INTERNET FOR ALL

BEAD Five-Year Action Plan-Digital Equity Plan Alignment Guide

U.S. Department of Commerce

National Telecommunications and Information Administration

Introduction

This guide was created to support entities receiving Initial Planning Funds for the Broadband Equity, Access, and Deployment (BEAD) Program and recipients of the State Digital Equity Planning Grant (DE Planning) Program, which is one of the Digital Equity Act Programs. As eligible participants in both programs, it is critical that states and territories ("Participants") align their efforts because the programs have shared objectives. The BEAD Program begins with Initial Planning Funds for planning and pre-deployment activities, including for the creation of a *Five-Year Action Plan*, and the Digital Equity Act Programs begin with State Digital Equity Planning Grants to create a *State Digital Equity Plan*.

Participants should view their projects funded by the BEAD and the DE Planning Programs as complementary efforts aimed at the unified objective of closing the digital divide.

This guide is structured as follows:

    I.   Overview of BEAD and DE Planning Programs
    II.   Key Principles of Alignment

- General Guidance
- Requirements of Five-Year Action Plan and State Digital Equity Plan
- Funding Uses for the BEAD and DE Planning Programs

Equity in Broadband Infrastructure Deployment

Digital equity is a core component of the BEAD Program and must be woven throughout participants' plans and proposals. An Eligible Entity is required in its BEAD Five-Year Action Plan to identify digital equity and inclusion needs, goals, and implementation strategy. This is not a "check-the-box" exercise; it is an opportunity for participants to holistically embed equity into projects. **Successful infrastructure deployment requires that all communities can meaningfully adopt and use high-speed internet services, particularly those that have historically been excluded from access**, such as communities of color, Tribal nations, and lower-income areas. NTIA expects that all communities – not just those in high-income or otherwise privileged areas – receive the same quality and speed from infrastructure funded by the BEAD Program; deprioritizing historically marginalized communities due to lack of political will or logistical complications will not be tolerated. This prioritization underscores the BEAD Program's primary focus on providing service to unserved and underserved areas, which is critical to advancing digital equity.

Overview of the BEAD & DE Planning Programs

BEAD Program

The BEAD Program provides $42.45 billion to expand high-speed Internet access by funding planning, infrastructure deployment, mapping, and adoption programs in all 50 states, Washington, D.C., Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands. Priority areas for expanding access are unserved and underserved locations.

After submitting their Letter of Intent and Request for Initial Planning Funds, BEAD participants will create and submit to NTIA:

- **Five-Year Action Plan,** which establishes the participant's goals and priorities and serves as a comprehensive needs assessment that will inform its Initial Proposal
- **Initial Proposal,** which is the "first draft" of the participant's Final Proposal for grant funding and should explain how the participants intends to ensure every resident has access to a reliable, affordable, high-speed broadband connection
- **Final Proposal,** which describes how the participant complied with the Initial Proposal and the results of its processes

See Section I.B.2. of the BEAD Notice of Funding Opportunity (NOFO) for the full process of the BEAD Program.

This guide will focus on aligning the development of the BEAD Five-Year Action Plan with the Digital Equity Plan developed under the DE Planning Program.

State Digital Equity Planning Grant Program

The DE Planning Program is a $60 million grant program for all 50 states, Washington, D.C., and Puerto Rico to develop Digital Equity Plans. Other U.S. territories, as well as Native American Tribes, Alaska Native entities, and Native Hawaiian organizations are also eligible for DE Planning Program funding via a separate statutory set-aside and separate program requirements. Digital Equity Plans should be developed in partnership with BEAD program planning.

Both Programs	DE Planning Program Only
❖ All 50 U.S. states ❖ D.C. ❖ Puerto Rico ❖ U.S. Virgin Islands ❖ Guam ❖ American Samoa ❖ Commonwealth of the Northern Mariana Islands	❖ Indian Tribes, Alaska Native entities, Native Hawaiian organizations

The DE Planning Program is the first of three programs launched by the Digital Equity Act (DEA). Two other programs are forthcoming: the State Digital Equity Capacity Grant Program and the Digital Equity Competitive Grant Program. The DEA programs provide funding to promote digital inclusion and advance equity for all. They aim to ensure that all communities can access and use affordable, reliable, high-speed Internet to meet their needs and improve their lives.

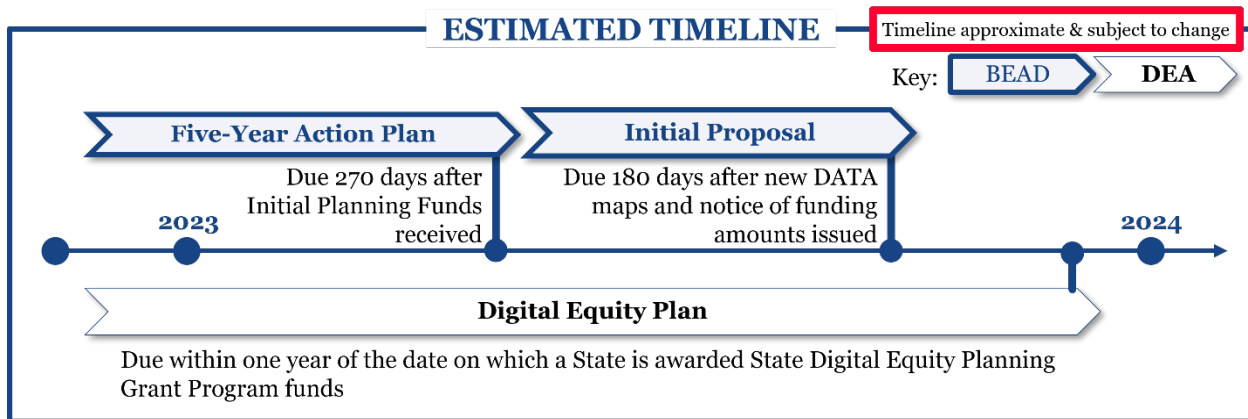| State Planning	State Capacity	Competitive
$60M formula funding program to develop Digital Equity Plans	$1.44B formula funding program to implement plans & promote digital inclusion	$1.25B to implement digital equity and inclusion activities

After submitting their DE Planning applications (States, including the District of Columbia and Puerto Rico) or Letters of Intent (U.S. territories and possessions other than Puerto Rico), DE Planning participants will receive planning grant funds allocated according to the State Digital Equity Planning Grant Program NOFO to fund the development of their Digital Equity Plan.

Following the development and approval of their Plan, entities participate in the State Digital Equity Capacity Grant Program to implement the Plan.

State Digital Equity Planning Grant and BEAD Timing

An approximate timeline for the DE Planning Program, the State Digital Equity Capacity Grants, and the BEAD Program is below. It is important that states develop their Digital Equity Plans concurrently with their Five-Year Action Plans and Initial Proposals for BEAD. Close coordination between both tasks will limit duplicative efforts for the planners, limit the burden on stakeholders, and help drive better outcomes.

Bear in mind that the BEAD Five-Year Action Plan is due before the Digital Equity Plan. Because some requirements of the Five-Year Action Plan can be met with the State Digital Equity Plan, states should pace the development of their Digital Equity Plan so that a version can be included within the Five-Year Action Plan. States can continue to develop the Digital Equity Plan to fulfill the DE Planning Program requirements until it is due.

ESTIMATED TIMELINE — Timeline approximate & subject to change

Key: BEAD DEA

Five-Year Action Plan
Due 270 days after Initial Planning Funds received

Initial Proposal
Due 180 days after new DATA maps and notice of funding amounts issued

2023   2024

Digital Equity Plan
Due within one year of the date on which a State is awarded State Digital Equity Planning Grant Program funds

Key Principles of Alignment

General Guidance

While the planning processes and end products for the BEAD Five-Year Action Plan and the State Digital Equity Plan may necessarily be separate, they should be intentionally linked, complementary, and mutually supportive of obtaining the same goals. To establish a strong synergy and joint accountability between the two plans, states should consider adopting the following principles:

Integrated Teaming

There should be overlap—or at least substantial interaction—between the team(s) tasked with developing the Five-Year Action Plan, Initial Proposal, and Final Proposal for BEAD and those tasked with developing the State Digital Equity Plan. At a minimum, this should include formal and direct communication and collaboration pathways between the teams that remain in place throughout the entire planning process. As a best practice, Eligible Entities (BEAD) and Administering Entities (DE Planning) should establish one unified team that is developing the BEAD Five-Year Action Plan and the State Digital Equity Plan. However, in the case that two separate teams are involved, there are other ways to ensure continuous collaboration.

For Example:

- *Include at least one member of the BEAD planning team on the State Digital Equity planning team*
- *Include at least one member of the DE planning team on the BEAD planning team*
- *Establish a clear process to share information gathered from stakeholders across the team(s), given the interconnected nature of availability and adoption*
- *Ensure that DE planning progress is shared on recurring BEAD meetings and vice versa, to ensure frequent opportunities for knowledge sharing and streamlining of efforts*

Equity Throughout

Participants should integrate digital inclusion throughout the BEAD Program. BEAD funds can be used for high-speed internet adoption projects, subject to the prioritization scheme laid out in the NOFO, if eligible entities have a plan to address deployment to unserved and underserved communities. As participants develop the BEAD Five-Year Action Plan, where appropriate, they should consider where BEAD funds can support broadband adoption projects.

In addition, states should prioritize unserved and underserved areas to infuse both the Five-Year Action Plan and the Digital Equity Plan with digital equity at their cores. States can accomplish this by ensuring stakeholder engagement plans are comprehensive enough to provide a clear landscape of covered populations' access to high-speed internet. Then, states should prioritize the outputs from sessions with covered populations and those in unserved and underserved communities in formulating their plans.

For Example:
- *Ensure all employees and team members have a baseline understanding of equity as it relates to the digital divide; NTIA has resources that can be leveraged to increase understanding, including a Digital Equity Guide for States and dedicated Federal Program Officers*
- *Partner with trusted community-based organizations to assist eligible households with enrolling in the Affordable Connectivity Program (ACP) or other programs targeted to low-income consumers within BEAD-funded networks*
- *Integrate local digital inclusion programming into their outreach initiatives*
- *Prioritize outreach in low-income neighborhoods, particularly historically disconnected communities*

Cohesive Stakeholder Engagement

All local coordination, stakeholder engagement, and outreach—including with tribal and native entities– should be coordinated early on and done in tandem for both the BEAD Program and the DE Planning Program to fulfill the requirements of both programs. Conducting outreach as a cohesive effort for the two programs will reduce the burden and confusion on community stakeholders.

For Example:

- *Assemble comprehensive lists of stakeholders, identify overlaps, and coordinate or combine outreach to those stakeholders*
- *Plan & host combined listening sessions, surveys, and site visits*

Coordinated Data Collection and Asset Mapping

Data collection to understand the current maturity of state broadband programs, office staff, and digital inclusion efforts is a key aspect of both the Five-Year Action Plan and Digital Equity Plan. Coordinating or sharing outcomes from data collection will be key to reaching a consensus on where and why gaps in adoption exist.

For Example:

- *Develop surveys and conduct asset mapping in tandem; the inventory should include current resources, programs, and strategies that promote digital inclusion for each of the covered populations, whether publicly or privately funded, as well as existing digital equity plans and programs already in place among municipal, regional, and Tribal governments*
- *Ensure that BEAD teams are collecting data from stakeholders with a strong understanding of how equity concerns impact the digital divide; this can be accomplished by including a member of the team engaged in developing the Digital Equity Plan*
- *Create a matrix (or another tool) to assess the eligible uses of all available funding and to identify and coordinate the funding that can be utilized to support digital inclusion strategies*
- *Note any specific digital inclusion efforts; existing funds may come from agencies like Institute of Museum and Library Services (IMLS), Appalachian Regional Commission (ARC), or the USDA. Other sources could include the Coronavirus Aid, Relief, and Economic Security (CARES) Act, the American Rescue Plan Act (ARPA), or the Universal Service Fund (USF).*

Aligned Plan Development

Aligning the goals and strategies of the BEAD Five-Year Action Plan and the State Digital Equity Plan will increase the impact of both. Both plans aim to close the digital divide, and must address digital equity. Ensure their methods are well integrated.

For Example:

- *Build on BEAD's required low-cost service programs in the State Digital Equity Plan*
- *Convene leaders who will develop the Five-Year Action Plan and Digital Equity Plan at the start of the grant period to coordinate activities and strategies for plan development (1-2 months in)*
- *Connect regularly (e.g., bi-weekly or monthly) to track progress on overlapping activities (stakeholder engagement, asset mapping, data collection)*
- *Schedule time/space to review the Five-Year Action Plan and Digital Equity Plan draft 1-2 months prior to Five-Year Action Plan due date to ensure alignment and integration*

Requirements of Five-Year Action Plan and State Digital Equity Plan

The Five-Year Action Plan and the State Digital Equity Plan—the first outputs of the BEAD and DEA Programs, respectively—must adhere to specific requirements in each NOFO.[1] In many of the 13 requirements for the Five-Year Action Plan, there are opportunities to infuse digital inclusion activities to both satisfy requirements for the State Digital Equity Plan and ensure that digital inclusion is a core component of high-speed internet planning.

The tables below detail Five-Year Action Plan requirements and corresponding digital inclusion activities that are complementary. These activities are recommended to be undertaken simultaneously and/or through a singular effort by the same team.

The clearest connection between the Five-Year Action Plan and the State Digital Equity Plan is Requirement #11 for the Five-Year Action Plan (see below). This requirement may be satisfied by completing the State Digital Equity Plan. Thus, participants can and should develop both plans concurrently. Participants should submit a draft Digital Equity Plan within the Five-Year Action Plan and then submit the expanded, final State Digital Equity Plan as a standalone document under the DE Planning Program. Additionally, the Five-Year Action Plan should encapsulate any relevant tribal digital equity plans in order to present a holistic view of efforts to close the digital divide.

Five-Year Action Plan Requirement	Digital Equity Plan Requirement
#7 External Engagement[2] Detail external engagement process, demonstrating collaboration with local, regional, and Tribal (as applicable) entities (governmental and non-governmental).	• A description of how the State plans to collaborate with key stakeholders in the State[3] • A list of organizations with which the Administering Entity for the State collaborated in developing the Plan[4] • A coordination and outreach strategy, including ongoing engagement with representatives of each category of covered populations within the State and with the full range of stakeholders within the State[5]
Recommended Actions: ❑ Create comprehensive stakeholder engagement plans and timelines that account for both BEAD and DE Planning Program outreach, ensuring balance in the stakeholder outreach and coordination of program-specific outreach activities. ❑ The Five-Year Action Plan developed using Initial Planning Funds from the BEAD program must be informed by collaboration with Tribal entities as applicable. It is the responsibility of the Eligible Entity under the BEAD program and a state's Administering Entity for the State Planning Grant to understand the landscape of tribal and native entities to coordinate with & initiate stakeholder communication. Tribal	

---

[1] BEAD Program NOFO Section IV.B.3.b; *see also* SDEG Program NOFO Section IV.C.1.b.
[2] BEAD Program NOFO Section IV.B.3.b.7.
[3] SDEG Program NOFO Section IV.C.1.b.i.4.
[4] SDEG Program NOFO Section IV.C.1.b.i.5.
[5] SDEG Program NOFO Section IV.C.1.b.ii.4.

entities are also eligible to create their own digital equity plans through the State Digital Equity Planning Grant; State Digital Equity Planning Grant funding may be used to create Tribal digital equity plans and/or to support Tribal participation in the creation of relevant State Digital Equity Plans. BEAD Five-Year Action Plans should aim to encapsulate not only State Digital Equity Plans but also any relevant tribal digital equity plans in order to present a holistic view of efforts to close the digital divide.

Five-Year Action Plan Requirement	Digital Equity Plan Requirement
#11 Digital Equity & Inclusion Needs[6] Provide digital equity and inclusion needs, goals, and implementation strategies, including ways in which the Eligible Entity plans to utilize BEAD funding, Digital Equity Act funding, and/or other funding streams in concert to remedy inequities and barriers to inclusion. Be sure to include: ❏ Results of a needs assessment for underrepresented communities ❏ Asset inventory of ongoing digital equity activities, Detailed explanation of holistic strategies around affordability, devices, digital skills, technical support, and digital navigation.	• A stated vision for digital equity[7] • A digital equity needs assessment, including each State's identification of the barriers to digital equity faced generally and by each of the covered populations in the State[8] • An asset inventory, including current resources, programs, and strategies that promote digital equity for each of the covered populations, whether publicly or privately funded, as well as existing digital equity plans and programs already in place among municipal, regional, and Tribal governments[9] • A description of how municipal, regional, and/or Tribal digital equity plans will be incorporated into the State Digital Equity Plan[10] • A holistic implementation strategy that addresses affordability, devices, digital skills, technical support, and digital navigation, with core activities that address the needs of covered populations[11] • An explanation of how the implementation strategy addresses gaps in existing state, local, and private efforts to address the barriers identified[12] • A timeline for implementation of the plan[13]

---

[6] BEAD Program NOFO Section IV.B.3.b.11
[7] SDEG Program NOFO Section IV.C.1.b.ii.1
[8] SDEG Program NOFO Section IV.C.1.b.ii.2
[9] SDEG Program NOFO Section IV.C.1.b.ii.3
[10] SDEG Program NOFO Section IV.C.1.b.ii.5
[11] SDEG Program NOFO Section IV.C.1.b.ii.6
[12] SDEG Program NOFO Section IV.C.1.b.ii.7
[13] SDEG Program NOFO Section IV.C.1.b.ii.9

	• A description of how the State will coordinate its use of State Digital Equity Capacity Grant funding and its use of any funds it receives in connection with the BEAD Program, other federal, or private digital equity funding[14]

Recommended Actions:
- ❑ Develop a comprehensive stakeholder engagement plan that will provide a full view of ongoing high-speed internet infrastructure and adoption programs within the State, ensuring that they are collecting data from stakeholders with a strong understanding of how equity concerns impact the digital divide; compare and combine any overlapping outreach efforts
- ❑ Combine outreach to state and local agencies in economic development, health, education, etc. to drive alignment across BEAD and DE programs
- ❑ Identify common objectives and metrics to measure progress on outcomes, including linking program success metrics through assessing how digital education and adoption programs funded through the Digital Equity Capacity Grant Program impact adoption funded by the BEAD Program

Five-Year Action Plan Requirement	Digital Equity Plan Requirement
#12 Plan Alignment[15] Detail alignment of the Five-Year Action Plan with other existing and planned economic development, telehealth, workforce development, related connectivity efforts, and other Eligible Entity priorities.	• An assessment of how the measurable objectives will impact and interact with the State's: a. Economic and workforce development goals, plans, and outcomes; b. Educational outcomes; c. Health outcomes; d. Civic and social engagement; and e. Delivery of other essential services[16] • A description of how the State intends to accomplish the implementation strategy described above by engaging or partnering with: a. Workforce agencies such as state workforce agencies and state/local workforce boards and workforce organizations; b. Labor organizations and community-based organizations; and c. Institutions of higher learning, including but not limited to four-year colleges and universities,

---

[14] SDEG Program NOFO Section IV.C.1.b.ii.10
[15] BEAD Program NOFO Section IV.B.3.b.12
[16] SDEG Program NOFO Section IV.C.1.b.i.3

	community colleges, education and training providers, and educational service agencies[17]
Recommended Actions: ❑ Develop an outreach plan to state and local agencies in economic development, health, education, etc. with alignment from BEAD and DE team(s) on points of discussion and coordination between existing and planned efforts ❑ Identify common objectives and metrics to measure progress on outcomes ❑ Given that a skilled workforce is critical to meeting infrastructure buildout timelines under the Infrastructure Act, BEAD funding recipients are allowed to allocate grants for training and workforce development. States should consider within their Five-Year Action Plans and Digital Equity Plans how they will advance equitable workforce development. In addition, states should look to understand how entities that carry out workforce development programs could be engaged to inform the Five-Year Action Plan and Digital Equity Plan, and streamline that engagement.	

Funding Uses for the BEAD and DE Planning Programs

Similar to the requirements for the Five-Year Action Plan and the State Digital Equity Plan, the eligible uses of funds across the two programs overlap. States should establish practices that ensure proper accounting, as states cannot duplicate expenses for the same line item. Understanding where eligible uses for funds overlap is critical to maximizing how funds are spent.

The table below lists activities the Initial Planning Funds can be used for (*see* Section IV.B.2 of the BEAD NOFO) and indicates which activities complement digital equity plan development.

Eligible Uses for BEAD Initial Planning Funds	Complementary Activity for DE Plan Development
Research and data collection, including initial identification of unserved locations and underserved locations consistent with the rules, regulations, and processes the Federal Communications Commission has established for making these determinations in the Broadband DATA Maps	✓
The development of a preliminary budget for pre-planning activities	
Publications, outreach, and communications support related to planning, deployment, mapping, equity and adoption	✓
Providing technical assistance to potential subgrantees, including through workshops and events	✓
Training for employees of the broadband program or office of the Eligible Entity or employees of political subdivisions of the Eligible Entity, and related staffing capacity or consulting or contracted support to effectuate the goals of the BEAD Program	✓

[17] SDEG Program NOFO Section IV.C.1.b.ii.8

Eligible Uses for BEAD Initial Planning Funds	Complementary Activity for DE Plan Development
Establishing, operating, or increasing capacity of a state broadband office that oversees programs and deployment in an Eligible Entity	✓
Asset mapping across the Eligible Entity to catalogue broadband adoption, affordability, equity, access and deployment activities occurring within the Eligible Entity	✓
Conducting surveys of unserved, underserved, and underrepresented communities to better understand barriers to adoption	✓
Costs associated with meeting the local coordination requirements, including capacity building at the local and regional levels or contracted support	✓
Reasonable post-NOFO, pre-Initial Planning Funds expenses in an amount not to exceed $100,000 relating to the preparation of program submissions to NTIA (such as the Letter of Intent) or adding additional capacity to State or Territorial broadband offices in preparation for the BEAD Program may be reimbursed if they are incurred after the publication date of this NOFO and prior to the date of issuance of the grant award from NTIA	
Other uses approved in advance writing by the Assistant Secretary (including in response to an Eligible Entity's request) that support the goals of the Program	

Meanwhile, Section IV.C.1.a of the DE Planning Program NOFO details the two allowable uses of State Digital Equity Planning Grant Funds, which are:

- To develop the State Digital Equity Plan for the State, and
- To make subgrants to eligible entities to assist in the development of the State Digital Equity Plan of the State

INTERNET
FOR ALL

Digital Equity Guide for the States

How to Prepare for
Success in Your State

National Telecommunications and
Information Administration

Table of Contents

Introduction

To achieve digital equity, deploying broadband to every household in the United States — even with scalable, future-proof technologies — will not be enough, nor will a federal subsidy designed to make the Internet more affordable for low-income house- holds. Instead, robust, comprehensive programs that address the human side of the issue, and the technology must be designed and implemented across the country to create systems that work for everyone, where everyone has access to the technologies, skills, and opportunities necessary to thrive.

Achieving **digital equity** in the United States would mean that all the nation's individuals and communities have the information technology capacity needed for full participation in our society, democracy, and economy. Digital equity is necessary for civic and cultural participation, employment, lifelong learning, and access to essential services.
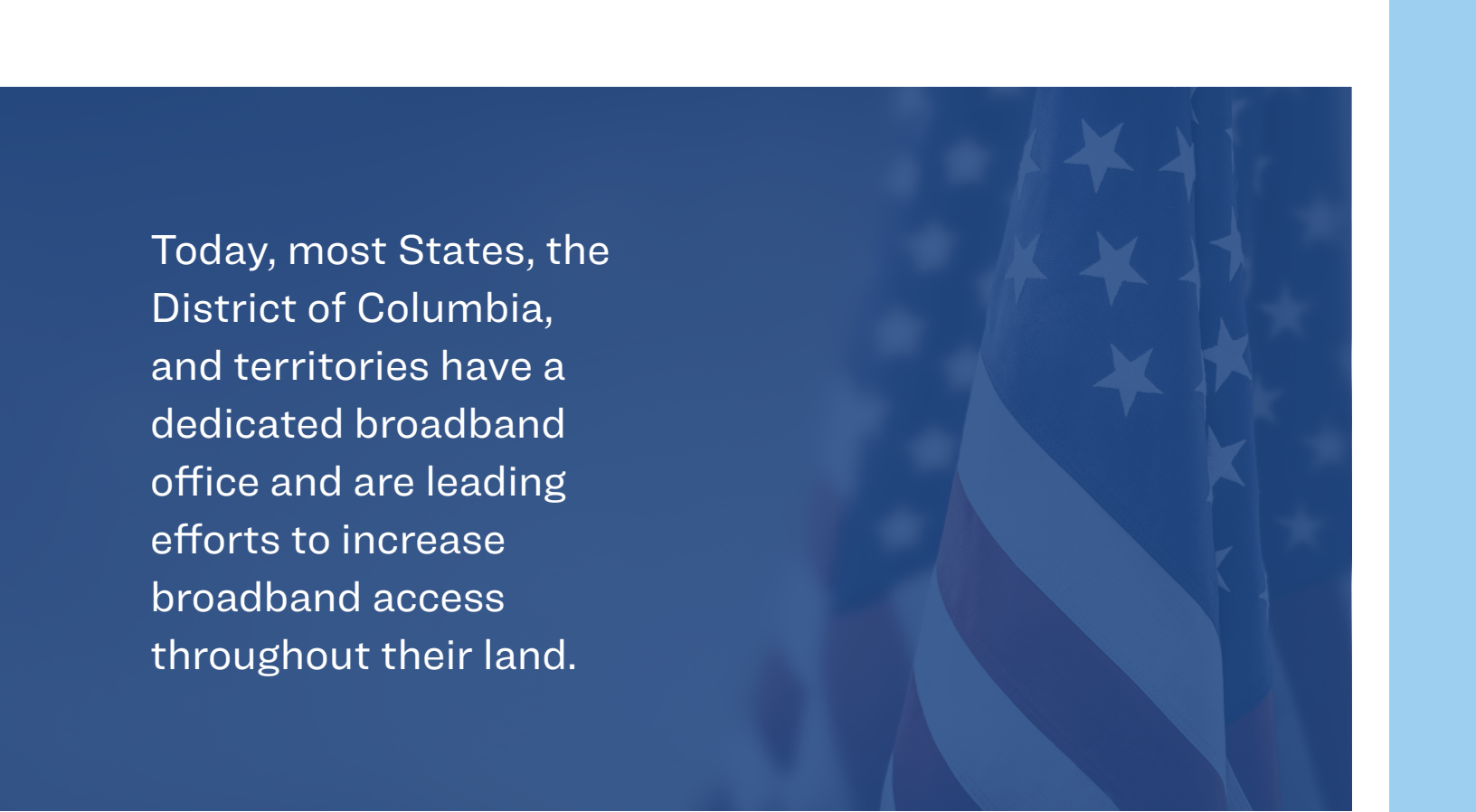
Congress allocated the most significant investment in digital equity and broadband in US history — $65 billion — through the Infrastructure Investment and Jobs Act, also known as Bipartisan Infrastructure Law (BIL). This investment should develop and implement systemic solutions if implemented with the understanding that digital equity is a long-term challenge. The bulk of the BIL broadband funds –including those allocated through the **Digital Equity Act** (DEA) – identify States and territories as key actors in closing the digital divide.[1] As such, States will manage much of the funding allocated through the BIL and the

various COVID recovery acts. States are uniquely positioned to lead cross-sector, cross-departmental, multifaceted digital inclusion activities that drive impact. A State's knowledge, coordination, and convening abilities and expertise, combined with its relationships with local governments and residents, make it a logical leader in promoting and expanding digital equity.

This guide includes the basics of digital equity, an overview of the DEA — recommendations for preparing for the planning requirements, recommendations for weaving digital equity throughout all State-led broadband activities, and ideas and best practices from other States with digital inclusion activities underway or in process. Where possible, templates and tools are included to simplify the pre-planning process for States.

States can now undertake simple, tactical steps to prepare for future planning and eventual implementation of digital equity strategies. This guide provides practical support to States as they begin that process, and over the coming months and years, NTIA will continue to provide more support and resources for States as they implement the DEA programs.

1   For brevity, this document uses States to refer to both States and territories

Today, most States, the
District of Columbia,
and territories have a
dedicated broadband
office and are leading
efforts to increase
broadband access
throughout their land.

However, few have had the resources, capacity, or political support to develop a robust digital equity strategy. Nevertheless, broadband access and digital inclusion are inextricably linked and mutually reinforcing. Thus, State broadband offices are natural homes for State-led digital inclusion work. BIL provides States the opportunity to step back and thoughtfully design a Statewide digital equity strategy to meet the unique needs of each State's residents holistically, leverage the State's assets, and identify innovative and creative solutions to achieve digital equity within the State.

States are also currently managing and disbursing their State-allocated funds and federal funds from several different grant programs like the Capital Project Funds (CPF), State and Local Fiscal Recovery Funds (SLFRF), and the Broadband Equity, Access, and Deployment (BEAD).

The **State Digital Equity Planning Grant** (SDEPG) NOFO was released on May 13th, 2022, and all fifty States, the District of Columbia and Puerto Rico submitted their applications by the deadline. In addition, the four eligible territories and hundreds of Tribal Nations have also submitted Letters of Intent to participate in the State Digital Equity Planning Grant program. Tribal entities can also apply for subgrants through their State or territory's digital equity program. This guide is a tool to help States prepare for the forthcoming planning opportunity the DEA provides.

Digital Equity 101

Since its inception, the Internet has had the potential to be the great equalizer of our time. Thanks to the Internet, at no other time in history, has it been easier to start a business from home, communicate with loved ones across oceans and time zones, work and learn remotely, receive healthcare services even if you live hours from a medical provider, and engage in any other of the thousands of opportunities the Internet brings into a person's home. Yet, unfortunately, too many U.S. residents continue to be disconnected from the Internet and the opportunities it provides access to and arguably has accentuated disparities where they exist.

The COVID-19 pandemic crystallized the consequences of how disconnection negatively impacts individuals' lives. Everyone deserves a right to reliable, affordable, high-speed Internet. However, persistent disparities exist in the United States regarding who has reliable and affordable broadband access, how they access it, and their abilities to

benefit from it. When thinking about broadband access, there are two distinct elements to consider:

- **Broadband availability** - Broadband availability refers to the ability of a household to subscribe to broadband service at a speed, quality, and capacity needed to accomplish everyday online tasks.
- **Broadband adoption** - Broadband adoption refers to a household's
  - active subscription to broadband service at a speed, quality, and capacity needed to accomplish every day and critical online tasks,
  - possession of the digital skills necessary to accomplish such tasks and,
  - ability to do so on a personal device and secure convenient network.[2]

2   Rhinesmith, Colin, Digital Inclusion and Meaningful Broadband Adoption Initiatives, Benton Foundation, January 2016, at 8, **link**.

Figure 1

Broadband & Computer Access
by Race and Ethnicity % of Households[3]

No Home Broadband Internet Subscription or No Computer

American Indian/ Alaskan Native	Black/African American	Native Hawaiian/ Other Pacific Islander	Some Other Race	Hispanic or Latino	White (Not Hispanic or Latino)	Two or More Races	Asian
22.1%	16.1%	13.2%	13.0%	12.4%	9.4%	6.8%	5.1%
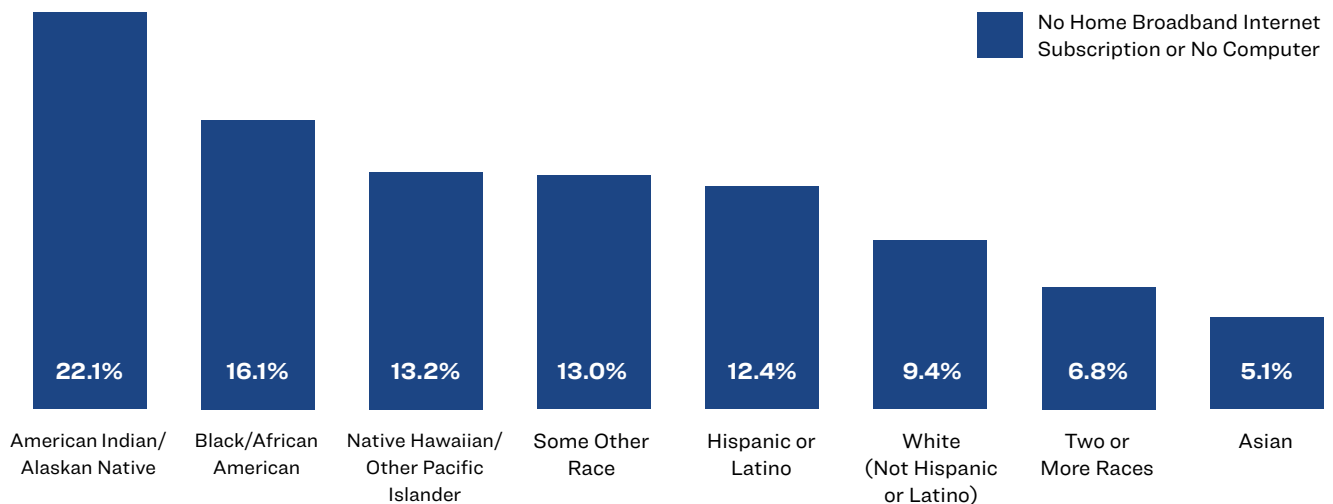
3   1-Year American Community Survey, U.S. Census Bureau, Presence of a Computer and Type of Internet Subscription in House-hold by race and ethnicity [Tables B28009A-H] (2019), **link**.

The groups most affected by the digital divide are many of the same that were most severely impacted by the pandemic and have consistently experienced social inequities over time.

According to the American Community Survey (ACS), 14.5 million households — 12 percent of all households in the country — had Internet access only through a cellular data plan, and 16.7 million households (14 percent of all households) had no home broadband subscriptions of any kind in 2019, including a cellular data plan.[4] However, low-income households, older adults, and certain racial and ethnic groups lack broadband and computer access at higher rates than the general population.

Among low-income households (making less than $35,000 per year), 30 percent lack a home Internet subscription.[1]

Among persons 65 years of age and older, 22 percent lack broadband or a computer in their household.[5]

Efforts to bridge the digital divide and work toward digital equity began in the early- to mid-1990s, primarily as grassroots efforts focused on improving digital skills through class training and public computer labs. In the 2000s community-based organizations and anchor institutions began investing in and creating what is now called digital equity programs, focused on addressing one or more of the five elements of digital inclusion:

1. Affordable, robust broadband Internet service
2. Internet-enabled devices that meet the needs of the user
3. Access to digital literacy training
4. Quality technical support
5. Applications and online content are designed to enable and encourage self-sufficiency, participation, and collaboration

4 1-Year American Community Survey, U.S. Census Bureau, Household Income in the Last 12 Months (In 2020 Inflation-Adjusted Dollars) by Presence and Type of Internet Subscription in Household [Table B28004] (2019), **link**.

5 1-Year American Community Survey, U.S. Census Bureau, Age by Presence and Type of Internet Subscription in Household [Table B28005] (2019), **link**.

Figure 2

Data from the ACS Survey

12% of all households had a cellular data plan only

16.7 million households (14%) had no home broadband subscription

Definition

Digital Inclusion

Refers to the activities necessary to ensure that all individuals and communities, including the most disadvantaged, have access to and use of information and Communication Technologies.

- Affordable, robust broadband
- Internet service
- Internet-enabled devices that meet the needs of the user
- Access to digital literacy training
- Quality technical support
- Applications and online content are designed to enable and encourage self-sufficiency, participation, and collaboration

Digital Inclusion must evolve as technology advances. Digital Inclusion requires intentional strategies and investments to reduce and eliminate historical, institutional, and structural barriers to access and use technology.

At its core, digital equity work requires trust to succeed. The community members who would benefit most from support services often experience disenfranchisement and have seen their communities and neighbors overlooked by institutions. An inherent distrust of technology, borne from a lack of confidence or past negative experiences, can make people hesitant to engage with online resources. Moreover, logistically, those lacking broadband access are inherently harder to reach as outreach tools are increasingly digital.

For these reasons, trusted community-based organizations are fundamental to developing impactful digital inclusion programs. They have known entities with existing relationships and a history of providing services to the community, and digital inclusion programs are often a logical extension of their work. The types of organizations that develop digital inclusion programs can vary greatly depending on the character and needs of the community. However, some of the most common include small community-based organizations, libraries, public housing authorities, local governments, senior centers, schools and academic institutions, faith-based organizations, and social service organizations.

As the U.S. continues on the path toward digital equity, individuals will experience real, tangible outcomes. They'll enjoy improved and remote education for lifelong learning, more options to receive care to stay healthy, and expanded job opportunities. More job opportunities, which leads to meaningful employment, is the key that will continue to unlock other opportunities for this generation and the next.

The availability of broadband, along with the digital skills to take advantage of it, opens the door for all individuals to be active, productive members of the work- force. With access to high-speed Internet, they can search for open job postings and do online research to help them get the job. With digital literacy, they can thrive in those jobs and help advance themselves and their families economically, as well as the country as whole. By investing in digital equity efforts, the U.S. is investing in a 21st century workforce – one that leads to real outcomes of families enjoying richer, fuller and healthier lives.

As the importance of digital inclusion work has gained awareness (and funding), and as more organizations establish digital inclusion programs and services, the need for collaboration at the local and State levels has become apparent. The first community-wide digital inclusion coalitions formed about ten years ago in Philadelphia, Kansas City, and Portland, followed by a few others shortly after that. In these communities, and in many more since, anchor institutions, direct service providers, local governments, and other key partners recognized a growing but disconnected network of organizations and programs working to meet the digital inclusion needs of underserved residents. Intending to coordinate efforts and form a complete **digital equity ecosystem**, they began convening and eventually formalized as digital inclusion coalitions.

The coalition model has proven to be a particularly effective way to organize digital inclusion efforts across communities. Based on a recent survey the National Digital Inclusion Alliance (NDIA) conducted in the field, there are now more than 50 digital inclusion coalitions across the country. For more information on the strengths, organizing principles, and effective strategies for establishing and sustaining digital inclusion coalitions, refer to **NDIA's Digital Inclusion Coalition Guidebook**.[6]

The last and only major federal funds dedicated to broadband adoption and digital inclusion efforts were through the **Broadband Technology and Opportunities Program (BTOP)**[7], established under the **American Recovery and Reinvestment Act (ARRA)**[8], which invested approximately $4 billion in broadband adoption projects across the country. However, many of these projects funded by this program sunset with the program in 2015.

In **2019**[9], many States began broadband deployment programs to extend service in rural and unserved areas, but digital inclusion activities remained largely unfunded. Local governments, like the city of Seattle in 1996, began investing personnel and funds towards what were then called community technology programs.[10] In the past decade, more cities began dedicating personnel to the issue to lead initiatives, coalitions, and interdepartmental work.

6   NDIA, Digital Inclusion Coalition Guidebook, Version 2022 (2022), **link**.
7   NTIA, Broadband Technology Opportunities Program, **link**.
8   American Recovery and Reinvestment Act of 2009, 111 P.L. 5, 123 Stat. 115, **link**.
9   The Pew Charitable Trusts, How States Are Expanding Broadband Access: New research identifies tactics for connecting unserved communities(2020), **link**.
10   Seattle Information Technology, Digital Equity (2022), **link**.

However, digital inclusion programs have generally relied on bootstrapped means of obtaining funding for their work. Despite these and other impactful efforts in recent years, a 2021 study by the Pew Research Center found that, while some gains have been made, gaps in digital equity remain stubbornly persistent according to factors of income[11], race[12], age[13], and disability status.[14] As such, the infusion of funds to the field through the various COVID relief acts and the BIL, including the DEA, are meaningful steps towards creating the systems necessary to achieve digital equity.

11   Vogels, Emily A., Digital divide persists even as Americans with lower incomes make gains in tech adoption, Pew Research Center (2022), **link**.
12   Atske, Sara. and Andrew Perrin. Home broadband adoption, computer ownership vary by race, ethnicity in the U.S., Pew Research Center (2021), **link**.
13   Faverio, Michelle, Share of those 65 and older who are tech users has grown in the past decade, Pew Research Center (2022),**link**.
14   Perrin, Andrew and Sara Atske, Americans with disabilities less likely than those without to own some digital devices, Pew Research Center (2021), **link**.

Digital Equity Ecosystem

A digital equity ecosystem is a combination of programs and policies that meet a geographic community's unique and diverse needs. Coordinating entities work together in an ecosystem to address all aspects of digital divide, including affordable broadband, devices, and skills. Indicators of a strong digital equity ecosystem:

- Existence of programs and policies addressing all aspects of the digital divide
- Affordable and subsidized broadband service options programs that meet the community's needs
- Affordable and subsidized device ownership programs that meet the community's needs
- Multilingual digital literacy and digital skill trainings that meet the community's needs
- Hardware and software technical support
- Digital navigation services to guide residents to the above services
- Collaboration: Entities providing local digital inclusion services, policymakers, advocates, social service providers, and community leaders co-create solutions in partnership with the community services

The Digital Equity Act (DEA)

Background & Overview

The DEA provides a powerful opportunity for States to step back and thoughtfully design a Statewide digital equity strategy to meet the unique needs of State residents holistically, leverage State assets, and identify innovative and creative solutions to achieve digital equity.

First introduced by U.S. Senator Patty Murray of the State of Washington in 2019, the DEA was reintroduced in 2021 with bipartisan support from Senators Rob Portman of Ohio and Angus King of Maine. It was then included in the broadband section of the BIL, allocated $2.75 billion, and signed into law by President Joe Biden on November 15, 2021.

The DEA creates two programs (broken into three grants) housed at NTIA — the **State Digital Equity Capacity Grant Program** and the **Digital Equity Competitive Grant Program**.

- **State Digital Equity Planning Grant Program**: $60 million formula grant program for States and territories to develop digital equity plans
- **State Digital Equity Capacity Grant Program**: $1.44 billion formula grant program for States and territories distributed via annual grant programs over five years to implement digital equity projects and support the implementation of digital equity plans
- **Digital Equity Competitive Grant Program**: $1.25 billion discretionary grant program distributed annually over five years to implement digital equity projects. Eligible applicants generally include a political subdivision, agency, or instrumentality of a State; tribal governments; nonprofit entities; community anchor institutions; local educational agencies; and entities that carry out workforce development programs.

Figure 3

Federal and State Led Funding Allocations
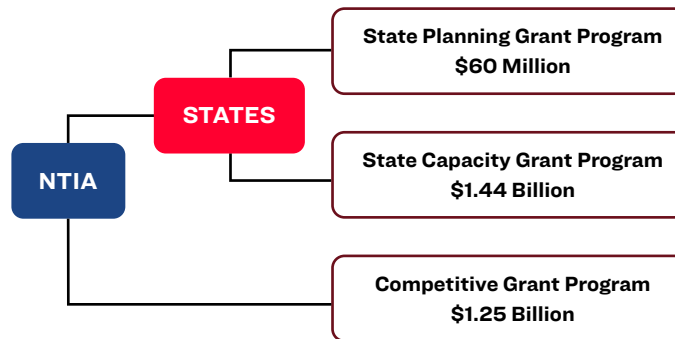
As outlined above, the State Digital Equity Capacity Grant Program contains two types of grants: (1) planning and (2) capacity. The State Digital Equity Planning Grant Pro- gram provides funding for States to develop digital equity plans, which are required to be eligible for the capacity grants. Capacity grants are what they sound like — designed to provide States with the necessary support and capacity to fund the States' digital inclusion priorities, strategies, and initiatives. The NOFO published on May 13, 2022, provides guidance for the State Digital Equity Planning Program grants, and the NOFOs for the Capacity Grant program and the Competitive Grant Program are forthcoming.

Building a Statewide digital equity plan is like building a State broadband plan or economic development plan. The primary difference is that a digital equity plan specifically and holistically addresses the digital divide and identifies strategies to close it. However, to date, no State has developed a Statewide plan with a singular focus on achieving digital equity, except for California, whose "Broadband for All" plan interweaves broadband access and digital equity goals.[15] North Carolina has hired a Digital Equity Director in 2021.[16] While lessons and best practices can be drawn from communities across the country that have created local digital inclusion plans, local plans cannot fully inform States, given that States' roles and responsibilities differ from that of local governments or community-based organizations.

The United States is diverse and so too is the diversity of its States, which lends itself to each functioning as its laboratory of democracy. Each State's character and attributes differ, and how the digital divide manifests will reflect that diversity. In turn, each State's goals, and strategies for achieving digital equity will necessarily differ. Missouri's path to digital equity will be much different from Pennsylvania's or its neighbor, Kansas. As such, each State's plan may be slightly or drastically different.

State Digital Equity Planning & Capacity Grant Program Basic

Figure 4

Funding Allocations

Total Allocated: $1.5 billion
($60 million planning grants + $1.44 billion capacity grants)

Program Administrator: National Telecommunications and Information Administration (NTIA)

15   California Broadband Council, Broadband Action Plan 2020: California Broadband for All, 2020, **link**.
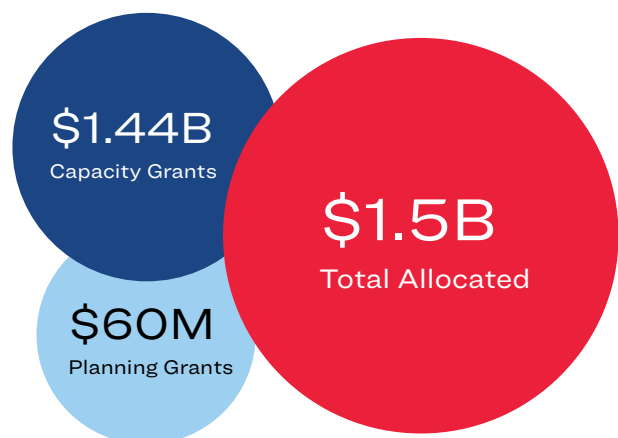16   North Carolina Department of Information Technology, Governor Cooper Establishes Nation's First Office of Digital Equity and Literacy (2021), **link**.

Figure 5

Federal Timeline & Important Dates

November 15, 2021

BIL passed with DEA included

February 4, 2022

Request for Comment (RFC) Period Closed

May 13, 2022

State Digital Equity Planning Grant Program Notice of Funding Opportunity (NOFO) Released

July 12, 2022

Applications for the State Digital Equity Planning Grant Program due to NTIA

Fall 2023

Digital equity plans due to NTIA

TBD

Request for Comments for State Digital Equity Capacity Grant Program and Digital Equity Competitive Grant Program

TBD

State Digital Equity Capacity Grant Program NOFO

TBD

Digital Equity Competitive Grant Program NOFO

Federal Action   State Action

Eligible Administering Entities[17]

- The State, or a political subdivision, agency, or instrumentality of the State;
- An Indian Tribe, an Alaska Native entity, or a Native Hawaiian organization located in the State;
- A foundation, corporation, institution, association, or coalition that is — (1) a not-for-profit entity, (2) providing services in the State; and (3), not a school
- A community anchor institution, other than a school, that is located in the State
- A local educational agency that is located in the State
- An entity located in the State that carries out a workforce development program
- An agency of the State that is responsible for administering or supervising adult education and literacy activities in the State
- A public or multi-family housing authority that is located in the State
- A partnership between any of the previously listed entities

Eligible Subgrantees[18]

- A community anchor institution
- County and municipal governments
- Local education agencies
- Indian Tribes, Alaska Native entities, or Native Hawaiian organizations
- Nonprofit organizations
- Organizations that represent:
  - Individuals with disabilities, including organizations that represent children with disabilities;
  - Aging Individuals;
  - Individuals with language barriers, including:
    - Individuals who are English learners; and
    - Individuals who have low levels of literacy;
  - Veterans; and
  - Individuals in the State who are incarcerated in facilities other than Federal correctional facilities

17 Infrastructure Investment and Jobs Act, 47 U.S.C. § 1723(b)(2) (2021). **link**.
18 Id. at § 1723(c)(1)(D) (2021).

- Civil rights organizations
- Entities that carry out workforce development programs
- Agencies of the State that are responsible for administering or supervising adult education and literacy activities in the State
- Public housing authorities in the State; and
- A partnership between any of the entities described above.

Covered Populations[19]

The DEA instructs States to understand the current State of the digital divide among key unserved or underserved populations and then to outline how the State will address those gaps with digital equity programming. The term "covered household" means a household whose income for the most recently completed year is not more than 150 percent of an amount equal to the poverty level, as determined by using criteria of poverty established by the Bureau of the Census. The NOFO and the BIL define the following as covered populations:

- Individuals who live in covered households;
- Aging individuals;
- Incarcerated individuals, other than individuals who are incarcerated in a Federal correctional facility;
- Veterans;
- Individuals with disabilities;
- Individuals with a language barrier, including individuals who:
  - Are English learners; and
  - Have low levels of literacy;
- Individuals who are members of a racial or ethnic minority group; and
- Individuals who primarily reside in a rural area.

Plan Requirements as Required by the BIL and NOFO[20]

- Identification of barriers to digital equity for covered populations in the State
- Measurable objectives for documenting and promoting among each Covered Population located in that State:
  - The availability of, and affordability of access to, fixed and wireless broadband technology;
  - The online accessibility and inclusivity of public resources and services;
  - Digital literacy;
  - Awareness of, and the use of, measures to secure the online privacy of, and cybersecurity with respect to, an individual; and
  - The availability and affordability of consumer devices and technical support for those devices.
- An assessment of how the measurable objectives will impact and interact with the State's:
  - Economic and workforce development goals, plans, and outcomes;
  - Educational outcomes;
  - Health outcomes;
  - Civic and social engagement; and
  - Delivery of other essential services.
- Description of State's plan to collaborate with key stakeholders
- List of organizations the State collaborated with on developing the plan

---

19 Id. at § 1721(8) (2021).

20 Id. at § 1723(c)(1) (2021).

Best Practices for Preparing a State Digital Equity Plan

Identify a Lead & Staff the Effort

The DEA requires governors (or an equivalent official) to select an "administering entity for the State" to be the primary planning grant recipient and administrator.[21] That entity will be responsible for developing, implementing, and overseeing the digital equity plan for the State.[22]

Functionally, the administering entity will become the de-facto home and lead all State-led digital inclusion activities for the next five (or more) years. As such, governors must select the administering agency best suited to both create the digital equity plan and implement it. While States have differing models for where to house digital inclusion efforts, centralizing digital inclusion efforts within or adjacent to existing broadband efforts will provide easier alignment with **Broadband Equity, Access, and Deployment (BEAD)** program implementation. Such an approach makes it more likely that a State can develop and implement a streamlined, holistic, and efficient digital equity and inclusion strategy that bridges the gap between infrastructure, deployment, and adoption. Finally, the governor should duly empower the entity with the necessary planning, policymaking, procurement, and community engagement powers to deliver its digital inclusion goals effectively.

Should the governor appoint an entity other than the broadband office as the administering entity, a Digital Equity Office (DEO) or team could still be created, with a relationship to the broadband office to aid in coordination and lead the affordability work the broadband office will undertake to implement the BEAD program. The DEA NOFO requires the DEA administering entity to coordinate with the broadband office formally and actively throughout the life of the BIL programs.

21 Id. at § 1723(b)(1) (2021).
22 Id. at § 1723(b)(1)(B) (2021).

Once identified, the administering entity should focus on ensuring a State has the internal capabilities and expertise to lead digital inclusion efforts. Many States and territories now have established broadband offices. However, only a few of these offices have dedicated staff to lead digital inclusion initiatives. To apply for DEA funds, States will be required to develop goals, objectives, and strategies for achieving digital equity. Most do not currently have the in-house expertise to do so. Thus, it will be necessary to hire new staff or dedicate a current staff member's time to digital inclusion.

Staffing the digital inclusion effort could create a set of positions, a new team, or an entirely new office. If a State has the opportunity to fill positions and create jobs, it should do so by hiring locally, providing equitable opportunities among historically underrepresented communities, and offering training where applicable. See more details about developing a workforce equitably on **page 22** .

Staff Well - Digital Equity Office (DEO) Structure

The State Digital Equity Planning funds can be used to fund positions to lead the planning work in a State. Exact staffing will inevitably vary across DEOs, especially because different States have established digital equity functions at different paces and have had access to unique internal resources and partnerships. **Louisiana**, for example, is focusing its DEO hiring on digital inclusion specialists with research, data analysis, and program development skills.

Whereas the State of New York's Director of Digital Equity **job posting** explicitly lists leading the DEA planning process as one of the role's key functions. Regardless of the skills and functions identified as necessary and the staffing path, dedicating a minimum of one FTE to digital inclusion work will provide needed support and leadership for the program and its implementation. This allows the State to develop digital equity subject matter expertise and provides a clear digital equity point of contact for stakeholders, among other benefits.

In general, DEO organizational structure will be informed by the generally accepted approaches to hiring and organization within the State, available funding and hiring capacity, and time spent building broadband and digital equity functions to date, which is not a judgment on the State's effectiveness but a function of time, political will, and other factors. Below are three different approaches to DEO organization, with examples in **Appendix A**.

ORGANIZATION STRUCTURE 1:
The Beginner (1-3 FTEs)

For many States, the process of designing, building, and staffing a broadband and DEO organization is in its infancy (0-3 years old). The organizational structure is lean and focused.
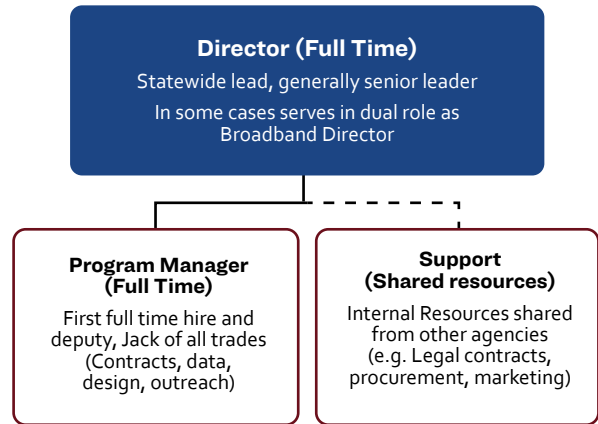
ORGANIZATION STRUCTURE 2:
The Tried and Tested (3-6 FTEs)

Some States, such as **North Carolina** and **Washington** have spent a more extended period of time (3-5 years) building out mature broadband and DEO organizations (either unified or co-existing). These States have typically received buy-in from their governor and legislature, already developed a five-year broadband plan with clear digital equity priorities, and have launched and managed digital equity programs over several years.

Figure 6

Director (Full Time)
Statewide lead, generally senior leader
In some cases serves in dual role as Broadband Director

Program Manager (Full Time)
First full time hire and deputy, Jack of all trades (Contracts, data, design, outreach)

Support (Shared resources)
Internal Resources shared from other agencies (e.g. Legal contracts, procurement, marketing)

Figure 7

Broadband Director (Full Time)
Established in bureaucracy, oversees large team, works with or oversees DEO

DEO Director (Full Time)
Statewide lead, generally senior leader

Program Director (Full Time)
First full time hire and deputy, Jack of all trades (Contracts, data, design, outreach, and manager)

Community Outreach & Inclusion Coordinators (2 Full Time)
Outreach lead (partnerships, outreach, email, roundtables)

Program Managers (2 Full Time)
Jack of all trades (Contracts, data, design, outreach)

Data Specialist (Full Time)
Analytics lead (data, mapping, reporting)

Support (State Shared Resources)
Internal resources for overhead support (e.g., legal contracts, procurement)

ORGANIZATION STRUCTURE 3:
The Veteran (7+ FTEs)

Eventually, States with sophisticated DEO offices, such as Wisconsin's Public Utilities Commission, will have strong alignment with information technology, broadband, and other sister agencies.

These offices will then be at a stage where they manage different digital equity programming, serve key populations (e.g., affordable housing residents, schools, veterans), and invest in internal capacity for specialized functions (e.g., communications, contracts, legal, analytics).

Figure 8

ORGANIZATION STRUCTURE 3:

The Veteran (7+ FTEs)

Broadband Director (Full Time)
Established in bureaucracy, oversees large team, works with or oversees DEO

DEO Director (Full Time)
Statewide lead, generally senior leader

Program Director (Full Time)
First full time hire and deputy, Jack of all trades (Contracts, data, design, outreach, and manager)

Communications Director (Full Time)
Communications, marketing, social media, and press lead

General Counsel (Full Time)
Leal, regulatory, public affairs, and contracts lead

Analytics Manager (Full Time)
Analytics lead (data, mapping, reporting)

Program Managers (2 Full Time)
Jack of all trades (Contracts, data, design, outreach)

Community Outreach & Inclusion Coordinators (2 Full Time)
Outreach lead (partnerships, outreach, email, roundtables)

Contracts Administrator (Full Time)
Contracts, grants, payments, and administration lead

Define DEO Role and Goals

Once staffed, the DEO's role, goals, and responsibilities can be defined.

In addition to leading the digital equity planning process, the State DEO (or lead's) roles and responsibilities could include:
- Leading the coordination of digital inclusion activities on behalf of the State
- Assisting in the development of digital equity policy
- Coordinating and distributing funding
- Strengthening local digital equity ecosystems
- Educating policymakers, local governments, and stakeholders on digital equity and inclusion
- Guiding digital equity-focused data collection, research, and analysis
- Creating, piloting, and scaling digital inclusion programs

Create a Plan for the Plan

Once the grant funds are received, the DEA administering entity will have twelve months to create the State digital equity plan. Creating a project plan can help launch the formal planning process. A project plan identifies who will be responsible for each portion of the process along a timeline. Strong project plans prioritize tasks that inform the development of the digital equity plan and could potentially be reused in the digital equity plan itself (e.g., data collection and analysis).

The Sample Timeline below provides a rough sketch of a project plan. Additional details, target dates, and assignments will support the plan's development.

Figure 9

Sample Timeline

2022

2023

Spring

Build State capabilities and engage local communities

Summer

Begin DEA State Planning Grant application and identify gaps

Fall — Winter

Finalize and submit DEA Planning Grant application and begin planning

Spring — Summer

Continue planning, outreach, and writing the State Digital Equity Plan

Fall

Finalize the State Digital Equity Plan and preapre for implementation

Sample Timeline

2022 Spring

Build State capabilities and engage local communities

- Build State capabilities, including identifying State digital equity lead and associated staff needs
- Complete initial data analysis of State digital equity gaps, possibly defining a need for a survey
- Preview digital equity gaps with executive leadership and legislature
- Develop sample job descriptions for necessary DEO positions and ideal staging for hiring (e.g., priority A, B, and C)
- Meet with and listen to priorities from stakeholders
- Solicit informal comments, local digital inclusion plans, information about ongoing State broadband deployment projects and digital inclusion programs, suggestions, and other input from stakeholders

2022 Summer

Submit DEA State Planning application and identify data gaps

- Launch and empower State DEO (if resources are available)
- Solicit input from stakeholders on the project plan
- Identify data collection gaps and develop a strategy for filling them over time
- Assemble core planning team and convene to establish expectations
- Finalize and submit DEA State Planning application to NTIA
- Develop a communications plan

2022 Fall — Winter

Begin Planning
- Prepare follow-up application materials and responses to NTIA, if requested
- Continue launch and empowerment of State DEO (if resources available)

- Begin regular convening of the core planning team
- Develop stakeholder coordination, outreach, and engagement plan, including intended communication and education opportunities
- Develop rigorous, but not onerous, data collection and reporting , including regular (e.g., quarterly) updates to stakeholders, the community, and local government
- Prepare internal agencies, contracting and procurement officers, and grant administrators for efficient acquisition of external planning support, if necessary
- Obtain external support, if needed
- Identify and purchase any software necessary for the plan's development (i.e., survey tools, project management tools, etc.)
- Launch the planning process once funds are received

2023 Spring — Summer

Execute outreach and engagement plan for community-based organizations (CBOs) and partners
- Regularly convene core planning team to provide updates and drive the planning process
- Implement communication, education, and outreach models for interested stakeholders
- Implement a data collection strategy

2023 Fall

Finalize full DEA plan and prepare for implementation
- Finalize data collection
- Write plan
- Publicly post plan for a minimum of 30 days for public comment (required by statute)
- Incorporate "worthwhile" comments into the plan
- Submit the plan to NTIA, send to stakeholders, and publish for the public
- Prepare for the plan's implementation

How to Execute: State Best Practices

This section provides best practices gathered from peers, including Louisiana, Rhode Island, Washington, Nebraska, Wisconsin, North Carolina, and Hawaii — to better understand different digital equity strategies that States have already engaged in and help States leverage their DEA planning funds.

Lead with and Operationalize Equity

Digital equity will not be achieved in any State if equity is an afterthought or a "lens" that is put on for the digital equity planning and implementation process alone. Instead, leading with equity, operationalizing it in an office's daily work, and weaving it throughout all broadband programs — including the deployment programs — is essential. While there are many ways to lead with and operationalize equity, the following are some practical recommendations.

"

We intentionally avoid the language 'equity lens' because a lens can be taken off.

Equity should be a forever understanding.

— **Ernie Rasmussen, Digital Equity Manager**
Washington State Broadband Office
Washington Department of Commerce

Be Intentional with Language and the Details

The language you use to communicate with stakeholders throughout the DEA planning process matters. If the office is "leading with equity" but uses phrases like, "now, let us put on our equity lens," those you interact with may believe that equity is optional and only thought of intermittently.

Similarly, being thoughtful and intentional about the details of the planning process matters in terms of signaling the value that DEO places on equity. For instance, if hosting a listening session for both the DEA plan and the BEAD plan but your agency leadership only attend the BEAD session, it signals to stakeholders that BEAD is a priority for leadership whereas DEA is not.

Additionally, intentionally planning stakeholder outreach to provide opportunities for as many disconnected households as possible by selecting dates and times where a diversity of households can engage, and ensuring invitations to the stakeholder outreach events reach the disconnected, will lead to more equitable engagement and a more holistic plan. Things to consider for in-person meetings would be providing childcare, ensuring meeting locations are easily accessible from public transit or have ample parking, and providing travel vouchers or mass transit tickets for participants.

Center the Voices of Covered Populations and Historically Disconnected Communities

Throughout the planning, development, and implementation of the plan, intentionally identifying, amplifying, and centering the voices of those most affected by the digital divide, the covered populations, and the disconnected communities will provide for a more prosperous and more equitable planning process and plan.

One strategy several digital inclusion coalitions and organizations have begun incorporating into their community-based coalition work, and digital inclusion work is to financially compensate the residents for their participation. Lived experts are members of covered populations, particularly individuals from

historically disconnected communities with direct, lived experience of being disconnected. For example, the **Franklin County Digital Equity Coalition** has compensated lived experts for their participation as research team members to better understand the ramifications of different aspects of the digital divide in their communities.

Another digital inclusion coalition plans to provide lived experts with $5,000 for a 10-month commitment to participate in the coalition work as a subcommittee co-chair. The co-chair would commit to attending 80 percent of the subcommittee meetings, lead subcommittee meetings, and actively engage with the subcommittee's work during that time. The entity could invite lived experts to join the core planning team and other stakeholder touch points throughout the planning process.

Including lived experts in the planning process provides a viewpoint and expertise to the team that cannot otherwise be obtained. In addition, the practice is radically humanizing and would enable the State to demonstrate respect for the residents.

Content Simplicity and Translation

Another simple but important way to operationalize equity is to ensure all content the DEO publishes is comprehensible and translated into the State's predominant languages. Translating all materials developed throughout the planning process, including but not limited to public notices, surveys, flyers, and informational pamphlets, into simple, easy-to-understand wording and the State's predominant languages will engage a wider pool of residents throughout the State. Additionally, we recommend translating and publishing materials into formats easily accessible for people with limited vision and those who are deaf or hard of hearing.

Use a Holistic Data Collection Approach

Beginning the data collection process before or during the planning process, utilizing a holistic approach to data collection to quantify the gaps in connectivity and digital equity, is another way to operationalize equity. **Research by NDIA** and other organizations has revealed that sizable gaps in connectivity are driven by and highly correlated with race and socioeconomic status, not just geography.

North Carolina's Broadband Indices are an example of both a robust, holistic data collection and visualization approach by breaking down the specific challenges individual counties and census tracts face to better identify investment and programmatic opportunities. The Broadband Infrastructure Office partnered with Dr. Roberto Gallardo of Purdue University to create two indices comprising 19 variables that holistically break down the State's digital divide. The Broadband Infrastructure Office notes that the indices are helpful because they help demonstrate need at the county and census tract level, identify the most beneficial types of investment, and determine where resources should be deployed.

Similarly, data that only account for the availability of broadband infrastructure will result in an inaccurate assessment of the digital divide. Consider the factors driving limited adoption, including digital skills, device access, complicated signup processes for discounted Internet service, expensive pricing, and poor speeds. This approach may require both quantitative and qualitative data collection methods. Qualitative methodologies, such as surveys, interviews, and focus groups, are time-consuming but can provide a richer understanding of lived experiences and unique barriers to accessing the digital world different demographics may encounter. CBOs and Community Anchor Institutions (CAIs) can also support qualitative data collection, but it is important to remember their resource and time constraints and avoid overly burdening them in this process.

Finally, even though data can be limited, use all available tools to quantify and contextualize the existing gaps, including canvassing surveys in high-traffic public places and social service offices, and gathering rich experiential, anecdotal data via one-on-one conversations, focus groups, and existing community meetings.

Weave Digital Equity through Existing and Forthcoming Deployment Efforts

While the Digital Equity Act is a landmark piece of legislation, and $2.75 billion will provide much-needed support for the launch and operation of numerous digital inclusion programs and activities, the funding is a one-time investment over five years. Achieving digital equity will require more comprehensive and sustainable funding sources. However, intentionally weaving digital equity throughout all broadband programs and efforts instead of operating digital inclusion programs in silos apart from broadband deployment programs will not only contribute to enhancing the sustainability of digital inclusion programs, but will also leverage existing investments and increase their potential impact.

BEAD

The Broadband Equity, Access, and Deployment (BEAD) program is a $42.45 billion program authorized through the BIL that will provide grants to States and territories to bridge the digital divide.[23] NTIA is tasked with administering the program and will distribute a minimum of $100 million to each U.S. State, territory, and the District of Columbia.[24] The remaining funds will be apportioned based on the number of unserved locations in that State as well as the number of unserved locations in high-cost areas in that State, relative to national totals.[25] BEAD funds can be used to competitively award subgrants for, among other things, broadband deployment projects in unserved and underserved areas and broadband adoption projects (including programs to provide affordable internet-capable devices).[26]

After a State receives planning funds under the BEAD program, it must develop a 5-year action plan.[27] The action plan must be informed by collaboration with local and regional entities as well as detailed investment priorities, associated costs, and alignment of planned spending with economic development, telehealth, and related connectivity efforts.[28] NTIA established the

23   Infrastructure Investment and Jobs Act, 47 U.S.C. § 1702(b) (1-2) (2021). **link**.
24   Id. at § 1702(c)(2) (2021).
25   Id. at § 1702(c)(1) & (3) (2021).
26   Id. at § 1702(f) (2021).
27   Id. at § 1702(e)(1)(D) (2021).
28   Id. at § 1702(e)(1)(D)(i) (2021).

requirements for the action plan in the BEAD NOFO, released on May 13, 2022, which include requirements to address local and regional needs in the State concerning broadband service and propose solutions for the deployment of affordable broadband service in the State, among other things.[29]

Aligning BEAD & DEA Planning

While the planning processes and end products may be separate, the BEAD and DEA plans should be intentionally linked, complementary, and mutually supportive of obtaining the same goals. Workforce development can be intentional in ensuring that local citizens are economically participating in the jobs that will be created. It's not just affordability, it is economic advancement. The NOFOs recommend the following to establish a strong synergy and joint accountability between the two plans.

A direct communication pathway would benefit BEAD and DEA planning and reduce the burden and confusion on community stakeholders, especially should the States interface directly with residents through surveys, focus groups, or town halls during the planning processes.

For example, information gathered during the BEAD stakeholder engagement that may impact the DEA plan should be shared with the DEA planning team and vice versa. Given the interconnected nature of broadband availability and broadband adoption, a resident's experience with broadband and being disconnected is typically a mix of factors. When asked about broadband, information about a lack of access to their household or neighborhood is as likely to be discussed as a household's inability to adopt the service if it is available to them because of adoption barriers.

The burden of repeating their lived experiences should not be placed on the residents engaging in the planning process.

1. Integrate the portions of the BEAD and DEA plans where DEA covered populations are the focus of goals. Covered populations, as defined by DEA, are statistically likely to have lower broadband adoption rates. Considering their barriers to adoption within the BEAD plan will increase the adoption of the funded deployment projects. Addressing broadband adoption barriers while deploying availability solutions will enhance all efforts for both plans.

29 BEAD NOFO at Section IV.B.3. See also Act at § 1702(e)(1)(D)(ii) (2021).

2. Align plan goals and strategies, ensuring they complement and build on each other. Aligning plan goals and strategies for DEA and BEAD plans will increase both impacts. For example, both plans will need to address affordability. The strategies to address affordability in the DEA plan should build on the required low-cost service programs in the BEAD plan. Another example is the common goal of supporting the development of a highly skilled workforce. Strategies for training and workforce development for broadband-related occupations through the BEAD program should be coordinated with broader digital literacy and inclusion efforts through the Digital Equity Planning program.

Figure 10

Aligning BEAD and DEA Planning

1 — Notice of Funding Opportunity

2 — Planning Letter of Intent

3 — Planning Funds Allocated

4 — State 5-Year Action Plan

5 — Initial Proposal

6 — 20% of Funds Allocated

7 — Final Proposal

8 — Remaining Funds Allocated

Broadband Workforce Development

States participating in BEAD have a unique opportunity to be intentional and strategic in developing their community's workforce to implement their broadband deployment projects. Through the BEAD program, States are not just building broadband infrastructure or deploying networks; States are also directly enabling economic advancement for those in their community. The States' infrastructure projects will create jobs and economic opportunities – all while increasing broadband availability and adoption, which will spur more opportunities for future generations. The benefits will continue to ripple through the community and over the years.

How can States develop a workforce that is inclusive and highly skilled?

Foster local workforce opportunities

Create opportunities for local residents to participate in the infrastructure development that is occurring in their own communities. Workers from the community will be familiar with its needs and nuances. Tap into your local talent to support job growth and ecoomic opportunity close to home.

Consider matching prevailing wages

BEAD projects will create many job opportunities in the State. States can maximize this economic benefit by compensating the local workforce appropriately and providing benefits that are competitive with marketplace standards.

Set strong labor standards

States can commit to strong labor standards and protections for their employees and contractors, following all applicable labor and employment laws. A safe and healthy work environment is critical to create a reliable pipeline of skilled workers and minimize costly and disruptive delays.

Promote equitable opportunities

Make job opportunities available to a diverse pool of workers, particularly to populations that have been traditionally underrepresented in broadband and information technology jobs, such as women, people of color, and other historically marginalized groups.

States can foster equitable opportunity by partnering with nonprofits, advocacy groups, minority- and women-owned businesses, and community-based organizations to reach a diverse pool of workers.

Provide training

Attract and retain workers by collaborating with industry, unions, education-providers institutions of higher education, career technical schools, and other organizations to offer training programs. With these skills and credentials, workers will be well-equipped for future job opportunities as well. States can also support workers in accessing and completing trainings by providing services such as childcare and transportation.

By focusing on an inclusive workforce for their broadband projects, States can make strides toward digital equity, as well as economic equity. Historically, many residents in underrepresented communities have not enjoyed the economic benefits of development in their neighborhoods. States can break that cycle by fostering opportunities to attract, train, retain, or transition workers to directly support broadband projects. In turn, these efforts can decrease poverty rates, increase overall educational and health outcomes, and improve quality of life overall.

Beyond Planning

In addition to the planning, BEAD recipients may inter-weave digital equity throughout their performance of a BEAD award in other ways. For example, BEAD funds can be used for broadband adoption projects and addressing deployment to unserved and underserved communities. As the State develops the BEAD five-year action plan, consider where BEAD funds can support broadband adoption projects. Broadband adoption projects include the same activities eligible for funding under the Digital Equity Competitive Grant Program established by the DEA.

States can also require BEAD sub-recipients to partner with trusted community-based organizations to assist eligible households with signing up for service, integrate local digital inclusion programming into their outreach initiatives, and prioritize outreach in low-income neighborhoods, particularly historically disconnected communities. Finally, prioritizing the allocation of BEAD funds to community-based, locally accountable providers would advance digital equity. For example,

Figure 11

5-Year Broadband Action Plan

Did you know — After a state receives planning funds under the BEAD program, it must develop a 5-year action plan.

Collaborate

Involve Local & Regional Entities

Align Planned Spending

Consider Related Connectivity Efforts

The 5-Year Action Plan must be informed by collaboration with local, regional, and Tribal (as applicable) entities, and should detail investment priorities and associated costs, and align the State's planned spending with its economic development, community benefit, workforce, telehealth, digital equity, and other related efforts.[30]

30   NTIA, BroadbandUSA, Notice of Funding Opportunity Broadband Equity, Access, and Deployment Program, **link**.

community and municipally owned networks, electric member cooperatives (EMCs), and telephone member cooperatives (TMCs) are all community based and owned by community members, thus are proactively accountable to the community members and sensitive to their nuanced needs, including affordability barriers to broadband adoption.

Affordability Strategies

The fact that a broadband subscription is all too often not affordable for a household is a primary reason 28 million households across the country lack broadband in their homes. According to the Pew Research Center, 26 percent of people across the U.S. are worried about paying their Internet bill over the next few months, and 54 percent of all households earning less than $25,000 a year don't have a broadband subscription.

Studies show that $10 per month is the most that low-income Americans can afford to pay for broadband. However, according to Pew Charitable Trusts, the average cost of a monthly subscription ranges from $50 to nearly $70.

Certain government programs like the **Affordable Connectivity Program (ACP)** can help promote broadband affordability. ACP is a federal program under the FCC that provides to eligible households' monthly discounts of up to $30 on Internet service costs and one-time discounts of up to $100 for connected devices. The monthly discount is higher ($75) for households on qualifying Tribal lands and households in high-cost areas. However, ACP has a finite amount of funding and is not yet a permanent program.

Defining Affordability for 'Low-Cost Broadband Service Options'

The BIL and the BEAD NOFO provides responsibilities to States and territories with developing "low-cost broadband service options" in consultation with NTIA and broadband providers. In addition, Capital Projects Fund recipients are encouraged to require sub-grantees (i.e., providers) to include "at least one low-cost option offered at speeds that are sufficient for a household with multiple users to simultaneously telework and engage in remote learning."[31]

31   U.S. Department of the Treasury. Guidance for the Coronavirus Capital Projects Fund: For States, Territories, and Freely Associated States (2021). (See page 4). **link**.

Poverty and Income Analysis

The downside of establishing a fixed price point for the "low- cost broadband service option" is its inflexibility. In some communities, $30 is affordable. In others, it is not. As such, States should analyze the State's socioeconomic landscape to determine where the $30 price point may not fully address affordability barriers. For example, States should examine metrics such as median household income, property value, and the number of households with students enrolled in school lunch programs. Through this analysis, States will gain a deeper understanding of where additional efforts will be needed to address affordability fully.

Provider Appeal Process

Providers may assert that they cannot profitably provide service at a $30 price point for the "low-cost broadband service option" in a particular area. States should establish a process through which providers can formally assert that the $30 price point is infeasible, provide proof to that effect, and request an exemption from the $30 maximum. In proving the financial infeasibility of providing service at a $30 price point to a particular area, providers should be required to utilize a long-term profitability model in their financial projections and establish that profitability is impossible in the long-term, not just a short-term period of three to five years.[32]
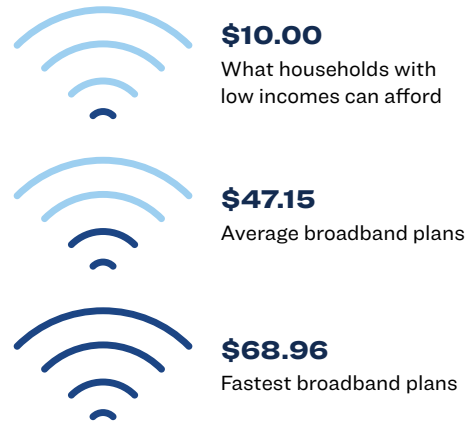
ACP Outreach

States can also impact affordability by ensuring their eligible households are aware of, understand, and enroll in the ACP program. Building awareness of the program requires concerted outreach across mediums (at home, at social service locations, via social media, phone, and more.) and in simple and accessible terms (e.g., multilingual outreach, plain English, not exceeding 8th-grade reading comprehension). Successful approaches are often all-hands-on-deck, requiring collaboration across offices and agencies that already interact with underserved households. For example, New York State conducted a **successful campaign** in early 2022 to educate consumers on the ACP, signing up an additional 100,000 households in

32   Falcon, Ernesto Why Slow Networks Really Cost More Than Fiber. Electronic Frontier Foundation, Electronic Frontier Foundation (June 4, 2020). **link**.

Figure 12

Affordable Strategies

$10.00
What households with low incomes can afford

$47.15
Average broadband plans

$68.96
Fastest broadband plans

less than three months. In addition, the State's Office of Temporary and Disability Assistance is directing social services agencies to share outreach materials with clients and contracted service providers; Housing and Community Renewal reached out to housing nonprofits and landlords; the Department of Labor developed a public service announcement video, and the Department of Motor Vehicles pushed ACP information at State-operated offices.

Capital Projects Fund (CPF)

The Department of Treasury's Capital Projects Fund recipients may use grant funds for "critical Capital Projects that directly enable work, education, and health monitoring, including remote options, in response to the public health emergency." This means recipients may use grant funds for anything (with a few exceptions — roads, bridges, transit systems, etc.) that meets the following three criteria:

1. The Capital Project invests in capital assets designed to enable work, education, and health monitoring.

2. The Capital Project is designed to address a critical need that resulted from or was made apparent or exacerbated by the COVID-19 public health emergency.

3. The Capital Project is designed to address a critical need of the community to be served by it.

Even though a wide net is cast, Treasury anticipates most recipients will use the funds for broadband projects, so they have Stated that the following three types of projects are presumptively eligible:

1. Broadband Infrastructure Projects (construction and deployment of broadband infrastructure);

2. Digital Connectivity Technology Projects (purchase and/or installation of devices and equipment to facilitate broadband Internet access); and

3. Multi-Purpose Community Facility Projects (construction or improvement of buildings that are designed to jointly and directly enable work, education, and health monitoring)

Other eligible uses of CPF funds may include:

- Digital literacy training, digital navigation, and digital inclusion services, if they are deemed "ancillary costs necessary to put the capital asset to use."[33]

- Constructing or improving libraries, community health centers, or full-service community schools. Gigabit Internet, public Wi-Fi, and lendable computers would be an "improvement" for many libraries, community health centers, and full-service community schools.

- If an applicant requests funds to purchase computers (a capital asset) to lend through libraries, then digital literacy, technical support, and digital navigation expenses would also be eligible.

- If an applicant requests funds to build a gap network and addresses affordability through the network, they could also invest in community engagement and broadband adoption efforts to support subscriptions to the network.

- If an applicant requests funds to wire all libraries and community health centers with fiber, they could invest in digital navigation and digital literacy courses.

For more information on what constitutes a broadband infrastructure project, a digital connectivity technology project, or a multi-purpose community facility project, see Treasury's **Capital Projects Fund Guidance.**[34]

Coronavirus State and Local Fiscal Recovery Funds (SLFRF)

The Department of Treasury's SLFRF funds may be used for a range of projects that respond to the public health and economic impacts of COVID-19, including:

- Affordability programs, such as subsidies that address the cost of Internet service

- Digital literacy programs, such as standard digital literacy classes or digital navigator programs

- Programs that provide devices and equipment to access the Internet to households (e.g., programs that provide equipment like tablets, computers, or routers)

- Services that expand Internet access without constructing new networks (e.g., expansion of public Wi-Fi networks or free Wi-Fi in public housing communities). Other programs that support the adoption of Internet service where service is available

SLFRF funds may also be used to invest in broadband infrastructure. SLFRF recipients must address affordability while building new broadband networks. The SLFRF Final Rule States, "a project cannot be considered a necessary investment in broadband infrastructure if it is not affordable to the population the project would serve." The SLFRF Final Rule outlines two ways recipients should address affordability:

- "Lack of affordable broadband" is now considered a quality that recipients can use to identify areas eligible for investment with SLFRF funds.

- If a project provides Internet service to households, it now requires the ISPs to participate in the Affordable Connectivity Program or comparable program.

For more information on eligible uses of SLFRF fund see Treasury's **SLFRF Final Rule.**[35]

33 U.S. Department of the Treasury. Guidance for the Coronavirus Capital Projects Fund: For States, Territories, and Freely Associated States (2021).
34 Id.

35 Coronavirus State and Local Fiscal Recovery Funds Final Rule: 87 Fed. Reg. 4338 (Jan. 27, 2022) (to be codified at 31 C.F.R. Part 35), **link**.

BIP and CMC & Tribal Connectivity Program

NTIA also manages the Broadband Infrastructure Program (BIP),[36] the **Connecting Minority Communities Pilot Program (CMC)**[37] and **Tribal Broadband Connectivity Program.**[38] Grantees from these programs could already be developing or launching digital inclusion projects or programs.

Connecting with the BIP, CMC and Tribal Broadband Connectivity Program grantees in the State could provide an opportunity for partnership. In addition, the lessons they are learning through their projects could inform the BEAD and DEA plan.

Strengthen Collaboration, Engagement, and Outreach

Robust and meaningful stakeholder collaboration, engagement, and outreach will be a hallmark of effective and successful State digital equity plans. Stakeholder engagement should not be a one-time occurrence but rather be baked in throughout the entire planning process with multiple permeable pathways for residents and trusted community-based organizations to participate in the process. Like all relationships, building goodwill and trust with stakeholders through meaningful engagement takes time.

Meet People Where They Are

In 2021, the Louisiana broadband office began a traveling roadshow, visiting 50+ small towns throughout Louisiana's 64 parishes. They reached out to mayors and local elected officials to organize listening sessions on broadband. They brought simple, one-page informational flyers with data representing that community's broadband access, adoption, Emergency Broadband Benefit (EBB) enrollment rates, and digital literacy rates. They provided information about the future State and federal funds and listened to the community's broadband and digital inclusion needs. They purposely did not use PowerPoint presentations, opting for roundtable-style sessions to provide a more intimate peer-to-peer environment.

Other States have opted for virtual convenings, like Hawaii's Office of Broadband and Digital Equity, which in March 2020, virtually convened a group of allies working towards digital equity. The Broadband Hui as it is known, has met weekly since and consists of over 200 individuals and organizations. Both States' sustained engagement of partners and residents have greatly benefited the stakeholders and the State leaders.

Create a Stakeholder Engagement Plan

Before beginning the planning process, designing a robust stakeholder engagement plan that weaves stakeholder engagement throughout the entire planning process and elevates the voices of those who directly work with or have direct lived experience of being disconnected will support the overall planning process. Ensuring the voices of covered populations and underrepresented groups are built into the planning process is essential to ensure the plan is comprehensive and honestly addresses the concerns and needs of the State's disconnected residents. In addition, intentionally engaging organizations trusted by historically disconnected communities will require thoughtful planning.

Approaches to Engagement

Knowing who to reach out to is only half the battle because the approach to community engagement is equally important. Successful outreach should employ a mix of strategies, communications channels, and messengers to be effective, including:

- using diverse communications tools to connect, including websites, social media, phone calls, info sessions and town halls, and old-fashioned door-to-door community outreach
- meeting during non-work hours to ensure working adults, parents, and others can participate
- striving for engagement across geographically diverse sections of your State
- clarifying with engaged organizational goals, the information gathered, how that input will be used, what type of follow-up will be conducted, and how they can keep track of your work (e.g., website, listserv, ongoing public check-ins)

Follow up and provide updates. It is also important to engage organizations that are doing meaningful work and providing support to increase their capacity.

36 NTIA, BroadbandUSA: Broadband Infrastructure Program: **link**.
37 NTIA, BroadbandUSA: Connecting Minority Communities Pilot Program, **link**.
38 NTIA, BroadbandUSA: Tribal Broadband Connectivity Program, **link**.

Engage Diverse Communities

The DEA requires the administering entity to "list the organizations the State collaborated with in developing and implementing the plan." Congress outlined a list of organizations to include in the planning and implementation process, including, but not limited to:

- Community anchor institutions, CBOs, and nonprofits;
- Counties, city governments, and Indian Tribes, Alaska Native entities, or Native Hawaiian organizations (where applicable);
- Local educational agencies, school districts, and workforce development organizations;
- Organizations that represent:
  - individuals with disabilities, including children with disabilities,
  - aging individual,
  - individuals with language barriers (e.g., English learners, low English proficiency, immigrant groups),
  - individuals who have low levels of literacy,
  - veterans, and
  - incarcerated individuals in facilities other than federal correctional facilities
- Civil rights organizations
- Public housing authorities in the State

Additional Types of Organizations to Consider Engaging

While all State agencies should be included in some aspect of the planning process, the agencies who directly or indirectly serve the covered populations should be consulted throughout the planning process, including:

- Department of Education
- State Library
- Department of Health and Human Services
- Workforce Development Department
- Housing Department
- Department of Commerce or Economic Development
- State Technology or Digital Service Office
- Members of the covered populations and historically disconnected communities (lived experts)

- State cabinet-level agencies
- State corrections department/agency
- State departments of education
- Digital inclusion coalitions located in the State
- State and local chambers of commerce or industry associations
- Regional councils of governments
- Economic development authorities
- Higher education institutions
  - State higher education coordinating board or governing board
  - Community or Technical College System
  - Public and Private Universities
  - Minority Serving Institutions
- Public housing resident associations and other low-income housing providers
- Labor unions (in particular — telecommunications workers' unions)
- Healthcare systems and networks
- Homeless continuum of care providers
- Private and nonprofit multi-family housing developers and owners
- Faith-based institutions (i.e., churches, temples, mosques, etc.)
- Entrepreneurs and business owners
- State or local foundations and funders
- Advocacy organizations
- Existing multi-stakeholder groups (i.e., councils on aging, etc.)
- Refugee resettlement organizations
- Re-entry organizations
- Organizations serving undocumented residents
- Early intervention coordinators (i.e., those providing in- home therapy for children ages 3 to 5)
- Trade organizations
- Agriculture extension offices
- Cultural organizations
- Local media outlets such as PEG station leaders and Ethnic media

Tribal Engagement

U.S. territories and possessions, Indian Tribes, Alaska Native entities, and Native Hawaiian organizations that receive awards from the appropriate funding may use funds to further their participation and equity interests in the development of relevant State digital equity plans under this program or both.

Like all other stakeholders, States should engage with Tribes in their State early and often through meaningful consultation. Engagements should be conducted as peer-to- peer engagements, as Tribes are sovereign and govern themselves. This means they are distinct governments, and any decisions about the Tribes concerning their property and citizens are made with their participation and consent. Use intergovernmental collaboration best practices when consulting with and engaging with Tribes to develop the plan.

Effective Tribal engagement requires meaningful consultation and proactive relationship-building efforts with members of Tribal communities. Rather than merely "box-checking," States should engage in good-faith, ongoing efforts to empower Tribal communities in the planning process and to develop trustworthy relationships with Tribes in their States. States should avoid injecting Tribal communities into the planning process after substantial planning has occurred; Tribal

Figure 13

Forming a Core Planning Team

Core Team: 4-10 People

- Administering Entity
- Lived Experts
- Partners from State Agencies
- Representatives from community based organizations or anchor institutions

voices should be included in the planning process from beginning to end.

Request broadband and digital equity plans along with information about ongoing broadband deployment projects and digital equity programs from local and regional governments in the State; also, request this information from Tribes located in the State. Again, staying in communication with Tribes will ensure you know of any changes that could impact the digital equity plan.

Form a Core Planning Team

Creating the State digital equity plan will necessarily be a team effort. Thus, the first recommended step is forming a core planning team consisting of a diverse set of stakeholders and partners to lead and advise the development of the plan. A core planning team could be composed of multiple staff members of the administering entity and a member of the team leading the BEAD planning process. Additional core planning team members could include partners from other State agencies, universities, representatives of community-based organizations and community anchor institutions who work directly with the covered populations, digital inclusion practitioners, and "lived experts" who are members of the covered populations. The administering entity is the natural lead for the planning team and the development of the plan, but the core planning team can serve as an advisory group of sorts, supporting the administering entity as it progresses through the planning process.

A core planning team would likely be between four and ten people—a small group but large enough to ensure a variety of voices are included throughout the process and large enough to disburse responsibilities. The administering entity would be responsible for clearly defining and delineating roles and expectations for each planning team member. Throughout the planning process, the core team can provide feedback and guidance to the administering entity. In addition, the core team could support the administering entity in identifying and connecting with stakeholders, among other tasks that will present themselves throughout the planning process.

Finally, States can consider leveraging their planning funds to pay stipends to "lived experts," or residents of the covered populations with direct, lived experience of being caught in the digital divide, to be members of the planning team.

Collaborate with State Agencies and Peers

The effectiveness of the digital equity strategy will depend on the ability to marshal and scale all available resources across the State government. This means leveraging informal State working groups or formal planning organizations, including existing appointed or convened broadband and digital equity task forces and councils. Understanding existing touchpoints the State agencies already have with covered populations (e.g., families with low incomes, individuals with disabilities, veterans) can maximize your ability to collect data on existing gaps in infrastructure and services and efficiently communicate the DEO's existing and forthcoming offerings. Collaboration with State and local agencies should expand beyond those focused on broadband and digital equity, and should include agencies dedicated to health, commerce and workforce, education, and housing. Broadband and digital equity have a role to play in each of those areas.

For example, Colorado incorporated its Digital Skills Survey into **existing surveys**[39] run by the Colorado Department of Public Health & Environment to minimize additional effort by State agencies and target populations. Other States have worked with high-touch agencies and offices with direct connections to target populations, including the department of motor vehicles, housing and homelessness agencies, Supplemental Nutrition Assistance Program (SNAP) and social service offices, department of corrections, department of labor and unemployment, and health and human services agencies.

Using a planning structure, existing relationships, and the DEO's mandate, incorporate surveying and messaging content in existing mailers, fliers, email campaigns, social media content, town halls, and websites. Focus on highlighting existing offerings, the importance of accurate data collection to deliver new services, and pointing to the DEOs website as the best source of updated information. Finally, leverage NTIA's existing list of State templates (**Appendix A**) and reach out directly to colleagues in other States to quickly replicate best practices.

In addition to integrating digital equity with broadband deployment programs (mentioned above), it is also critical to align Statewide planning and investment in areas such as workforce development, housing, telehealth, and education. For example, State employment agencies, workforce development organizations, and education agencies are taking various measures to build a highly skilled workforce and close the digital skills gap. These efforts often center on digital literacy training, digital navigation, and technology distribution. It is critical to integrate not only data collection and mapping efforts, but also to align strategies and programs. Bringing multiple agencies to the table will help ensure that communities and populations with the highest needs and lowest likelihood to participate in digital literacy training or other services being adequately addressed.

Establish a Task Force or Council

As a part of general broadband expansion planning or in response to the pandemic, some States such as Wisconsin and Illinois have appointed broadband or digital equity planning task force or council tasked with advising State broadband offices and DEOs on bridging their digital divides. These councils are either established by legislative statutes, executive orders or, in some cases, are informal (i.e., established without an executive order or statute), public-facing, or internal government-facing (e.g., working groups of State agency leads).

Wisconsin, for example, has a Task Force on Broadband Access, established through an executive order from Governor Evers in 2020, which includes a digital equity subcommittee and a Digital Equity and Inclusion Stakeholder group of 50 to 60 people.

The governor selected the members of the Task Force who led the compilation of a **report**[40] in 2021 with recommendations to close broadband access gaps and increase broadband adoption and affordability. The Wisconsin **Public Service Commission (PSC)** convenes the stakeholder group monthly. The digital equity and inclusion stakeholder group, which has an open-door policy, meets virtually every month and provides organizations the opportunity to form relationships, establishing connections between different organizations and sectors that either directly run digital inclusion programs or whose work is impacted by digital inequities. Rhode Island also plans to establish an interagency working group to engage sister agencies and support the coordination and execution required to implement the BEAD and DEA programs.

---

39   Bergson-Shilcock, A. (2022, March 22). States are leading the way on digital equity [National Skills Coalition]. Skills Blog. **link**.

40   Governor's Task Force on Broadband Access, Report to Governor Tony Evers and Wisconsin State Legislature. Public Service Commission of Wisconsin (2021), **link**.

Staff, chair, or be a task force/council member or work in tandem with its existing membership. If asked to advise on appointments to the council, ensure that diverse organizations are represented, including social service institutions, community-based organizations, digital service providers, essential government agencies, and forward- thinking and collaborative Internet service providers.

Learn from Digital Inclusion Practitioners

A State digital equity plan should be designed to create specific, Statewide strategies to serve those most affected by the digital divide. Nevertheless, many plans are created in a vacuum without input from those the plan is designed for — the residents. No State leader can learn the specific needs of each of their residents. However, States can learn from the many organizations that have developed thoughtful strategies incorporating community input into their planning process.

The digital inclusion field is relatively young. However, best practices and models for holistically addressing the digital divide exist. Before embarking on the planning process:

1. Spend time learning about what has and hasn't worked for those working toward digital equity in your State and across the country.

2. Consult existing local digital equity plans and learn about ongoing digital inclusion or broadband deployment coalitions, projects, and programs in the State.

3. In addition, talk to peers across the country and join networks like NDIA, where many local and State subject matter experts regularly meet and discuss promising practices and practical research.

4. See **Appendix A** for a list of resources.

In addition, the entity organizations should begin getting to know the local digital inclusion practitioners across their State. NDIA estimates that more than 40 communities (cities, towns, and regions) across the country have at least one active digital inclusion coalition. Identifying existing coalitions in the State and attending their meetings to get to know the practitioners, organizations, and the digital inclusion work they do can assist the State as it begins stakeholder engagement. For example, Ohio's broadband office

regularly attends local digital inclusion meetings and, in doing so, has established relationships with the 30 to 50 digital inclusion organizations that are members of each coalition. Coalitions are also positioned to support the DEO as they engage with residents in the planning process.

Use and Collect Data to Understand Assets and Needs

The plan will rely heavily on the best available data to quantify needs and estimate costs. Prepare to begin the data collection process by planning how to collect data, learning about the existing data sources, thinking through existing data and how it can be leveraged for the plan (i.e. speed test data, digital skills data, etc.), and identifying whether local governments or digital inclusion coalitions in the State have already begun collecting local data that could be included in the asset inventory and needs analysis.

Best data sources include:

- **Availability:** FCC Form 477, State/local mapping, Geotel telecommunications infrastructure data (proprietary), speed tests (national datasets from FCC, Ookla, M-Lab, State and local speed test data), asset mapping of digital skills training and low-cost computer programs

- **Affordability:** Surveys of ISPs and service providers, State/local surveys of residents, NDIA Free & Low-Cost Plans list

- **Adoption:** American Communities Survey (ACS) 1-year and 5-year estimates, FCC Internet Access Services Reports, EBB/ ACP enrollment, State/local surveys of residents

Remember:

Availability

Affordability

Adoption

Many States have run such analyses, with select formats and templates, in **Appendix A**. In general, the information offered by the FCC or commercial ISPs might overState the availability and affordability of existing services. Availability analysis can be complicated by including speeds that are lower than what is generally accepted as "broadband" (>= 100 Mbps).

Affordability analysis can be complicated by including introductory offers and pricing that requires families to subscribe to multiple television and phone services or pay additional rental and equipment fees. While gathering data promptly is critical, the means of gathering data is equally important, especially because disconnected or poorly connected communities are hard to reach digitally. Consider employing door-knocking teams in affordable housing complexes, calling and texting residents, gathering in-person data at town halls, or asking questions at existing high-traffic social services offices (e.g., DMVs, unemployment offices) and public education institutions (e.g., community colleges) to ensure you are reaching the least connected groups.

Some States have collected their data throughout the State, and others have equipped lo- cal governments and coalitions to collect local data, including assets. Hawaii, for example, has done a Statewide study of **digital literary and readiness**, and Utah launched a Statewide **speed test and survey**. At the same time, **Nebraska** and **North Carolina** have created tools for local coalitions and governments to develop local digital inclusion plans. The resources they have created could be helpful for communities in the State seeking to develop their own local digital inclusion plans and for the entity to create a data collection plan.

Asset Mapping

Asset mapping identifies a community's existing resources, networks, and strengths in order to build upon them. By leveraging the resources in a community, asset mapping helps identify opportunities to support and scale strategies already in place. This, in turn, supports the empowerment of community residents and institutions and promotes ownership in the community-building process.

An asset inventory for your State digital equity plan will be a snapshot of the current landscape, an inventory of the assets present throughout the State that currently do, or potentially could, to support digital equity in each of these categories, prior to outlining measurable objectives. The inventory should include physical assets such as broadband infrastructure and ongoing deployment projects, organizations, programs, and individuals delivering digital inclusion services, funding sources to support digital equity work, and any other resources deemed essential to characterize the digital equity landscape. Establishing meaningful and measurable objectives requires a thorough understanding of the current landscape.

Hawaii's **digital equity ecosystem map** is a stunning example of a collective effort to understand and document the State's current digital equity ecosystem while simultaneously setting goals for growth.

Figure 14

Hawaii Digital Equity Ecosystem
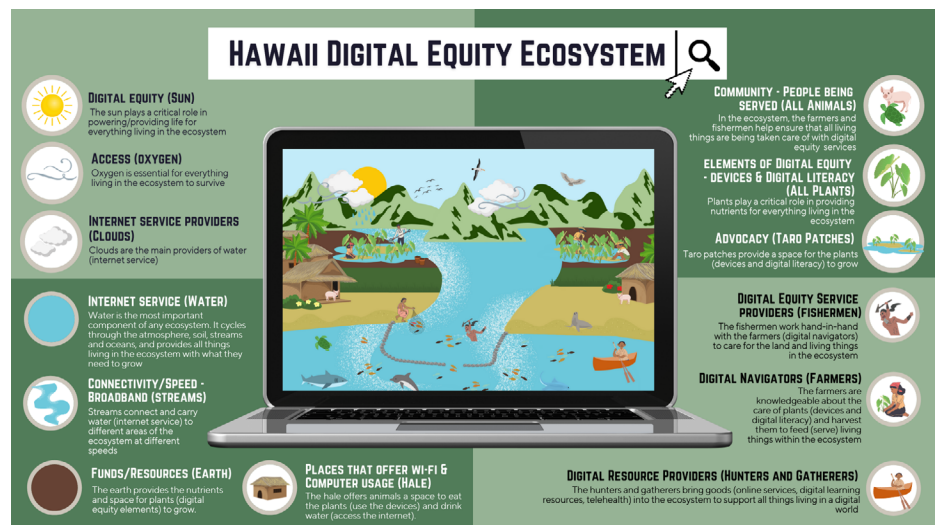
Appendix A: Best Practices Across States

State	Link	Description
California	**Research - Equity Best Practices**	California research on quick strategies to improve EBB enrollment
California	**Planning Document - Commission Report**	California "Broadband for All" planning document
Colorado	**Research - Digital Skills Survey**	Colorado Digital Skills Survey Questions
Louisiana	**Research - Geographic Data**	Dashboard highlighting broadband access, affordability, and digital literacy across LAs parishes
Louisiana	**Org Design - Commission Mandate**	Executive order highlighting the roles, responsibilities, and mandates of Louisiana's broadband for all commission
National	**Org Design - Team Structure**	National Broadband Resource Hub document on structuring state high-speed internet offices
Nebraska	**Planning Document - Planning Guide**	Nebraska Digital Inclusion Planning Guide & Workbook
Nebraska	**Planning Document - Plan Template**	Nebraska Digital Inclusion Plan Template
New York	**Org Design - Job Description**	Director of Outreach JD
New York	**Org Design - Job Description**	Digital Inclusion Manager for NYCHA JD
New York	**Org Design - Job Description**	Director of Digital Equity
North Carolina	**Research - Geographic Data**	Index highlighting internet availability, quality, and adoption
North Carolina	**Research - Community Outreach Guide**	Guide for doing internet access and adoption outreach across communities using multiple mediums
Washington	**Research - Community Outreach Guide**	Washington Digital Equity Forum
Wisconsin	**Planning Document - Commission Report**	Governor's Task Force report and recommendations on high-speed internet and digital equity expansion
Wisconsin	**Org Design - State Org Chart**	Wisconsin statewide high-speed internet and digital equity office organizational chart

Appendix B: Definitions

Digital Equity

Digital equity is a condition in which all individuals and communities have the information technology capacity needed for full participation in our society, democracy and economy. Digital equity is necessary for civic and cultural participation, employment, lifelong learning, and access to essential services.

Digital Inclusion

Digital inclusion refers to the activities necessary to ensure that all individuals and communities, including the most disadvantaged, access and use Information and Communication Technologies (ICTs). This includes five elements: 1) affordable, robust broadband Internet service; 2) Internet-enabled devices that meet the needs of the user; 3) access to digital literacy training; 4) quality technical support; and 5) applications and online content designed to enable and encourage self-sufficiency, participation and collaboration. Digital inclusion must evolve as technology advances. Digital inclusion requires intentional strategies and investments to reduce and eliminate historical, institutional, and structural barriers to access and use of technology.

Digital Divide

The digital divide is the disparity in access to, knowledge of, and ability to use digital tools and technology.

Digital Literacy

The American Library Associations has defined "digital literacy" as the following:

Digital literacy is the ability to use information and communication technologies to find, evaluate, create, and communicate information, requiring both cognitive and technical skills.

A digitally literate person:

- Possesses the variety of skills – technical and cognitive – required to find, understand, evaluate, create, and communicate digital information in a wide variety of formats;
- Can use diverse technologies appropriately and effectively to retrieve information, interpret results, and judge the quality of that information;
- Understands the relationship between technology, life-long learning, personal privacy, and stewardship of information;
- Uses these skills and the appropriate technology to communicate and collaborate with peers, colleagues, family, and on occasion, the general public; and
- Uses these skills to participate in civic society actively and contribute to a vibrant, informed, and engaged community.

Appendix C: The Digital Equity Act — State Plan Section

DIVISION F—BROADBAND
TITLE III—DIGITAL EQUITY ACT OF 2021

SEC. 60304. STATE DIGITAL EQUITY CAPACITY GRANT PROGRAM.

(c)STATE DIGITAL EQUITY PLAN.—

(1)DEVELOPMENT; CONTENTS.—A State that wishes to be awarded a grant under subsection (d) shall develop a State Digital Equity Plan for the State, which shall include—

(B) measurable objectives for documenting and promoting, among each group described in subparagraphs (A) through (H) of section 60302(8) located in that State—

(i)the availability of, and affordability of access to, fixed and wireless broadband technology;

(ii)the online accessibility and inclusivity of public resources and services;

(iii)digital literacy;

(iv)awareness of, and the use of, measures to secure the online privacy of, and cybersecurity with respect to, an individual; and

(v)the availability and affordability of consumer devices and technical support for those devices;

(C) an assessment of how the objectives described in subparagraph (B) will impact and interact with the State's—

(i)economic and workforce development goals, plans, and outcomes;

(ii)educational outcomes;

(iii)health outcomes;

(iv)civic and social engagement; and

(v)delivery of other essential services;

(D) in order to achieve the objectives described in sub-

paragraph (B), a description of how the State plans to collaborate with key stakeholders in the State, which may include—

(i) community anchor institutions; (ii) county and municipal governments;

(iii)local educational agencies;

(iv)where applicable, Indian Tribes, Alaska Native entities, or Native Hawaiian organizations;

(v)nonprofit organizations;

(vi)organizations that represent—

(I)individuals with disabilities, including organizations that represent children with disabilities;

(II)aging individuals;

(III)individuals with language barriers, including— (aa) individuals who are English learners; and (bb) individuals who have low levels of literacy;

(IV)veterans; and

(V)individuals in that State who are incarcerated in facilities other than Federal correctional facilities;

(vii)civil rights organizations;

(viii)entities that carry out workforce development programs;

(ix)agencies of the State that are responsible for administering or supervising adult education and literacy activities in the State;

(x)public housing authorities in the State; and

(xi)a partnership between any of the entities described in clauses (i) through (x); and

(E) a list of organizations with which the administering entity for the State collaborated in developing and implementing the Plan.

Appendix D: Covered Populations

The DEA defines the populations.

Covered Populations:

• Individuals who live in covered households (i.e. households with income less than or equal to 150 percent of the federal poverty level);

• Aging individuals;

• Incarcerated individuals, other than individuals who are incarcerated in a federal correctional facility;

• Veterans;

• Individuals with disabilities;

• Individuals with a language barrier, including individuals who—

  • are English learners; and have low levels of literacy;

  • Individuals who are members of a racial or ethnic minority group; and

  • Individuals who primarily reside in a rural area

Appendix E: Broadband Equity, Access, and Deployment Program Planning Requirements

(D)ACTION PLAN. —

(i)IN GENERAL. —An eligible entity that receives funding from the Assistant Secretary under subparagraph (C) shall submit to the Assistant Secretary a 5-year action plan, which shall—

(I)be informed by collaboration with local and regional entities; and

(II)detail—

(aa) investment priorities and associated costs;

(bb) alignment of planned spending with economic development, telehealth, and related connectivity efforts.

(ii)REQUIREMENTS OF ACTION PLANS. —The Assistant Secretary shall establish requirements for the 5- year action plan submitted by an eligible entity under clause (i), which may include requirements to—

(I)address local and regional needs in the eligible entity with respect to broadband service;

(II)propose solutions for the deployment of affordable broadband service in the eligible entity;

(III)include localized data with respect to the deployment of broadband service in the eligible entity, including by identifying locations that should be prioritized for Federal support with respect to that deployment.

(IV)ascertain how best to serve unserved locations in the eligible entity, whether through the establishment of cooperatives or public-private partnerships;

(V)identify the technical assistance that would be necessary to carry out the plan; and

(VI)assess the amount of time it would take to build out universal broadband service in the eligible entity.

(2)NOTICE OF AVAILABLE AMOUNTS; INVITATION TO SUBMIT INITIAL AND FINAL

PROPOSALS.—On or after the date on which the broadband DATA maps are made public, the Assistant Secretary, in coordination with the Commission, shall issue a notice to each eligible entity that—

(A)contains the estimated amount available to the eligible entity under subsection (c); and

(B)invites the eligible entity to submit an initial proposal and final proposal for a grant under this section, in accordance with paragraphs (3) and (4) of this subsection.

(3)INITIAL PROPOSAL.—

(A)SUBMISSION.—

(i)IN GENERAL.—After the Assistant Secretary issues the notice under paragraph (2), an eligible entity that wishes to receive a grant under this section shall submit an initial proposal for a grant, using the online application form developed by the Assistant Secretary under paragraph (1)(A)(iii), that—

(I)outlines long-term objectives for deploying broadband, closing the digital divide, and enhancing economic growth and job creation, including—

(aa) information developed by the eligible entity as part of the action plan submitted under paragraph (1)(D), if applicable; and

(bb) information from any comparable strategic plan otherwise developed by the eligible entity, if applicable;

(II)

(aa) identifies, and outlines steps to support, local and regional broadband planning processes or ongoing efforts to deploy broadband or close the digital divide; and (bb) describes coordination with local governments, along with local and regional broadband planning processes;

(III)identifies existing efforts funded by the Federal Government or a State within the jurisdiction of the eligible entity to deploy broadband and close the digital divide;

(IV)includes a plan to competitively award subgrants to ensure timely deployment of broadband;

(V)identifies—

(aa) each unserved location or underserved location under the jurisdiction of the eligible entity; and

(bb) each community anchor institution under the jurisdiction of the eligible entity that is an eligible community anchor institution; and

(VI)certifies the intent of the eligible entity to comply with all applicable requirements under this section, including the reporting requirements under subsection (j)(1).

(ii)LOCAL COORDINATION.—

(I)IN GENERAL.—The Assistant Secretary shall establish local coordination requirements for H. R. 3684—764 eligible entities to follow, to the greatest extent practicable.

(II)REQUIREMENTS.— The local coordination requirements established under subclause (I) shall include, at minimum, an opportunity for political subdivisions of an eligible entity to—

(aa) submit plans for consideration by the eligible entity; and

(bb) comment on the initial proposal of the eligible entity before the initial proposal is submitted to the Assistant Secretary.

(B)SINGLE INITIAL PROPOSAL.—An eligible entity may submit only 1 initial proposal under this paragraph.

(C)CORRECTIONS TO INITIAL PROPOSAL.—The Assistant Secretary may accept corrections to the initial proposal of an eligible entity after the initial proposal has been submitted...

(4)FINAL PROPOSAL.—

(A)SUBMISSION.—

(i)IN GENERAL.—After the Assistant Secretary approvals the initial proposal of an eligible entity under paragraph (3), the eligible entity may submit a final proposal for the remainder of the amount allocated to the eligible entity under subsection (c), using the online application form developed by the Assistant Secretary under paragraph (1)(A)(iii), that includes—

(I)a detailed plan that specifies how the eligible entity will—

(aa) allocate grant funds for the deployment of broadband networks to unserved locations and underserved locations, in accordance with subsection (h)(1)(A)(i);

and (bb) align the grant funds allocated to the eligible entity under subsection (c), where practicable, with the use of other funds that the eligible entity receives from the Federal Government, a State, or a private entity for related purposes;

(II)a timeline for implementation;

(III)processes for oversight and accountability to ensure the proper use of the grant funds allocated to the eligible entity under subsection (c); and

(IV)a description of coordination with local governments, along with local and regional broadband planning processes.

(ii)LOCAL COORDINATION.—

(I)IN GENERAL.—The Assistant Secretary shall establish local coordination requirements for eligible entities to follow, to the greatest extent practicable.

(II)REQUIREMENTS.— The local coordination requirements established under subclause (I) shall include, at minimum, an opportunity for political subdivisions of an eligible entity to—

(aa) submit plans for consideration by the eligible entity; and

(bb) comment on the final proposal of the eligible entity before the final proposal is submitted to the Assistant Secretary. H. R. 3684—766

(iii)FEDERAL COORDINATION.—To ensure efficient and effective use of taxpayer funds, an eligible entity shall, to the greatest extent practicable, align the use of grant funds proposed in the final proposal under clause (i) with funds available from other Federal programs that support broadband deployment and access.

(B)SINGLE FINAL PROPOSAL.—An eligible entity may submit only 1 final proposal under this paragraph.

(C)CORRECTIONS TO FINAL PROPOSAL.—The Assistant Secretary may accept corrections to the final proposal of an eligible entity after the final proposal has been submitted.

Appendix F: Examples of Local & Regional Digital Equity/Inclusion Plans

Local Governments

Alamance County Digital Inclusion Plan (2021)

Carteret County Digital Inclusion Plan (2021)

City of Long Beach Digital Inclusion Roadmap (2021)

Digital Durham Digital Equity Plan (2021)

Forsyth County Digital Equity Plan (2021)

Rockingham County Digital Inclusion Plan (2021)

City of Bloomington Digital Equity Strategic Plan (2020)

City of Seattle Internet for All Report (2020)

New York City Internet Master Plan (2020)

City and County of San Francisco Digital Equity Strategic Plan (2019)

City of Detroit Digital Equity & Inclusion 2019 + 2020 Timeline (n.d.)

Provo City Government Digital Equity Administrative Directive (2019)

Salt Lake City Digital Equity Policy (2019)

City of Kansas City Digital Equity Strategic Plan (2017)

Louisville Metro Government Digital Inclusion Plan (2017)

City of Austin Digital Inclusion Strategy (2016)

City of Portland Digital Equity Action Plan (2016)

District of Columbia Digital Divide Report (2015)

Regional

Land of Sky Regional Council Digital Inclusion Plan (2021)

Upper Coastal Plain Digital Inclusion Plan (2021)

Appendix G: Resources and Support

General Digital Inclusion Resources

From NTIA

Internet for All website

From NDIA

Digital Inclusion Coalition Guidebook

Defining a State Digital Equity Office White Paper

Digital Inclusion Startup Manual

Digital Inclusion Trailblazers (local governments)

Database of local and regional place-based digital equity coalitions (forthcoming in 2022)

From Other Organizations

Broadband Technology and Opportunities Program Evaluation Study, ASR Analytics

Broadband Adoption Toolkit, NTIA

Digital Navigator's Toolkit, Salt Lake City Public Library & NDIA

State Specific Digital Inclusion Resources

Many resources already exist to support the State in implementing the DEA programs as effectively as possible. The following short list will be updated as we and others develop more resources.

State Digital Equity Scorecard

NDIA's **State Digital Equity Scorecard**, developed in partnership with Microsoft and the **National Skills Coalition**, can support States by providing resources to measure, review, and replicate State digital inclusion efforts. The interactive map gives insight into State efforts and the link between unemployment, digital skills, and economic opportunities. The Scorecard is regularly reevaluated and updated to provide States with resources to measure, review, and replicate successful efforts.

NDIA's Asset Mapping Tools

NDIA is in the process of developing a suite of asset mapping tools for States, local governments, digital inclusion coalitions, and digital inclusion practitioners. The guidance and tools are comprehensive yet simple to implement and flexible enough to accommodate varying geographic scales and levels of detail.

National Broadband Resource Hub

The **National Broadband Resource Hub (NBRH)** is a free online community for government leaders and nonprofits working on expanding broadband access and affordability. The Hub houses a collection of expert broadband resources, including funding guides, policy analyses, how-to's, and more. Through the NBRH help desk, government employees and nonprofit organizations can book free consultation time with experts in broadband policy, funding, and program implementation. The NBRH also serves as a collaborative community platform for local leaders.

Additional Organizations with Helpful Resources

Benton Institute for Broadband & Society

Benton provides free, reliable, and non-partisan daily digest resources related to broadband developments and policy. These resources include Benton's Daily and Weekly Digest, which breaks down and discuss issues related to the BEAD and DEA programs, the Affordable Connectivity Program, and the Universal Service Fund.

Common Sense Media

Common Sense is a leading provider of bilingual digital literacy resources for families and educators. Common Sense offers a K-12 digital literacy curriculum that is used by 88 percent of Title 1 schools; original research on the digital needs of vulnerable families; and advocacy to promote affordable, future-proof broadband networks and digital inclusion programs. Common Sense harnesses its unique insights on the digital divide at home and in school to help State policymakers create digital equity plans that work for all communities.

Next Century Cities

Next Century Cities (NCC) engages in outreach to State leaders and participates in State- level regulatory proceedings encouraging collaboration with local leaders on Statewide plans and State-specific resources for community leaders seeking to improve broadband access and adoption. NCC elevates local perspectives on broadband policy, highlighting the critical need for processes that invite local officials to the table and provide opportunities for meaningful local policy recommendations. As a conduit of State and local coordination, NCC supports strategies to expand connectivity across regions and promotes inter-governmental collaboration.

Pew Charitable Trusts

The **Pew Charitable Trusts** is a global nongovernmental organization that seeks to improve public policy, inform the public, and invigorate civic life. Through efforts like the broadband access initiative, Pew works with State and federal policymakers, researchers, and other partners to accelerate the nation's progress toward universal, affordable high- speed Internet service. Pew provides technical assistance to help nonprofit organizations, businesses, and governments make evidence-based policy decisions.

Pew analyzes data, develops implementation plans, tailors models to the specific needs of the organizations with which Pew works, monitors progress, and helps interpret results.

Schools, Health & Libraries Broadband (SHLB) Coalition

The **SHLB Coalition** is a nonprofit, 501(c)(3) advocacy organization committed to closing the digital divide by promoting high-quality broadband for anchor institutions (CAIs) and their communities. The SHLB Coalition believes in building broadband «to and through» CAIs as a way to provide low-cost connections to the communities surrounding the anchor institutions. The SHLB Coalition, which has regular convenings and serves as an educational resource for its members, can help connect States to CAIs who will play a critical role in digital equity planning and implementation.

Heartland Forward

Heartland Forward is a nonprofit "think and do" tank focused on changing the narrative about the middle of the country and kick-starting economic growth. Heartland Forward's Connecting the Heartland initiative is a multi-State initiative (Arkansas, Illinois, Ohio, and Tennessee)[3] to ensure families in the heartland have access to the high-speed, affordable Internet service and digital skills necessary for full participation in life in the digital age. Heartland forward provides community broadband planning support to local leaders in collaboration with the Benton Institute for Broadband & Society and State partners. Heartland Forward also supports American Connection Corps fellows in several heartland communities and drives participation in the Affordable Connectivity Program through local awareness and enrollment outreach.

National Digital Inclusion Alliance

NDIA bridges the community of digital inclusion practitioners and policymakers by providing a unified voice advocating for broadband access, devices, digital skills training, and tech support. Working collaboratively, NDIA crafts, identifies, and disseminates resources and tools to help digital inclusion programs increase their impact.

Purpose of this Resource

The purpose of the BEAD and Digital Equity Pacing Guide is to help Eligible Entities **map out all their required local coordination milestones** for both programs. Both programs have multiple milestones throughout their timelines, so it is imperative that Eligible Entities **plan out their milestones and see which tasks apply to both programs to save time and effort**. Additionally, Eligible Entities should use this pacing guide to ensure they are **reaching out to all the appropriate stakeholders** for both BEAD and Digital Equity.

Why Coordination Matters

As stated in both the BEAD and State Digital Equity Planning Grant NOFOs, at a minimum, **States and territories should establish formal and direct communications** and collaboration pathways between the teams that remain in place throughout the entire planning process. This will be particularly important to **reduce the burden and confusion on community stakeholders** when fulfilling the local coordination, outreach, and stakeholder engagement requirements of both programs.

This is intended to be a resource to help states plan their local coordination over the course of the planning process. States may adopt other timelines and processes, so long as those processes conform to the NOFO requirements for both programs.

BEAD & State Digital Equity Planning Grant Sample Timeline

This is one example of a timeline that States could follow in conducting local coordination.

Month	0	1	2	3	4	5	6	7	8	9	10	11	12	13

BEAD

- Five Year Action Plan Development — ★ (Month 8)
- Conduct Needs Assessment & Asset Mapping — ◆ (Month 3)
- Develop Coordination & Outreach Strategy — ◆ (Month 2)
- Initial Report — ★ (Month 2)
- Executive Review and Approval

Five-Year Action Plan Submission

Digital Equity

- Digital Equity Plan Development — ★ (Month 9), ★ (Month 12)
- Define Digital Equity Vision
- Conduct Needs Assessment & Asset Mapping — ◆ (Month 3)
- Develop Coordination & Outreach Strategy — ◆ (Month 2)
- State Digital Equity Capacity Grant Preparation
- Executive Review and Approval

Draft plan complete

Digital Equity Plan Submission

Cross-Program Activities

- Tribal coordination (BEAD & Digital Equity) and consultation (BEAD)
- Local coordination
  - *Local officials of counties, cities, towns*
  - *Covered Populations*
  - *Workforce Development Organizations*
  - *Underrepresented Communities*
  - *Educational and Community Anchor Institutions*
  - *Public Comment & Comment Reconciliation*
  - *Refinement and review of Digital Equity Plan Draft with public stakeholders*
- Analysis and Inclusion of Stakeholder Engagement in both Plans

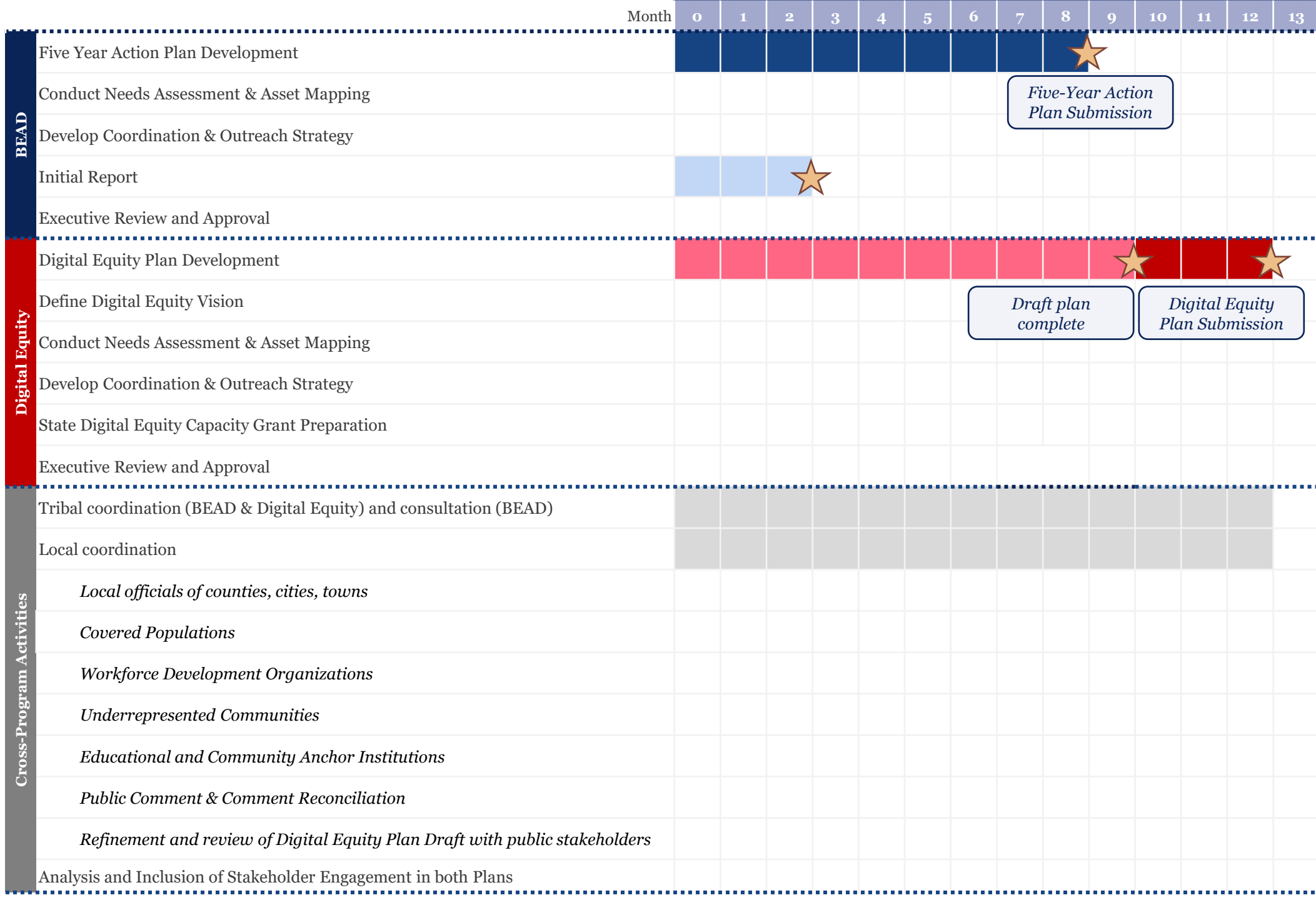## Legend

◆ Point of coordination and consolidation between BEAD and Digital Equity Plans

★ Key milestone

BEAD & State Digital Equity Planning Grant Template Timeline

This is a blank timeline with key milestones for customization and planning

Month	0	1	2	3	4	5	6	7	8	9	10	11	12	13

BEAD

- Five Year Action Plan Development — (Months 0–8, ★ milestone at Month 8)
- Conduct Needs Assessment & Asset Mapping
- Develop Coordination & Outreach Strategy
- Initial Report — (Months 0–2, ★ milestone at Month 2)
- Executive Review and Approval

Five-Year Action Plan Submission

Digital Equity

- Digital Equity Plan Development — (Months 0–12, ★ milestone at Month 9, ★ milestone at Month 12)
- Define Digital Equity Vision
- Conduct Needs Assessment & Asset Mapping
- Develop Coordination & Outreach Strategy
- State Digital Equity Capacity Grant Preparation
- Executive Review and Approval

Draft plan complete

Digital Equity Plan Submission

Cross-Program Activities

- Tribal coordination (BEAD & Digital Equity) and consultation (BEAD)
- Local coordination
  - *Local officials of counties, cities, towns*
  - *Covered Populations*
  - *Workforce Development Organizations*
  - *Underrepresented Communities*
  - *Educational and Community Anchor Institutions*
  - *Public Comment & Comment Reconciliation*
  - *Refinement and review of Digital Equity Plan Draft with public stakeholders*
- Analysis and Inclusion of Stakeholder Engagement in both Plans

Legend

★ Key milestone

Asset Mapping Guide

Data Equity
Gathering
Best Practices

**National Telecommunications and
Information Administration**

Table of Contents

Introduction

With the passage of the Bipartisan Infrastructure Law (BIL), the federal government is making historic investments in broadband technologies and infrastructure. The COVID-19 pandemic made it clear that too many households in America lack access to dependable, affordable, high-speed Internet. In many cases, Americans lack access because their home is in a location that is not connected to high-speed service, or they may be unable to afford the cost of a monthly high-speed internet connection.

To identify where high-speed internet is needed, an approach called asset mapping is used to collect, organize, and track data for building digital equity strategies and plans for new and improved infrastructure.

Whether focused on a single neighborhood or an entire state, digital inclusion coalitions, organizations, and public agencies across the country use asset mapping to identify resources, build partnerships, and plan for future work.

Through this guide and the accompanying Digital Equity Guide for States, the National Telecommunications and Information Administration (NTIA) has developed a set of practical guidelines designed to support asset mapping efforts by digital equity practitioners. The guidance and guidelines are comprehensive and flexible enough to accommodate varying geographic scales and levels of detail.

An Overview of Asset Mapping

Asset mapping at the state level helps to identify and build on the state's existing resources, networks, and strengths; these are the assets. This process helps emphasize capacity building and community-based solutions, and it works with community members and organizations as partners invested in solutions, rather than as problems to be solved. By mapping the connections of core assets in a region or community, and then expanding iteratively, the asset mapping process can generate a robust network of potential partners and stakeholders. Asset mapping is also particularly effective at uncovering resources in the community that would not otherwise have been invited to "a seat at the table" in a more traditional planning or engagement approach. Identifying the opportunities, interpersonal networks, and resources already present in a community will help identify areas to support and scale strategies that are already in place – which reduces duplicative efforts. In turn, asset mapping supports the empowerment of community institutions and people by sharing ownership in the local coordination efforts.

When undertaking any planning project or effort to bring about community change, understanding the current state through a needs assessment, existing conditions analysis, or another, similar method is a common early step. These approaches, however, often employ a deficit-based perspective - seeking to describe and quantify the problems to be fixed in a community (for example, poverty rate, people experiencing homelessness, or households without a broadband subscription). While typical, this approach to understanding and framing an issue has several inherent challenges:

- It marginalizes those most in need of support (such as people experiencing digital inequities) by emphasizing their adverse outcomes rather than the systems that contribute to those outcomes.

- It frequently pays insufficient attention to the resources and expertise within a community that can be leveraged to produce desired outcomes.

- And finally, it can lead to a bias toward external solutions imposed on a community rather than solutions built within and by the community.

Asset Mapping & the Bipartisan Infrastructure Law

Asset mapping can help local governments conduct more impactful, long-term, high-speed internet infrastructure and digital equity planning. Critically, asset mapping data can be used to help ensure that governments are able to incorporate the local, regional, and community needs, and elevates the voices/needs of underrepresented communities into planning and implementation efforts. By adapting and building on the opportunities and resources already present in the community, governments can avoid unnecessary duplicative work and intentionally build the relationships necessary for local coordination.

A Better Lens:
Mapping Digital Equity

Whether gathering information on a single neighborhood, tribal lands, across a city or even statewide, an individual or entity seeking to identify community assets must first define their geographic parameters to sharpen focus. In addition to defining a geographic area, it is also helpful to categorize assets in the inventory by the type(s) of digital equity activities each relates to. Comprehensive mapping of digital equity assets allows communities to measure investments and the impact of those investments. Crucial to this process are the five elements of digital equity, which are:

• Affordable, robust broadband internet service;

• Internet-enabled devices that meet the needs of the user;

• Access to digital literacy training and advanced digital skills training;

• Quality technical support;

• Applications and online content designed to enable and encourage self-sufficiency, participation, and collaboration.

Building the Network & Engaging New Partners

On top of compiling useful geographic and activity-type information about individual organizations and programs, the network-building aspect of asset mapping is vital to the digital equity field. Once coalition members, digital equity practitioners, and other obvious entities have been added, the research turns to finding individuals and organizations that are doing work (or that could be doing work) in at least one of the five elements of digital equity and engaging those individuals and organizations to build your network of resources to aid in the planning and implementation processes. For example, leveraging existing relationships with community anchor institutions, such as public libraries, helps broaden the asset map network to find, engage, and educate new partners.

In the case of an organization like a workforce development agency, they may see their work strictly through the lens of job seeking. For instance, helping an individual find gainful employment involves teachable moments such as cover letter and resume writing in a word processing application, understanding internet search engines, and how to use online employment application forms and job search sites. Not to mention the reality that in the COVID-19 pandemic, organizations began doing this work remotely, which commonly required supplying devices like laptops or tablets for their clients.

This approach covers five elements of digital equity: devices, digital literacy/digital skills-building, tech support, applications, and meaningful use or adoption. Therefore, if a workforce development agency is doing digital equity work, it should be invited to the table as an asset in workforce development and digital equity in any ongoing or future projects.

> Digital equity asset mapping is not only about mapping resources in the community but also about identifying impact and desired outcomes digital equity initiatives at the community level.

Reaching the Right Populations

A strength of asset mapping is its ability to reduce the marginalization of vulnerable populations by lifting up community voices. Defining a diverse network of partners encourages outreach and engagement with a broad array of communities while limiting the emphasis on deficit-based approaches. This can be especially critical for reaching groups for whom engagement and trust in established institutions are challenging.

Identifying trusted entities, that can include community-based organizations, community anchor institutions, or even informal gathering places, brings these communities into the fold while also elevating the mission of a like-minded organization in the digital equity space.
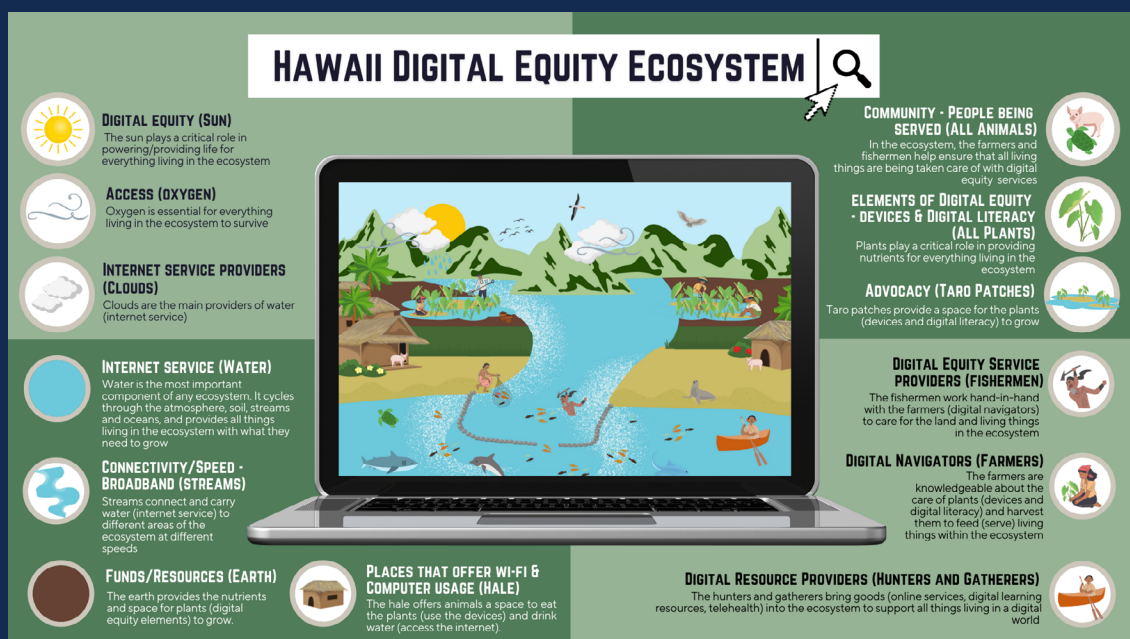
Understanding the Digital Equity Ecosystem

When asset mapping is well organized, incorporates comprehensive data sources, and benefits from strong engagement throughout the community, the result is greater than a set of individual data points.

A "digital equity ecosystem" is a combination of programs and policies that meet a geographic community's unique and diverse needs. In a digital equity ecosystem, coordinating entities work together to address all aspects of the digital divide, including affordable high-speed internet, devices, and skills. One key component of an effective digital inclusion ecosystem is collaboration among partners to co-create solutions within the community rather than one entity designating actions from the top down. While the purpose of the asset mapping process is to document the resources in a community, it can also uncover the ecosystem that currently exists and help set the course for further evolution through continued network building and collaborative, community-based solutions. Informed by their own asset mapping efforts, the **State of Hawaii Broadband and Digital Equity Office** has developed infographics and a report detailing the components of the digital equity ecosystem in their state.

Figure 1: A Digital Equity Ecosystem[1]

1 State of Hawaii, Hawaii Broadband & Digital Equity Office, Digital Equity Ecosystem Map, https://broadband.hawaii.gov/deemap/.

Conducting Asset Mapping

To assist digital equity coalitions, organizations, state leaders, and others interested in better understanding the digital equity ecosystem in their community, NTIA has developed a set of asset mapping guidelines. Every community has a wealth of assets that contribute to the character and resources of a place: institutions, individuals, formal and informal networks, physical spaces, and shared culture, to name a few.

While all are essential components, NTIA's asset mapping guidelines are focused on documenting the organizations and programs that provide (or potentially could provide) digital equity services and support in a community.

It may also be beneficial to communities that have not previously conducted asset mapping to connect other communities who have experience in asset mapping for advice on potential outreach strategies. These suggested guidelines are designed to support a wide array of needs and experience levels.

Key Guidelines for Digital Equity Asset Mapping Initiatives

Establish standard data fields and terminology

Collecting the same types of information about digital inclusion resources and services across different communities will develop shared languages and understanding across the field. It will facilitate the comparison of strategies and best practices between communities and states and supply or development of the digital inclusion field. Use your communication and local coordination outreach activities to inform your data collection.

Maintain flexibility to meet specific user needs

Recognize the diversity of potential contributors; the asset mapping guidelines were designed to be customizable. There are bound to be varying interests in the types of assets gathered, levels of detail in the information collected about assets, and intended uses of the result.

Comprehensively include all components of digital equity work

Covering all types of digital inclusion services allows for information about various organizations and programs to be compiled in one place. Additionally, many organizations provide multiple services (e.g., affordable devices, training courses, and technical support), and it is vital to reflect all aspects of an organization's digital inclusion work.

Populating as much or as little information in the asset mapping guidelines as is necessary for user needs

Fields may be skipped, and standard response options may be overwritten by user organizations if desired. For example, a state broadband office may choose to only map organizations and the categories of digital equity work they do. In contrast, a local coalition may decide to track detailed information about each program in their community, resulting in some organizations appearing in the asset inventory multiple times.

Provide free and accessible resources

Extending resources to as many entities working for digital equity is fundamental to NTIA's work. NTIA encourages contributors to translate their choice of resources into whatever platform best fits their needs, the selected formats do not require additional software or subscriptions. Resources are accessible to contributors with moderate digital skills.

Information to Collect

For each asset mapped, governments can consider the type and granularity of information to collect.

- **Basic Information:** This includes information such as organization name, website, point of contact, operating hours, organization mission or purpose, organization type, constituents, and website links.
- **Covered Populations:** Identify the groups that are already serving the covered populations in different localities and regions and areas of the state. Identify how these different organizations overlap to identify unserved populations and regions.
- **High-speed Internet specific data points:** These data points may differ based on organization type, but could include data points around the following:
  - Broadband access & affordability (e.g., local advocacy groups)
  - Device access (e.g., schools or other entities providing devices)
  - Digital skills & technical support (e.g., workforce development or job training organizations)
  - Public device & internet access (e.g., local libraries with community computer access)
  - Digital equity funding (e.g., local foundations funding digital equity efforts)
  - Digital equity/broadband adoption (e.g., meaningful use and improved outcomes data)
- **Other community assets:** such as existing partner- ships, coalitions, and resources

Remember data collection is an iterative process and should be customized to meet the needs of the community. Using these best practices can help ensure a comprehensive approach that allows input from a wide range of stakeholders withing the community.

Guidance and Usage Tips –
Community Data Collection Tool

An asset map may be created by the state, a local or regional coalition representative, a statewide convening entity, or an individual or organization looking to find digital equity partners. The creation of a tool, like a spreadsheet or a fillable form, for an individual or small group to enter multiple records for different assets can help ensure comprehensive data collection. Ideally, the state will have a tool that will allow it to fill out the form on behalf of an organization, person, or resource, and will also permit people and community organizations to fill it out for themselves.

This tool, and all the data entered in it, can be owned and managed by the organization or entity compiling the information. Therefore, individuals within the orga- nization or entity have complete control over access and editing controls of their copy of the tool. Currently, there is no national data repository for asset mapping tools, so each tool should be managed locally by the organization or entity compiling the information.

A data collection tool should have the following features:

- Be publicly accessible and either free or available at a nominal cost;
- Have an interactive, user-friendly query capability with downloadable data;
- The capability to integrate with other GIS informa- tion, such as broadband access and availability, to create visual overlays;
  - Offer a companion training guide;
  - Regular updates with tagged data sources and dates.

In addition to the features listed above, proj- ect teams must determine which features best fit their individual needs and resources. One method is to build out an initial asset mapping tool and expand upon its capabilities over several projects.

Project Execution

The asset mapping project leader should bring together a team with partners who can provide additional resources, knowledge, and connections. This will ensure the team captures all relevant assets, opportunities, and people. Executive buy-in from government leaders is helpful to encourage cooperation and raise the project's profile.

One office (e.g., Department of Transportation planning) should lead the asset mapping process. Key considerations for selecting project leadership include:

• Access to or ownership of public assets and data

• Existing relationships with relevant partners

• Data collection, curation, and visualization expertise

Asset Mapping Benefits from the Participation of Key Public and Private Sector Stakeholders

Project Leadership

One office should lead the process. It should:

• Have access to or ownership of public assets

• Leverage exisiting relationships with relevant partners

• Incluse data collect, curation, and visualization expertise

Partnerships & Project Team

The project leader should bring together a project team:

• Find partners who can provide additional resources, knowledge, and connections

• Ensure that they capture all relevant assets

• Create buy-in from government leaders

Data Use & Access

The project team should decide how to use the resource:

• Determine which information is appropriate to share:
  • Consider critical infastructure security concerns
  • Consider proprietary business data

• Have an internal version and a public version

Data Management

A successful asset mapping project needs to consider several elements of data management.

Data Management Elements

Managing the Process

The project leader should clearly communicate to stakeholders the ask, costs involved, and the data collection and transfer process. They should also listen to stakeholders and adjust processes as needed.

Data Collection

Standardize and validate the data collection process from the outset. This work may involve digitizing paper records, which usually require multiple agencies to provide access to the project team. In addition, the project team can include physical records and conduct field visits to physical assets as part of local coordination efforts.

The Asset Mapping Tool

The project team should be able to access data visualization capabilities to share information with stakeholders through the tool of their choice. Critically, they should have appropriate cybersecurity, data integrity, and privacy provisions while embracing collaborative and accessible tools.

Asset Mapping Data & Inventory

It is best to create a flexible framework for organizations to identify and organize digital equity resources, programs, and funding sources within a geographic area. Asset mapping information should be organized into sections and fields according to common types of digital equity work.

Given that not all sections of an asset map will be applicable to every organization, NTIA recommends that the organizations or individuals compiling the asset mapping tool populate only the fields and cells within the map that apply to a given asset. NTIA also suggests that if an organization or individual cannot edit the asset mapping tool to input their own information directly, the team should provide a way through which organizations can submit their own information or information about other organizations and programs they are familiar with. This approach can dramatically expand the digital equity resources captured during the asset mapping process.

The key takeaway is to create an asset mapping tool that permits the team to capture the information in whichever ways are most useful to understand how a key resource fits within the community and its relationship to state planning goals and needs.

Effectively capturing the relevant information about the resources, people, and organizations in the asset mapping tool should be done in ways that best fit the needs of the team. Information about a resource can be detailed in the asset mapping tool in a variety of ways with varying levels of specificity.

The following examples illustrate how information about the same asset might be captured in three different ways:

- A state library is conducting statewide asset mapping to identify which types of digital equity support each library system in the state offers. Given the scale of this effort, the state library would likely have a single record for each library system, with contact information for the library administration and the types of digital equity work the system does. Still, program information and other sections of the asset mapping guidelines may be left blank.

- A local digital equity coalition collects asset mapping information to create an online digital equity resource guide. As a critical community asset, the local library will be included. Because it would be necessary for organizations using the guide to know if a resource is close to them, the coalition will consist of each library branch location as a separate entry in the asset mapping tool. In this case, capturing days and hours of operation and crucial information about technical support, public device, and internet access would also be essential.

- Another coalition uses asset mapping to identify digital equity programming gaps in the community. Knowing that the local library offers a device loaning program, a digital skills program for older adults, and a program offering remote technical support, the coalition will document each program provided by the library as a separate record in its asset mapping. This means that the library will show up multiple times in the organization field, once for each program it offers. However, each record will only include information relevant to the program; the remaining areas will be left blank.

Examples

- **Capital Region Coalition for Digital Inclusion** (Sacramento, CA). The nonprofit mohuman worked very closely with community-based organizations and residents of digitally underserved regions to identify their needs and the digital services necessary to meet those needs. The result was the co-development of moDAT, the people's digital advocate and navigator. This iteration of moDAT, developed for the Capital Regional Coalition for Digital Inclusion to serve the Sacramento area, is an intelligent platform designed to help navigate the digital equity resources in their community.

- **Digital Inclusion Network** (Portland, OR). The Portland Digital Inclusion Network maintains a searchable directory of local digital equity resources. In the spirit of collaboration, the Portland Digital Inclusion Network encourages members to share materials; identify opportunities, challenges, and resource gaps; and develop solutions to better serve digitally disconnected residents.

- Representatives from the **Cleveland Foundation** described creating an infographic to visually communicate information collected from the asset mapping guidelines. They also stated their intention to integrate the asset mapping tool and resources collected into their existing website for their digital navigator's program. Representatives envision developing a network map to document Cleveland's local digital equity ecosystem.

- A **Kansas City Digital Drive** representative shared their vision to evolve the inventory from a list into a resource that tracks the digital skills and digital training continuum. They described using the resource to help guide learners along a path suitable and appropriate for their abilities and interests and cited how television streaming services can "suggest" a similar movie based on previous views. Most working groups indicated that implementing the tool would result in a public-facing resource.

- **Long Beach, California's** stakeholder engagement process convened a 50-person multidisciplinary committee that reflected the entire spectrum of digital equity. This committee provided strategic guidance to advance Long Beach's digital equity plan. The stakeholder committee developed a common agenda, engaged in asset mapping, developed a shared measurement system, refined draft strategies, and reviewed community input. The community engagement process collaborated with trusted community partners to engage individuals impacted by the digital divide. Long Beach engaged the community through pop-up events, workshops, interviews, and a community survey.

As more organizations and digital equity coalitions engage in network mapping, identify new use cases, and produce new guidelines from the results, NTIA will continue to share best practices and guidance as this essential aspect of digital equity work evolves. NTIA will work with different states and territories to provide technical assistance, support, data, or programmatic requirements to produce State Digital Equity Plans that fully address gaps in broadband adoption, promote digital skills, advance equitable access to education, healthcare, and government services, and build information technology capacity to enable full participation in the economy for covered populations.

Conclusion

NTIA is here to help states to identify existing resources, people, and partnerships to build robust plans for broadband access, adoption, affordability, digital equity, and digital inclusion across the state. NTIA also requires local coordination; asset mapping is an effective strategy to collect data that will be used to show how funding can support broadband access, adoption, and use, as well as broader social, community, and economic outcomes. Through these methods, NTIA will empower states, tribes, territories, and local communities to achieve digital equity and Internet for All.