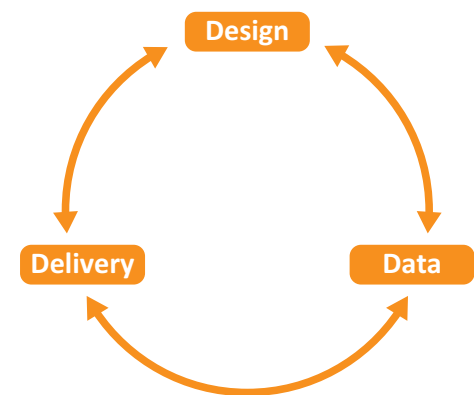
These practices **illuminate opportunities for targeted actions** that result in improved outcomes for underserved communities.

Equitable data practices can be applied **across the program lifecycle**, including those at the pre-award, implementation, closeout, and evaluation stage.

As such, equitable data practices **improve the effectiveness and efficiency** of federal programs through better resource allocation and more informed decision-making.

Notes: See [OMB Circular A-11](#) (pg. 702–704) for a more general definition of equity as it relates to federal programs.

Adapted from [“A Vision for Equitable Data: Recommendations from the Equitable Data Working Group.”](#)



How to approach program equity from a data perspective?

The Office of Evaluation Sciences (OES) at GSA provides the following definitions of equity and equality from a data analytical and evaluative perspective as it relates to federal programs.

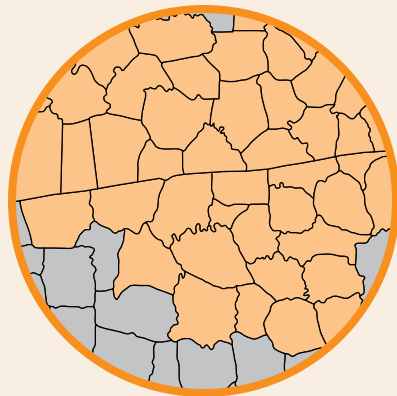
- **Equality** refers to “uniformity of input” (i.e., everyone receives the same treatment).
- **Equity** refers to “uniformity in outcomes, especially between groups” (i.e., everyone receives the amount of treatment needed to obtain a desired outcome).

Example

Equity in a Rental Assistance Program

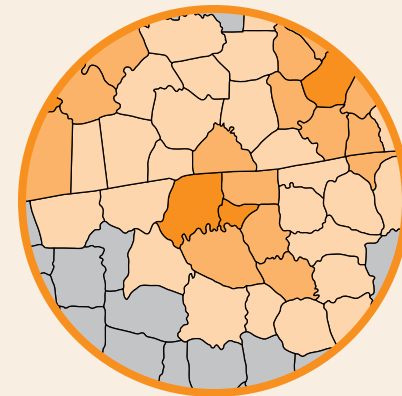
Equality

Every county receives an equal amount of rental assistance funds



Equity

Counties with renter households that have higher rates of cost burden receive proportionally more funds than other counties



Visit [OES Equity Evaluation Series: Defining and Assessing Equity \(gsa.gov\)](https://www.gsa.gov/equity) for more information.



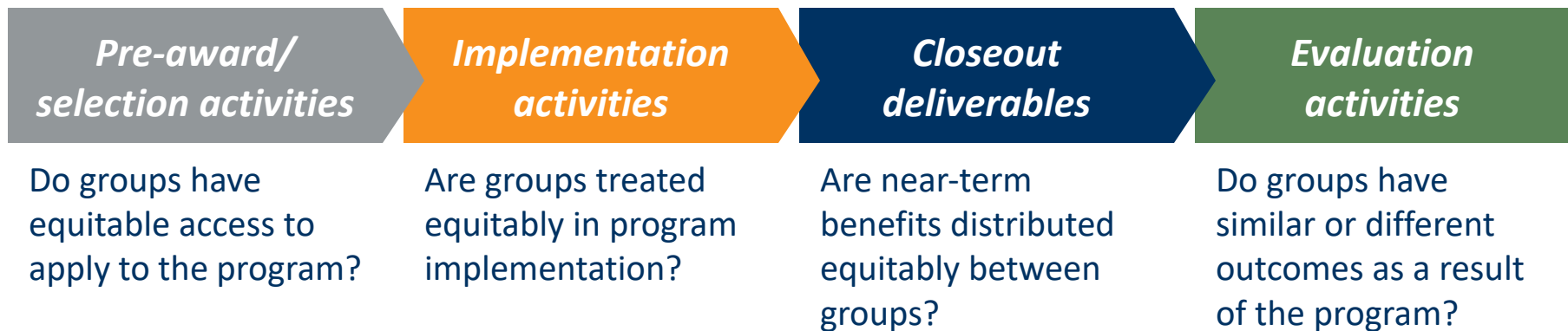
Defining equitable dimensions of your program

In the memo, [Defining Equity in Federal Government Evaluations](#), the Office of Evaluation Sciences (OES) at GSA wrote that defining equity in programs involves identifying two key factors:

1. **The program phase**
2. **The group(s) for which equity is a consideration in the program**

Equity across program phases

For considering equity with respect to different phases of the program, some questions you might explore include:



Helpful Tip: Keep in mind that it is often useful to examine equity across multiple phases of the program. For example, one might explore how equity in implementation affects disparities in outcomes.



Equity across program populations or communities

There are generally two approaches to identifying equity-relevant groups, depending on where you are in the development of your program.

Approach #1: Identify a shared relationship to a program not yet implemented. Consider if there are communities or populations with shared geographic or demographic characteristics that have pre-existing challenges that your new program may address.

Approach #2: Identify a shared relationship to a program in implementation. Consider if there are communities or populations with shared geographic or demographic characteristics who have varying needs for your program and are not yet benefitting (or fully benefitting) from your program.

Adapted from OES [Defining Equity in Federal Government Evaluations](#)



Defining equity-relevant groups

Questions you might explore to help you identify equity-relevant groups for your program include:

Groups with a shared relationship to a program not yet implemented

- Are there pre-existing barriers or challenges to populations or communities with shared geographic or demographic characteristics who have been underserved by other programs in existence?
- Do these pre-existing barriers limit access to resources to apply or participate in a program?
- Are there ways for the new program to address or overcome these pre-existing barriers?

Groups with a shared relationship to an existing program

Groups are eligible, but not yet benefiting from the program

- Do people with shared geographic or demographic characteristics have different needs for the program?
- Do they have different experiences interacting with program implementers? Do they have different outcomes?
- Are there ways for the existing program to address the needs of different groups?

Adapted from OES [Defining Equity in Federal Government Evaluations](#).



Examples of equity-relevant groups

In some instances, equity-relevant groups are defined in program legislative requirements, such as that for the Digital Equity Act of 2021. In other instances, equity-relevant groups may be uncovered by looking at the relationship between intended beneficiaries and program participation. Consider the two examples below.

Groups with a shared relationship to a program not yet implemented

The Digital Equity Act of 2021 defined eight different populations who have historically experienced lower rates of computer and internet use. Data on these populations is used to allocate funding for NTIA program implementation. The covered populations include people who are:

- Age \geq 60
- Veterans
- Disabled
- Rural
- Racial or ethnic minority
- Household income \leq 150% of the federal poverty line
- Language barrier (English learners, low literacy)

Learn more at [Census.gov](https://www.census.gov).

Groups with a shared relationship to an existing program

Administrative data from the Social Security Administration suggests that less than 60% of eligible individuals aged 65 or older actually received the benefit.

In response, the SSA designed an experiment in 2018 to improve program awareness and uptake of those aged 65–80.

Learn more at [GSA.gov](https://www.gsa.gov).

Note: Legislation may also leave open flexibilities to serve more groups than those specifically enumerated.



Using indicators to identify equity-relevant groups

Equity is a contextual concept. It is based on an inter-related set of social, economic, and environmental conditions. As a result, we can't always measure equity directly or in the same manner across all programs. We can, however, identify indicators to assess the equity conditions in geographic areas or among populations with shared demographic characteristics that are relevant to the program focus.

What are indicators? OMB defines an indicator as “a measurable value that indicates the state or level of something” ([OMB Circular A-11 200.24](#)). The measurements for a given indicator can be based on a single data source or compiled using multiple data sources.

Example of Indicators	Examples of Data
<ul style="list-style-type: none">• Access to quality education• Access to food• Access to economic opportunity	<ul style="list-style-type: none">• Average level of teacher experience• Proximity to a supermarket• Density of low-skill jobs that pay a living wage

Using indices to identify equity-relevant groups

An index is made up of multiple indicators. Depending on the theme of the index, indicators are chosen and weighted to capture a range of differences across geography and/or time.

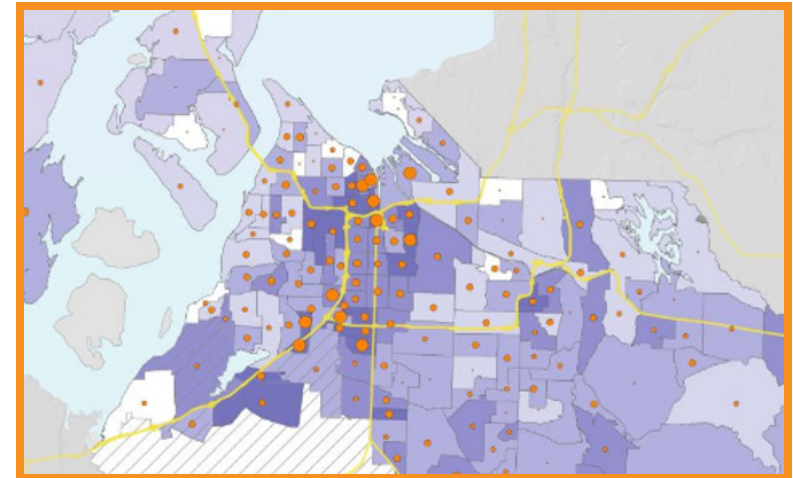
Example Index: U.S. Census Community Resilience Estimates	Indicators Used
<p>In this index, resilience is defined as the “capacity of individuals and households to absorb, endure, and recover from the health, social, and economic impacts of a disaster such as a hurricane or pandemic.”</p> <p>Lear more at the Census Bureau Community Resilience Estimates website.</p>	<ul style="list-style-type: none">• Income to poverty ratio• Single or zero caregiver household• Crowding• Communication barrier• Households without full-time, year-round employment• Disability• No health insurance• Age 65+• No vehicle access• No broadband internet access

Using indicator maps to identify equity-relevant groups

Indicator maps are made up of ***patterns and relationships***.

They allow us to:

- See where things are and where they are not
- See geographic areas in relationship to one another
- See demographic group densities and distributions of resources and opportunities
- Layer various indicators across geographies to look at trends and relationships



Keep in mind that:

- Indices and indicator maps can sometimes mask patterns you are trying to understand
- Indices and indicator maps make assumptions about what is important (given the selection and weighting of indicators)
- Indices and indicator maps are one source of many for understanding equitable issues of concern



Resource list: indicator maps and equity-relevant data sources

- Bureau of Economic Analysis: [Distribution of Personal Income](#)
- Bureau of Economic Analysis: [Prototype Measures of Economic Well-Being and Growth](#)
- Bureau of Labor Statistics: [Quarterly Survey of Employment and Wages](#)
- U.S. Census Bureau: [My Community Explorer](#)
- U.S. Census Bureau: [Community Resilience Estimates Equity Supplement](#)
- U.S. Census Bureau: [Small Area Income and Poverty Estimates Program](#)
- U.S. Census Bureau: [Opportunity Atlas](#)
- U.S. Census Bureau: [Longitudinal Employer-Household Dynamics](#)
- White House Council on Environmental Quality: [Climate and Economic Justice Tool](#)
- Economic Development Administration and Argonne National Laboratory: [National Economic Resilience Data Estimator](#)
- Economic Development Administration and Census Bureau: [Poverty Status Viewer](#)
- Economic Development Administration and Indiana Business Research Center: [Stats America](#)
- Environmental Protection Agency: [EJScreen, Environmental Justice Screening and Mapping Tool](#)
- National Oceanic and Atmospheric Administration: [Social Indicators for Coastal Communities](#)
- Center for Disease Control: [Social Vulnerability Index](#)

Note: This is only a sample of resources available.

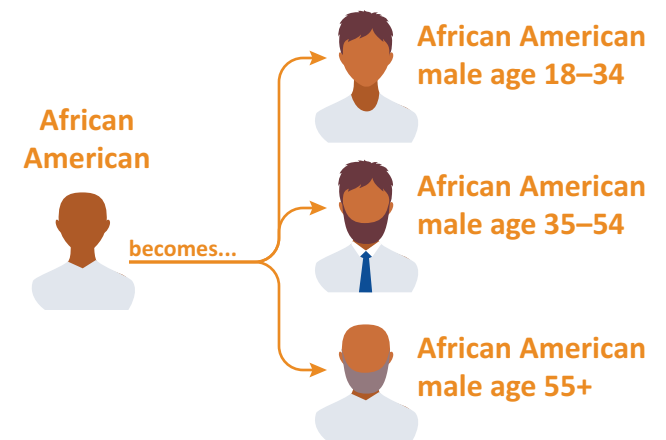
Disaggregating data to identify equity-relevant groups

Disaggregated data yields insights for identifying disparities amongst populations or between communities.

Whenever **feasible**, **useful**, **relevant**, and **privacy-preserving**, statistical and administrative data officials are encouraged to disaggregate data for program administration and evidence-building purposes. The promising practices listed in this playbook can help unlock opportunities for disaggregation.

Statistical and administrative data can be disaggregated by:

- Demographic information (*e.g.*, detailed race and ethnicity, gender, language spoken, etc.),
- Geographic information (*e.g.*, rural/urban), or
- Other variables relevant to program efforts.





Disaggregating by race and ethnicity: Statistical Policy Directive (SPD–15) flexibilities

What are SPD–15 Standards? In 2022, the Chief Statistician of the United States within the U.S. Office of Management and Budget convened the Federal Interagency Technical Working Group on Race and Ethnicity Standards to review and develop recommendations for revising OMB’s 1997 Statistical Policy Directive No. 15: Standards for Maintaining, Collecting, and Presenting Federal Data on Race and Ethnicity.

What is the goal of the SPD–15 Standards? The goals of SPD–15 are to ensure the comparability of race and ethnicity across federal datasets and to maximize the quality of that data by ensuring that the format, language, and procedures for collecting the data are consistent and based on rigorous evidence.

What can DOC bureaus do today? The standards have been officially revised as of April 2024. See the new standards and the final recommendations at the [Statistical Policy Directive No. 15 website](#), as well as the [Federal Committee on Statistical Methodology \(FCSM\) Equitable Data Toolkit](#) for more guidance.



Disaggregating by sexual orientation and gender identity

Sexual Orientation and Gender Identity (SOGI) data refers to data that helps measure and address the disparities that LGBTQI+ individuals, families, and households face, while safeguarding their privacy, security, and civil rights.

In 2023, pursuant to Section 11 of [EO 14075](#) (Advancing Equality for Lesbian, Gay, Bisexual, Transgender, Queer, and Intersex Individuals), federal agencies that conduct relevant programs or statistical surveys related to the Federal Evidence Agenda on LGBTQI+ Equity completed SOGI Action Plans.

When and how to collect SOGI data?

- [Read the LGBTQAI+ Evidence Agenda](#): Identify questions in the Learning Agenda to advance LGBTQI+ Equity components that are most relevant to your agency's programs, policies, or regulations.
- Assess your evidence-building activities and infrastructure for collecting SOGI data. Refer to [SOGI Data Action Plans at the MAX Federal Community](#).

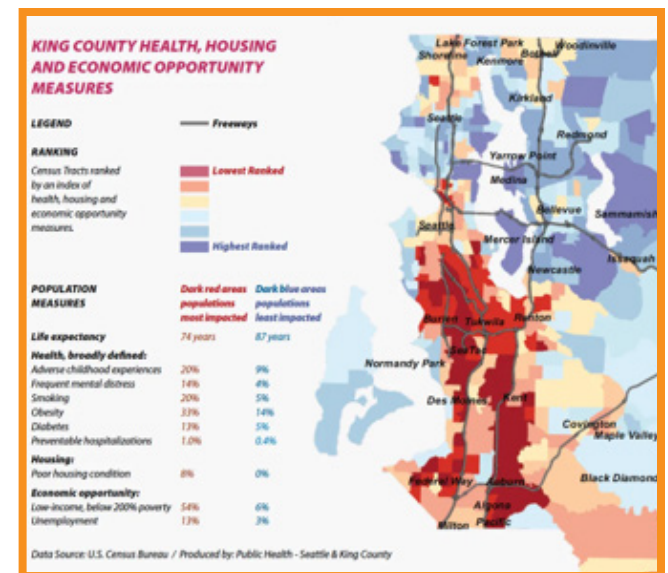
Disaggregating by geography

Why disaggregate by geography? Disaggregating by geography is helpful for identifying community characteristics, identifying what types of services may be needed, and analyzing program outcomes at the community level.

What tools are available to generate geographic identifiers?

- [The U.S. Census TigerWeb](#)
- [NSF's Region of Service Map Builder Guide](#)
- [Federal Information Processing System \(FIPS\) codes](#) and [U.S. Census tract information](#)

For more discussion on disaggregating by geography, see [“Understanding Place in Census Bureau Data Products”](#) by the Census Bureau, [“What is Rural?”](#) by the USDA, and the [Equitable Data Toolkit](#) by the FCSM.



King County Equity Map courtesy [Seattle Times](#)

Case Study

NOAA Fisheries Community Social Vulnerability Indicators Toolbox

What is it? Established in 2010, the Toolbox includes a suite of 14 social, economic, and climate change indicators that uniquely characterize a fishing community's vulnerability and resiliency to disturbances (i.e., regulations, extreme weather, gentrification, and sea level rise).

What makes it innovative?

- The indicator map enables users to analyze environmental justice and climate vulnerability of over 4,600 communities in 24 states.
- The social indicators are routinely used for National Environmental Policy Act (NEPA), Magnuson-Stevens Act (MSA) and E.O. 12898 on Environmental Justice analyses.



Case Study

What indicators are used? Among some of the indicators in the NOAA Fisheries Community Vulnerability Toolbox include:

Social indicators:

- Poverty (families below the poverty line and individuals older than 65 and younger than 18 in poverty)
- Population composition (demographic makeup including race, marital status, age, and ability to speak English)
- Personal disruption (unemployment status, educational attainment, poverty, and marital status)

Commercial and recreational fisheries indicators:

- Commercial fishing engagement and reliance
- Recreational fishing engagement and reliance

Climate change indicators:

- Sea level rise risk
- Storm surge risk





3 *Program Data Systems*

*Designing a “fit-for-purpose” administrative data system
for monitoring and evaluating equity outcomes*



Designing program data systems for monitoring and evaluating equity outcomes

Administrative data is “data collected by government entities for program administration, regulatory, or law enforcement purposes. Such data are usually collected on the universe of individuals, businesses, or communities affected by a particular program, in contrast to survey data that are collected for samples of broader populations, typically for research evaluation, or other statistical purposes,” per [OMB Circular A–11, 200.24](#).

Ideally, administrative data systems are designed in such a way as to:

- **Enable Operational Pivots.** Administrative data provides program decision-makers and stakeholders with timely and actionable operational data.
- **Ensure Accountability.** Administrative data demonstrates accountability to the legislative intent of the outcomes of the program.
- **Facilitates Insight.** Administrative data generates knowledge for improved monitoring and delivery of future and related programs.



What are the common challenges with administrative data?

Using administrative data from federal programs to inform operational pivots, ensure accountability, and facilitate insights is challenging. There are many reasons for this, including:

- **Disparate sources:** Administrative data are often collected from multiple sources (e.g. prime or sub-grantees, state or local entities).
- **Data quality:** Administrative data collected through disparate sources tend to have data quality issues (metadata inconsistencies, missing information, invalid values, outlier values, etc).
- **Timeliness:** Administrative data collected through disparate sources tend to be collected across variable time scales, making operational pivots difficult.
- **Analytical Methods:** Administrative data are generally observational, rather than generated from an experimental design. As such, it may be challenging to definitively evaluate program outcomes.
- **Privacy:** Administrative data may contain sensitive or other legally-protected information that administrators keep confidential. As such, it may be challenging to use this data to facilitate insights across programs.



How might you design an administrative data system fit for evidence-building?

Designing a program administrative data system that meets the needs of program stakeholders for operations and accountability, while maintaining privacy or confidentiality and meeting the needs of program recipients, is not easy, but it is possible.

Consider the following four principles for generating “right fit” evidence for your program:

- Collect high-quality data and use them accurately.
- Collect data that you commit to use.
- Ensure that the benefits of data collection outweigh the costs.
- Enable access to data, as permitted by relevant legal authorities, that may generate knowledge for other programs.

Adapted from [The Goldilocks Challenge: Right-Fit Evidence for the Social Sector](#).



Collect high-quality administrative data and analyze it appropriately

Consider the following practices for ensuring program data credibility:

- **Validate your data.** Accurately capture the core concept you are seeking to measure. Enroll relevant stakeholders to help you adequately measure concepts, especially when working across disparate communities.
- **Collect reliable data.** Define a consistent data collection procedure, in concert with relevant data collection entities at the state or local level, or at the prime- and sub-grantee level.
- **Conduct an appropriate data analysis.** Select the research method that is most appropriate to the question you are trying to answer. For reference, consult the OES Equity in Evaluation Memos on [Matching an Evaluation Method to Your Equity Question](#), [Choosing Controls in Regression Analyses Involving Equity](#), and [Guidance on Using Multinomial Tests for Differences in Distribution](#).

Note: For further information on data credibility, see [Statistical Policy Directive 1](#).



Collect administrative data that you commit to use

When selecting administrative data to collect, consider how the data will be acted upon *after* the collection stage:

- **Actions:** Is there a specific action that your program will take based on the findings of the data? When will data need to be collected and analyzed to inform those actions? By whom?
- **Resources:** Do you have the resources necessary to implement that action? What resources do grantees and sub-grantees need to take action based on operational data collected?
- **Commitment:** Do you have the commitment required to take that action? How might you encourage commitment to specific actions based on data collection and analyses?

Helpful Tip: Consider what data might be best collected and used at the state or local level, or at the prime- or sub-level, to improve operational pivots at the time when it will be most useful, including for monitoring and evaluation.



Ensure that the benefits of data collection outweigh the costs

While designing an administrative data system, there are typically trade-offs in terms of staff time, respondent time and burden, and other factors.

There is no one-size-fits-all approach to perfecting this trade-off. What is important, however, is to assess the trade-offs and make them an explicit part of your program design. Consider the following questions as part of your trade-off deliberations.

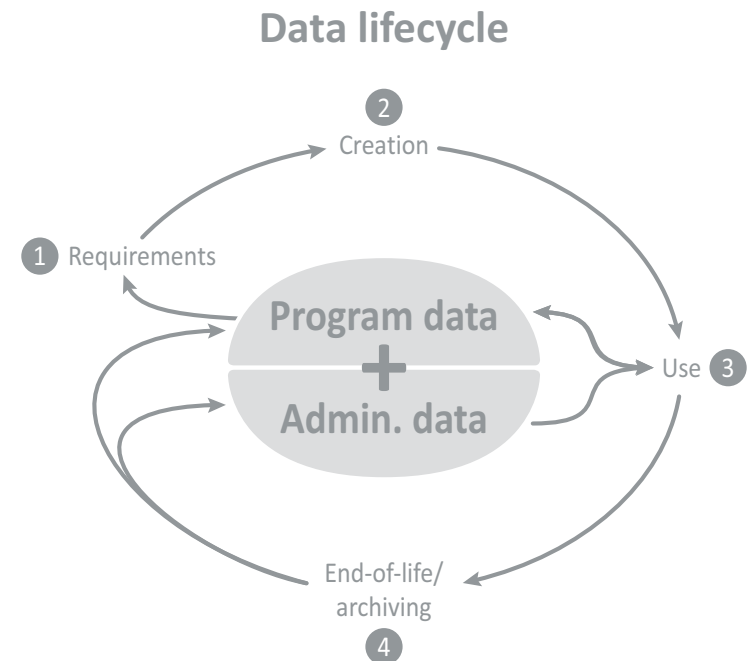
- **Opportunity cost:** What is the opportunity cost of collecting specific kinds of data? What is potentially lost in terms of program beneficiary benefits and/or staff time? What is gained?
- **Minimize risk:** How can you minimize risks to beneficiaries through transparent processes, protection of individuals' sensitive information, and proper protocols for research with human subjects?
- **Societal cost:** What is the societal cost of collecting too little data? What societal benefits might be lost when not collecting enough of the right data?

Consider enabling access to data for generating knowledge for other programs

Valuable insights can be generated from enabling access to administrative data, where permitted by relevant legal authorities.

For generating valuable insights for other programs, design administrative data as data products. Well-designed data products address the entire lifecycle of data—from its requirements to its creation, to its usage, and eventually to its end of life. Special attention is paid to the needs of potential data users, not just data producers.

Place-based programs, for example, might design their data systems to be interoperable with each other (with a shared metadata structure) to facilitate analyses of multiple programs across similar geographies.



Case Study

EDA Good Jobs Challenge (GJC)

An [American Rescue Plan funded \\$500 million program](#) designed to improve the **labor market outcomes of unemployed and underemployed Americans** by providing federal funding for local workforce development programs, managed by the Economic Development Administration (EDA). EDA made awards to 32 training partners across the country.

What makes it innovative? This program was designed to **provide valuable information about the policy levers** available for placing more Americans in quality jobs. As such, the program includes a “fit-for-purpose” data and analytical approach to monitor program operations and credibly validate program outcomes.



GJC awardee, [Lowcountry Healthcare Careers Collaborative, North Carolina](#)



Case Study

What makes the GJC admin data system “fit-for-purpose”? The GJC admin data system adheres to many of the principles listed here, including:

- **Collects high-quality data:**
 - » Validates core concepts such as a “[good-paying job](#)”
 - » Identifies specific underserved populations as intended beneficiaries
 - » Includes a “counterfactual” approach to evaluation, comparing outcomes of GJC participants to the outcomes of comparable workers in similar labor market conditions
- **Collects data that is acted upon:**
 - » Designed with data collection commitments from training partners and participants, as well as a streamlined data collection process using online survey tools to improve data quality and reduce administrative burden and time lag
- **Ensures benefits of data collection outweigh costs:**
 - » Securely links PII data from participants with administrative data (in collaboration with the Census Bureau), while also reduces additional reporting burden on participants
- **Enables Access to Relevant Parties for Evidence-Building:**
 - » Enables appropriate access to admin data for operational insights and evaluative purposes by multiple parties, including with the Census and research partners





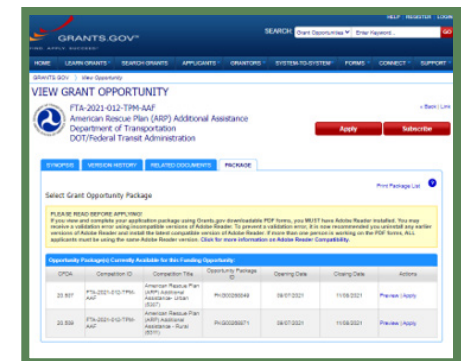
4 *Supporting Applicants and Grantees with Data*

Why improve the accessibility of NOFOs?

NOFOs (Notice of Funding Opportunities) are used to announce federal government funding opportunities. They typically include a description of the program, the entities that are eligible to apply, and associated program funding requirements.

However, NOFOs are sometimes written in ways that limit their accessibility to entities and communities. A recent analysis by the Department of Health and Human Services (HHS) found that their agency NOFOs tend to be:

- **Overly-complicated**, lengthy (80+ pages), and written in too sophisticated a tone;
- **Poorly designed** with limited formatting, little internal navigation, and multiple appendices; and
- **Require too much from applicants**, asking for a significant amount of information that may not ultimately be used as review criteria.





What efforts are underway to improve NOFO accessibility?

HHS NOFO Simplification Initiative

- The HHS Office of the Assistant Secretary for Financial Resources is leading a multi-year effort (2022–2025) to improve the NOFO process. This office manages [Grants.gov](#), which is the site for federal grant-making agencies to post funding opportunities and for applicants to find and apply for grants.
- The goal is to **reduce the burden** associated with applying for grant opportunities for qualified applicants, especially those representing and/or providing services to underserved communities.

What other federal efforts are underway?

- The [Grant Reporting Efficiency and Agreements Transparency Act \(GREAT Act\)](#) directs federal agencies to modernize and improve grantee reporting. OMB designated HHS as the Standard Setting Agency in November 2020.
- OMB established the [Council of Federal Financial Assistance \(COFFA\)](#) in August 2023 to serve as an interagency forum to improve coordination, transparency, and accountability for the award and management of federal funding.
- The [OMB Uniform Grants Guidance 2024 Revision](#) includes a complete revision of the NOFO requirements for Federal agencies and underscores the importance of clearly communicating in plain language only the essential information that is needed for applicants to understand program objectives and application requirements. (See [M-24-11](#) for more information).

How can DOC bureaus improve NOFO accessibility today?

The [OMB Uniform Grants Guidance 2024 Revision](#) states that agencies should adopt the following practices:

- **Write in Plain Language:** Federal agencies should write NOFOs in plain language to reduce complexity and improve accessibility.
- **Reduce Length:** As a general guideline for existing NOFOs, agencies should aim to reduce word count by 25 percent over the previously issued version.
- **Reduce Complexity:** Agencies should eliminate unnecessary provisions and move content that is not directly related to the core activities to be performed under the Federal award (such as any assurances) to appendices on linked webpages.
- **Improve Access and Awareness:** To improve access to NOFOs, agencies should post their NOFOs on Grants.gov. In addition, agencies may also post NOFOs on their agency websites. (Agencies may also consider announcing NOFOs through social media and relevant networks).

Read more details about improving NOFO accessibility and NOFO review criteria in the [M-24-11](#).



Communicating data collection needs in NOFOs

NOFO announcements are also an ideal avenue for including explicit language to applicants that the federal government will collect program performance and administrative data for the purposes of analysis and evaluation.

Currently, federal agencies are required to provide at least the following information:

- **Public reporting on financial data to USASpending:** The Federal Funding Accountability and Transparency Act (2006) requires entities receiving federal funds (“prime awardees”) to disclose the name, [monthly financial outlays](#), funding agency, entity location, and other information to be published on USASpending.gov. Learn more at [Grants.gov](#).
- **Reporting on agency performance data:** The Government Performance and Results Act of 2010 requires agencies to collect, analyze, and report on their performance, according to their Annual Strategic Plans and Agency Priority Goals. To comply, agencies solicit performance reports from grantees. Data from these reports are aggregated with other program data and reported on as progress on agency-level strategic plans and agency-level KPIs. (See DOC Agency Performance data at [Performance.gov](#).)



Communicating data needs for evidence-building

With the implementation of E.O. 14052 in 2021 (“Implementation of the Infrastructure Investment and Jobs Act”), there is an effort to evolve the governance, management, evidence-generation, and oversight components of BIL programs (and other programs recently funded such as ARP and IRA).

- **OMB guidance:** To more clearly define these efforts, OMB released [M–22–12](#), “Advancing Effective Stewardship of Taxpayer Resources and Outcomes in the Implementation of the Infrastructure Investment and Jobs Act” in April 2022.
- **DOC CDGB guidance:** In addition, the Department of Commerce Data Governance Board published “[Best Practices for Monitoring and Evaluating the ARP, IJJA, and Other Programs](#)” in August 2022 and “[Innovation in Reporting and Evidence-Building: Evolving Program Data Management Practices within the DOC](#)” in September 2023. Both reports emphasize the need to improve the collection and use of program data for:
 - » **Measuring progress and building evidence on program effectiveness** (including program implementation, performance reporting, and program evaluation)
 - » **Collecting feedback** from program participants and beneficiary communities
 - » **Collecting data to assess equitable delivery** for informing future investment decisions



Include relevant data fields to enable data linkage

Where useful and relevant, include specific reporting and evaluation data needs in NOFOs. This may include data needed to link with statistical data sets.

In the DOC Metrics Working Group report (September 2023), [“Innovation in Reporting and Evidence-Building: Evolving Program Data Management Practices within the DOC,”](#) the Census Bureau provided the guidance below for data field collection that enables linkage with statistical data sets.

Linkage Type	Linkage Method	Data Fields to Collect
Address Linkage	<ul style="list-style-type: none"> Master Address File Match 	<ul style="list-style-type: none"> Full address; coordinates for point-of-service delivery
Organizational Linkage	<ul style="list-style-type: none"> TF-IDF (Term Frequency Inverse Document Frequency) 	<ul style="list-style-type: none"> Businesses/nonprofits: EIN, business name, mailing address, physical location address, NAICS, web address, UEI, SSN (for sole proprietorships) Governments: name, address, UEI, web address
Person Linkage	<ul style="list-style-type: none"> Person Identification Validation System (PVS) 	<ul style="list-style-type: none"> Full name (first, middle, last, suffix), complete date of birth, full address, sex, SSN/ITIN (for administrative records with authority to collect)

Collecting place-of-performance data

What is place-of-performance data? Place-of-performance (or place-of-service) data refers to geographic identifiers used to understand where services are provided and/or where they deliver benefit. It may include directly served individuals or businesses and/or the resulting community and individual-level outcomes.

What are some of the challenges of collecting place-of-performance data? It can be logistically challenging for grantees to report on geographic identifiers of places that have received services or benefits, particularly if grantees deliver services at multiple locations or if services are delivered by sub-grantees.

Why is place-of-performance data important for conducting place-based economic development analyses? To understand which policies and programs most effectively grow local economies and good paying jobs, it helps to have a consistent way to capture place-of-performance. For technical assistance on this topic, consult the [OUSEA Regional Economic Research Initiative and the DOC Evaluation Team](#).





Sample NOFO language for allowable expenses

Consider adding language to your program’s NOFO to explicitly communicate to grantees allowable expenses for improved data collection, evaluation, and relevant infrastructure. Sample language includes:

“Technology, data, delivery, and evaluation costs may include (but are not limited to) the expenditures needed to gather, store, track, manage, analyze, disaggregate, secure, share, publish, or otherwise use data to administer or improve the program, such as systems for performance management, asset management, geospatial data, personnel management, transparency and public engagement, and cybersecurity. Evaluation costs include (but are not limited to) evidence reviews, evaluation planning and feasibility assessment, conducting evaluations, sharing evaluation results, and other personnel or materials costs related to the effective building and use of evidence and evaluation for program design, administration, or improvement.

These costs may also include direct or indirect costs associated with building or expanding integrated data systems—data systems that link individual-level data from multiple government agencies for purposes of management, research, and evaluation.”



Design data products that ease the NOFO application process

Why develop useful data products to assist with the application stage? NOFO applications often require that potential grantees include relevant data about their communities to make a case for federal investments. Unfortunately, for many communities that may not have internal data capacity, knowing how to access and make sense of that data is challenging.

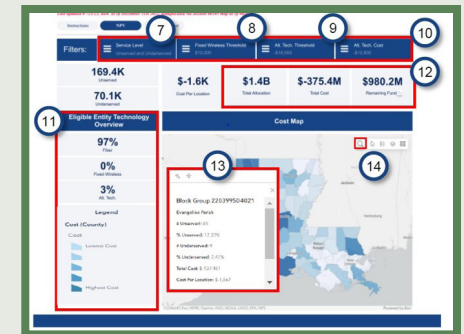
What makes for a useful data product that eases the application stage? When developing a data product to assist potential grantees in their application process, consider the first “three plays” developed by the U.S. Digital Services in their [Digital Services Playbook](#):

- **Play #1:** [Understand what people need](#). Explore the needs of applicants and how the data product will help them in the application process.
- **Play #2:** [Address the whole experience, from start to finish](#). Identify the touchpoints that will help the applicant successfully use the data to make a case for federal investments.
- **Play #3:** [Make it simple and intuitive](#). Design the product so that applicants succeed the first time they use the product.

Case Study

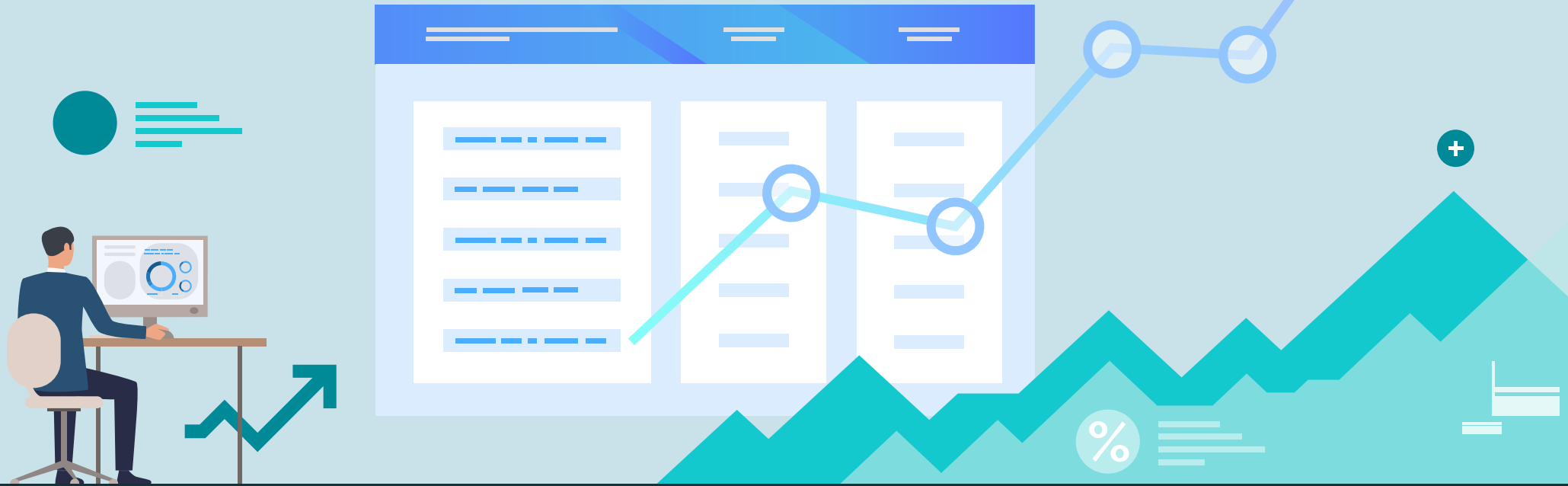
NTIA builds online toolkit to streamline submission of grantee eligibility requirements

What it is: The [BEAD \(Broadband, Equity, Access, and Deployment\) Program](#) provides \$42.5 billion to expand high-speed internet access by funding planning, infrastructure development, and adoption programs. The program requires eligible entities to submit multiple plans and materials. To streamline the completion of BEAD requirements, NTIA developed the Eligible Entity Planning Toolkit.



What makes it innovative?

- **Simplifies a complex process:** The toolkit simplifies 11 steps that eligible entities must follow to qualify for program benefits.
- **Built with an ARC–GIS platform:** The toolkit is built with an ARC–GIS platform so that entities can easily identify unserved or underserved areas, as well as quantify investment costs.



5 *Program Monitoring Data*

*Improving equitable delivery with
program monitoring data*

The purpose of program monitoring data

Program monitoring data, particularly progress toward pre-established goals, is used for performance measurement (see [OMB M-21-27](#)) and serves to:

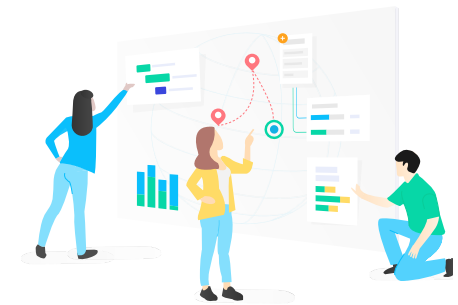
- **Demonstrate accountability:** Measures if a program, project, or activity is on track and will meet its pre-established goals.
- **Improve operational decision-making:** Enables program managers to learn, make course corrections, and refine implementation approaches, answering questions such as:
 - » Are program activities being effectively or efficiently performed?
 - » Is service delivery as effective or efficient as planned?



Common challenges with program monitoring data

Common monitoring data challenges include:

- **Collection challenges:** Certain kinds of operational data is challenging to collect, especially if the programs are primarily implemented by sub-awardees.
- **Conflicting needs:** Accountability needs for certain types of operational data do not always produce information that is useful for improving operational decision-making.





Opportunities for improving program monitoring data

Opportunities for improving program monitoring data include:

- **Decide what operational decisions make sense for your program.** Design ways to cost-effectively collect and analyze data used for operational decision-making.
- **Consider what data is needed for accountability and operational decision-making.** Collect, use, and communicate monitoring data that assesses whether the program is doing what it said it would do and facilitates learning for ongoing improvements.
- **Consider the different types of monitoring data** that make sense for informing program decision-making (described further on page 57).
- **For place-based programs, examine community indicators** that may help correlate program activities with potential community outcomes.



Types of program monitoring data

Financial data: Tracks how much is spent on implementing programs (costs and revenues, funds obligated, funds outlaid, grant mods required). Ideally, cost and revenue data are directly related to operations to assess relative costs of services across programs and sites.

Activity tracking data (what OMB refers to as “process data”): Provides oversight on program implementation key activities identified in the program’s theory of change model.

Direct output data: Provides oversight on direct products and services delivered by a program. Ideally this data is disaggregated by program and site, is connected to cost and revenue data, and is reviewed regularly to make decisions. This can include:

- **Program participation data** to understand whether a program is meeting demand.
- **Targeting data** to understand if programs are reaching their target populations and identify changes that can be undertaken.

Customer experience data: Can provide important customer experience information (see [OMB circular A.11 280](#), pg. 789, for guidance on customer experience).

Note: See [OMB Circular M-20-12](#) for more guidance on program monitoring data.

Financial investment tracking maps and dashboards

With recent federal investments from ARP, BIL, CHIPS, and IRA policies, there have been a series of maps developed that visualize grantee locations, project information, and financial announcements to date.

Such maps can be used for building greater *accountability and public trust*, generating *awareness of investment projects and locations*, as well as *surfacing potential geographic gaps* in funding. Most are produced using financial monitoring data from USASpending.gov and agency press releases.

Some of the most recent federal government maps and dashboards developed include:

- [Maps of Progress](#): The White House Build.gov map that tracks BIL investments nationwide.
- [DOI BIL Project Map](#): Department of the Interior BIL project map, categorizes investments by DOI priorities.
- [DOE Investments in American-Made Energy](#): Department of Energy investments in clean technology.

A more established dashboard:

- [USDA Rural Investment Dashboards](#): This dashboard features more than 20 data visualizations to spotlight investments made since 2012 in more than 65 programs.



Using custom indicator maps to monitor program activities and outcomes

A recent innovation in equitable data practices at the DOC is the use of *custom indicator maps to benchmark and track community changes*.

How do indicator maps help with program monitoring?

- Overlaying a place-of-service, or its proxy, on an indicator map can help elucidate relationships between program activities and community outcomes, particularly with repeated annual measures of characteristics
- These indicator maps include detailed socio-demographic characteristics and industry-specific measures that can be used to benchmark pre-program status and assess changes in local characteristics as the program is administered and closed out.

How can DOC programs develop custom indicator maps?

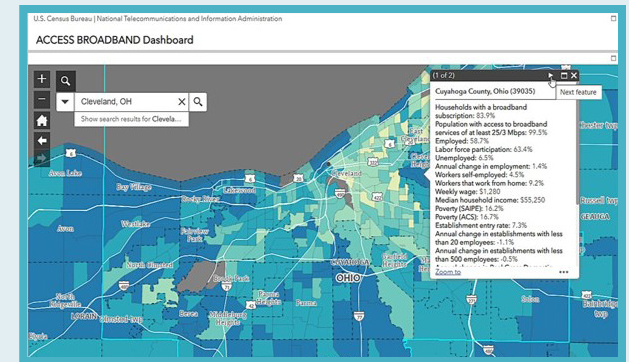
- Starting in 2023, DOC bureaus can work with the newly formed Census Bureau Center of Excellence (COE), which will provide statistical measures to DOC grant-making agencies to support evaluations of program impact.
 - » These measures will be produced at the lowest level of geography for which confidentiality safeguards prevent identification of any individual or business.

Case Study

NTIA ACCESS broadband dashboard

What it is: An indicator map of broadband availability and adoption with economic indicators that broadband expansion could influence.

What makes it innovative? Produced in conjunction with the Census Bureau, the dashboard provides granular baseline data (county and census-tract level) on local economic conditions. The map will be updated annually to assess long-run outcomes of broadband expansion.



Some of the indicators used in the map track program outputs and outcomes include:

- **Subscription:** Percentage of households with a broadband subscription
- **Proximity:** Percentage of population living where broadband fixed services of at least 25/3 Mbps are available
- **Labor Force:**
 - » Percentage of population employed
 - » Labor force participation rate
 - » Unemployment rate
 - » Annual change in unemployment
- **Local Business Dynamics:**
 - » Annual change in business establishments with less than 20 employees
 - » Annual change in business establishments with less than 500 employees
- **Local GDP:** Annual change in real GDP

Case Study

USPTO in-person boot camp program uses monitoring data to target underserved communities

What it is: The USPTO is piloting one-day, in-person boot camps directed to inventors and entrepreneurs in internet deserts. Prior to this pilot, these programs were only available online.

What makes it innovative? The USPTO identified barriers to program uptake from communities that don't have reliable internet access. This pilot program is designed to overcome these barriers by working with local partners in broadband deserts to bring in-person patent and trademark information and resources to those communities.



Their underlying philosophy is, *“Unreliable internet service shouldn’t prevent anyone from accessing valuable training about Intellectual Property.”*

Case Study

EDA BBBRC convenes awardees in a community of practice to identify ongoing improvements

What it is: EDA’s [Build Back Better Regional Challenge](#) (BBBRC) aims to boost economic recovery from the pandemic and rebuild American communities. EDA’s research partners, [RTI International](#) and [SSTI](#), convene 60 BBBRC awardee coalitions in an ongoing Community of Practice to share insights and learn from each other as they work to successfully implement their initiatives.

What makes it innovative? The [Community of Practice](#) is unique in that it convenes awardees while the program is in operation, enabling awardees to better generate insights from each other for ongoing improvements. It also *“leverages the collective power and expertise of all 60 coalitions to ensure that the BBBRC investments provided through the U.S. Economic Development Administration (EDA) have even more impact on our national competitiveness and broad-based growth.”*





6 *Involving Communities in Program Data Decisions*

Involving communities in program data design, collection, and evidence-building

Why engage communities in program data activities?

In 2022–23, the White House National Science and Technology Council (NSTC) Subcommittee on Equitable Data commissioned a working group to focus on the topic of ***Community Engagement and Accountability for Equitable Data***.

The group regularly convened representatives from 13 agencies to learn from each other. The group issued a [Request for Information \(RFI\)](#) from the public and analyzed 170 submissions. In addition, the group held listening sessions with experts from local government, think tanks, and researchers.

The group found that engagement with community partners on program data activities is helpful for:

- Better collecting and producing data,
- Ensuring that data are accessible and useful by communities, and
- Being responsive to the needs of communities.



*Community Engagement for Equitable Data,
A National Science and Technology Council
Subcommittee on Equitable Data 2023*



Roles community partners can fill in data initiatives

The NSTC Working Group on Community Engagement for Equitable Data found that community partners, intermediary organizations who represent the interests and needs of communities, can be instrumental for promoting trust in federal program data administration efforts and incentivizing community participation.

Community partners can be involved in data initiatives in many ways. Some specific areas include:

- **Planning data initiatives:** Community partners can help ensure that initiative design and objectives reflect community interest in equity, inform data definitions and measurement, address power imbalances, and increase validity of data and analysis results.
- **Data collection:** Community partners can help promote awareness and outreach for program data collection efforts, as well as serve as a liaison for engaging local communities in the data collection process itself.
- **Data access, dissemination, and sustainability:** Community partners can help the public access data for analysis, as well as help communities understand the insights and implications of the analysis. Community partners can also help drive sustainability of the program data efforts beyond the initial federal investment.

U.S. Department of Commerce

Equitable Data Playbook



Community engagement considerations for DOC bureaus

The NSTC Working Group on Community Engagement for Equitable Data identified the following considerations for engaging communities in program data administration activities.

- **Review existing federal statutes** to understand what data can be shared, with whom, how it can be accessed, and what can be done with it.
- **Plan and fund specific capabilities needed by federal agencies and community partners to engage in program data activities together.** Federal capabilities can include the ability to identify communities, the ability to conduct community needs assessments, the development of community context knowledge, time to plan a community engagement, and staff and budgetary resources. Community partner capabilities can include data literacy skill-building, methodological expertise, an understanding of how to work with federal partners and advocate for community interests, adequate IT infrastructure, and staff and budgetary resources.
- **Include and align community goals with federal goals** to ensure mutual benefit to both parties.
- **Establish data standards and support for non-federal data collection and analysis.** Provide technical assistance and standards for data harmonization, linking, and other infrastructure to support community-led data efforts.

Case Study

NOAA's Climate and Equity Roundtables and Pilot Projects

What it is: NOAA convened a series of [Climate and Equity Roundtables](#) across the country to gather feedback from community partners to inform how NOAA provides climate services and engages with underserved and vulnerable communities.

What makes it innovative: These events focused on understanding local community impacts related to a changing climate. They also resulted in a series of [Climate and Equity Pilot Projects](#) that are now underway.

The pilots take a unique, place-based approach to helping vulnerable communities better understand, prepare for, and respond to climate change.



Case Study

NOAA's Climate Equity Project builds equitable response to extreme heat in four cities

What it is: NOAA and partners in Las Vegas, Phoenix, Miami, and Charleston, South Carolina are launching an [18-month project](#) to help communities pinpoint local impacts of extreme heat.

The pilot project, “Building Equitable Resilience to Extreme Heat,” will support state and local initiatives designed to reduce the negative health effects of extreme heat events, especially for disproportionately affected populations.

What makes it innovative: The work in each city is specific to local needs and includes heat monitoring and planning exercises to identify heat risk reduction strategies.





7 *Epilogue*

Taking the next steps, and acknowledgments

Next steps: how do you put this playbook into action?

There are many ways to integrate equitable data practices into your program design, delivery, and evaluation.

This playbook is designed as a “menu of options” with which to start. Keep in mind, these practices are intended to help your programs evolve over time.

Start with what is feasible today.





Need help with adopting equitable data practices?

If you would like help in putting these practices into action for your program, please consult the DOC Evaluation Team for technical assistance.

Email the DOC Evaluation Officer, Shawn Klimek, at sklimek@doc.gov.



Interested in learning more about DOC equity initiatives?

The DOC embeds equity in its mission, strategic plan, and objectives.

To learn more about the DOC Equity Action Plan and ways that DOC external programs embed equity in their design, contact Ines Hernandez, the DOC Equity Counselor, at ihernandez1@doc.gov.

Ines Hernandez also leads an “External Equity” working group of the Equity Action Council, where DOC leadership and program leads convene to learn from each other and share best practices for evolving their work.

Interested in learning more about the FY25–28 DOC Data Strategy and equity-related initiatives?

The DOC Chief Data Officer team and Commerce Data Governance Board (CDGB) have published two recent reports for helping DOC bureaus evolve their equitable data management practices.

They include:

- [“Best Practices for Monitoring and Evaluating the ARP, IJJA, and Other Programs”](#) in August 2022
- [“Innovation in Reporting and Evidence-Building: Evolving Program Data Management Practices within the DOC”](#) in September 2023

In addition, the Chief Data Officer team and the CDGB will be developing an FY25–28 data strategy that includes ways to further evolve equitable data management practices, particularly for place-based community development programs.

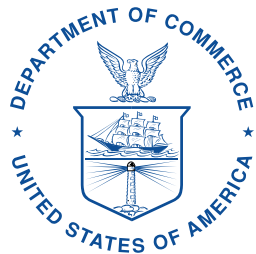
Reach out to Senior Advisor to the CDO, Shannon Arvizu, to learn more: SArvizu@doc.gov



Acknowledgements

This playbook and the ideas and content contained therein is the result of the work of several project teams throughout the Department of Commerce and the federal landscape. Below is an abridged list of those teams and their respective organizations.

- Good Jobs Challenge team (EDA)
- Build Back Better Regional Challenge team (EDA)
- Economic Development Capacity Index team (EDA/Argonne)
- Community Resilience Estimates Program (Census Bureau)
- ACCESS Broadband Dashboard team (NTIA/Census Bureau)
- Eligible Entity Planning Toolkit team (NTIA)
- Climate and Equity Roundtable team (NOAA)
- Fisheries Communities Social Vulnerability Indicators Toolbox (NOAA)
- Trademark and Patent Bootcamp team (USPTO)
- DOC Commerce Data Governance Board (CDGB) Metrics Working Group
- DOC Equity Action Council Equitable Measures Sub-Group
- White House National Science and Technology Council (NSTC) Office of Science and Technology Policy (OSTP) Deputy CTO for Tech Capacity and Chief Data Scientist team
- White House National Science and Technology Council (NSTC) Subcommittee on Equitable Data, Community Engagement Working Group
- White House National Science and Technology Council (NSTC) Subcommittee on Equitable Data, Community of Practice on Equitable Data
- GSA Office of Evaluation Sciences (OES)



U.S. Department of Commerce Equitable Data Playbook

Produced by Shannon Arvizu, Ph.D., Senior Advisor to the Department of Commerce Chief Data Officer, Office of the Under Secretary for Economic Affairs (OUSEA), and the Equitable Measures Sub-Group of the Department of Commerce Equity Action Council