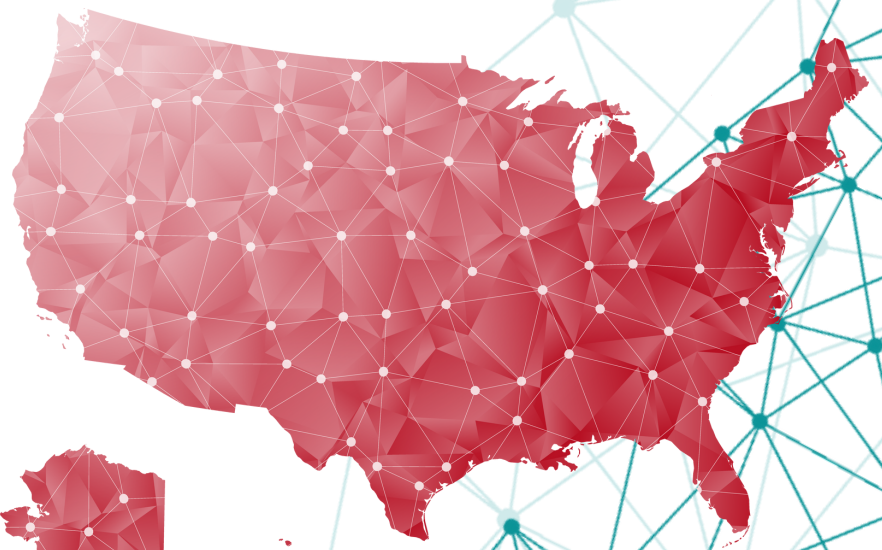




STATE DIGITAL EQUITY PLAN TOOLKIT



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To the states, territories, District of Columbia, and all of you working to bring digital equity to your community: Thank you. With digital equity, we all win.

This Toolkit was created with support from:



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CHAPTER I: INTRODUCTION



Background

When 2020 began, no one could have predicted that within 18 months the federal government would make its biggest investment yet in broadband and digital equity in the nation’s history. That’s exactly what happened, though, when the tragic global pandemic crystallized the consequences of being disconnected from the internet. Overnight, the digital divide—an issue that previously seemed niche to policymakers—became a glaringly obvious, debilitating challenge as affordable internet access, meaningful devices, and digital skills became even more essential to individuals’ work, education, health, and social connections.

In 2020, Congress responded to the exposed digital divide through a series of COVID relief packages, including the Consolidated Appropriations Act of 2021 (CAA) and the American Rescue Plan Act (ARPA) of 2021, which created new federal grant programs, like the Emergency Broadband Benefit Program and the Capital Project Funds program, and allocated funds to state and local governments to provide relief to those impacted by the digital divide. Then, in November 2021, President Joe Biden signed into law the bipartisan Infrastructure Investment and Jobs Act (IIJA), which invested \$65 billion into broadband infrastructure, broadband affordability, and digital equity programs through the Digital Equity Act (DEA) and the Broadband Equity, Access, and Deployment (BEAD) Program. The IIJA programs now fall under the umbrella of the Biden-Harris’s “Internet for All Initiative.”

Despite the tragic circumstances that led to this moment, we are indeed living in a historic and wholly unique time. While we will not completely eliminate the digital divide within the next five years, we collectively have the opportunity to design and establish new structures and digital equity ecosystems in which all current and future barriers to digital equity can be addressed.



Note: Many Tribal governments will also create digital equity plans through the DEA, but as of the time of this publication, how many Tribal governments will do so and what requirements NTIA has for those plans is yet to be determined. We do know the requirements will differ from those the states, territories, and DC. As such, this Toolkit does not contain guidance for Tribal governments who will build digital equity plans, as any guidance provided would be premature.

Through the required planning processes embedded in the DEA and BEAD programs, the IJA rightly acknowledges the key role states, territories, the District of Columbia, and Tribal governments have in designing and spurring the development of sustainable, resilient, and robust digital equity ecosystems that address the unique needs of their residents. This is why the planning processes that DEA and BEAD require and that **states** will lead are so important. The plans will provide the groundwork for understanding the current landscape, developing equitable, robust ecosystems, and providing a roadmap for achieving universal access and digital equity nationwide.

This moment is doubly unique in that it is the first—and possibly the only time—every state, US territory, and the District of Columbia will **simultaneously** design digital equity plans. Only a few states already have what could be called “digital equity plans” to date. None have a plan that meets all the requirements outlined in the State Digital Equity Planning Grant Notice of Funding Opportunity (NOFO). Some towns, cities, counties, and regions have developed digital equity plans over the years, yet none have done so as a cohort—meaning they’ve not been walking through the same process at the same time. Yet that is exactly what is about to happen for states. The **administering entities** will need to reach the same milestones at nearly the same times. You’ll be facing similar issues and challenges, conducting similar outreach and engagement strategies, embarking on similar processes, and working to achieve similar goals within the same timeframe as your counterparts in other states. Many of the administering entities are in newly established offices. Others may have a long history of working on broadband deployment or other issues in the states but have not had the ability to work on digital equity issues. And even those who have long worked on digital equity issues, new staff, new environments, and a new digital equity landscape combined with existing responsibilities may make the digital equity planning process feel daunting.



Note: 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. That entity is responsible for developing, implementing, and overseeing the digital equity plan for the state. The administering entity can be a state agency or a variety of other entities, including but not limited to a political subdivision, community anchor institution, or partnership between multiple organizations.

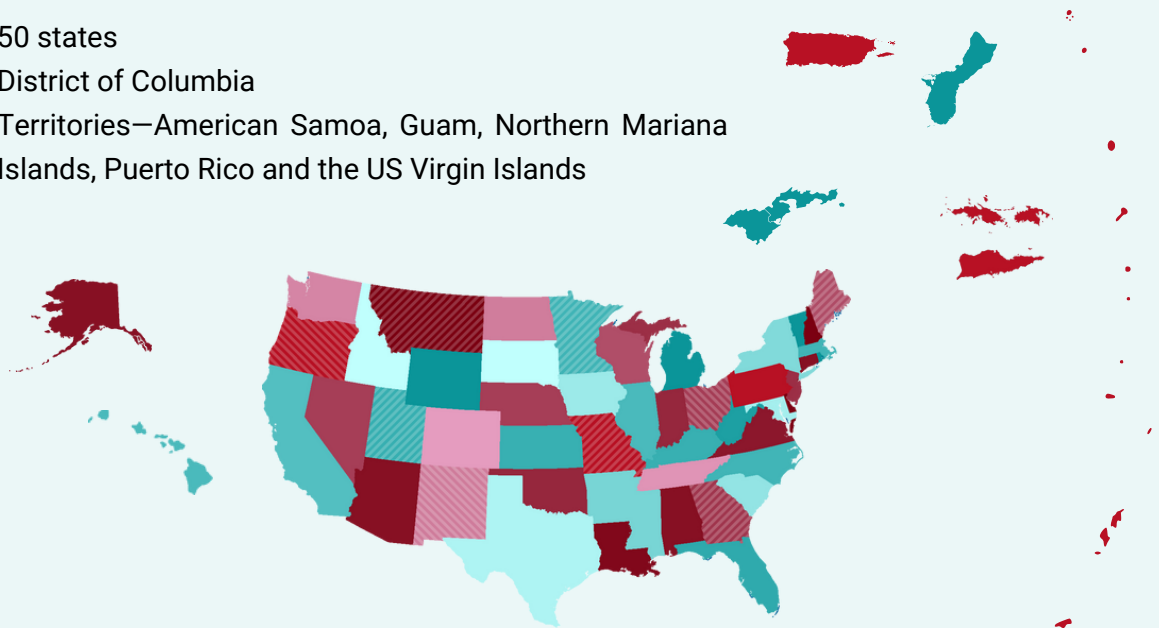


Given the combination of this unique moment and the need for support in efficiently and collaboratively launching the DEA planning process, NDIA and Microsoft offer this resource to support the administering entities. The State Digital Equity Plan Toolkit is intended to equip you with the guidance, best practices, and tools to design a robust, comprehensive digital equity plan that leads to the creation of impactful digital inclusion programs, policies, and tools.

With digital equity, we all win. 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. More than ever, we can affirm that digital equity is necessary for civic and cultural participation, employment, lifelong learning, and access to essential services. More than ever, we can affirm that digital equity is necessary equity is necessary for civic and cultural participation, employment, lifelong learning, and access to essential services. Achieving digital equity itself is a worthwhile goal and would be a monumental success for the DEA should that be achieved through these plans. While the rapid evolution of technology means future digital inequities are inevitable, if the digital equity plans and their subsequent implementation establish sustainable programs within strong ecosystems, they will be essential future resources to quickly address new digital inequities as they arise.

WHEN WE SAY 'STATES,' WE MEAN...

- 50 states
- District of Columbia
- Territories—American Samoa, Guam, Northern Mariana Islands, Puerto Rico and the US Virgin Islands



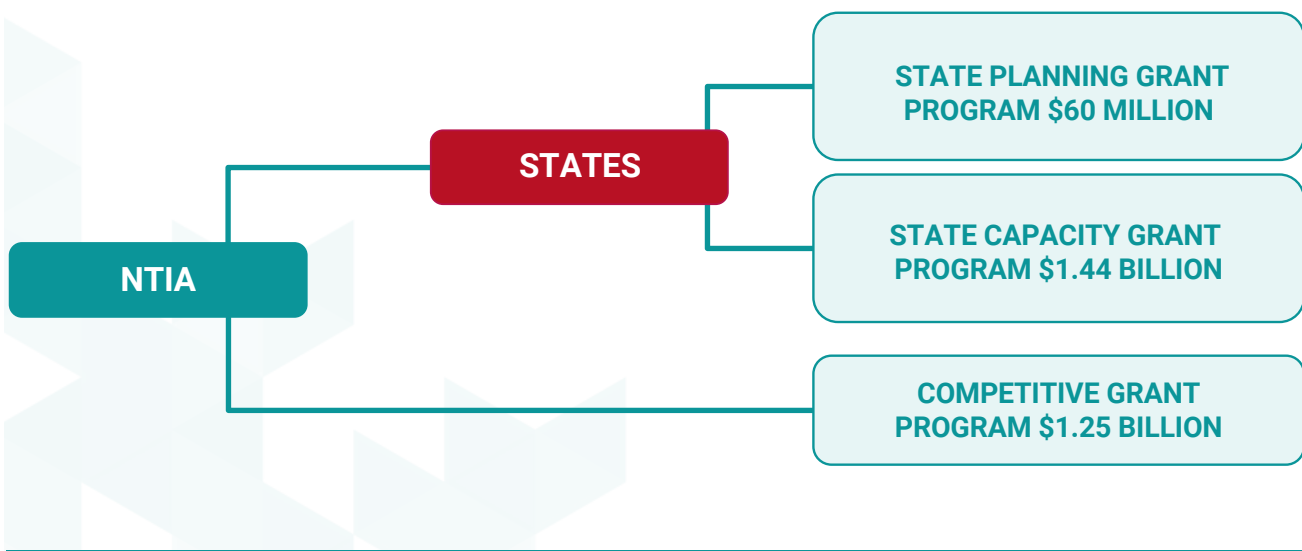
The Digital Equity Act



The DEA was codified in the Infrastructure Investment and Jobs Act of 2021. It is a \$2.75 billion program housed at the National Telecommunications and Information Administration (NTIA) within the US Department of Commerce, which is also the federal agency administering the BEAD program, the Tribal Broadband Program, and other broadband programs. The DEA created two programs broken into three grants—the State Digital Equity Capacity Grant Program (\$1.5 billion) and the Digital Equity Competitive Grant Program (\$1.25 billion).

The State Digital Equity Capacity Grant Program contains two types of grants: (1) planning and (2) capacity. The State Digital Equity Planning Grant Program provides \$60 million in funding for states, territories, the District of Columbia, and Tribal entities to develop digital equity plans, which are required to be eligible for the capacity grants. All 50 US states, the District of Columbia, and US territories applied for the planning grants in summer 2022 and thus will be eligible for the capacity grants. Capacity grants are what they sound like—\$1.44 billion to provide administering entities with the necessary support and capacity to fund the states’ digital inclusion priorities, strategies, and initiatives outlined in the plans. The [NOFO](#), published on May 13, 2022, provides guidance for the State Digital Equity Planning Program grants. As of the date of this Toolkit’s publication, the NOFOs for the Capacity Grant Program and the Competitive Grant Program are forthcoming.

Overall, the Digital Equity Planning Program NOFO sticks pretty closely to the DEA text, but fleshes out the language a bit more in places, offering more guidance for administering entities. While we reference and quote the NOFO throughout this Toolkit (and include a portion of its text in Appendix B.2), please see the NOFO itself for more information on the statutory and administrative requirements.



About the Toolkit

As previously noted, the Digital Equity Act is a once-in-a-generation opportunity to design systems that will enable true digital equity. Congress and NTIA outlined specific things for states to include in their digital equity plans. However, they did not provide guidance on how to compile the plans. This State Digital Equity Plan Toolkit provides that guidance. The National Digital Inclusion Alliance team combined our own subject matter expertise, lessons learned from our community of over 1,000 affiliates across the country, and our understanding of the DEA as it appears in the IIJA and NOFO into what we hope is a particularly useful toolkit for you, the administering entities, as you embark on this planning process. For pre-planning advice and suggestions for building a digital equity office, see [NTIA's Digital Equity Guide for States](#).

Through best practices, recommended step-by-step processes, templates, and tools, the Toolkit supports administering entities and your partners in designing robust, comprehensive digital equity plans that lead to impactful digital inclusion programs, policies, and tools.

Building a statewide digital equity plan is similar to building a state broadband plan or a state economic development plan. The primary difference is a digital equity plan specifically and holistically addresses the digital divide and identifies strategic solutions. Some lessons and best practices can be drawn from communities across the country who have created local digital equity plans, but local plans cannot fully inform the administering entities given that its role and responsibilities differ from a local government's or a community-based organization.

3 TIPS FOR CREATING AN ACTIONABLE, ROBUST PLAN

1. Build your planning process and its implementation on meaningful community engagement. Listen and collaborate with partners and stakeholders early and often.
2. Begin with a comprehensive understanding of your assets and gaps, so you can plan where to go.
3. Design the plan and its components with your end goal in mind.

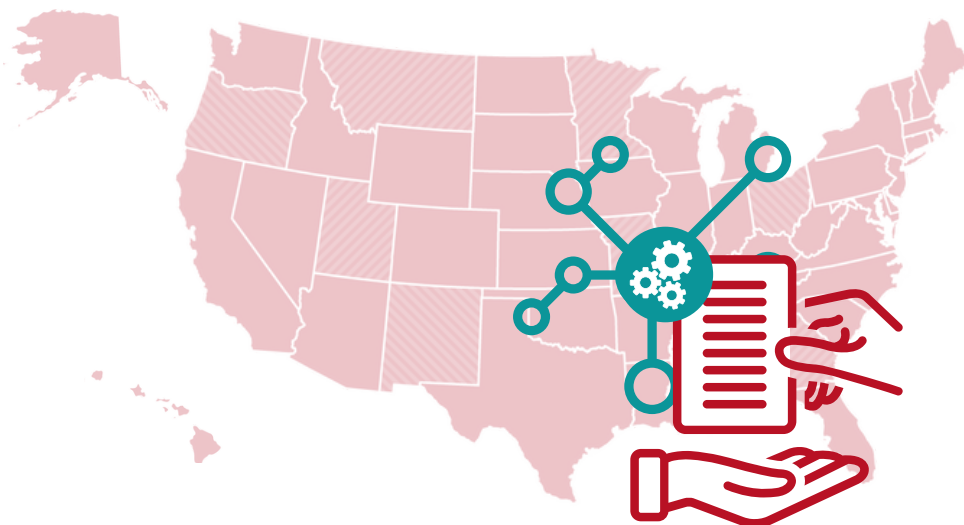


WHAT TO EXPECT INSIDE THE TOOLKIT...

1. General recommendations to consider for the entire planning process
2. Suggested outline for your plan
3. Tactical recommendations for building a digital equity plan, section by section

Like any plan, a digital equity plan is just that, a plan. Any plan is only impactful and successful if it provides a clear path for action. Indeed, Congress' intent for the plans, as required in the DEA, is that the plans would be the precursor for action. They are intended to provide an opportunity for the states to step back, assess their residents' needs, and determine what strategies, partnerships, and programs are needed to foster digital equity within their state.

Part of the beauty of the United States is the diversity of the states, territories, the District of Columbia, and Tribal lands. Each of their character attributes differ, and the ways in which the digital divide manifests itself will reflect that diversity. In turn, your goals and strategies for achieving digital equity will necessarily differ from the other. Iowa's path to digital equity will be much different than Alaska's or even its neighbor, Kansas. As such, states may choose to use this toolkit as a loose guide or more closely follow each recommendation. Regardless, our hope is that it simplifies the process of creating a plan and helps each state implement and achieve digital equity with and for its residents.





CHAPTER II:

GENERAL RECOMMENDATIONS

The NOFO contains 15 requirements that range from typical things found in strategic plans—like a vision statement—to very specific, nuanced requirements. Chapter III will delve into the nuances and provide more targeted and specific recommendations for how to meet the 15 requirements. This chapter provides general recommendations that will support the planning process writ large. Establishing a core planning team to support and advise the administering entity, weaving meaningful engagement throughout the process, leveraging the resources locals have already gathered and developed, reflecting your state’s diversity throughout the plan, and aligning the overall DEA plan in addition to specific sections with the BEAD five year action plan are all strategies that will impact the entire planning process and should be leveraged throughout.

Establish a Core Planning Team



Creating the state digital equity plan that meets the requirements of the NOFO within the allotted 12 month time frame is a large and daunting task. Implementing the plan will be an even larger task. As such, the plan’s development and implementation will necessarily be a team effort. Thus, NDIA’s first recommended step is to form a **core planning team**, consisting of a diverse set of stakeholders and partners to lead and advise the plan’s development.

Note: We use the term "core planning team" here, but some states may choose to name the team an "advisory committee" or "taskforce."

The administering entity is responsible for the development and implementation of the plan, but the core planning team can serve as an entity as it progresses through the planning process and throughout its implementation. The core planning team also doubles as a support for the administering entity and an engagement tool.

The core planning team should be between four and 15 people—a group small enough to ensure conversations remain productive but large enough that a variety of voices are included. The core planning team should, at a minimum, be composed of multiple staff members of the administering entity and at least one member of the team leading the BEAD five year action planning process. Additional core planning team members could include partners from other state agencies and universities, representatives of community-based organizations (CBOs) and community anchor institutions who work directly with the covered populations, digital inclusion practitioners and/or coalitions, and “lived experts” who are members of the covered populations. While building the core planning team, look for people who can speak to and represent their organization’s vision and alignment with the DEA plan but also who are available and not so senior in the organization they’re unable to pitch in and support the planning work.

States should also 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. If possible, cover the costs of the resident to participate in the team by providing an honorarium and paying for childcare costs, meals, and travel for in-person meetings.

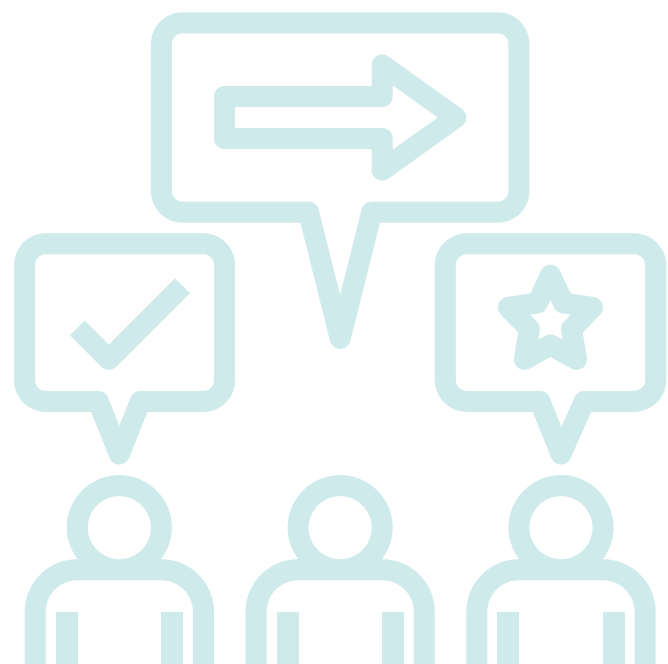



Figure 1.A

EXAMPLE CORE PLANNING TEAMS




Large Team Example

1. Administering entity's digital equity lead
2. Administering entity's broadband lead (who will also be on the BEAD team)
3. Representative from state department of education
4. Representative from the state library
5. Representative from state community or technical college system
6. Representative from a college or university system (specifically a minority-serving institution, like a historically Black college or university, where present)
7. Representative from a local digital inclusion coalition
8. Representative from organization representing older adults
9. Representative from organization who often work with low-income households
10. Representative from digital inclusion focused community-based organization
11. Lived expert from one covered population
12. Lived expert from second covered population
13. Representative from a regional/local government

Figure 1.B

EXAMPLE CORE PLANNING TEAMS



Small Team Example

1. Administering entity's digital equity lead
2. Administering entity's broadband lead
3. Representative from workforce development agency
4. Representative from local library
5. Representative from digital inclusion focused community-based organization
6. Representative from a college or university system (minority-serving institution, like a historically Black college or university, where present)
7. Lived expert from one of the covered populations

The administering entity is responsible for clearly defining and delineating roles and expectations for each planning team member. Throughout the planning process, the core planning team can provide feedback and guidance to the administering entity. In addition, they can help the administering entity identify and connect with stakeholders, collect data, conduct asset mapping, and other support with other tasks.

Core Planning Team Member Responsibilities Could Include:

- Identify and recruit partners and stakeholders to engage in the planning process (attend town hall events, participate in distributing a survey or any other research the administering entity conducts, provide information on organizations for asset mapping, etc.)
- Design outreach activities (e.g. summit, regional meeting, public forum, or focus group)
- Design research structure and activities
- Assess feedback and research conducted and data collected
- Provide input and feedback on the measurable objectives developed
- Provide guidance on digital equity plan deliverables (e.g. vision, measurable objectives, barriers for digital equity for the covered populations, etc.)

Meaningful Community Engagement



Why Community Engagement?

The state digital equity plan is a strategic document that should be co-developed and equitably influenced by the people it will serve and the partners and stakeholders who will support its implementation.

See [Chapter IV "Description of Collaboration with Key Stakeholders"](#) section in this Toolkit for more information.

The administering entities have the responsibility and privilege to lead the digital equity planning and implementation process, but they will need to rely on the community to gain the knowledge and expertise to develop effective strategies to address barriers and to establish and expand the state's digital inclusion ecosystem.

The first step in developing an effective and efficient digital equity plan is to recognize that community participation and engagement should be an integral component of the entire planning, implementation, and evaluation processes from start to finish. Successful community engagement will result in a deeper understanding of barriers to digital equity and existing assets and can help build consensus on how to address the barriers identified, while enhancing trust, cooperation, and community commitment to partnership.

If you need to hire external services to help you conduct stakeholder engagement, consider one or more local firms who are experienced at facilitating stakeholder engagement for strategic planning, particularly one who has worked with or for organizations serving any of the covered populations.

Community Engagement Process



STEP 1: IDENTIFY

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, and NTIA expanded on the list in the NOFO. However, meaningful community engagement requires more than listing stakeholders. It requires thoughtful consideration of the different types of stakeholders and how best to prioritize outreach and engagement to the populations they represent.

To implement meaningful community engagement, administering entities should develop inclusive and comprehensive engagement plans that provide several opportunities—with varying levels of time commitment and expected input—for communities and individuals to engage in the planning process. A range of engagement tools that provide a scaffolded approach to engagement are available and further defined below. Before determining how, when, and which strategy you will employ to reach out and engage various partners and stakeholders, you must identify them. In addition to the list of organizations and people in the NOFO, NDIA developed a list of additional partners and stakeholders to consider. NDIA recommends administering entities prioritize outreach and engagement with covered populations and digital inclusion organizations, practitioners, and advocates. The list of organizations provided may support you in identifying covered populations and digital inclusion organizations in places you may have not otherwise looked.

Table 1.A

RECOMMENDED PARTNERS AND STAKEHOLDERS

Stakeholders Recommended in the NOFO

1. Community Anchor Institutions
2. County and Municipal Governments
3. Local Educational Agencies
4. Indian Tribes, Alaska Native Entities, or Native Hawaiian Organizations
5. Nonprofit Organizations
6. Individuals with Disabilities, Including Organizations That Represent Individuals with Disabilities Including Children
7. Older Adults Individuals and Organizations
8. Organizations That Represent Individuals Who Are English Learners
9. Organizations That Represent Individuals Who Have Low Levels of Literacy
10. Organizations That Represent Veterans
11. Civil Rights Organizations
12. Entities That Carry out Workforce Development Programs
13. Agencies of the State That Are Responsible for Administering or Supervising Adult Education/Literacy
14. Public Housing Authorities
15. State Corrections Department



Table 1.B

NDIA RECOMMENDED PARTNERS AND STAKEHOLDERS

Additional Stakeholders to Identify and Engage

1. Historically Disconnected Communities (“Lived Experts”)
2. State Cabinet-Level Agencies
3. State Corrections Department/Agency
4. State Department of Education
5. Digital Inclusion Coalitions
6. State and Local Chambers of Commerce or Industry Associations
7. Tribal Governments
8. Regional Councils of Governments
9. Economic Development Authorities
10. Higher Education Institutions
11. State Higher Education Coordinating or Governing Board
12. Community or Technical Colleges
13. Public and Private Universities
14. Minority-Serving Institutions
15. Public Housing Resident Associations and Other Affordable Housing Providers
16. Labor Unions (in Particular, Telecommunications Workers’ Unions)
17. Healthcare Systems and Networks
18. Homeless Continuum of Care Providers
19. Private and Nonprofit Multi-Family Housing Developers and Owners
20. Faith-Based Institutions (Churches, Temples, Mosques, etc.)
21. Entrepreneurs and Business Owners
22. State or Local Foundations and Funders
23. Advocacy Organizations
24. Organizations serving differently-abled individuals
25. Existing Multi-Stakeholder Groups (Councils, etc.)
26. Refugee Resettlement Organizations
27. Re-Entry Organizations
28. Organizations Serving Undocumented Residents
29. Early Intervention Coordinators (Those Providing in-Home Therapy for Children)
30. Trade Organizations
31. Agriculture Extension Offices
32. Cultural Organizations
33. Local Media Outlets (Peg Station Leaders and Ethnic Media)



While lengthy, the NTIA and NDIA lists of partners and stakeholders can be sorted into four categories:

1. DIGITAL EQUITY ORGANIZATIONS: These are organizations whose primary purpose is to provide direct digital inclusion services and resources to under-connected communities. These organizations often provide digital skills training, support in accessing affordable/free internet, access to affordable/free computer devices, digital navigation services, or other digital inclusion services. Types of organizations include device refurbishes, community technology centers, community based-organizations, and digital equity coalitions (even though a coalition may not provide direct services itself, it would still fall into this category as its primary focus is digital equity). NDIA has a growing community of about 1,000 affiliate organizations doing digital inclusion work across the country. See what organizations are located in your state using the [NDIA affiliate map](#).

2. ORGANIZATIONS OPERATING DIGITAL INCLUSION PROGRAMS: These are organizations providing digital inclusion services and programs to under-connected communities along with other services. For example, libraries, workforce development organizations, faith-based institutions, and housing authorities often provide digital inclusion services and a bevy of other services.

3. ORGANIZATIONS SERVING COVERED POPULATION: These are organizations providing services to the covered populations but who may not be explicitly providing digital inclusion services. For example, literacy centers, senior centers, or organizations serving justice-involved individuals.

4. OTHER TYPES OF ORGANIZATION: These are organizations whose mission isn't to serve the covered populations or provide digital inclusion services but who are critical community and statewide institutions to engage. For example, higher education institutions, media and arts organizations, for-profit organizations, and philanthropic organizations may fall into this category.



Lived Experts

A particular stakeholder group we suggest you engage with are lived experts. Lived experts are members of covered populations, particularly individuals from historically disconnected communities with direct, lived experience of living in the digital divide. A robust planning process will engage lived experts throughout, bringing them to the table (or taking the table to them) to help craft and identify meaningful

engagement strategies, analyze and contextualize data, and help co-create implementation strategies. Your state could invite lived experts to join the core planning team and/or other engagement touch points throughout the planning process. Including lived experts in the

Photo Source: City of Dallas - Digital Inclusion Week 2022 Proclamation

planning process provides a viewpoint and expertise to the team that cannot otherwise be obtained. When done right, the practice is radically humanizing and would enable your state to tangibly demonstrate respect for the residents you serve.

NDIA recommends that administering entities directly or indirectly financially compensate lived experts for their contributions and expertise either through stipends, gift cards, or at a minimum paying for the lived expert's travel, food, and childcare expenses to enable their participation in meetings or events. For more recommendations, see the US Department of Health and Human Services' [starter kit](#) and a [literature review](#) published in 2019 by Sarah Feige and Melisa Choubak on the topic.

STEP 2: PLAN ENGAGEMENT

Once you've identified the various stakeholders and partners to engage, you can define the depth and different levels of engagement necessary to appropriately reach and interact with different audiences. Some organizations and individuals are so critical to the plan's success that they should be intimately involved throughout the entire process. Other organizations whose work will be impacted or whose work will impact the plan's success should be engaged but perhaps should not be expected to participate as frequently, and still others—like the general public—should be informed and consulted, but the level and frequency should be limited. We have identified and defined three basic engagement tiers:

1. OUTREACH: includes one-way communication strategies designed to help inform and communicate with stakeholders about the opportunity to take action in a specific way around an issue, opportunity, or decision. Note that outreach implies that whomever is being reached out to are current outsiders of the center and that communication is one-way and is essentially marketing.

2. PARTICIPATION: continuous relationship building that starts with outreach but continues through a process of deeper engagement that relies on two-way communication and opportunities for involved participation in the process.

3. PARTNERSHIP: includes the co-creation and implementation of the plan's vision, goals, strategies, and objectives. It requires both a joint interest in the development and implementation of the plan and frequent communication.

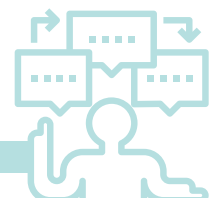
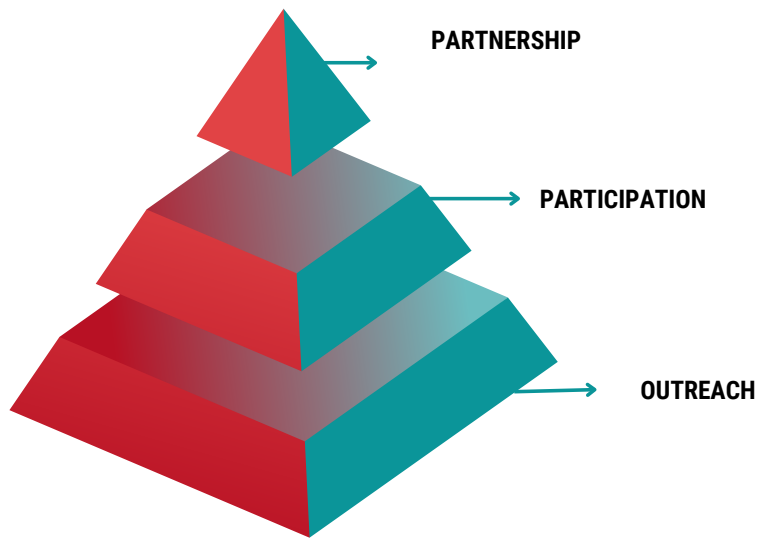


Figure 2: Levels of Engagement



This tiered engagement strategy can help you identify how and where to prioritize outreach and engagement efforts. As you identify stakeholders, simultaneously determine which engagement tier to align them with to help organize your outreach and engagement plan. Which organizations are included in each tier will be wholly unique to your state. For instance, in some places regional governments may be best suited in the participation tier, while in others they should be included in the partnership tier.

Table 2 (also provided in Appendix C.1) is an example of one method you can use to begin identifying and categorizing specific organizations or individuals and how you plan to engage with them throughout the planning and implementation process. We recommend matching the suggested list of organizations provided above with your team’s knowledge of organizations present in your state, territory, or district, and complete Table 2.

Table 2

PARTNER AND STAKEHOLDER IDENTIFICATION AND ENGAGEMENT EXERCISE		
Organization	<i>Ex. Goodwill Inc.</i>	<i>Ex. Local Digital Inclusion Coalition</i>
Organization Category	<i>2-Org Operating Digital Inclusion Program</i>	<i>1-Digital Equity Org</i>
Covered Population Served	<i>Veterans, Low-Income Households</i>	<i>N/A-does not provide direct services</i>
Geographic Reach	<i>County</i>	<i>County</i>
Organization Focus Areas	<i>Workforce, Digital Skills</i>	<i>Digital Inclusion Coordination</i>
Potential Areas To Partner	<i>• Planning Team • Implementation</i>	<i>• Planning Team • Implementation • Asset Mapping • Data Collection</i>
Engagement Tier	<i>Participation</i>	<i>Partnership</i>
Next Steps	<i>Schedule meeting with ...</i>	<i>Schedule meeting with leadership, attend next monthly meeting</i>
Point of Contact		

While we recommend planning your stakeholder and partner engagement as much as possible, we also encourage you to be flexible, remain open to identifying additional stakeholders throughout the process, and allow potential stakeholders to express the level of engagement they wish to have. For instance, you may initially identify a specific stakeholder to be a partner, yet they do not have the time to engage at that level. Or you meet a stakeholder at an engagement event you host who is both excited about the process and would like to engage more than you would have planned for. Being flexible and open to the stakeholders desired engagement levels in these and other circumstances that arise will benefit you.

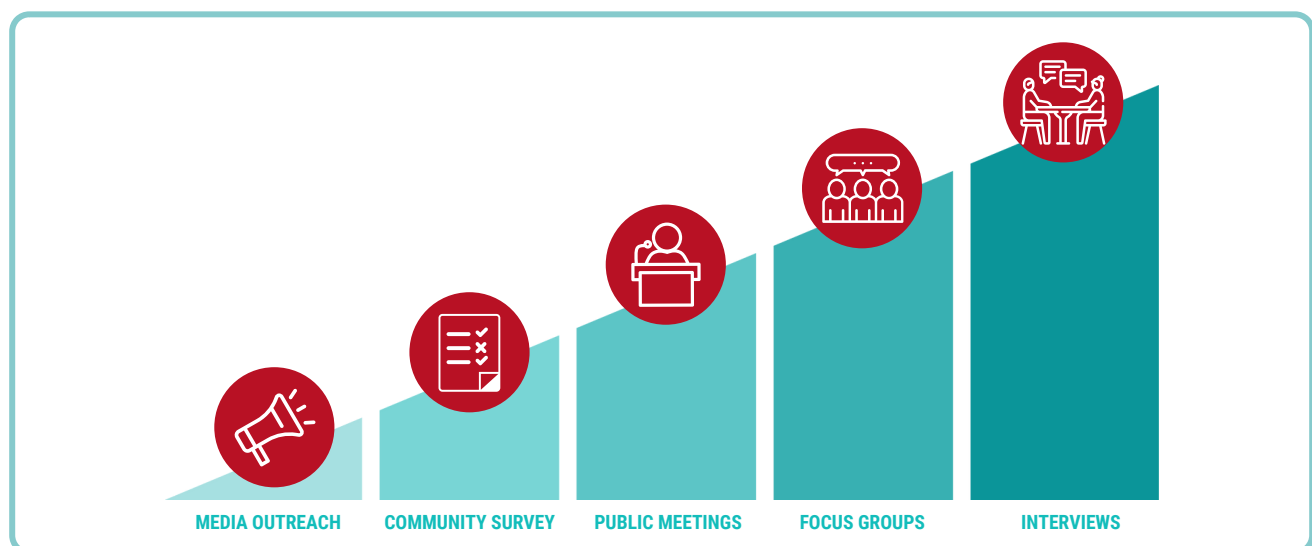
Outreach and Engagement Tools

Once you identify the engagement tiers, administering entities should determine the types of outreach and engagement tools they will use and map out a plan. The outreach and engagement plan should define which tools the administering entity will use to gather input from organizations that fall into each tier and define a clear timeline for each engagement activity.

Some tools, like media outreach, are more effective in communicating with a large number of stakeholders, while other tools like public meetings or interviews are best for small audiences. The level of meaningful engagement each tool provides also varies widely and grows as the audience shrinks. For instance, focus groups and interviews provide more opportunity for two-way, meaningful interactions and exchanges of information between the administering entity and stakeholders.

Figure 3 shows that mass communication and marketing will reach the most people at the public level, while outreach strategies to stakeholders need to be targeted and will engage a smaller number of people than the public strategies. Engagement strategies used with the planning team will be the deepest but with the smallest number of people.

Figure 3: Recommended Outreach and Engagement Tools



The following are descriptions of these engagement tools and methods for interaction:



- **CORE PLANNING TEAM:** Your core planning team doubles as an advisory group and an engagement tool. This team will provide valuable insight and understand how to reach and engage additional stakeholders and partners.



- **WORKING GROUPS:** Either in lieu of or in addition to a core planning team (either as an off-shoot or standalone group), you could establish working groups to support or guide the development of specific sections of your plan. For example, you could have a working group dedicated to asset mapping or one that aligns with collecting information to inform your measurable objectives.



- **INTERVIEWS:** One-on-one interviews intended to gain a more in-depth perspective of an individual's particular experience. Tips and best practices:
 - Interviews should be planned and conducted by or with input from a research partner with expertise in human subject research.
 - Interviews should be planned with a small number of lived experts from covered populations, a targeted group of people, or individuals whose viewpoints are essential to fully understanding the scope of the digital divide in your state.
 - Interviewees who are not participating as part of their professional capacity (e.g. lived experts) should always be compensated for their time when participating in an interview. You may also consider compensating certain organizations, such as small community-based organizations with limited capacity for committing staff resources to participating in interviews.
 - Plan for maximum flexibility to accommodate the schedules and needs of interview participants. Allow for in-person, phone, or videoconference options; provide scheduling options outside of traditional business hours; and for in-person interviews, find out what locations are most convenient and comfortable for the participants.
 - Interviews should be reserved for organizations that are included in the "participation" or "partnership" tiers.



- **FOCUS GROUPS:** Small group interviews are designed to gather information that can further explore realities, diagnose problems, and suggest solutions. Focus groups provide an opportunity to delve deeper into topics identified in your statewide survey, but that require further investigation. Tips and best practices:
 - Focus groups should be planned and conducted by or with input from a research partner with expertise in human subject research.

- Focus groups can also support identifying experts for a follow-up one-on-one interview.
- Focus group participants should always be compensated for their time, particularly those who are not participating as part of their professional capacity (e.g. lived experts).
- Partner with local organizations to host focus group interviews based on the segment of the community they serve in relation to the covered population. Where possible, consider compensating the host organization for their coordination of the focus groups.
- Plan for the needs of focus group participants, including scheduling options outside of traditional business hours, childcare, transportation support (i.e. transit passes), and providing food.
- Focus groups should be reserved for organizations and individuals in the “participation” and “partnership” tiers.



- **PUBLIC MEETINGS:** Open community meetings to provide space for diverse reflection and listening to discuss what's working, what's not working well, highlight needs, and help generate ideas. The meetings should provide opportunities for two-way communications, where you provide information to the attendees about the planning process and progress made and they have ample opportunities to provide you with information and feedback. Tips and best practices:
 - Allow options of in-person or virtual (please recall, though, that some people and organizations you are attempting to engage may not be able to engage through online platforms).
 - Develop standardized, basic training for introducing digital inclusion concepts and various facets of the plan. Be careful to keep this portion brief.
 - Provide ample time during the meetings to listen to the attendees' views and experiences.
 - Host the public meetings at several different times to ensure robust opportunity for participation.
 - Task multiple people from your team, research partners, or core planning team with taking detailed notes to capture all information shared. Provide the note-takers with a standardized template or shared document to take notes in.
 - Provide accessibility services such as sign language interpretation and closed captioning.
 - Invite organizations and individuals in any of the three engagement tiers.
 - Host a series of meetings to break up your plan in digestible pieces and encourage dialogue around specific topics

- Conduct substantial outreach through various locations and platforms, such as local newspapers, public service announcements on local or ethnic radio, cable programming, inserts in municipal utility bills, coordinated outreach with public schools, community-based organizations, etc. Start early and use frequent reminders to capture as much feedback as possible.
- Secure a strong facilitator who can encourage “quieter” voices to participate and keep the conversation moving
- Make sure resources available to remove participation barriers:
 - Language translations (written) and interpreters (oral or ASL)
 - Accessible space with adequate lighting, ramps, and accessible restrooms
 - Refreshments, especially if held in the early evening or lunch time
 - Transportation vouchers (bus tickets/tokens)
 - Materials in large print available if requested
 - Childcare on location staffed by volunteers
 - Ability to contact the organizers ahead of the meeting to request accommodations



- **KICKOFF OR CLOSING EVENTS:** Open statewide events to kick off or close (and celebrate!) the planning process. They’re an opportunity to launch or end the planning process with excitement and encourage participation throughout the process. Like the public meetings, the kickoff events should provide opportunities for two-way communications and ample opportunities for attendees to provide you with information and feedback. The same tips and tricks outlined under the public meetings tool apply to the kickoff and closing events.



- **SURVEY:** Surveys can double as both a data collection method and a community engagement tool. By providing an opportunity for residents, stakeholders, and partners to contribute data and/or opinions. Surveys are ideal for gathering basic digital equity information from a large number of people, and if designed properly, the results may be generalized to the entire population. Surveys can also help to identify topics that require more in-depth data collection through focus groups and interviews. Tips and best practices:
 - Develop short surveys in different languages.
 - Conduct surveys through different mediums (i.e. phone, online).
 - Develop a sampling strategy that will yield representative results for the general population and for covered populations.
 - Partner organizations can be helpful in ensuring adequate sampling of covered populations in your statewide survey, and with administering custom surveying of certain groups.

- If you use paper surveys, provide a method for respondents to drop them off or mail them in.
- Surveys should be open for organizations and individuals in any of the three engagement tiers.
- Share survey findings with the planning team.

See the "State Digital Equity Survey Template" in **Appendix C.8** for more detailed guidance and a set of sample survey questions to help you develop your own statewide survey.



- **MEDIA OUTREACH:** Gain public attention and visibility by leveraging specific media platforms in order to reach a broad or specific, targeted audience. Tips and best practices:
 - Develop media outreach strategies that provide options for engagement and input targeted toward hard-to-reach and disconnected populations.
 - Invest in ethnic media channels, such as locally-operated Spanish-language radio stations, as a regular outlet for reaching the Latino community.
 - Leverage TV, radio, billboard, street furniture advertisements, and newspaper ads in addition to social media ads to advertise public meetings, surveys, or other opportunities.
 - Distribute materials in person at community hubs (i.e. supermarkets, faith centers).
 - View media outreach as a tool to leverage individuals and organizations in any of the three engagement tiers.



- **PUBLIC COMMENT PERIOD:** The required 30 day public comment period is an additional engagement opportunity to gather input and expertise from stakeholders and the community. Tips and best practices:
 - In addition to accepting comments via your website, circulate the plan with all the partners and stakeholders you've communicated and interacted with.
 - Provide an explanation for how you will incorporate the comments.
 - This opportunity should be open to organizations and individuals in any of the three engagement tiers.



Note: For the purposes of building your state digital equity plan, we caution against including internet service providers (ISPs) in the "Partnership" engagement tier. This tier should be reserved for those who work directly with and are trusted by covered populations.

Table 3

OTHER ENGAGEMENT STRATEGIES



1. Strategize engagement by partnering with community organizations to participate in their community events—show up to a back-to-school event, a community fair, meeting, or a conference planned by your partners to meet and engage with residents and stakeholders. Make sure to coordinate ahead of time with the host/partner organization.
2. Build trust early and create a safe space for engagement. Ask the community early on during outreach events which organizations they trust prior to engaging them.
3. Emphasize listening, understanding, and documenting people’s experiences, needs, and aspirations. Avoid responding to comments and problem-solving in the moment. Adopt language that helps relate to the need, reality, and potential for the stakeholders’ particular community.
4. Develop a plan to monitor participation and input of covered populations and other groups across all engagement methods to avoid underrepresentation or overrepresentation of any group(s) in the process. This information may be gathered in different ways for different engagement methods, but remember to respect and protect personal information.
5. Follow up! Circle back and share the results and impacts of their engagement.

Putting It All Together

Planning your community engagement process requires three steps:

1. Identify and prioritize the different groups of stakeholders you plan to engage.
2. Identify the tools and outreach strategies you plan to implement (i.e. survey, social media, community meetings, etc.).
3. Outline and prioritize your outreach and engagement efforts to reflect the level of input, participation, and engagement you plan to obtain from each stakeholder you’ve identified.

Table 4 (also provided in Appendix C.2) is an example tool you can use to plan engagement with each organization. You can add types of engagement tools you will leverage for each organization type to ensure you’re planning for meaningful engagement with covered populations and stakeholders during your outreach efforts.

To use the table, identify each stakeholder group you plan to engage and add a checkmark and/or description on how to engage with them. This matrix can be a planning tool and updated as a report to submit to NTIA on your state’s meaningful community engagement efforts.

Table 4

Example Engagement Plan			
Stakeholder/Partner	Covered Populations	Educational Institutions	Affordable Housing Organization
Media	✓		
Survey	✓	✓	✓
Public Meetings	✓		✓
Focus Groups	Hold 3 focus group interviews with veterans, low-income household, and rural community.		
Interviews		Hold interview session with community colleges and state university.	
Planning Team	Invite a lived expert to serve on the planning team. Provide compensation.		
Other (Identify)			

Leveraging Local Resources



Many digital inclusion resources already exist throughout your state. As you create your engagement plan, we encourage you to identify and map local resources and research that is already available, as those resources will be valuable for both engagement and various components of your plan. For instance, some local communities have formed digital inclusion coalitions focused on designing and implementing strategies for addressing digital inclusion gaps in their communities. Academic and research institutions may have already conducted digital equity analysis or may be willing to do

so. Collaborating with these organizations and institutions will provide a clearer picture of available resources and identify gaps in inclusion.

Local resources can be leveraged to:

- ✓ Cultivate relationships
- ✓ Learn and replicate best practices
- ✓ Complete assessments of assets and barriers
- ✓ Develop community-based solutions
- ✓ Empower collaboration and build community trust



Table 5: Examples of Local Resources

Resource	Examples
Survey Research and Data Analysis	Technology Access and Adoption Study (Seattle) 2021 Residential Technology Study (Austin) US Census and American Community Survey data
Digital Inclusion and Equity Plans	Digital Inclusion Roadmap (Long Beach) Digital Equity Strategic Plan (San Francisco) Digital Equity Plan (Philadelphia)
Digital Skills Programs	Partners teaching computer literacy, email, social media, web-based communications, word processing, coding, web searches, virtual conferencing, etc.
Computer Refurbishers	Nonprofit or for-profit computer refurbishing organizations or programs, preferably those that already direct their efforts to covered populations
Outreach and Engagement Support	Partners who can provide access to covered populations and supportive services to facilitate participation, such as meeting spaces, food, childcare, translation and interpretation services, transportation support, community newsletters, etc.
Local Policies and Initiatives	Municipal or county policies and initiatives that address the needs of covered populations, such as City Utility Discount Assistance, Low-Income Home Weatherization, and County Public Health Free or Low-Cost Health Insurance programs, are excellent opportunities to coordinate outreach and co-enrollment.
Funding	Community digital inclusion funding models, such as Technology Matching Fund (Seattle), ARPA funding for digital inclusion programs, including digital navigator programs (i.e. Maryland, North Carolina, Connecticut)
Digital Equity Coalitions	Local, regional, and statewide digital inclusion coalitions



As displayed in this graphic, when identifying local digital equity resources in your community, start with the strongest connection to digital equity—Digital Equity Organizations. Moving out, you may already be connected with many organizations in the next ring, Organizations Operating Digital Inclusion Programs. Next you will want to connect with Organizations Serving Covered Populations and finally, look to Other Community Assets. Many of these community resources will be identified as part of your asset mapping process.

As you map assets, also seek information on what resources they have that align with the data, research, engagement, or other needs you may have for your planning process.

See [Chapter IV “Conducting an Asset Inventory”](#) section of of this *Toolkit* for more information and recommended asset mapping strategies.

Ways to Leverage Local Resources

Digital Inclusion Coalitions

A digital inclusion coalition is a collective of organizations shaped by the community to advocate for digital equity and foster the growth of the community’s digital inclusion ecosystem. While coalitions may organize themselves differently and comprise different members, they generally operate with a formalized structure that publicly functions to support collaboration and coordination between community organizations that support digital inclusion.

- Identify digital inclusion coalitions in local areas and consider formal ways to work with them to leverage existing data and collect new data, develop digital equity asset maps for their communities, and identify objectives and strategies that should be included in the state plan.
- Join the digital equity coalition meetings regularly, as opposed to strictly in a formal capacity to disseminate information. Coalition meetings are an ideal setting to learn about the community’s digital equity needs, priorities, and the work being done by multiple organizations. Circle back to them throughout the planning process to address new findings and encourage coalition members to share their knowledge and expertise with you and support your engagement efforts. For example, they may be able to facilitate the invitation of lived experts to your focus groups, community meetings, etc.

EXAMPLE: Franklin County Digital Equity Coalition, OH: In April 2020, a number of Franklin County organizations and institutions came together to address digital access and adoption in the Columbus metropolitan area. Over time, this group formed the [Franklin County Digital Equity Coalition](#), a robust collaboration of government, nonprofits, businesses, education, and social sector representatives. Within a year, in March 2021, they published the [Franklin County Digital Equity Framework](#), which describes their collective vision of digital equity in central Ohio, along with implementation and evaluation strategies. In November 2022, they released the [Franklin County Digital Equity Action Agenda](#), which defines digital inequities in detail, including quotes from community members; defines solutions; sets priorities; and shares how data was collected.

Digital Inclusion Organizations and Organizations Operating Digital Inclusion Programs

This group includes community-based organizations, low-income housing providers, colleges, faith-based organizations, and other community anchor institutions. Their strengths and potential offerings include:

- Outreach support through community newsletters, email listservs, mailings, and posting and distributing flyers and postcards, as well as follow-up support for assisting residents in completing, collecting, and submitting feedback
- In-depth understanding of residents needs to increase the effectiveness of your efforts to reach the target population, such as accessible spaces, interpreters and translated materials, addressing transportation needs, child care, etc.
- Knowledge of the current digital equity landscape, who is underserved and where there may be gaps in broadband access, technology skills training, and appropriate devices
- Direct access to residents who they work with in providing technology skill training, access to appropriate devices, and resources for enrolling in the Affordable Connectivity Program (ACP)

Local Governments and Public Institutions

This group may offer:

- Access to housing assistance or utility assistance programs for the internet, which may lead to policy changes, co-enrollment, and streamlining income eligibility verification
- Direct ties to departments reaching the covered populations through other programs, such as Age Friendly (Area Agencies on Aging), ConnectHome (housing authorities), National Free and Reduced Lunch Program (K-12 schools), city and county human services coalitions, public library foundations, and others
- Knowledge of the current digital equity landscape, who is underserved and where there may be gaps in broadband access, technology skills training, and appropriate devices, gained through community-wide surveys
- Unique, local demographic research and digital inclusion strategies. Many have even developed and incorporated digital equity recommendations based on economic data, workforce development, business support for small and women-owned and minority-owned business enterprises (WMBE), and housing and food security needs.

Example: City of Seattle Information Technology: The [Technology Access and Adoption Study](#), conducted quadrennially in Seattle, provides data and research gathered through a community-wide survey. An important part of the study is to gather more in-depth information from the local community by conducting focus groups for specific language communities. Seattle IT partnered with community-based organizations providing digital inclusion programming to older adults, six language specific communities, and people living with disabilities, for approximately eight focus groups.

By leveraging the relationships community-based organizations had established, they were able to identify and support community members who participated in these focus groups. Resources included translation of printed materials and participant responses, language interpretation services during the focus groups, child care support, ethnically appropriate food, space, and targeted outreach. While Seattle IT could have provided these services on their own, partnering and leveraging local partnerships led to more robust and engaging conversations with the priority communities.

Meeting the Requirements While Making It Your Own



The NOFO contains 15 requirements administering entities must meet in order for the plan to be considered “whole” by NTIA. While meeting these requirements should be your primary aim—both to satisfy the given requirements and because doing so will result in a good, robust plan—you should also consider ways to ensure your state’s personality and essence is reflected. Each state is incredibly diverse in a multitude of ways. That diversity should be reflected in your plan, because your uniqueness impacts both the ways the digital divide manifests itself and the solutions that will work for your residents. Therefore, it’s essential to understand the nuances in your state to comprehensively and accurately address its unique needs.

Through both the planning process you design and the physical design and representation of the plan itself, you have the opportunity to distinguish and represent your state’s diversity. Keeping these things in mind throughout your planning process rather than waiting until the end to consider ways to make your plan reflect your unique aspects will result in a more accessible and representative plan.

Tactics

PLANNING PROCESS DESIGN

The process you choose for constructing your plan is the first way in which you can reflect your state's uniqueness. For example, regional organizations—whether they be digital inclusion coalitions, regional governments, or another regional group—will support the administering entity's community engagement, data collection, or asset mapping in some places. Administering entities may choose to sub-award some of the DEA planning grant funds to complete the activities or regional plans on behalf of the state, and have those regional plans roll up into the statewide plan. Other administering entities may choose to partner with universities to conduct aspects of the planning process—such as data collection or asset mapping.

The community engagement tools you choose to leverage may also be unique to your state or may even vary amongst different areas of your state. You may know from experience that your community members are more likely to attend a community town hall meeting than respond to a survey. Or your community members may be more inclined to participate in a small focus group than a large town hall.

Even the timing and sequence you choose in which to complete certain aspects of your plan, like your vision statement, should reflect your residents' needs.

All these and other decisions about the planning process itself should be made with your state's unique characteristics and preferences in mind. Keep the diversity and uniqueness of your people front of mind throughout the planning process to ensure the process you design meets them where they are while also providing you with what you need to meet the requirements.

VISUAL DESIGN

The look and feel of your final plan can also be a tool for highlighting and expressing your state, territory, or district's diversity and beauty. Visual design elements can be useful tools for both reflecting your people, continuing engagement with stakeholders and partners, and making the plan your own. Take inspiration from well-known, beloved things from your geography, culture, history, cuisine, or people that make your state unique. For instance, every state's geography is vastly different and may contain well-known landmarks, such as mountains or lakes. Including imagery reflecting those geographic features would directly tie your plan's visuals to your state's visual identity.

- **BRANDING AND GRAPHIC DESIGN ELEMENTS:** Intentionally use color schemes, layouts, fonts, and graphics to represent and highlight your state’s unique attributes. Visual representations of your area’s unique attributes will provide familiarity and instill pride of place among your residents, stakeholders, and partners.
- **IMAGES:** Include pictures of people, places, and things that make your state unique.
- **STORYTELLING:** Use images, narrative, video, audio, or other innovative methods to help the plan tell the story of your residents and highlight the stories of the disconnected individuals and communities. This may also be an opportunity to further engage one of your “lived experts” in sharing their own story. Apply our previous suggestions in working with them, including compensating them for their time and contributions. For ethical storytelling, you will also need to obtain their enthusiastic consent to share their story, their approval of the finished product, and their informed consent about how/where you plan to share their story.

For example, [Benton Institute for Broadband and Society](#) recently published a series of stories called [“Digital Divide Diaries,”](#) presented by Adam Echelman through different mediums to share the stories of people who are disconnected. The storytelling provides a level of nuance and detail that grips the viewer and provides context that would otherwise be lost. While you cannot tell the story of every resident in your plan, providing space within the bounds of your plan to share stories—particularly those in the covered populations—will provide your audience with a richer, more robust understanding of the digital divide and its impacts.



Photo Sources: Kramden Institute and North Carolina State Library

Aligning the DEA and BEAD Plans

NTIA views the DEA and BEAD programs “holistically as complementary efforts aimed at a singular, unified objective of closing the digital divide.”⁽¹⁾

While the planning processes and end products may necessarily be separate, the BEAD and DEA NOFOs explicitly require the plans to be “complementary, sequenced, integrated, and intentionally linked.”⁽²⁾ In addition, according to the BEAD NOFO, the BEAD five-year action plans must incorporate the state digital equity plans and those plans should be complementary and closely integrated.⁽³⁾

To establish a strong synergy and joint accountability between the two plans, NDIA suggests the following overarching strategies:

- 1. INTEGRATE CORE PLANNING TEAMS:** Just as we recommend forming a core planning team to support and guide the DEA planning process, forming a core planning team to support the BEAD five-year action plans would be wise. As such, at least one member of the BEAD planning team should serve on the planning team for the DEA and vice versa. The planning members who serve on both teams will be an important conduit for providing information to each team that will ensure the plans are complementary.
- 2. COMMUNICATE AND COLLABORATE FREQUENTLY:** A formalized, direct communication pathway will benefit both those conducting the BEAD and DEA planning and those who will benefit from the plan—the residents. We recommend that, in addition to integrating the planning teams, you consider establishing frequent meetings, biweekly or weekly, to touch base, share things you’ve learned, coordinate schedules, and align planning tasks. Many of the BEAD requirements are similar to those in the DEA and much of your work for the BEAD plan can be leveraged for the DEA and vice versa.

(1) National Telecommunications and Information Administration (NTIA), *Notice of Funding Opportunity: Broadband Equity Access and Deployment Program (NTIA-BEAD-2022, 11.035)*, p. 10.
<https://broadbandusa.ntia.doc.gov/sites/default/files/2022-05/BEAD%20NOFO.pdf>

(2) NTIA, *Notice of Funding Opportunity: State Digital Equity Planning Grant Program (NITA-DE-PLAN-2022, 11.032)*, p. 6-7.
<https://broadbandusa.ntia.doc.gov/sites/default/files/2022-05/DE%20PLANNING%20GRANT%20NOFO.pdf>

(3) NTIA, *Notice of Funding Opportunity: Broadband Equity Access and Deployment Program (NTIA-BEAD-2022, 11.035)*, p. 10.



3. ALIGN STAKEHOLDER ENGAGEMENT: Stakeholder engagement and outreach for both plans should be conducted in tandem to reduce the burden and confusion on community stakeholders. This is particularly important when administering entities interface directly with residents through surveys, focus groups, or town halls during the planning processes. Information gathered from stakeholders that may impact the DEA plan could be uncovered during BEAD stakeholder engagement and 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. As such, 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 because of barriers. The burden of repeating their lived experiences should not be placed on the residents engaging in the planning process.

In addition, we encourage you to intentionally plan the meetings such that industry voices do not drown out the voices and experiences of the community members, community-based organizations, community anchor institutions, and other local organizations.

4. COORDINATE DATA COLLECTION AND ASSET MAPPING: Both plans require a sizable amount of data collection and analysis. Coordinate the data collection and analysis so no actions are duplicative to ensure you do not waste time and resources nor measure the same things differently.

For example, a multi-tenant building that is unserved or underserved in a low-income neighborhood (and thus should be in the state's five-year action plan) may be more likely to be identified in the data gathering work for the state digital equity plan.

5. ALIGN GOALS AND STRATEGIES, ENSURING THE COMPLEMENT AND BUILD ON EACH OTHER: Aligning plan goals and strategies for DEA and BEAD plans will increase the impact of both. 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 and middle-class affordability plan in the BEAD plan.

Line Item Connections

In addition to these overarching strategies for aligning the plans, a second method for aligning the plans is to evaluate requirements for each plan and identify connection points. The BEAD five-year action plans have 13 requirements and the DEA plans have 15. Appendix C.9 provides a worksheet with all 13 BEAD requirements along with alignment recommendations for each of them with DEA requirements or additional options for aligning. Below are a few examples of how line item connections can be made.

Table 6: Examples of Aligned BEAD and DEA Planning Requirements

BEAD Five-Year Action Plan Requirement	DEA Requirement Equivalent	Alignment Example
<p>Provide details of the existing broadband program or office within the eligible entity, including any activities that the program or office currently conducts, any previous entity-wide plans or goals for availability of broadband, and any prior experience awarding broadband deployment grants.</p>	<p>N/A</p>	<p>Include information on digital equity office, staff, programs, plans, or goals that may impact BEAD plans.</p>
<p>Identify existing efforts funded by the federal government, including the Universal Service Fund, or an eligible entity to deploy broadband and close the digital divide.</p>	<p>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 BEAD or other federal or private digital equity funding.</p>	<p>When looking at existing funds the state leverages during the BEAD planning process, include summaries of funds also used for digital equity purposes. For example, agencies like the Institute of Museum and Library Services, Appalachian Regional Commission, or USDA or previous acts such as: CARES, or ARPA. In USF, determine how many libraries and schools leverage e-Rate.</p>
<p>Include a description of the eligible entity's external engagement process, demonstrating collaboration with local, regional, and Tribal (as applicable) entities (governmental and non-governmental) and reflecting on the local coordination requirements outlined herein, including outreach to underrepresented communities and unions and worker organizations. The engagement required must be undertaken both during the development of the five-year action plan and following submission of the plan, reflecting ongoing collaboration throughout the BEAD Program.</p>	<p>A description of how the state plans to collaborate with key stakeholders;</p> <p>And</p> <p>A coordination and outreach strategy, including opportunities for public comment by, collaboration with, and ongoing engagement with representatives of each category of covered populations within the state and with the full range of stakeholders within the state.</p>	<p>Recommend each planning team create comprehensive stakeholder engagement plans (and timelines), then roll those activities up into one master timeline to ensure equity in the stakeholder outreach (i.e. some groups aren't engaged more frequently than others) and coordination of individual activities (i.e. two surveys for the same audience aren't sent out at the same time).</p>

Affordability

A key and concrete way to align and interweave the DEA and BEAD and deployment efforts writ large is to ensure the state-funded networks (via BEAD, Capital Projects Fund, or another source) are affordable to all consumers. As required in the IJJA, the NOFO states that any broadband project funded through the BEAD program will need to include two things to address affordability:

- A middle-class affordability plan
- A low-cost broadband service option

Each state will create a middle-class affordability plan and will define low-cost broadband service options. The NOFO does not define exactly what each of these should look like, but they do provide examples. The state must first consult with NTIA and then submit a proposed definition through the “Final Proposal.”

NTIA requires administering entities to apply the **same eligibility standards used in ACP** to define which households are eligible for the “low-cost broadband service option.” Administering entities cannot subtract from these eligibility criteria, however, administering entities can add additional tiers of qualification.

Affordable Connectivity Program (ACP) Eligibility Standards

Households can qualify for ACP if at least one member of the household meets the following criteria or participates in one of the following government programs:

- Has household income at or below 200% of federal poverty level
- Received a Federal Pell Grant in the current award year
- Qualifies for a participating provider’s existing low-income program, subject to FCC approval of that provider’s eligibility process



Participates in:

- Free and reduced-price school lunch program or school breakfast program (including the Community Eligibility Provision)
- Special Supplemental Nutrition Program for Women, Infants and Children (WIC)
- The FCC’s Lifeline Program or a Lifeline-qualifying government program
- Medicaid
- Supplemental Nutrition Assistance Program (SNAP)
- Supplemental Security Income (SSI)
- Federal Public Housing Assistance
- Veterans and Survivors Pension Benefit
- Tribal Programs for Households on Qualifying Tribal Lands
- Bureau of Indian Affairs General Assistance
- Tribal Temporary Assistance for Needy Families (TANF)
- Tribal Head Start (only those households meeting its income qualifying standard)
- Food Distribution Program on Indian Reservations



Table 7 highlights which components are required in a proposed definition of “low-cost broadband service option” as well as the encouraged targets for each component. Low-cost broadband service options must remain available for as long as the BEAD funded networks are in operation.

Table 7

ELIGIBLE ENTITIES PROPOSED DEFINITION OF 'LOW-COST BROADBAND SERVICE OPTION'	
 Requirement	 Recommendation
Recurring charges	<ul style="list-style-type: none"> Costs \$30 per month or less; \$75 for Tribal households (inclusive of taxes, fees, and charges)
Non-recurring charges	<ul style="list-style-type: none"> No additional non-recurring costs or fees
Download speeds	<ul style="list-style-type: none"> At least 100 Mbps
Latency	<ul style="list-style-type: none"> No more than 100 ms
Limits on usage or availability	<ul style="list-style-type: none"> No data caps, surcharges, or usage-based throttling No use policies that are not typically applicable to all subscribers
Ability to apply the ACP benefit	<ul style="list-style-type: none"> Allows ACP
Must remain available for the useful life of the network assets	<ul style="list-style-type: none"> Available for the useful life of the network assets

As you determine the best ways to define the middle-class affordability plan and the low-cost broadband service options, we’ve outlined three options to consider.

OPTION A: AFFORDABLE FIXED PRICE POINT

The main advantage to setting an affordable fixed price point for the “low-cost broadband service options” is that it is uniform and easy to enforce. The **eligible entities** can define and set the price of the low-cost option as a fixed price point that is affordable to eligible households. For example, states may calculate an affordable monthly service cost to be \$30 per month for eligible households. Accordingly, the maximum price point of the “low-cost broadband service option” in that state would be \$30.

Note: "Eligible entities" in BEAD refers to states of the United States, the District of Columbia, Puerto Rico, American Samoa, Guam, the US Virgin Islands, and the Commonwealth of the Northern Mariana Islands.

Across all geographies and areas of broadband buildout under the BEAD program, the maximum price of the low-cost option would be a fixed number. The maximum price point of the low-cost option would not be dependent on changing variables such as geography or median area income.

Another benefit of using a fixed price point is that due to the Biden-Harris Administration's ["Internet for All" campaign](#), at least 20 providers already have a low-cost plan at or under \$30 per month.

The main disadvantage of this approach is its inflexibility in capturing what is "affordable" across different geographic and socioeconomic contexts. In some areas and to some communities, \$30 per month, for example, is an extremely affordable cost for internet service. In other areas and to other communities, \$30 per month is a large financial burden on households. States who set the price of a "low-cost broadband service option" too high may not address the internet affordability barrier for some households. On the flip side, if the price of the "low-cost broadband service option" is too low, smaller providers who cannot afford to provide service at that price point will not be able to offer the low-cost option and will not, consequently, be able to receive BEAD funding.

That said, we recommend states adopt the fixed price approach in defining and setting the price of the "low-cost broadband service option," along with other measures to promote universal affordability and the fiscal solvency of providers. Read more about our recommendation below.

OPTION B: PERCENTAGE OF INCOME

States can define and set the price of the "low-cost broadband service option" as a percentage of income of a household or of a geographic area. For example, you may determine that a household (or group of households) eligible for the "low-cost broadband service option" can afford to pay 1.5 percent of its income on internet service payments. Accordingly, the maximum price point of the "low-cost broadband service option" for that household (or group of households) would be equal to 1.5 percent of its income (or median income of that group of households). In this context, households are often grouped based on geography and similarity of household income. Under this approach, the price of the "low-cost broadband service option" can adapt to the affordability needs of different households and communities.

The downside of this approach is that it is more complex and more difficult to enforce than a fixed-price approach. Under the percentage of income approach, the maximum price of a low-cost option may vary across households or communities, which can be confusing to households, providers, and government entities. The administrative burden associated with enforcing maximum low-cost option requirements across a state is steep. While flexible, this approach is very difficult to implement and will cause confusion for households. NDIA does not recommend a percentage-of-income approach to define and set the price of the low-cost option unless disparities across the state (including a high prevalence of high-cost, remote areas) are such that a flexible approach is necessary.

OPTION C: PROVIDER COST + RETURN ON INVESTMENT





States can define and set the price of the “low-cost broadband service option” as the sum of the cost of providing service plus a reasonable return on investment for service providers. For example, a state could take a provider’s cost of providing service and add to it a reasonable return on investment (10-15 percent usually).

The resulting sum would be the maximum price point for the low-cost option. In other contexts, those who cannot afford this price would likely be subsidized. In the context of BEAD, the low-cost option should be inherently affordable, without the need for additional subsidies, such as the ACP benefit. Notably, while ACP may lower the cost of broadband for many households, it is not yet a permanent program. This approach is more likely to ensure a financially profitable price point for internet service providers, especially for smaller providers with higher costs. The problem with this approach is that it does not adequately prioritize consumer affordability in calculating the price point for the low-cost option—whereas the purpose of the low-cost option is to address affordability barriers. This approach will be difficult to manage as each provider will have a different low-cost offer. Additionally, this approach is reliant on potentially unreliable provider data and calculations and requires an extremely high administrative and enforcement capacity.

NDIA recommends states not adopt the “provider cost + return on investment” approach in defining and setting the price of the low-cost option.



Figure 4

LOW-COST BROADBAND SERVICE OPTIONS			
	Definition	Considerations	Conclusion
  Option A Affordable Fixed Price Point	<ul style="list-style-type: none"> • Fixed Price Point • E.g. \$30 or less per month for eligible households 	<ul style="list-style-type: none"> • Uniform and easy to enforce • Maximum price point not dependent on changing variables, such as geography or median area income • Could be inflexible in capturing what is “affordable” across different geographic and socioeconomic contexts 	<p>NDIA recommends this approach over options B and C.</p>
 Option B Percentage of Income	<ul style="list-style-type: none"> • A percent of income of a household or of a geographic area • E.g. setting 1.5% of income as maximum price point for monthly broadband subscription 	<ul style="list-style-type: none"> • Adaptable to the affordability needs of different households and geographies • More complex and more difficult to enforce than a fixed priced approach • High administrative burden 	<p>NDIA does not recommend a percentage of income approach.</p>
 Option C Provider Cost + Return on Investment	<ul style="list-style-type: none"> • Sum of the cost of providing service plus a reasonable return on investment for service providers • E.g. provider’s cost of providing service + reasonable return on investment (10-15% usually)= maximum price point for the low-cost option 	<ul style="list-style-type: none"> • Does not adequately prioritize consumer affordability in calculating the price point for the low-cost option • Reliant on potentially unreliable provider data and calculations • Requires an extremely high administrative and enforcement capacity. 	<p>NDIA does not recommend states adopt the provider cost + return on investment approach.</p>

NDIA’S “LOW-COST BROADBAND SERVICE OPTION” RECOMMENDATION

Given the considerations outlined above, NDIA recommends eligible entities define and set the price of the “low-cost broadband service option” at a maximum of \$30 per month for eligible households. This means an entity providing broadband service through a BEAD funded network should offer at least one low-cost broadband service option for eligible households—the monthly price of which shall be a maximum of \$30.



Note: Internet service providers (ISPs) are only required to offer the “low-cost broadband service option” in the locations funded by BEAD. However, we recommend you consider applying this same tactic to address affordability throughout your other last-mile grant programs to address affordability, for consistency, and for internal accounting’s sake.

NDIA recommends a price point of \$30 because it is equivalent to the monthly service benefit that households can receive from the Affordable Connectivity Program (ACP), the federal program administered by the FCC and the Universal Administrative Service Company (USAC) that provides monthly service discounts to eligible households.

Accordingly, states should conduct outreach and marketing efforts to encourage households that are eligible for the low-cost option to enroll in ACP. For example, New York State has required broadband grant recipients to participate in ACP and actively market the program to all customers. Notably, the US Department of Agriculture (USDA) broadband grant programs (i.e. [ReConnect](#), etc.) are also requiring participation in ACP.

The downside of establishing a fixed price point for the “low-cost broadband service option” is its inflexibility. In some communities, \$30 is extremely affordable. In others, it is not. As such, states should conduct an analysis of the state’s socioeconomic landscape to determine where the \$30 price point may not fully address affordability barriers. States should examine metrics such as median household income, property value, and 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 fully address affordability.

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. Eligible entities 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. ⁽⁴⁾



(4) Ernesto Falcon, *Why Slow Networks Really Cost More Than Fiber* (Electronic Frontier Foundation, 2020). <https://www.eff.org/deeplinks/2020/06/why-slow-networks-really-cost-more-fiber>

Middle-Class Affordability Plan

Middle-class affordability plans are intended to ensure that “high quality broadband services are available to all middle-class families in the BEAD-funded network’s service area at a reasonable price.” The NOFO offers these examples:

- Requiring BEAD subgrantees to offer low-cost, high-speed plans to all middle-class households in BEAD-funded areas
- Providing consumer subsidies at lower costs for those who may not qualify for ACP or other programs
- Promoting competition through a state regulatory authority
- Allocating extra points to subgrantee applications with robust affordable plans and/or open access networks

The middle-class affordability plan is particularly beneficial for households that are barely ineligible for the “low-cost broadband service option” or are barely ineligible to receive ACP benefits. For instance, if a household’s income is 200 percent or less than the federal poverty guidelines, they are eligible for ACP and may be able to sign up for the low-cost option for free using the ACP benefit.

Households at 201 percent of the federal poverty guidelines (and not participating in any other qualifying government assistance programs) are ineligible for ACP and may not qualify for a low-cost option that uses the same eligibility guidelines as ACP. These households may nevertheless struggle to afford monthly service payments and would benefit from a middle-class plan. Similarly, households with huge fluctuations in income (e.g. contract, gig, or freelance workers) may find themselves falling in and out of eligibility for ACP or the low-cost broadband service option.

NDIA recommends you make your middle-class affordability plan as robust as possible to support households throughout your state in accessing the BEAD-funded networks.

Additional Affordability Considerations

NDIA recommends eligible entities take further measures to promote universal affordability while supporting the fiscal solvency of providers. For instance, eligible entities should consider establishing their own supplemental internet service subsidy program for households with low incomes and others that are more likely to be disconnected. Again, households with incomes just above the eligibility threshold for ACP would also benefit from state support.

SECTION 1:

Introduction and Vision for Digital Equity

SECTION 3:

Barriers and Assets

SECTION 5:

Implementation

SECTION 2:

Collaboration and Stakeholder Engagement

SECTION 4:

Defining Objectives and Assessing Impact

CHAPTER III:

RECOMMENDED DIGITAL EQUITY PLAN OUTLINE AND SAMPLE SCHEDULE

Because there are many ways to organize your state digital equity plan, we've provided an annotated recommended outline of components to help you organize your plan. It reflects and expands upon the categories states should consider including in their plan, combining best practices NDIA has identified with requirements Congress specified in the DEA and those NTIA included in the NOFO.

Note: The items highlighted in TEAL in this outline are the minimum sections and components required by Congress and/or NTIA. We've also noted which sections satisfy which NTIA requirements so you can easily trace them back. While annotated, this outline is still just an outline and one option for how to organize your plan. You may determine that another structure suits your state better. Chapter IV provides more detail on why each section and component is important and best practices for compiling the sections.

Section 1: Introduction and Vision for Digital Equity

The introduction to the plan is a great place to outline the overarching vision for what you will achieve through the plan. Many plans also have an executive summary, something which your state may consider compiling as well. It is also a good place to share the vision for digital equity your team derived through the visioning process.

A. Introduction

B. Vision Statement (see "Developing a Vision" section for more)

C. Mission Statement

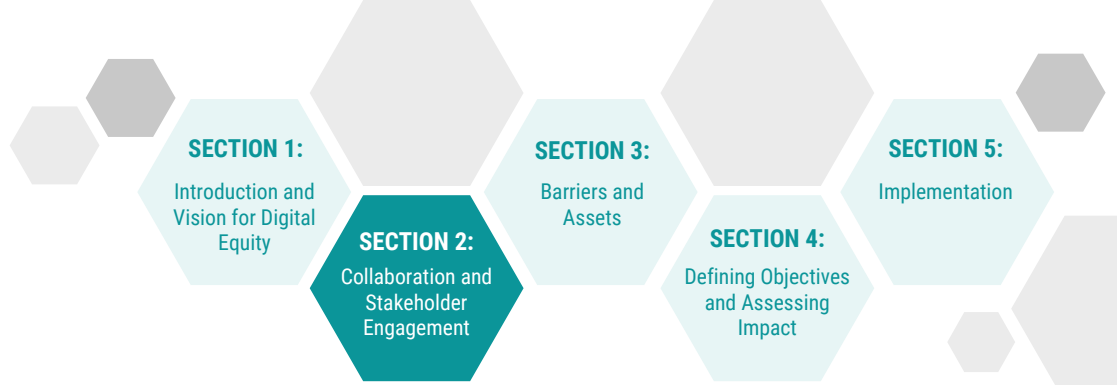
D. Values

E. Goals

F. Planning Process Overview: a brief description of how the state created the plan, arrived at the vision, mission, goals, etc., and who is responsible for its implementation and progress toward achieving its vision.

Satisfies NOFO Requirement in Section IV.C.1.b.ii.1

NOTE: Items highlighted in TEAL in this chapter denote content required by Congress and NTIA.



Section 2: Collaboration and Stakeholder Engagement

A. Description of coordination and outreach strategy for the plan’s development: Describe how the state collaborated with stakeholders to develop the plan and the opportunities the state provided to engage in the planning process, including:

1. Opportunities for public comment
2. Collaborations and engagements with each covered population
3. Collaborations and engagements with key stakeholders
4. Collaborations and engagements with Native American Tribes and Nations, Alaska Native Villages and entities, and Native Hawaiian organizations, where applicable

B. Description of planned collaborations with key stakeholders to achieve the outlined measurable objectives: Describe how the state will collaborate and continue engagement to achieve the measurable objectives during implementation with:

1. All stakeholders engaged in the planning process, including those outlined in DEA (see table for full list)
2. Organizations that represent covered populations
3. Native American Tribes and Nations, Alaska Native Villages and entities, and Native Hawaiian organizations, where applicable
4. Workforce agencies (state workforce agencies, state/local workforce boards, and workforce organizations)
5. Labor organizations
6. Community-based organizations
7. Higher education institutions

C. List of the organizations the administering entity collaborated with to develop the plan

Satisfies NOFO Requirement in Section IV.C.1.b.ii.4

Satisfies NOFO Requirement in Section IV.C.1.b.4.a-l

Satisfies NOFO Requirement in Section IV.C.1.b.ii.8.a-c

Satisfies NOFO Requirement in Section IV.C.1.b.i.5

NOTE: Items **highlighted in TEAL** in this chapter denote content required by Congress and NTIA.

NDIA's Recommended Additional Stakeholders

- 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, including
 - 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 affordable 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 3-5)
- Trade organizations
- Agriculture extension offices
- Cultural organizations
- Local media outlets, such as PEG station leaders and ethnic media

NOTE: Items **highlighted in TEAL** in this chapter denote content required by Congress and NTIA.



Section 3: Barriers and Assets

Needs Assessment: Identify barriers to digital equity faced generally by the entire state population and specifically by each covered population. This will serve as the baseline to understand where the state stands, so it can plan what is needed to achieve the vision. The needs assessment should identify the barriers the population as a whole and the covered populations specifically face in the following categories:

1. Availability of fixed and wireless broadband technology
2. Affordability of access to fixed and wireless broadband technology
3. The online accessibility and inclusivity of public resources and services
4. Digital literacy
5. Awareness of, and the use of, measures to secure the online privacy of, and cybersecurity with respect to, an individual
6. The availability and affordability of consumer devices and technical support for those devices
7. Other: There may be barriers that are unrelated to the above measurable objectives that impact a specific covered population or person from accessing affordable internet. NDIA recommends holding space for learning about those additional barriers so as to design programs and solutions that take the ancillary barriers into account.

Satisfies NOFO Requirement in Section IV.C.1.b.ii.1

Note: The first six categories were outlined by Congress and are the categories that Congress (and subsequently NTIA) require the plans to "document" and "promote" among the covered populations. The categories will be repeated throughout this outline and we refer to them as the "Measurable Objectives Categories."



NOTE: Items **highlighted in TEAL** in this chapter denote content required by Congress and NTIA.

Covered Populations ⁵



- B. Asset Inventory:** Identify and document the digital equity assets throughout the state that could support the advancement of digital equity for the entire population and specifically the covered populations. Assets could be resources, programs, or strategies. They'll be located in a variety of places—programs within state government; at organizations throughout the state (think community-based organizations, community anchor institutions, etc.); and in existing digital equity/inclusion plans developed by municipal, regional or Tribal governments or coalitions. The information collected through the asset inventory (see Appendix E for an asset inventory tool) can be organized in a number of ways in your plan—by asset type, by asset owner, or by which assets serve which covered population. Below is one option for structuring this section:

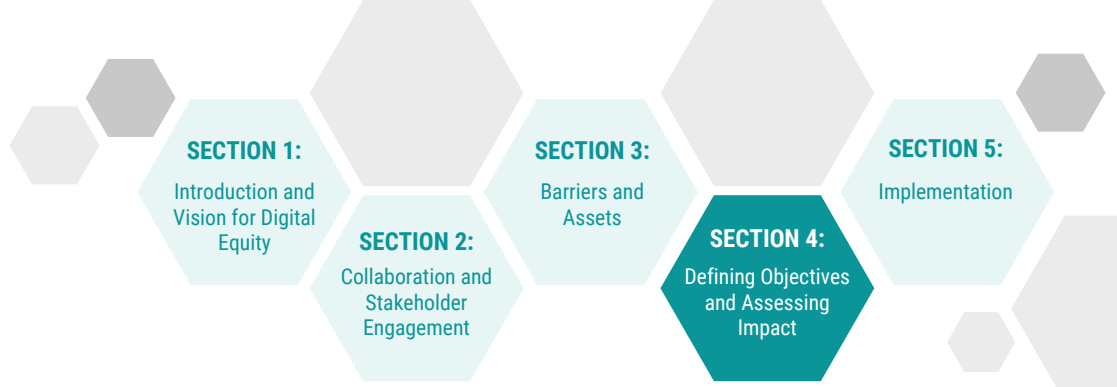
Satisfies NOFO Requirement in IV.C.1.b.i.2.a-e and IV.C.1.b.ii.3

(5) Congress has outlined specific definitions for some of the categories outlined in the covered populations list. Appendix A includes the specific definitions as outlined by Congress.

NOTE: Items highlighted in TEAL in this chapter denote content required by Congress and NTIA.

1. Assets that advance the availability of fixed and wireless broadband technology for the entire population and covered populations
2. Assets that advance the affordability of access to fixed and wireless broadband technology for the entire population and covered populations
3. Assets that advance the online accessibility and inclusivity of public resources and services for the entire population and covered populations
4. Assets that advance digital literacy for the entire population and covered populations
5. Assets that advance awareness of, and the use of, measures to secure the online privacy of, and cybersecurity with respect to, individuals in the entire population and covered populations
6. Assets that advance the availability and affordability of consumer devices and technical support for those devices for the entire population and covered populations

NOTE: Items **highlighted in TEAL** in this chapter denote content required by Congress and NTIA.



Section 4: Defining Objectives and Assessing Impact

Satisfies
NOFO
Requirement
in
IV.C.1.b.i.2

- A. **Create Measurable Objectives:** For the entire population and the covered populations specifically create measurable objectives for promoting and advancing the following categories:

1. Availability of fixed and wireless broadband technology
2. Affordability of access to fixed and wireless broadband technology
3. The online accessibility and inclusivity of public resources and services
4. Digital literacy and digital skills
5. Awareness of, and the use of, measures to secure the online privacy of, and cybersecurity with respect to, an individual
6. The availability and affordability of consumer devices and technical support for those devices
7. And any other digital inclusion activity deemed necessary for addressing the state's digital divide

Satisfies
NOFO
Requirement
in
IV.C.1.b.ii.5

- B. **Integrate local digital equity plans:** Describe how municipal, regional and/or Tribal governments' digital equity plans will be incorporated into the plan. Consider also local digital equity plans created by digital equity coalitions.

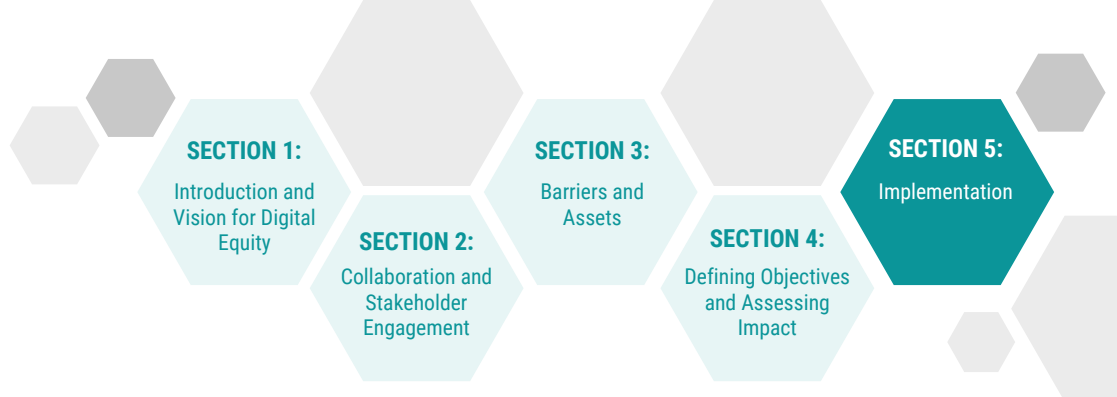
Satisfies
NOFO
Requirement
in
IV.C.1.b.i.3

- C. **Assessment:** Assess and explain the connection between the outlined measurable objectives and their potential impact and interaction with the state's existing

1. Economic and workforce development goals, plans, and outcomes
2. Educational outcomes
3. Health outcomes
4. Civic and social engagement
5. Delivery of other essential services
6. Income and equity gaps for covered populations

Satisfies NOFO
Requirement in Section
IV.C.1.b.ii.1

NOTE: Items highlighted in TEAL in this chapter denote content required by Congress and NTIA.



Section 5: Implementation

Satisfies NOFO Requirement in IV.C.1.b.ii.6

A. Strategies—Develop and outline holistic implementation strategies that address digital equity needs: affordability, devices, digital skills, technical support, and digital navigation.

1. Strategies may be multi-pronged and address multiple needs/barriers simultaneously or they may be singular in focus, addressing just one. The strategies should complement each other and collectively address the needs identified, leveraging the existing assets to achieve the measurable objectives developed throughout the planning process. Together, they should result in systems-level changes.
2. Each strategy should include the following components:

- a) Proposed core activities to address needs of covered populations
- b) Description of how the strategy addresses gaps in existing local, state, or private digital equity efforts
- c) Defined measurable goals for the strategy’s implementation
- d) Defined measurable objectives for the strategy’s implementation
- e) Defined sustainability measures (considering the strategy’s potential to be integrated into state, local government, and community programs)
- f) Defined effectiveness measures
- g) Defined partners, stakeholders, and collaborators for implementation of the strategy

Satisfies NOFO Requirement in IV.C.1.b.ii.6

B. Description of coordination of use of State Digital Equity Capacity Grant with other funding sources, including:

1. Federal government sources, such as:

- a) Broadband Equity, Access, and Deployment (BEAD) Program
- b) Coronavirus Aid, Relief, and Economic Security Act (CARES)
- c) Consolidated Appropriations Act (CAA)
- d) American Rescue Plan Act (ARPA)
 - Section 602 and Section 603: Coronavirus State and Local Fiscal Recovery Funds
 - (SLFRF)
 - Section 604: Capital Project Funds (CPF)

Satisfies NOFO Requirement in IV.C.1.b.ii.7

NOTE: Items **highlighted in TEAL** in this chapter denote content required by Congress and NTIA.

- e) Other federal sources, such as the Appalachian Regional Commission, Economic Development Administration, etc.
- 2. The state/territory/DC government
- 3. Private funders (any non-government funders)

C. Program Evaluation

1. Plan for program evaluation of each strategy, the plan, and the entire implementation program

2. The evaluation includes

a) Evaluation of the sustainability of each strategy

b) Evaluation of the effectiveness of each strategy throughout the state's communities

3. Stated frequency for updating the plan's strategies, measurable outcomes, and progress towards achieving those outcomes

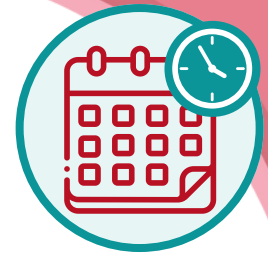
Satisfies
NOFO
Requirement
in
IV.C.1.b.ii.6

Satisfies
NOFO
Requirement
in
IV.C.1.b.ii.10

D. Timeline for the plan's implementation

E. Closing

NOTE: Items **highlighted in TEAL** in this chapter denote content required by Congress and NTIA.



Sample Month-by-Month Action Plan

States must submit the plan within one year of receiving the funds. As such, a sample one-year process, broken down by month, is outlined here. This sample action plan refers to several resources, tools, and templates provided throughout the toolkit.

Note: NTIA may later list required expectations and milestones that this action plan does not contain. We recommend adding those into your month-by-month action plan once you receive them.

Prior to Receiving the Grant Award:



- Hire and onboard staff to lead your digital equity planning and implementation. See Appendix F for sample job descriptions for three positions: Digital Equity Manager, Data Specialist, and Community Outreach Manager.
- Begin identifying partners and stakeholders to engage in the planning process.
- If you plan to engage a consultant in supporting the planning process, use your state's procurement processes to identify and hire a consultant to support the planning work. If hiring a consultant prior to receiving your grant award is not possible, prepare documents and educate the consultant on your state's process.
- If needed, develop Requests for Proposals (RFPs) to contract out work.
- Determine software and other technical support needs to conduct asset mapping; data collection, analysis, and visualization; and community engagement methods.
- If new software or other technical tools are needed, use the state's procurement processes to acquire them before planning work begins.
- Identify and formalize the core planning team members.
- Establish cadence for meeting with the planning team.
- Establish cadence for meeting with the BEAD planning team.
- Create a timeline and action plan for achieving deliverables and milestones.

MONTH
1

After Receiving the Grant Award:

- Meet with the core planning team.
- If not yet complete, finalize the procurement process(es) for staff and contractors. Identify research partners and collaborators.
- Create a stakeholder outreach and engagement plan, complete with a timeline with specific dates, times, and locations for stakeholder outreach events. Remember to identify the specific stakeholder engagement tools you intend to use and when you plan to use them.
- Align DEA stakeholder outreach and engagement timeline with the BEAD stakeholder outreach and engagement schedule. Look for areas to coordinate and deconflict.
- Finalize which tools and methods you will use for data collection and asset mapping.
- Locate and gather existing data on digital equity barriers from local and federal data sources.
- Begin gathering asset inventory information and disseminate asset mapping tools and surveys to partners to begin gathering information.
- Identify, gather, and analyze local digital inclusion plans within your state. Conduct a literature review of local digital equity plans in your state.
- Reach out to state agency partners to identify existing state goals and plans that the state digital equity plan may interact with or impact.

MONTHS
2-3

- Meet with the core planning team.
- Begin stakeholder and partner engagement activities. Start with your strategies with the widest reach first and work your way up to the strategies with the smallest reach but biggest impact (i.e. move from media outreach through each engagement tier, up to one-on-one interviews).
- Evaluate quantitative data via federal data sources: NTIA Internet Use Survey, American Community Survey, FCC Form 477, Pew Research Center, the National Skills Coalition research, and any other relevant and available federal or state datasets.

- Identify areas for further research to address gaps in existing data on digital equity barriers.
- Start primary (new) research on digital equity barriers.
- Begin qualitative data collection and stakeholder input via surveys, focus groups, one-on-one interviews, or other means.
- Continue updating your asset inventory and compiling asset mapping information from partners.
- With the results of the literature review of local digital inclusion plans, determine how to include any local plans into your state plan.

MONTHS
4-6

- Meet with the core planning team.
- Continue stakeholder and partner engagement activities.
- Continue primary research activities on digital equity barriers.
- Quantify and describe all digital equity barriers.
- Begin drafting measurable objectives based on quantified needs and barriers, aligned with the measurable objectives categories.
- Begin compiling all data and information gathered thus far for analysis.

MONTHS
7-8

- Meet with designer and begin creating visual design for plan.
- Meet with the core planning team.
- Define baseline measures, incremental targets, and long-term targets for each measurable objective.
- Determine how the measurable objectives will interact with and impact other state goals and plans.

MONTHS
8-9

- Develop a measurement and evaluation plan that details ongoing data collection needs and strategies to track progress toward the measurable objectives.
- Begin developing implementation strategies that will advance progress toward the incremental and long-term targets for your measurable objectives—utilize your asset inventory to find existing programs and resources that can be leveraged and scaled.
- Meet with the core planning team.
- Continue to refine the measurable objectives and implementation strategies based on stakeholder and community feedback, data availability, and feasibility/sustainability assessments.
- Aim to have a solid draft of your plan by the end of month nine for the public comment period.

MONTHS
10-11

- Meet with the core planning team.
- Publish your plan draft.
- Open the public comment period for 30 days, as required by the DEA. Incorporate edits from the public comment period and detailed responses to public comments.
- Finalize plan visual design.

MONTH
12

- Continue incorporating edits from the public comment period if needed. Publish plan.
- Host an event and/or a PR campaign to launch and promote the plan.
- Send the plan to all stakeholders and contributors.
- Submit plan to NTIA.
- Begin planning for implementation.
- Celebrate! You accomplished a big feat.

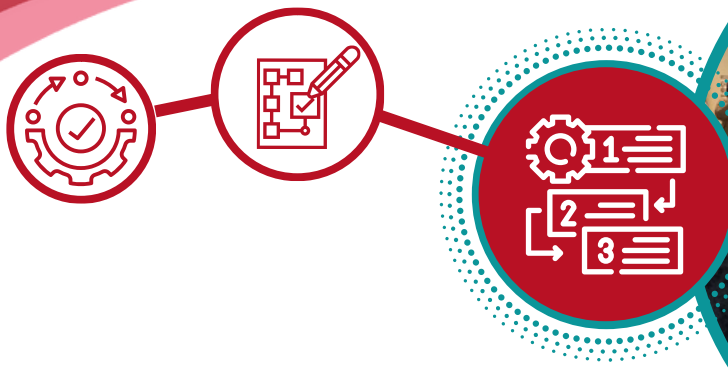


Photo Source: City of Portland, OR

CHAPTER IV:

HOW TO BUILD THE PLAN, SECTION BY SECTION

About This Chapter

This chapter provides best practices, guidance, tools, and examples for completing the 15 plan requirements outlined by Congress and NTIA. This chapter is divided into sections directly aligned with the main requirements as outlined in the NOFO: (1) developing a vision, (2) identifying barriers to digital equity, (3) conducting a digital equity asset inventory, (4) developing measurable objectives, (5) connecting measurable objectives to existing state and local goals, (6) developing implementation strategies, and (7) describing the planned collaboration with key stakeholders.

Each section begins with the statutory and NOFO requirements that align with the specific section discussed with citations, so you can directly align the requirements with the right section. We also provide guidance and methods for satisfying the requirements and developing the content in the section itself. Finally, where possible, we provide best practices, examples, and lessons learned from state broadband planning, local digital inclusion planning processes, or other sectors' planning processes that may be relevant or informative.

The toolkit provides recommendations that account for the common challenges the digital divide creates for individuals across the country. But it may not address some of the specific, nuanced challenges or opportunities present in your state. While we hope it is a useful tool, given the nation's diversity, it will not address all of the particular circumstances and barriers in every state. As such, states should adapt these recommendations as needed.



Developing a Vision for Digital Equity in Your State

Statutory and NOFO Requirements

"Digital equity is fundamentally concerned with promoting full participation in the digital economy and society by all. Achievement of digital equity requires strategic investments in human and community capacity."⁽⁶⁾

Accordingly, the DEA NOFO requires that State Digital Equity Plans include a "clear description of the State's vision for digital equity in the context of its overarching strategy and goals."⁽⁷⁾

How-To: Methods for Developing Your Vision

DEFINITIONS TO KNOW

The following terms are helpful to understand as you develop a vision for your plan. A plan doesn't need all these items, but the process of developing a vision, mission, values, and goals may support the overall development and implementation of your vision.

- **Vision:** A vision statement is your north star for the plan. It is a 'clear, specific, compelling picture' of what your collective vision is for the future of your community. In this context, it is a collective vision for what your state would look like if it were digitally equitable. It should be ambitious and transformative, yet achievable.
- **Mission:** A mission statement is a general statement on how the vision will be achieved.
- **Goals:** The plan's goals will be broad outcomes that are derived from and support the achievement of the vision statement. For the digital equity plans, they can and should be high-level summaries of the measurable objectives developed in section three.

(6) NTIA, Notice of Funding Opportunity: State Digital Equity Act Planning Grant Program (NTIA-DE-PLAN-2022, 11.032) p. 20

(7) NTIA, Notice of Funding Opportunity: State Digital Equity Act Planning Grant Program (NTIA-DE-PLAN-2022, 11.032) p. 20

- **Objectives:** The primary difference between goals and objectives is that objectives are the individual actions you need to take to achieve a goal. When working towards accomplishing a goal, often you'll have objectives you must complete along the way. By completing objectives, you're making progress towards completing your broader goals. For the digital equity plans, your objectives will need to be measurable and align with specific categories as outlined by Congress. We discuss these more in the “Measurable Objectives” section below.
- **Values:** Values are the distinctive and enduring principles your state will follow in designing and implementing the plan. Your state may find it appropriate to embed values into the plan so as digital inclusion programs are implemented as a result of the plan, they are built on common values.

Developing a vision statement should be a collective and collaborative process that the administering entity co-designs with community members, stakeholders, and partners—particularly those you identify in the first three engagement categories (digital equity organizations, organizations operating digital inclusion programs, and organizations serving covered populations).

When you develop your vision statement is dependent on your preference and engagement plan. The vision statement can be developed in the first few months of the process, throughout the entire process, or towards the end after you've collected your baseline data and developed measurable objectives. Developing the vision at the beginning could provide an anchor for your plan and provide a marker to strive to achieve and incorporate into your measurable objectives and other planning requirements. However, if you wait to develop your vision until the end of the process, you will have more data, a better sense of the status of your digital equity ecosystem, and measurable objectives that can inform and shape your vision. There is no right or wrong way, but it is important to consider how the timing will impact your vision statement prior to determining when to develop it.

We do caution against developing the vision without input from your stakeholders and partners. Showing up to a listening session or public meeting with a fully baked vision statement and presenting it to the attendees without their input will immediately discourage them from fully engaging in the process.

Visioning Activities

Visioning activities are great tools to support you and your collaborators as you develop your vision statement. You can use activities in your public meetings, focus groups, or with your core planning team. Each of the following activities can be tailored to fit your needs:

- [Magazine Cover Activity](#)
- [Bridge Building Activity](#)
- [Persona Interviews and Elevator Pitch](#)

Questions to Help Develop Your Vision Statement

In addition to using activities to support development of the vision statement, below are questions you can use with your team, core planning team, the community, or other stakeholders. These or similar questions could also be included on a survey.

Ask the Following to Develop Your Vision Statement:

- ? How does the digital divide impact your state? Consider the impact on the state as a whole as well as on individual residents?
- ? Imagine it's five years from now and your state has fully achieved digital equity. What does that look like? How is your state different than it was before? How does this digitally equitable future impact your residents, in particular your covered populations? Your businesses? Your workforce? Your healthcare system? Your own government operations?
- ? Why does your state care about digital inclusion and digital equity? Why is digital inclusion important to your state?
- ? Where is the unique value proposition for state involvement in digital inclusion and digital equity?

Best Practices and Examples

Below are three examples of vision statements found in local digital inclusion plans from a city, county, and a region.

In 2021, Long Beach, CA published the [Digital Inclusion Roadmap](#) with this aspirational vision statement:



“Every individual in Long Beach, regardless of background, neighborhood or identity has high quality, accessible, technology resources and services to be civically engaged and socially and economically empowered.”

See more about this roadmap in the “Developing Measurable Objectives” section of this Toolkit.

In March 2021, Franklin County, Ohio published the [Franklin County Digital Equity Coalition Framework](#) with this vision:



“To achieve digital equity through universal residential broadband adoption which includes affordability, devices, and digital life skills training and technical support, in order to ensure Franklin County residents have the tools necessary to support education, health, well-being, economic prosperity, and the ability to fully participate in society.”

In October 2021, the Land of Sky Regional Council of Governments in North Carolina developed the regional digital inclusion plan, [“Bridging the Digital Divide,”](#) with the following vision:



“Ensure all residents in Buncombe, Henderson, Madison, and Transylvania counties needing or wanting to participate in the online world have:

- 1. Access to affordable, robust broadband internet service at home,**
- 2. A low or no-cost digital device that meets their needs,**
- 3. Basic computer skills, training and support to unlock the opportunities digital access offers.”**



Identifying Barriers

Statutory and NOFO Requirements

The IIJA requires that State Digital Equity Plans provide the "identification of barriers to digital equity faced by Covered Populations in the State."⁽⁸⁾

Additionally, the DEA NOFO requires that State Digital Equity Plans include "a digital equity needs assessment, including a comprehensive assessment of the baseline from which the State is working and the State's identification of the barriers to digital equity faced generally and by each of the covered populations in the State."⁽⁹⁾

Covered Populations

1. Individuals who live in covered households
(i.e. households with income less than or equal to 150 percent of federal poverty level)
2. Aging individuals
3. Incarcerated individuals, other than individuals who are incarcerated in a federal correctional facility
4. Veterans
5. Individuals with disabilities
6. Individuals with a language barrier, including individuals who—
 - a) are English learners
 - b) have low levels of literacy
7. Individuals who are members of a racial or ethnic minority group
8. Individuals who primarily reside in a rural area

Overview

A needs assessment is an analysis of the current state of digital equity in an area. It's key to understanding what steps are required for the state to achieve its goals. The digital equity barriers identified will be the foundation of the needs assessment and is complemented by an asset inventory (discussed in the section "Conducting an Asset Inventory").

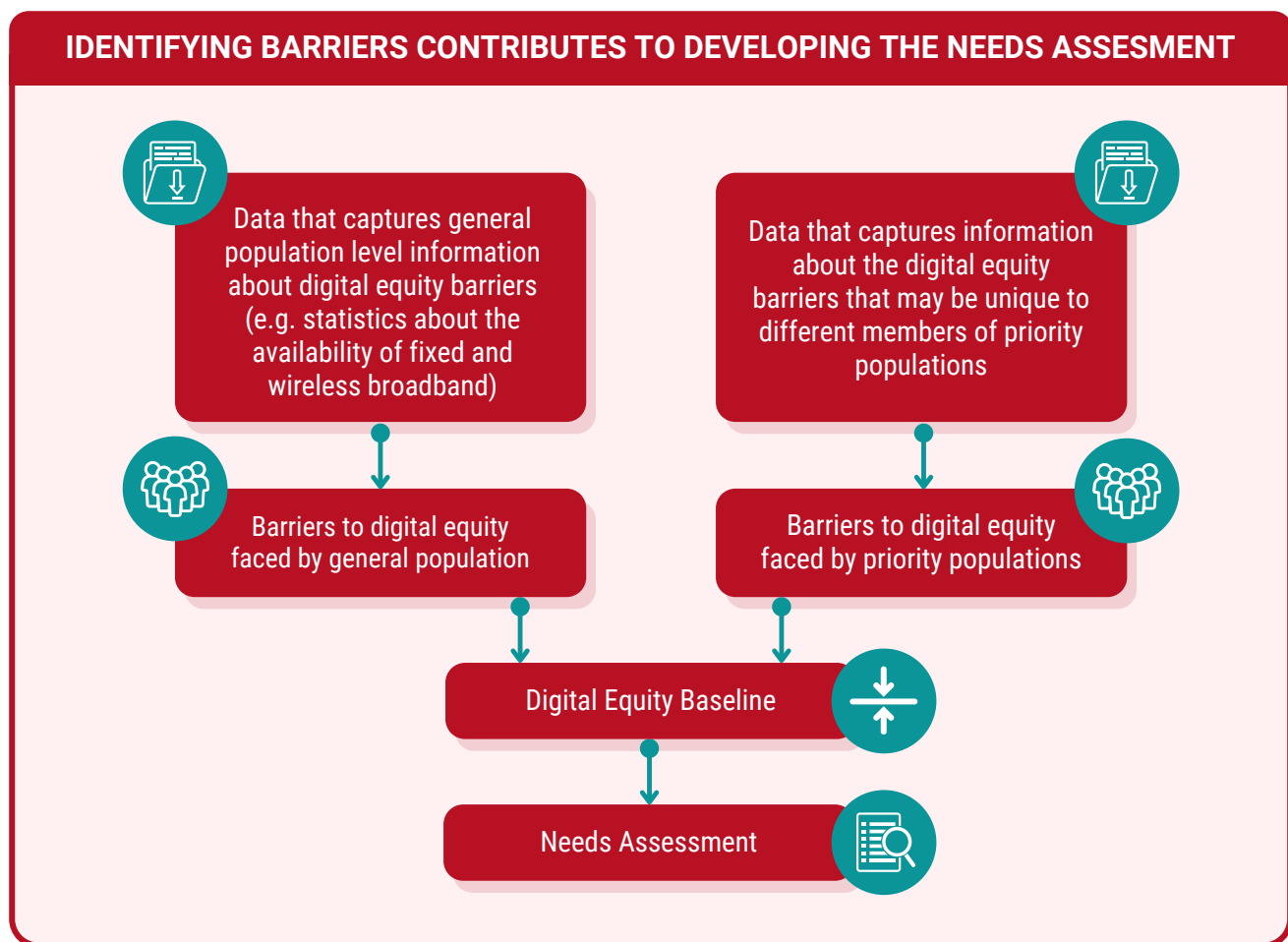
(8) Infrastructure Investment and Jobs Act, 47 USC § 60304(c)(1)(A) (2021).

(9) NTIA, Notice of Funding Opportunity: State Digital Equity Act Planning Grant Program (NTIA-DE-PLAN-2022, 11.032) p. 21.

Taken together, the needs assessment and the asset inventory give a picture of the current state of digital equity and the resources you can leverage to manifest its vision. The needs assessment required for the digital equity plan may be different from traditional needs assessments because the data must capture the digital equity barriers faced by the population in general (e.g. households without fixed broadband in the state) and data on digital equity barriers faced by each of the covered populations (e.g. people with one or more disabilities without fixed broadband).

This section also briefly discusses measurable objectives required to address digital equity barriers—that’s because there is a relationship between these components of the digital equity plan. The measurable objective categories provide a useful framework for organizing various digital equity barriers. We’ll show a few examples of how they’re connected. The process of developing measurable objectives is also discussed in greater detail in the “Developing Measurable Objectives” section of this Toolkit.

Figure 5



Data Collection Activities



Throughout the planning process, it's helpful to consider which activities you can do simultaneously. For example, as you begin to identify digital equity barriers, you can also think about how they will align with the measurable objectives you will create to resolve those barriers.

In general, the activities you should expect to conduct include: locating existing datasets, evaluating the data, identifying gaps in existing data, and conducting primary research to obtain new data where necessary.

During all steps of the process, think about possible measurable objectives to address the digital equity barriers for the population as a whole as well as for the different covered populations. Developing the measurable objectives may take several revisions, so it's helpful to begin thinking about them early on. The IIJA requires State Digital Equity Plans include measurable objectives for documenting and promoting a variety of digital equity needs. Consider the example below to connect barriers to measurable objectives:

Table 8: Connecting Digital Equity Barriers to Measurable Objectives

DIGITAL EQUITY BARRIER	MEASURABLE OBJECTIVE CATEGORY
Survey respondents identifying as English language learners reported difficulty in navigating a public service website, such as the health and human services website.	The online accessibility and inclusivity of public resources and services. <i>Tip: Think about a specific, measurable objective you can create to address the digital equity barrier for English language learners in this category.</i>

How-To: Methods for Identifying Barriers for the Population in Your State

IDENTIFYING RESEARCH PARTNERS AND COLLABORATORS

To develop the overall design for the research, we recommend administering entities partner with an established research entity, such as a university, nonprofit community research organization, or a market research firm. Established research partners have expertise in mixed methods research design and program evaluation. They can ensure the data collection and analysis plan takes a holistic approach that maximizes the effectiveness of distinct methods. Some key roles for research partners include:

- Developing and administering sound qualitative research protocols (surveys, focus groups, and interviews)
- Applying appropriate sampling methods to ensure the statewide survey yields generalizable results to the overall population and covered populations
- Creating a program evaluation plan that ties objectives and implementation strategies to available and sustainable metrics
- Ensuring any human subject research follows best practices and procedures, including institutional review board (IRB) review and approval, as may be required depending on data collection methods

A research partner may be best suited to conduct a statewide survey to capture data on the digital equity barriers faced by individuals in your state. However, sampling methods adopted for this type of survey may not capture representative data from covered populations that are more difficult to reach. In such cases, organizations serving covered populations are essential collaborators in helping your state identify unique barriers. Not only can they assist you in connecting with diverse populations, they may also be well positioned to partner with the state in gathering data to identify digital equity challenges these populations face. Trusted community organizations providing resources or social forums for covered populations can help build connections. For example, nonprofits serving people with one or more disabilities or faith-based organizations providing fellowship for racial or ethnic minority groups may help in building a connection for digital equity research.

IDENTIFYING TOOLS AND METHODS FOR DATA COLLECTION

In your search to discover the digital equity barriers in your state, you may decide to leverage existing research, conduct primary research to learn about digital equity barriers not explored in existing data, and utilize qualitative as well as quantitative research.

States may find it beneficial to use multiple data sources and research methods to develop a comprehensive picture of digital equity barriers faced by the population as a whole and covered populations.

QUANTIFYING AND DESCRIBING BARRIERS

To understand how the digital equity barriers impact the populations in your state, you must quantify them (explain them in numerical terms). Some data on the digital equity barriers may already be available in quantitative forms (e.g. the number of households in the state with access to fixed and wireless broadband). Quantitative data can be found in government and non-government sources, including NTIA Internet Use Survey, American Community Survey, FCC Form 477, FCC Affordable Connectivity Program, Pew Research Center, the National Skills Coalition, and other relevant and available federal or state datasets. Several data platforms also exist to support the aggregation, analysis, and visualization of digital inclusion data, including [NTIA's Digital Equity Act Population Viewer](#) and the [Microsoft Digital Equity Data Dashboard](#).

See [Appendix G](#) for more information on these and additional digital inclusion data tools, as well as a more complete list of public and authoritative nationwide digital inclusion datasets.

Qualitative data can provide insights into unique barriers among certain populations. Data describing some types of digital equity barriers, such as someone's level of confidence in their ability to protect their data privacy online, may be expressed in a descriptive or qualitative way (e.g. an open-ended survey response or a focus group response). But keep in mind that you must identify a method for quantifying the data (i.e. describe the data numerically) in order to create a needs assessment for your state that appropriately reflects the barriers. Table 9 shows one way to quantify a barrier that was initially expressed in qualitative form by taking a response from a focus group participant (qualitative) and developing a survey question to understand the number of people (quantitative) impacted by that barrier.

Keeping in mind that you'll need to develop measurable objectives, it may be helpful to categorize qualitative information based on themes in the measurable objective categories, similar to the example in Table 9. In the example, the focus group participant gives a response that can be characterized in one of the measurable objective categories. You can take insights from qualitative data and look for existing data to quantify that barrier or conduct your own research to understand the proportion of the population impacted by the barrier.

Table 9: Example of Organizing Needs Assessment Data by Measurable Objectives

Data Source	Qualitative Form	Quantitative Form	Measurable Objective Category
Focus Group Participant	<p>Several focus group participants indicated a lack of trust in the security of websites.</p> <p>(Participants may have a variety of ways of expressing this concern. You can categorize or "code" a variety of responses around broad digital equity themes.)</p>	Of respondents to the state survey who are over age 65, XX% gave a response indicating low confidence in their ability to protect their online privacy.	An individual's awareness of, and use of, measures to secure their online privacy and cybersecurity

Some data describing digital equity barriers may not align with the themes of the measurable objectives as discussed in the DEA NOFO. In those cases, it may be helpful to develop a system for categorizing the data into a broader theme in order to succinctly describe other barriers and develop measurable objectives to address them.

LOCATING EXISTING DATA

Take inventory of the existing data to identify barriers to digital equity before considering embarking on new research. Existing data sources on digital equity barriers and potential partners to aid the state in data collection are forms of “assets” that the state may discover while conducting the asset inventory (discussed in the “Asset Inventory” section of the toolkit). The asset inventory process will help the state avoid duplicating prior or concurrent efforts of agencies, local governments, or entities that have already produced data on digital equity barriers for the population at large or for covered populations.

The organizations and government entities best suited to direct you to existing data on digital equity barriers are the same organizations that may support the development of the asset inventory. Such organizations include digital equity coalitions, organizations operating digital inclusion programs, and organizations serving covered populations. State agencies serving covered populations (e.g. department of aging) or local governments with digital inclusion staff may also direct you to existing data. (Note: Many school districts and state departments of education now track student households connected to the internet. In fact, some states require districts to collect and report this information.)

EVALUATING EXISTING DATA

Once you locate existing data, you may decide that some data allows you to easily derive insight on the digital equity barriers in your state. However, there may be data you decide, for various reasons, that does not aid your effort in identifying barriers and contribute to an accurate needs assessment for your state. In deciding how to incorporate such research in a baseline digital equity assessment, consider the following:

- **The Year the Research Was Conducted:** For all datasets, consider whether there have been significant and sustained changes in the state or local government budget to advance digital equity or whether digital equity policy proposals have been implemented since the research was conducted. Research conducted several years before policy shifts or investment may not give an accurate picture of the current digital equity barriers.
- **Type of Demographic Information Captured:** If your intention is to use a dataset to identify the barriers for covered populations, consider whether the demographic categories align with the definitions of covered populations identified in the DEA NOFO. For example, if a dataset includes information on low-income households, check to see if the poverty level threshold for “low-income” in the data aligns with the income threshold defined in the DEA NOFO for a “covered household.”



Note: Do not confuse “covered household” with “covered population.” A “covered household” means a household in which for the most recently completed year did not earn more than 150 percent of an amount equal to the poverty level.

- **Granularity of the Data:** Consider whether the data allows you to characterize discrete barriers to digital equity. Some data may tell you what respondents think is important but not information on their barriers (e.g. respondents may say that high-speed internet access is important to them but were not asked about their challenges in obtaining it, such as availability or affordability).
- **Gaps in Data:** For each dataset, take note of which population it describes (does the data have a demographic breakdown that shows how the barrier impacts each population?) and the types of barriers the data reveals (e.g. digital literacy). At the conclusion of the initial data search, look for the gaps in information. For example, you may find that a dataset reveals digital literacy barriers for the population as a whole but does not quantify them for certain covered populations. Or you may find a dataset that reveals digital literacy barriers by race/ethnicity, but not data on the digital literacy barriers for people with disabilities. If there are gaps in the data you initially identified, you may want to consider conducting your own primary research. Because there are unique requirements for the state digital equity plan, you will likely find datasets that don’t address all barriers for all populations discussed in the DEA NOFO. But this is not a reason to discard the data. You should pull the relevant data from the dataset and continue looking for data to address additional barriers for other populations.

IDENTIFYING AREAS FOR FURTHER RESEARCH

Your initial data search may reveal gaps in information you may address by conducting original research. In this case, you’ll want to identify the type of research best suited to obtain missing information and potential partners and collaborators.

During the data collection process, you can organize a checklist to quickly track gaps in existing data—this will tell you where you should focus your research. In the example in Table 10 the empty boxes are areas where you may consider conducting your own research to obtain quantitative data on digital equity barriers.

In Table 10, the researcher marks what kind of data has been collected to date. For example, the reviewer found data on the availability and affordability of fixed and wireless broadband for the population as a whole, as well as for minority groups and people primarily residing in a rural area. However, many boxes remain blank, showing where more data is needed. For example, there is no information on digital literacy barriers for any population, nor is there information on barriers faced by veterans or individuals with disabilities regarding the availability and affordability of consumer devices and technical support.

Table 10 represents a point-in-time tracking visualization. The left hand column lists the measurable objective categories (which provide a framework for organizing digital equity barriers). The first row lists all the populations for which you must identify digital equity barriers.

Once you have identified the gaps in existing data describing digital equity barriers, you'll have a good idea of where you should focus your research efforts.

Table 10: Example Data Collection Matrix of Covered Populations and Measurable Objectives Categories

	Population at large	Aging individuals	Incarcerated Individuals (other than those in federal facilities)	Veterans	Individuals with disabilities	Individuals with a language barrier	Individuals of a racial or ethnic minority group	Individuals who primarily reside in a rural area	Individuals who live in covered households
The availability of, and affordability of access to, fixed and wireless broadband technology		X					X	X	X
The online accessibility and inclusivity of public resources and services			X	X					
Digital literacy	X								
Awareness of, and the use of, measures to secure the online privacy of, and cybersecurity with respect to, an individual					X				
The availability and affordability of consumer devices and technical support for those devices	X	X	X			X	X	X	X

CONDUCTING PRIMARY RESEARCH

As discussed earlier in this section, NDIA strongly recommends partnering with an experienced research partner to guide the development of the research design and conduct statewide surveys. However, it is likely that some covered populations will not be sufficiently represented in the survey. To supplement a statewide survey and ensure you are able to capture data from the populations that may be difficult to reach, NDIA recommends leveraging the asset inventory you developed (discussed in the section “Conducting an Asset Inventory”) to identify organizations that can connect you to populations you seek to learn more about. These may include organizations serving English language learners, minority-serving institutions, public housing authorities, prisoner reentry programs, immigrant and refugee services, and organizations serving older adults. You may consider a variety of research methods, but be mindful that you must ultimately quantify the digital equity barriers faced by covered populations (see Table 10). A list of examples of research methods you may consider adopting can be found in the “Meaningful Community Engagement” section of this Toolkit.

Historically, members of many covered populations have been exploited, sometimes unintentionally, in research in multiple sectors. For this reason, we encourage everyone involved in data collection and research for the digital equity plan to become familiar with best practices in human subject research. [The US Department of Health and Human Services, Office for Human Research Protections](#) publishes information on federal policies, guidance, best practices, and training materials on human subject research. Additionally, there are likely potential partners within your state, including some state agencies (e.g. state health departments) and any research university that engages in human subject research that have their own policies and protocols in place, such as an institutional review board. Specific guidelines vary depending on the type of research conducted, but the underlying principles of these protocols are designed to protect the safety, dignity, and autonomy of individuals who agree to participate in a research study.



Conducting an Asset Inventory

Statutory and NOFO Requirements

The DEA NOFO requires that State Digital Equity Plans include *“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.”*

Overview and Fundamentals of Asset Mapping for Digital Equity

DEFINITIONS TO KNOW

- **Assets:** An asset is any resource that can be leveraged to help achieve the objectives and vision of your plan. States and communities comprise a wide range of assets, including institutions, organizations, programs, community leaders, funding resources, and physical gathering spaces. Less tangible assets, such as formal and informal networks, and shared language, culture, and identity are also powerful opportunities to bring communities together around a common purpose, such as digital equity.
- **Asset Mapping:** This is both the process of gathering asset information and one type of output. A successful asset mapping process is highly participatory, drawing on the expertise of community members and placing them at the center of the work. This can be challenging for statewide efforts and emphasizes the importance of developing strong local engagement. As a product, asset mapping can take several forms, such as a map documenting the location of different resources or a network map representing different types of assets and the connections between them.
- **Asset Inventory:** An inventory is one type of output from the asset mapping process. At its simplest, it is a list of assets with basic information about each. The breadth and complexity of your asset inventory will depend on how you intend to gather and use asset information throughout your planning process and beyond.

Asset mapping is rooted in asset-based community development, an approach centered on identifying and building on existing resources. When done collaboratively with community members, the process of compiling asset information can also serve as an engagement strategy and can yield new digital equity partners and creative strategies. For more information and resources about Asset-Based Community Development, visit the [Asset-Based Community Development Institute at DePaul University](#).

As an approach to documenting existing conditions, asset mapping is inherently solution-oriented—it focuses on the strengths within communities and seeks to leverage them to advance agreed-upon goals and aspirations for the community. It recognizes that, with the necessary resources and structural support, communities possess the knowledge and skills to develop solutions from within their own communities.

Asset mapping is a valuable counterbalance to the identification of barriers and needs, which tend to emphasize deficiencies of a community or particular population. Although quantifying needs is an important step in the planning process, it can lead to a perception that those with digital equity needs are problems to be solved for, which often results in externally imposed solutions rather than empowerment and ownership within the community.

ASSET MAPPING AND DIGITAL INCLUSION

While asset mapping can be applied to most planning processes, there are some characteristics that make it especially well suited for digital equity plans. First, it is helpful for seeing relationships between an interconnected network of resources. In many states and communities, digital inclusion ecosystems are relatively nascent and not yet well understood. Asset mapping can help make sense of disparate organizations and programs by making it easier to consider them in the context of a broader ecosystem. This also aids in identifying gaps in the ecosystem where additional assets are needed.

Asset mapping not only allows those leading the digital equity planning process to see connections between organizations, it can also help organizations understand their own connections to digital inclusion work. Many organizations that serve individuals with digital equity needs don't necessarily describe their work as "digital inclusion" services. Whether it's a case worker at a state agency who helps a client create an email account in order to register for benefits, a place of worship that hosts an after-school program, or a business that chooses to make their Wi-Fi accessible to users in a nearby park or plaza, there are countless examples of digital inclusion service providers that may in fact be part of the community's digital inclusion ecosystem. An iterative and layered approach to asset mapping makes it even more likely that these resources will be uncovered and engaged in the planning process.

How-To: Conducting an Asset Inventory

STARTING EARLY AND ADDING THROUGHOUT THE PLANNING PROCESS

Given its broad applicability to numerous steps in the planning process, it is best to begin asset mapping as early as possible, ideally before outreach and engagement. The process of gathering asset information is a great way to identify stakeholders that represent key constituencies, such as covered populations, and can contribute input and other information to the plan. Getting an early start does not mean that you will have all of the necessary information or connections to complete the asset inventory at the outset, rather asset mapping should be approached as an ongoing effort that grows throughout the digital equity planning process as new connections are made and strategies are developed.

TOOLS AND RESOURCES TO SUPPORT ASSET MAPPING

Perhaps the most important early step in creating an asset inventory is determining what information should be gathered and how it will be stored and managed. A statewide digital inclusion asset inventory has the potential to become quite large and unwieldy, so it's critical to use appropriate tools that support efficient organization and leveraging of asset mapping data. Asset inventories are generally stored in spreadsheets or databases that can range from a single spreadsheet to a robust contact database. Before getting started, you should consider your needs and the software options available to you. When deciding on the best tools to use for your inventory, consider:

1. **Who will collect the information and how?**
2. **Who will manage and analyze the information and how?**
3. **Who will share or present the information and how?**

For example, if you want external organizations to submit their own information, then an online submission form will be key; if the asset inventory will be used as a tool for engagement and outreach, then gathering data in a format that is compatible with your CRM would be advantageous; and if you wish to create a map from the inventory, then capturing key geographic information is necessary.

To support asset mapping efforts at the state and local levels, [NDIA created asset mapping tools](#) with these considerations in mind. They are designed to be simple to use, easily accessible, compatible with other tools, and adaptable to users' specific needs. They include an Asset Inventory Spreadsheet Template (in Google Sheets or Excel formats) for collecting and managing many records in one place and an Asset Inventory Survey Template for gathering asset information. Both tools use the same standardized fields and response options, allowing for seamless incorporation of the two into a single dataset.

See [Appendix E](#) for additional guidance on using NDIA's asset mapping tools.

The standardization of data fields and values is perhaps the most important component of NDIA's asset mapping tools, and the Asset Inventory Spreadsheet Template includes a Data Dictionary that defines each field. Regardless of which tools you decide to use for your asset inventory, we encourage anyone developing a digital inclusion asset inventory to adopt this common language to establish a shared understanding across the field.

WHAT SHOULD BE INCLUDED?

Deciding what to include in your asset inventory can be a daunting task at the outset. There is likely a wide range of organizations already performing digital equity work across your state and many more who could be engaged through the planning process. Your asset inventory will include information on programs directly doing digital equity work, and you will also be able to consider resources that could enhance your plan; for example, by providing connections to key groups, providing alternative funding, or facilitating implementation strategies.

It is easiest to get started on your asset inventory by taking a concentric rings approach, beginning at the center with the clearest and most obvious resources and working outward to prospective partners and organizations with more tangential connections to digital equity. Even though all organizations won't fit perfectly into this model, identifying general levels of connection to digital equity work can help keep the inventory organized. This will also provide some directional guidance about the level of effort needed for further information gathering.

For organizations at the center, it may be important to gather detailed information about their specific digital inclusion programs, while basic information may suffice for those at the outer edges. Another benefit of beginning with organizations focused on digital equity is that they have strong existing connections and can be excellent partners in building out your asset inventory.

- **Digital Equity Organizations:** These are organizations with missions centered in digital equity. They exist to advance digital equity and are engaged in multiple facets of digital inclusion work. Examples could include nonprofit device refurbisher, digital inclusion coalitions, or community technology centers.
- **Organizations Operating Digital Inclusion Programs:** These are organizations that offer programming in one or more area of digital inclusion. While digital equity is not the central purpose for why they exist, it is an acknowledged component of their work. Examples could include public libraries, senior or community centers, workforce training programs, and organizations housing digital navigator programs.
- **Organizations Serving Covered Populations:** These organizations generally have close community ties and are trusted by the groups they serve, making them key allies for engagement efforts. While these organizations do not offer specific digital inclusion programs, they often do provide informal digital inclusion services to their participants, making them good candidates to develop more formal programming through capacity grants.
- **Other Community Assets:** These include other resources that may be key to the development and implementation of your state digital equity plan. These could include anchor institutions, internet service providers, community gathering spaces.

A note about mapping physical broadband infrastructure assets: Although broadband infrastructure is an important consideration to digital equity planning, it is generally best to develop a separate asset inventory of physical infrastructure from your digital inclusion asset inventory. The file formats and types of information you collect about physical infrastructure will be very different from data about programs, organizations, and other digital equity resources. Additionally, mapping existing broadband infrastructure assets will be a required component of your BEAD five-year action plan, and information from that plan can be referenced in your state digital equity plan.



TAKING A LAYERED APPROACH TO STATEWIDE ASSET MAPPING

An effective asset inventory will incorporate data on organizations and programs with varying levels of focus and reach, from statewide agencies to programs serving specific neighborhoods and population groups. Attempting to gather all, or even most, asset mapping data single handedly is neither feasible nor advisable for an administering entity. Staff capacity is certainly a consideration, but more importantly, you'll lack the depth of knowledge and relationships to fully capture the digital inclusion ecosystem throughout your entire state.

Identifying and enlisting partners to crowdsource asset mapping data will be a far more effective and engaging strategy for developing your inventory. The key is determining who is best suited to contribute which types of asset data. A multi-layered approach to asset mapping data collection may include engaging the following partners:

- **State Digital Equity/Broadband Office Staff:** Your own team members may be best suited to inventory other state agencies and offices to identify digital inclusion assets across the state government, as well as any existing partnerships your agency and staff already have.
- **Statewide Associations:** Associations representing organizations that frequently provide digital inclusion services or that represent covered populations can efficiently gather information from their members and help make connections to organizations. Examples of associations to reach out to include library councils, associations of community action agencies, associations of regional councils of government, associations of area agencies on aging, and state/regional associations of grantmakers.

- **Local Digital Inclusion Coalitions:** Digital inclusion coalitions will be willing partners in gathering asset information for the communities they serve. In fact, many have already developed asset mapping resources about the digital inclusion services available in their community. In most cases, these resources can be directly incorporated into your state plan. At a minimum, a listing of coalition member organizations can serve as a good starting point for a local-level asset inventory.
- **Local Governments:** Though a relatively small number of local governments have dedicated digital equity staff, engaging with them should be a first step in the asset mapping process. Even where formal capacity does not exist, staff at cities, counties, and regional agencies are generally knowledgeable about the digital inclusion resources in their community and can be valuable partners in collecting asset information.
- **Anchor Institutions:** Similar to local governments, local anchor institutions are often directly engaged with or are at least knowledgeable about digital inclusion activities in their communities. Key anchor institution partners include libraries, colleges and universities, and community/local philanthropic organizations.

AGGREGATING AND STANDARDIZING THE ASSET INVENTORY

The success of enlisting partners and taking a layered approach to compiling your state's asset inventory will be contingent on establishing standards for what data will be collected and in what format. NDIA's Asset Inventory Spreadsheet Template (Google Sheets or Excel) introduces standard data fields and response options for digital inclusion asset mapping and includes a data dictionary. The Asset Inventory Survey Template includes the same data fields and standard response options to allow for easy aggregation of asset data. Whether using these tools or developing your own, it will be necessary to define minimum data standards before gathering asset data or engaging with partners. [NDIA's asset inventory tools](#) are available to download online.

MAINTAINING AND LEVERAGING THE ASSET INVENTORY

As your asset inventory grows throughout the planning process, it will develop into a valuable stand-alone resource and a tool to support other components of the plan. You will reference the inventory regularly throughout the planning process to locate data sources, inform engagement efforts, and identify potential implementation partners and funding candidates. The usefulness of the inventory will depend in large part on how easy the asset data is to access and leverage for a variety of purposes, and how well it is maintained through the process and beyond.

If a relatively small number of users will be accessing and working with the inventory, it may be sufficient to maintain it in a spreadsheet that allows for simple sorting and filtering. If many different users will need to access asset information, it may be necessary to store it in a database with reporting and querying capabilities and access controls. This would add a layer of data protection to prevent accidental editing of the inventory and would make the data more accessible to users who are unfamiliar with the fields and specifics of the inventory.

Given the amount of information compiled through the asset mapping process, you may wish to develop the asset inventory into a public-facing resource, such as a directory of digital inclusion services that remains available after publication of the state digital equity plan. Such a resource could support continued growth of the digital inclusion ecosystem throughout the state. It may not be necessary to determine whether the asset inventory will be a public-facing tool at the outset of your planning process, but it would be worthwhile to consider a few questions to avoid rework in the long term:

- Where will the asset inventory live after completion of the plan?
- Who will be responsible for ensuring the inventory is updated?
- If we use a survey or other tool to crowdsource asset data, how will organizations submit updated data on an ongoing basis?
- What format might be best for an online tool—an interactive map, a searchable database, etc.?

Best Practices and Examples

[Hawaii Digital Equity Ecosystem Map](#): In 2021, the State of Hawaii Broadband and Digital Equity Office undertook an asset mapping project to understand the state’s digital equity ecosystem—both as it exists now and how it could ideally look. Their process involved significant engagement and input from digital inclusion practitioners across the state. The results are a simple online Digital Equity Resource Directory as well as several elegant visualizations (Figure 6) relating the digital equity ecosystem to elements of the natural ecosystem and traditional Hawaiian culture.

[Workforce Development Council of Seattle-King County Digital Equity Asset Map](#): This online directory provides several filters and an interactive map, allowing users to search for specific digital inclusion resources in their area (Figure 7). The tool includes a brief description of the services, a point of contact, and website links for each asset. It also provides a contact person so users may easily submit updates and new resources to the directory.

EXAMPLES OF DIGITAL INCLUSION ASSET MAPPING

Figure 6: Hawaii Digital Equity Ecosystem Map

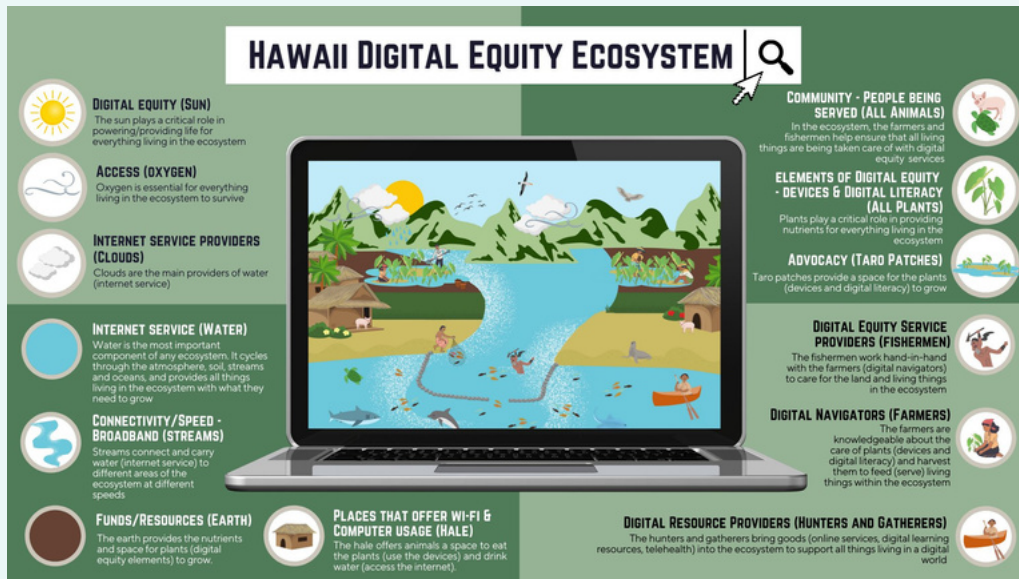


Figure 7: Seattle-King County Digital Equity Asset Map

DIGITAL EQUITY ASSET MAP
COMMUNITY RESOURCE

THIS MAP TRACKS DIGITAL LITERACY RESOURCES IN KING COUNTY

These resources have strong ties to BIPOC communities and delivering digital inclusion services to their communities.

DIGITAL EQUITY DEFINITION
From National Digital Inclusion Alliance:
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.

WHAT IS A DIGITAL NAVIGATOR?
Digital navigators are trusted guides who assist community members in internet adoption and the use of computing devices. Digital navigation services include assisting individuals with affordable internet access, device acquisition, technical skills, and application support.

GOALS OF THE MAP
1. Help community members locate programs with digital

INSTRUCTIONS FOR EXPLORING THE MAP

1. Move your mouse over the orange dots on the map for more information, click a dot to open the resource website (to reset the dots, click any point on the map without a dot)
2. Use the filters (City, Classes Offered, Access to Devices, Digital Navigator, and Language) to find resources
(If the map and list do not display any information with your filter selections, the combination of resources is not available, please try different filter selections)
3. Select a contact from the right-hand list to highlight the corresponding dot on the map; to reset contact selection, press the Escape (ESC) key

City: Classes offered: Access to devices: Digital navigator: Language:

The map or contact is a filter. Click a dot to open the resource website, or click on a contact to find dot on map

Digital Equity Asset Map

Contact

City	Classes offered	Access to devices	Digital navigator	Language
Seattle
...



Developing Measurable Objectives

Statutory and NOFO Requirements

The IIJA requires that State Digital Equity Plans include measurable objectives for promoting and advancing, among each of the covered populations—

- (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.” Sec. 60304(c)(1)(B)*

How-To: Developing Measurable Objectives

Inclusion of the term “measurable objectives” in the Digital Equity Act, along with the requirement that the objectives address five “measurable objective categories” for each of the covered populations, sets an expectation of accountability for state digital equity plans that many planning processes lack. This emphasis on data, and the NOFO requirements for ensuring the plan’s sustainability and ongoing evaluation, create a throughline from the initial identification of needs and barriers all the way to funding decisions and impact assessments. Developing sustainable, measurable objectives is a rigorous process. Ultimately, though, it will be worthwhile because it will serve your state through the creation of a high-quality plan, give you clear criteria for allocating capacity grants later, and give you the ability to track and communicate ongoing progress toward digital equity.

By establishing ambitious, yet achievable, targets for improvement, objectives connect the state’s broad vision for digital equity to concrete metrics. For those who will be unfamiliar with your state digital equity plan, the measurable objectives will provide important context about what the plan is designed to achieve. For those who are responsible for the plan’s development and implementation, the objectives serve as critical touchstones for evaluating the relevance and impact of implementation strategies and funding decisions.

Connecting Objectives to Identified Barriers



Well-crafted objectives are more than aspirational statements—they should reflect the needs you have identified through data collection and community engagement, and they should outline the concrete changes the plan intends to bring about. Each measurable objective should clearly address one or more barriers to digital equity. If your needs assessment is aligned to the Measurable Objective Categories, these connections will be easier to make.

A consistent theme throughout this Toolkit is that developing your state digital equity plan will be an iterative, rather than a linear, process. As you identify barriers to digital equity, you should work in parallel to develop measurable objectives, as described in the “Identifying Barriers” section of this chapter. These two components of your plan, in particular, are interconnected and mutually reinforcing.

In many cases, the process of identifying and quantifying the needs of a covered population will directly inform the “measurable objective category.” However, the process of creating objectives to address the identified needs of a covered population may, in fact, uncover additional barriers to digital equity.

Table 11: Example of Iterative Process of Identifying Barriers and Measurable Objectives

Digital Equity Barrier	Measurable Objective Category	Digital Equity Barrier	Measurable Objective Category
Survey respondents identifying as English language learners reported difficulty in navigating a public service website.	Online accessibility and inclusivity of public resources and services <i>Example objective:</i> "State-owned broadband and digital inclusion website (i.e. state broadband office webpage) and materials are available in multiple languages."	Focus group participants from immigrant- and refugee-serving organizations note that multilingual content is important, but that many of their clients are concerned with providing information online to the government.	An individual's awareness of, and use of, measures to secure their online privacy and cybersecurity <i>Example objective:</i> "State owned broadband and digital inclusion websites are in multiple languages AND are demonstrably secure."

Scaling Measurable Objectives Appropriately

Your objectives must be developed at a scope and scale that match the barriers they are designed to address. Objectives that are too narrow in focus risk leaving some people with unmet needs, while objectives that are too broad in scope may result in wasted resources or an inability to measure progress. Generally, there are three different axes to consider when determining the appropriate scale for measurable objectives (a fourth key consideration, timeframe, is discussed in more detail later):

- **Geography:** Although your plan will cover the entire state, digital equity needs and barriers are not equally distributed. The geographic scope of the measurable objectives in your plan may range from statewide to areas with similar characteristics (e.g. rural communities or mountainous terrain), to individual jurisdictions, to specific locations (e.g. correctional facilities). When considering how far-reaching an objective should be, it is important to understand what unique barriers exist in particular areas and whether implementation strategies to meet the objective will be successful universally across the state. You will also want to consider how best to incorporate goals and objectives that have been developed locally—could they be scaled to the state or do they strictly apply to a given locale?
- **Population:** The Digital Equity Act requires that measurable objectives address barriers for each of the covered populations within each of the five measurable objective categories. In some cases, the needs of different covered populations will align with one another and potentially with the general population. In those cases, it may suffice to develop objectives that improve conditions for the population at large. The covered populations each face unique barriers to digital equity, and will also require measurable objectives targeted to their needs. These might be separate stand-alone objectives, or they could be subsets of a larger objective. For example, the state may set an objective to improve overall broadband adoption rates and then specify adoption targets for each of the covered populations.
- **Measurable Objective Categories:** While it will generally be easiest to use the five categories required in the Digital Equity Act, you may identify some objectives that call for broad digital equity support. Objectives focused on capacity building, such as growing digital inclusion coalitions or improving access to digital navigator programs, are especially likely to span multiple categories. In these cases, it may be necessary to identify measures in more than one category to connect the objective back to specific barriers and track its effectiveness.

Setting Baselines, Incremental Targets, and Long-Term Targets



Given the complexity of barriers and statewide scope of the plan, the measurable objectives will need to accommodate a variety of implementation strategies and allow enough time for progress to be realized and measured.

To balance the need for large-scale, systemic improvements with the ability to track progress over time, develop measurable objectives using three types of metrics:

1. **Baseline Indicators:** These measures quantify the current state of the barrier and should come directly from the needs assessment. A single measurable objective may actually have several baseline measures for different covered populations. The baseline will serve as the starting point from which future progress will be evaluated. The ability to identify a clear baseline measure is also a good indicator that an objective can be tracked over time. Conversely, if it is difficult to establish a baseline measure, it likely means that the objective needs refinement.
2. **Incremental Targets:** These are short-term metrics that are established to track progress toward a measurable objective over the life of the plan. A single measurable objective can incorporate multiple incremental targets, which can inform specific implementation strategies and programmatic decisions. Incremental targets are key to assessing progress and making mid-course corrections.
3. **Long-Term Targets:** These are short-term metrics that are established to track progress toward a measurable objective over the life of the plan. A single measurable objective can incorporate multiple incremental targets, which can inform specific implementation strategies and programmatic decisions. Incremental targets are key to assessing progress and making mid-course corrections.

See [Table 12](#) for an example and [Appendix C.5](#) for a detailed *Measurable Objectives Worksheet*.

Table 12: Example Metrics for a Measurable Objective Based on Digital Equity Barriers

Digital Equity Barrier	Measurable Objective Category	Measurable Objective	Metrics - How Objective Will Be Measured
<p>Example: Home broadband adoption rates or the following covered populations lag statewide rates:</p> <ul style="list-style-type: none"> Households at 150% of federal poverty level or below lag by (X)% Non-white households lag by (X)% Rural households lag by (X)% 	<p>Example: The availability of, and affordability of access to, fixed and wireless broadband technology</p>	<p>Example: Close the gap in home broadband adoption rates between each covered population and the statewide average by at least 80% by 2028.</p>	<p>Example:</p> <ul style="list-style-type: none"> Baseline (data from needs assessment) Incremental Target(s) <ul style="list-style-type: none"> Increase ACP participation for each group by (X)% annually Build (X) new connections to previously unserved households annually By 2025, establish a state broadband assistance fund to address affordability for covered populations not eligible for ACP Long-term Target: Close gap for each covered population by at least 80% by 2028

Potential Partners

Partners identified through outreach and engagement efforts and asset mapping can help to improve the quality of your measurable objectives. You will want to draw on the expertise of different types of partners so your plan’s objectives achieve each of the following:

- Sufficiently Address the Needs of Covered Populations:** The Digital Equity Act requires that measurable objectives address barriers for each of the covered populations within each of the five measurable objective categories. In some cases, the needs of different covered populations will align with one another and potentially with the general population. In those cases, it may suffice to develop objectives that improve conditions for the population at large. The covered populations each face unique barriers to digital equity, and will also require measurable objectives targeted to their needs. These might be separate stand-alone objectives, or they could be subsets of a larger objective. For example, the state may set an objective to improve overall broadband adoption rates and then specify adoption targets for each of the covered populations.

- **Support Viable Digital Inclusion Implementation Strategies:** Consult with digital inclusion practitioners who follow best practices and/or engage in evaluations of their own programs.
- **Support Meaningful Measurement and Evaluation of Progress:** Engage with at least one partner with expertise in program evaluation for multi-faceted public policy initiatives or natural experiments. In most cases, this will be a researcher from a college or university, but could include private or nonprofit research organizations. Some states may opt to hire an independent evaluator to guide the development of measurable objectives.

Planning for Ongoing Measurement

Data availability and sustainability are critical to ongoing tracking of the measurable objectives. From the outset, ensure that data used to track objectives will continue to be available in the future, within appropriate timeframes, at necessary levels of detail, and requiring a reasonable level of effort to gather. During the needs assessment process, start considering the suitability of data for tracking measurable objectives. When considering what data will be used, consider the feasibility of gathering and analyzing data on an ongoing basis—both for primary data and existing secondary data sources.

For existing data sources, key considerations will be the update frequency, level of detail, and stability of the data. For example, the American Community Survey (ACS) five-year estimates provide granular data on digital equity disparities, but datasets with overlapping years cannot be compared directly, so it would be five years until the baseline data could be compared with new data. Meanwhile, ACS one-year data can be compared year-over-year, but it may not provide the necessary granularity to measure progress for particular covered populations or geographies.

Connecting Measurable Objectives to Implementation Strategies and Capacity Grants

For new data collected during the planning process, consider repeatability. For example, extensive community-based participatory research is recommended to understand the experiences of covered populations and ensure diverse perspectives and needs are reflected in the plan, but this should not be viewed as a one-time effort. To the degree that data will be used to quantify needs and establish measurable objectives, you should consider the state's capacity to update and repeat those methods at appropriate intervals to track progress toward the objectives.

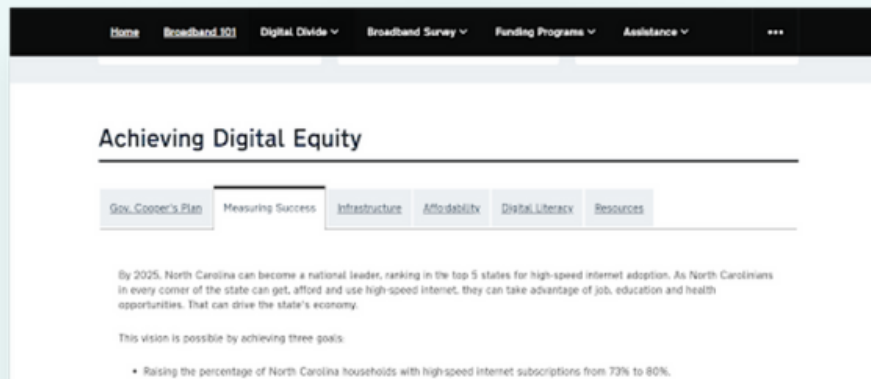
Once established, the measurable objectives will help guide implementation strategies and ultimately the allocation of DEA State Capacity Grants and other funding decisions for years to come. The long-term targets should be used to guide the overall implementation and funding approach, with a multi-year perspective; while the incremental targets can inform individual strategies and funding considerations and help evaluate programs funded by the State Capacity Grants.

Best Practices and Examples



The North Carolina Division of Broadband and Digital Equity

This is a strong example of establishing high-level, long-term, and incremental targets for broadband adoption. While the long-term objective is more qualitative, it is still measurable and time limited. The incremental targets address the needs of specific populations. Use existing data sources to track metrics for the incremental targets and ensure progress toward the measurable objective around broadband adoption.



The City of Long Beach, CA Digital Inclusion Roadmap



The Roadmap is organized into a clear hierarchy of goals, objectives, and prioritized implementation strategies.

All objectives have timeframes and targets. The strategies are then organized into categories, such as “Promoting Current Resources and Services,” “Exploring Partnerships,” and “Establishing Baselines and Requirements,” which place an emphasis on measurable outcomes and help ensure that they are achievable in this timeframe.

GOALS, OBJECTIVES AND STRATEGIES



Connectivity

GOAL 1: Promote and expand free and low-cost, high-speed, quality in-home Internet services for all communities.

OBJECTIVE 1: By 2025, increase residential households with quality Internet access from 78% in (2020) to 95%.

OBJECTIVE 2: By 2025, 100% of community members who are in need know how to and can access low-cost Broadband.

GOAL 2: Expand the citywide fiber network infrastructure to serve the Long Beach community.

OBJECTIVE 1: By 2025, expand the citywide network to provide ubiquitous connectivity.

GOAL 3: Promote and expand public Wi-Fi resources in public community areas.

OBJECTIVE 1: By 2025, promote and expand public Wi-Fi resources in the West, Central and North neighborhoods of Long Beach by 50% and ubiquitous Wi-Fi by 2030.



Connecting Measurable Objectives with Local and Statewide Goals

Statutory and NOFO Requirements

"1) An assessment of how the objectives described in Sec. 60304(c)(1)(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." Sec. 60304(c)(1)(C)

The DEA NOFO requires that State Digital Equity Plans include "a description of how municipal, regional, and/or Tribal digital equity plans will be incorporated into the State Digital Equity Plan" (22).

How-To: Connecting the Measurable Objectives and the State's Goals

As online resources become increasingly integrated into state administrative functions and the delivery of services, you will find your state digital equity plan will align with and support a range of other statewide goals. The IJA calls out several types of goals which must be considered, although you will likely uncover more through engagement with state agencies.

Attempting to align measurable objectives with the array of other state agencies' goals and strategies would be daunting and may detract from focusing on the barriers to digital equity identified in the needs assessment. After all, no other state agency has done planning with digital equity as the primary focus, no matter how complementary the goals and recommendations may be. However, the statutory language doesn't require alignment; it requires you to describe the interaction and impact of the measurable objectives with other existing goals, which is far more manageable. In general, we suggest you establish measurable objectives and then work with partner agencies to identify where they align with other state goals. Table 13 suggests potential agency partners for each goal type in the Infrastructure Act.

Recommended Process

- Utilize your core planning team, the BEAD planning team, or consider convening a working group of state agency representatives to review and compare the measurable objectives against published state plans and agency goals. Enlisting partner agencies in this assessment will help distribute the work and ensure those most familiar with other agencies provide insight about potential connections and impact.
- In addition to the agencies listed in Table 13, examples of state plans to review may include State Health Improvement Plans, State Housing Plans, CDBG Consolidated Plans, and State Hazard Mitigation Plans. When reviewing these documents with agency partners, it may help to ask:
 - Where do the goals from existing plans align with the measurable objectives?
 - How will achieving the measurable objectives aid in reaching another state agency’s existing goals?
 - What potential new or unforeseen impacts could achieving the measurable objectives have on other state goals?
- Review the information gathered during your asset mapping efforts to determine which state agencies are already running programs that align with the measurable objectives, and find out what goals and evaluation strategies have been established for those programs.
- Before finalizing the incremental and long-term targets for the measurable objectives, consider how they could be informed by measuring other state goals:
 - Which other state goals have explicit targets and tracking metrics that relate to the measurable objectives?
 - What is the timeframe of those targets?
 - Could any of them serve as incremental targets toward one of the longer-term measurable objectives?
 - What data are used to track progress toward the other state goals? Who gathers and manages the data? How often are the data collected? At what level of detail and for what population groups are the data collected?
- Gather input from agency partners on how the measurable objectives might change or influence future updates to their agency’s goals and plans. Be sure to document how the state digital equity plan impacts future state plans. It may also be helpful to document the publication date and update schedule for each of the existing state goals and plans and include it as an appendix.



Note: For those who have been working on digital inclusion for years, the recommendations provided here may represent a shift from previous approaches to align digital equity outcomes with other established goals and programs. Due to the previous lack of funding and awareness of digital equity as an issue, it was necessary to “shoehorn” digital inclusion into other programs and present them as a means to some other end, such as workforce outcomes, increased access to healthcare, or educational attainment. However, now with the historic funding and focus of the Digital Equity Act, your state digital equity plan can center digital equity as a stand-alone fundamental need. Similar to nutrition or housing, the value of which is not pre-conditioned on achieving other social outcomes, digital equity is itself an outcome worth achieving. Connections to other areas remain critical, but for the first time, digital equity is being prioritized in federal funding on its own merits.

Table 13: Potential State Agency Partners by Goal Type

GOAL TYPE	STATE AGENCY OWNERS
Economic and Workforce Development	Commerce Department, State Workforce Development Boards
Educational Outcomes	Department of Education, Department of Higher Education, Board of Regents, Community and Technical Colleges
Health Outcomes	Health and Human Services Department, State Healthcare Associations, State Healthcare Systems
Civic and Social Engagement	Secretary of State, Cultural Resources Department, State Library, Arts Commission
Other Essential Services	Information Technology Department, Others

How-To: Integrating Local Digital Equity Plans into the Plan's Objectives

NDIA estimates roughly 100 communities—from small towns to entire regions—across the country have developed local digital equity plans, strategies, and **goals**.⁽¹⁰⁾ The DEA NOFO requires a description of how the local plans in your state will be incorporated into your overall plan. Local plans can inform state plans in many ways. However, remember that the local plans were developed under different circumstances and impetuses than the state plans. Local plans developed pre-COVID are likely to contain a different set of recommendations than a plan developed in the midst of the pandemic. In addition, the impetus for local plans vary—some were developed by a local coalition or group of volunteers passionate about achieving digital equity in their community. Some were developed at the directive of the local government, and some were developed with grant funding or as a requirement to be eligible for a grant.

None of the local plans were required to meet the same list of requirements that state digital equity plans are required to meet, and as such state plans will inherently differ from local plans. However, local plans can still provide an understanding of the specific needs of individual communities throughout your state, as determined by community residents. In addition, the plans may provide data, common recommendations, and ideas for how to best compile the state plan. As follows is a recommended process for leveraging the lessons learned from local plans and incorporating the plans into your statewide plan.

Recommended Process

1. Identify and collect all local digital inclusion plans in your state. They may have been developed by digital inclusion coalitions, municipalities, counties, regions, or Tribes within your state. Early in the planning process, use your community engagement and asset mapping efforts to determine which communities and organizations have existing local digital inclusion plans.
2. Conduct a literature review of the plans. This review should focus on identifying any of the Digital Equity Act requirements in local plans as well as unique findings and strategies. Any consistent themes or language in the vision, goals, needs, or recommendations across local plans should inform those elements in the state plan. A worksheet is provided in Appendix C.6, including these major things to identify during the review:
In addition to the agencies listed in Table 13, examples of state plans to review may include State Health Improvement Plans, State Housing Plans, CDBG Consolidated Plans, and State Hazard Mitigation Plans. When reviewing these documents with agency partners, it may help to ask:

(10) This is an estimate made based on our knowledge of the field and number of plans we were aware of at the time of this publication.

- What year was the plan published?
 - What are the plan's guiding principles (vision/goals/values/objectives)?
 - Did the plan develop capacities, methods, or outputs that could be leveraged? (e.g. working groups that could be reconvened or a survey that could be used)
 - Are there consistent needs and barriers identified across plans? Do individual plans identify needs and barriers that are unique to certain communities?
 - Does the plan contain recommendations for state action? If so, what are they?
3. Speak with the authors of the plans to:
- Learn how they developed the plans
 - Determine if any of the plan's recommendations are currently being implemented
 - Engage them in your planning process
4. Determine if the data used to inform the local plan can be leveraged for yours. Consider:
- What methodologies did the authors use? (i.e. quantitative, qualitative, mixed)
 - Document all secondary data sources used. Are there sources you had not considered?
 - Review the methods and tools used to collect primary data (e.g. survey or focus group protocols, local speed test data). Are entire tools, or parts of them, useful for the state's digital equity planning process?
 - When was the data collected? Is it still relevant? Is a newer version of the data available?
 - What was the geographic extent and granularity of the data? Is comparable data available for the entire state? Is the granularity appropriate for statewide analysis, and will it produce meaningful results?
5. Compile a comprehensive list of the recommendations outlined in the plans.
6. Analyze the recommendations for common themes.
7. Determine whether and how to incorporate the common recommendations in your plan. Consider:
- Do the recommendations align with the needs of the covered populations you've identified?
 - Do the recommendations align with the role and responsibilities of the state?
 - Do the recommendations identify a common need for a certain type of funding or programmatic support that's needed across the state? For example, if every plan recommends including a digital navigator program, you could consider how to support that need through a statewide program and outline that in the implementation section of the plan).
 - Do any of the recommendations from different plans conflict with each other? If so, how? Conflicting recommendations aren't necessarily a bad thing, but we recommend establishing a process for determining how to determine which local recommendations to incorporate into your plan.



Developing Implementation Strategies

Statutory and NOFO Requirements

The DEA NOFO requires that State Digital Equity Plans include:

“6. An implementation strategy that is holistic and addresses the barriers to participation in the digital world, including affordability, devices, digital skills, technical support, and digital navigation. The strategy should (a) establish measurable goals, objectives, and proposed core activities to address the needs of covered populations, (b) set out measures ensuring the plan’s sustainability and effectiveness across State communities, and (c) adopt mechanisms to ensure that the plan is regularly evaluated and updated);

7. An explanation of how the implementation strategy addresses gaps in existing state, local, and private efforts to address the identified barriers to digital equity faced by covered populations in the State;

...

9. A timeline for implementation of the plan; and

10. 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 Broadband Equity, Access, and Deployment (BEAD) Program, other federal or private digital equity funding.”⁽¹¹⁾

How-To: Developing Implementation Strategies

By this point, you’ve done the hard work of identifying barriers for the covered populations, defining and developing measurable objectives to obtain digital equity for the covered populations and general population, and now it is time to determine how you will achieve the measurable objectives you defined and attain your collective vision. Designing implementation strategies is the fun part—here you get to dream a little and be innovative, designing strategies that holistically address the needs of the covered populations and the general public.

(11) NTIA, Notice of Funding Opportunity: State Digital Equity Act Planning Grant Program (NTIA-DE-PLAN-2022, 11.032) p. 22

To develop your implementation strategies, we recommend you follow these steps:

STEP 1

Create a schema or outline for the information each strategy should contain. Combining the different requirements outlined in the NOFO, each strategy should address the following components:

- Proposed core activities to address needs of the covered populations
- How the strategies address gaps in existing local, state, or private digital equity efforts
- Defined measurable goals and objectives for implementation
- How you will ensure sustainability
- How you will define and measure effectiveness
- How you intend to partner with stakeholders and collaborators to implement the strategies

When looking comprehensively at your implementation strategies, as a whole the NOFO asks you to provide the following information in the implementation:

- A description of how your implementation strategies connect to other federal funding programs, including BEAD
- A basic program evaluation plan (Note: You'll develop a more detailed and comprehensive program evaluation plan for your capacity grants, so for this plan, a basic outline of how you intend to evaluate the implementation should suffice.)
- A timeline for the plan's implementation
- A description of the projected frequency for updating the plan

STEP 2

Refer back to all the other components you've developed for your plan, including your vision statement, digital equity baseline, and the measurable objectives and allow the combination of these factors to guide the development of the implementation strategies.

STEP 3

Balance seemingly dichotomous priorities in your implementation strategies. To accomplish your goals, some priorities may seem at odds with each other, yet striking a balance will be important and is possible. We recommend balancing the following competing priorities to ensure your strategies do not err too far on one side of the spectrum, making your plan less effective.

- **Balance investments in proven models with new, innovative strategies:** If our nation knew how to close the digital divide, we would have already done so. That said, many promising practices and solutions exist, so balancing new, innovative strategies with tried and true practices will increase your effectiveness.
- **Balance investments in solutions for covered populations and those that serve the general population:** Reach as many communities and residents as possible while simultaneously prioritizing the covered populations.
- **Balance investments in local digital inclusion programs and statewide programs:** Simultaneously invest in practitioners and partners with existing successful programs and reach communities that currently lack any digital inclusion resources. This will require simultaneous investments in local programs and organizations and statewide programs, perhaps through state agencies (like state libraries) or through organizations that operate statewide.
- **Balance ownership and control of strategies:** Some should be owned by state and local agencies, some by anchor institutions, and others by local CBOs. Diversifying the types of organizations responsible for carrying out implementation strategies will support the growth of a robust digital inclusion ecosystem. Investing in capacity across different organization types will also help ensure sustainability by protecting against shifts in funding and policy priorities in government or at certain organizations.
- **Balance scope of strategies:** Some strategies will be multi-pronged, while others will be singular in focus but together. They should all collectively address the barriers and needs identified.

STEP 4

Write down your strategies and share them with the core planning team, the BEAD planning team, stakeholders, and partners prior to the public comment period for feedback.



Probing Questions

As you work through this process, the following probing questions can guide your conversations and the strategies' development:

- ? How will your state achieve the vision and measurable objectives you outlined?
- ? Who will lead the efforts, keep projects on schedule, and implement the various aspects of this plan?
- ? How will you holistically address the various barriers you identified? (i.e. How do the strategies complement each other?)
- ? How will you plan for sustainability for each strategy? For example, some projects may be one-time short-term projects, whereas others will span years. How will you ensure long-term efforts have the funding and support to be sustainable?
- ? How will this plan align with and complement your BEAD five-year action plan and other deployment plans?
- ? How will you prioritize your goals and align your actions to them?
- ? What resources are needed to accomplish your goals? (i.e. funding, personnel, policies, programs, legislation, etc.) This will inform your actions and timeline.
- ? Do new programs, policies, or tools need to be created to address the digital divide in your community?

Best Practices and Examples

In developing your strategies, some best practices stand out:

LEVERAGING EXISTING RESOURCES

As discussed throughout this Toolkit, many resources already exist. With a finite amount of funds, leveraging existing resources is important and smart. For example, many digital skills lessons and tutorials are available free online through a variety of different programs. Table 14 displays a list of resources NDIA recommends.

Table 14: Recommended Digital Skills Training Resources

Program	Creator	Languages	Special Features	Facilitator Support
DigitalLearn	Public Library Association	English	Provides templates for instructors to build their own courses	Yes
GCFGlobal	Goodwill Foundation	English Spanish Portuguese		Yes
Digital Literacy Pathway	WebJunction	English	Provides guidance for instructors on how to evaluate and engage with digital literacy skills resources and programming	Yes
TechBoomers	TechBoomers	English	Offers a WIDE variety of topics in listicle lessons and video tutorials, much like an early BuzzFeed format. Great for community members looking to answer their own questions.	No
Applied Digital Skills	Google	English Spanish French	Offers both a robust curriculum, but also extensive materials for learning to teach digital skills	Yes
Grow with Google	Google	English Spanish French	Brings Google resources to organizations and provides career-focused certifications	No
Senior Planet	Older Adults Technology Services (OATS) by AARP	English Spanish	Live, synchronous classes for community members 60+	No
Web Literacy	Mozilla Foundation	English	Offers lesson plans called "playlists," including offline activities and online instruction	Yes
Microsoft Learn	Microsoft	English	Presents training on Microsoft products with clear prerequisites. Instructor materials focus on building skills as a trainer.	Yes

ELEVATE WHAT'S WORKING

Similar to leveraging existing resources you'll find a lot of assets and things that are working well across your state during your planning process. Invest in those strategies that are working. Learn from those that are doing things well, and determine if scaling these solutions is possible and would be effective.

BUILD LOCAL DIGITAL INCLUSION ECOSYSTEMS

A digital inclusion 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 the digital divide, including affordable broadband, devices, and skills. Once established, robust and healthy digital inclusion ecosystems will provide the necessary support and programming to ensure sustainable systems are established that address all facets of the digital divide. Investing in the development, sustainment, and expansion of digital inclusion ecosystems statewide will ensure your implementation strategies outlive the DEA and contribute to the systems change necessary to reach digital equity.

DEVELOP POLICY AND PROGRAMMATIC STRATEGIES

Not all implementation strategies need be programmatic. Throughout your planning process, you may identify some policies that can help foster the development of a robust digital inclusion ecosystem. For example, allowing non-profit refurbishing organizations to access decommissioned state-owned devices for no-cost may be a policy change you could advise to address the device needs you identify through your needs assessment.

DETERMINE HOW TO PRIORITIZE

Unfortunately, you may find you are not able to accomplish everything you want with your forthcoming DEA capacity award. As such, you'll need to determine how you will prioritize funds and strategies. Outlining how you intend to prioritize your implementation strategies will provide structure and a framework for implementation. If you developed values during your planning process, the values may support this decision making, as will your identification of the most acute needs from different members of the covered populations and the general population



Description of Collaboration with Key Stakeholders

See [Chapter II “Meaningful Community Engagement”](#) section in this Toolkit for more information.

Statutory and NOFO Requirements

The Infrastructure Act requires that State Digital Equity Plans include:

“1) 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). Sec. 60304(c)(1)(D)

2) A list of organizations with which the administering entity for the State collaborated in developing and implementing the Plan.” Sec. 60304(c)(1)(E)

Accordingly, the DEA NOFO requires the State Digital Equity Plans include:

“1) A coordination and outreach strategy, including opportunities for public comment by, collaboration with, and ongoing engagement with representatives of each category of covered populations within the State and with the full range of stakeholders within the State (21).

2) 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, community colleges, education and training providers, and educational service agencies.” (22)*

How-To: Describing Coordination and Outreach Strategies with Key Stakeholders

As discussed in the “Meaningful Community Engagement” section of this toolkit, we believe meaningful community engagement to be the most critical component of your planning process that should last throughout the entire process. However, in addition to the planning process writ-large, you are required to document who you collaborated with to create your plan and details about how you will continue collaborations to implement it. Statutory requirements outline the “who” of these collaborations and the DEA NOFO semi-outlines the “what” and “how” of describing these partnerships. The partners you invite will bring their own commitments and approaches to digital inclusion, and your plan will bring these partners together to develop a coordinated strategy for meeting the diverse digital equity needs across your state.

For the plan’s implementation, collaborators and partners should include public housing authorities; libraries; community-based organizations; Tribal organizations; school systems; local colleges; municipal, Tribal, and county government agencies; and other institutions that states can easily recognize as peers and prospective partners. Thinking outside the box, some additional partners may include neighborhood centers, nonprofit computer refurbishers, and new resident support organizations.

“Collaboration” more often refers to a working relationship in which the parties aren’t bound contractually but have agreed to share information and resources to pursue a common objective. This can take many forms, ranging from simple cooperation around a single resource or event, to the establishment of a formal coalition or funded program partnership. Regardless of the formality of the relationship, a discussion and clear delineation of roles and responsibilities is recommended when describing these relationships in your plan. These can be as simple as memorandums of understanding (MOUs) or fully executed contracts.

Before searching for new connections, determine what relationships you have already cultivated. Exploring and formalizing pre-existing relationships can help build community trust as well as shortening the time between identifying a partner and providing a service.

Partnerships foster innovation, expansion, and collaboration while supporting efficient resource management, a common mission, and outreach to demographically similar communities. Below is an example of how these formal and informal relationships can demonstrate your state’s commitment to collaboration.



State of Hawaii Broadband Hui

In March 2020, the State of Hawaii Department of Broadband, Economic Development and Tourism (DBEDT) partnered with community stakeholders, Transform Hawaii Government, and the Economic Development Alliance of Hawaii to convene Broadband Hui as a way to address gaps in broadband across the state.

In just a few weeks, 200 individuals representing CBOs, nonprofits, institutions, and public and private sectors joined the conversation and formed the Broadband Hui. In November 2020, they developed a “Digital Equity Declaration” that compiles their priorities, in alignment with the 2020 Hawaii Broadband Strategic Plan, to advance three pillars of digital equity: access, literacy, and livelihood (ALL). This declaration is called Broadband for ALL. They used an effective and efficient way to gather support and commitment, giving new members the ability to join by adding their names into the online declaration. The Broadband Hui has met weekly since March 2020. Through these meetings and collaboration, Broadband Hui has helped state broadband authorities in mapping, planning, and raising awareness for digital inclusion.

Collect the names of the participants and organizations when you host events, meetings, stakeholder interviews, etc. For your plan, condense these into categories to demonstrate the robust interest of all stakeholders in implementing your plan.

Required Public Comment Period in Your Planning Process

Gathering and responding to public comments from across your state can be a formidable task. This will require planning and consideration on whether you will gather these through formal public meetings, stakeholder interviews, informal town-hall style meetings, focus groups, or electronic surveys. Each method offers pros and cons and should be considered when planning the events. After gathering comments, states will need to set aside time for responding to comments and/or editing their plans.

Remember to keep a written record of the attendees, dates of the meetings, comments, and responses to meet the requirements of the DEA NOFO.

CHAPTER V: CONCLUSION

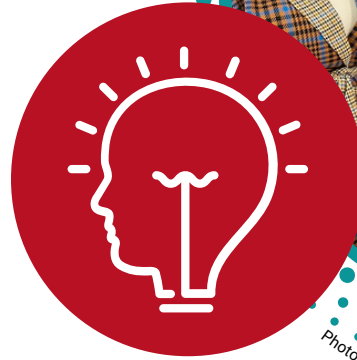


Photo Source: City of Boston Department of Innovation and Technology

The COVID-19 pandemic may have crystallized the consequences of being disconnected from the internet, but those challenges existed long before the pandemic. Thus the response from federal, state, and local governments cannot be reactive and temporal in nature. We, as a country, must have thoughtful, thorough, multi-pronged, sustainable solutions that establish lasting systems and nurture robust ecosystems that are necessary to achieve digital equity. Then, we will be in a far better place than we were before the IIJA was passed in 2021.

Everyone in the US deserves access to affordable, high-speed internet and the tools and training to make the most of it.

The combined impact of all state, territory, district, and Tribal digital equity plans has the potential to advance digital equity and expand opportunities for people across the whole nation. Your plan is an integral piece of the puzzle that will notably accelerate progress, because with digital equity, we all win.

APPENDIX A

Key Terms and Definitions

Covered Populations, as Defined in the Digital Equity Act ⁽¹²⁾

“The term ‘covered populations’ means—

- (A) individuals who live in covered households;
- (B) aging individuals;
- (C) incarcerated individuals, other than individuals who are incarcerated in a Federal correctional facility
- (D) veterans;
- (E) individuals with disabilities;
- (F) individuals with a language barrier, including individuals who—
 - (i) are English learners; and
 - (ii) have low levels of literacy;
- (G) individuals who are members of a racial or ethnic minority group; and
- (H) individuals who primarily reside in a rural area.”

Covered Household, as Defined in the Digital Equity Act ⁽¹³⁾

“The term ‘covered household’ means a household, the income of which 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.”

Digital Equity, as Defined by NDIA and the Digital Equity Act

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, as Defined by NDIA and the Digital Equity Act

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 (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 technology.

(12) *Infrastructure Investment and Jobs Act § 60302(7), 47 USC § 1702 (2021).*

(13) *Infrastructure Investment and Jobs Act § 60302(8), 47 USC § 1702 (2021).*

Digital Literacy

NDIA recommends the American Library Association’s definition of “digital literacy” via their Digital Literacy Task Force:

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;
- Is able to 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 actively participate in civic society and contribute to a vibrant, informed, and engaged community.

Digital Divide

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

Digital Inclusion Ecosystem

A digital inclusion 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 the digital divide, including affordable broadband, devices, and skills.

APPENDIX B

State Digital Equity Plan Requirements



Note: State digital equity plans must comply with the State Digital Equity Plan requirements outlined in the Digital Equity Act and the requirements outlined in the Notice of Funding Opportunity (NOFO) for the State Digital Equity Planning Grant Program. Appendix B includes excerpts discussing the digital equity plan requirements from the Digital Equity Act (which is a section of the Infrastructure Investment and Jobs Act) and excerpts from the NOFO for the State Digital Equity Planning Grant Program.

B.1 Digital Equity Act Statutory Requirements

(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:

(A) The identification of the barriers to digital equity faced by covered populations in the State;
(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 subparagraph (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.

(2) PUBLIC AVAILABILITY.—

(A) IN GENERAL.—The administering entity for a State shall make the State Digital Equity Plan of the State available for public comment for a period of not less than 30 days before the date on which the State submits an application to the Assistant Secretary under subsection (d)(2).

(B) CONSIDERATION OF COMMENTS RECEIVED.—The administering entity for a State shall, with respect to an application submitted to the Assistant Secretary under subsection (d)(2)—

- (i) Before submitting the application—
 - (I) consider all comments received during the comment period described in subparagraph (A) with respect to the application (referred to in this subparagraph as the “comment period”); and
 - (II) make any changes to the plan that the administering entity determines to be worthwhile; and
- (ii) When submitting the application—
 - (I) describe any changes pursued by the administering entity in response to comments received during the comment period; and
 - (II) include a written response to each comment received during the comment period.

B.2 Notice of Funding Opportunity (NOFO), State Digital Equity Planning Grant Program



Note: In some sections, the NOFO references back to the same statutory requirements outlined in the Digital Equity Act. The NOFO also includes additional requirements for state digital equity plans.

STATE DIGITAL EQUITY PLAN REQUIREMENTS

Digital equity is fundamentally concerned with promoting full participation in the digital economy and society by all. Achievement of digital equity requires strategic investments in human and community capacity. Each State Digital Equity Plan prepared using State Digital Equity Planning Grant funding should include a clear description of the State’s vision for digital equity in the context of its overarching strategy and goals.

Statutory Requirements

The statutory requirements for the contents of State Digital Equity Plans are set forth in Section 60304(c)(1) of the Infrastructure Act, and are listed below:

1. Identification of barriers to digital equity faced by Covered Populations in the State.
2. Measurable objectives for documenting and promoting, among each Covered Population located in that State—
 - a. The availability of, and affordability of access to, fixed and wireless broadband technology;
 - b. The online accessibility and inclusivity of public resources and services;
 - c. Digital literacy;
 - d. Awareness of, and the use of, measures to secure the online privacy of, and cybersecurity with respect to, an individual; and
 - e. The availability and affordability of consumer devices and technical support for those devices.

3. An assessment of how the measurable objectives identified in item 2 of this Section IV.C.1.b.i 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
4. In order to achieve the measurable objectives identified in item 2 of this Section IV.C.1.b.i, a description of how the State plans to collaborate with key stakeholders in the State, which may include⁽¹⁴⁾—
 - a. Community anchor institutions;
 - b. County and municipal governments;
 - c. Local educational agencies;
 - d. Where applicable, Indian Tribes, Alaska Native entities, or Native Hawaiian organizations;
 - e. Nonprofit organizations;
 - f. Organizations that represent—
 - i. Individuals with disabilities, including organizations that represent children with disabilities;
 - ii. Aging Individuals;
 - iii. Individuals with language barriers, including—
 1. Individuals who are English learners; and
 2. 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;
 - g. Civil rights organizations;
 - h. Entities that carry out workforce development programs;
 - i. Agencies of the State that are responsible for administering or supervising adult education and literacy activities in the State;
 - j. Public housing authorities in the State; and
 - k. A partnership between any of the entities described in clauses (a) through (k).
5. A list of organizations with which the Administering Entity for the State collaborated in developing the Plan

(14) Footnote 13 of the State Digital Equity Planning Grant Program NOFO: "States must utilize a variety of communications media (e.g., online, print, radio) and provide information in languages other than English when warranted based on the demographics of the stakeholder communities. NTIA also encourages States to collaborate with other groups not named in the statute, including members of Covered Populations who have direct lived experience with being disconnected, state agencies, labor unions and other organizations that represent workers, digital inclusion coalitions located in the State, chambers of commerce and industry associations, public housing resident associations, healthcare systems and networks, homeless continuum of care providers, multi-family housing developers and owners, faith-based institutions, business owners, state and local foundations and funders, early childhood and early intervention coordinators, re-entry organizations, and internet service providers."

Additional Requirements

In addition to the above requirements, the State Digital Equity Plan developed with planning grant funds shall, at a minimum, include the following:

1. A stated vision for digital equity;
2. A digital equity needs assessment, including a comprehensive assessment of the baseline from which the State is working and the State's identification of the barriers to digital equity faced generally and by each of the covered populations in the State;
3. 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;
4. To the extent not addressed in connection with item 4 of Section IV.C.1.b.i, a coordination and outreach strategy, including opportunities for public comment by, collaboration with, and ongoing engagement with representatives of each category of covered populations within the State and with the full range of stakeholders within the State;
5. A description of how municipal, regional, and/or Tribal digital equity plans will be incorporated into the State Digital Equity Plan;
6. An implementation strategy that is holistic and addresses the barriers to participation in the digital world, including affordability, devices, digital skills, technical support, and digital navigation. The strategy should (a) establish measurable goals, objectives, and proposed core activities to address the needs of covered populations, (b) set out measures ensuring the plan's sustainability and effectiveness across State communities, and (c) adopt mechanisms to ensure that the plan is regularly evaluated and updated;
7. An explanation of how the implementation strategy addresses gaps in existing state, local, and private efforts to address the barriers identified pursuant to Section IV.C.1.b.i, item 1, of this NOFO;
8. 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, community colleges, education and training providers, and educational service agencies;
9. A timeline for implementation of the plan; and
10. 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 Broadband Equity, Access, and Deployment Program, other federal or private digital equity funding.



Note: NTIA will provide further guidance through technical assistance and tools to support planning efforts. If a State has previously conducted a statewide digital equity planning effort, it must demonstrate to NTIA that the resulting plan includes all minimum required elements as listed in this Section IV.C.1.b of the NOFO and that the plan fully complies with the Section 60304(c) of the Infrastructure Act and with this NOFO.

TERRITORIES AND POSSESSIONS, INDIAN TRIBES, ALASKA NATIVE ENTITIES, AND NATIVE HAWAIIAN ORGANIZATIONS

U.S. territories and possessions, Indian Tribes, Alaska Native entities, and Native Hawaiian organizations that receive awards from the appropriate funding set-aside may use funds for digital equity plan development and related activities consistent with Section 60304(c) of the Infrastructure Act, this NOFO, and as described in the entity's approved project budget.¹⁴ Additionally, Indian Tribes, Alaska Native entities, and Native Hawaiian organizations may use award funds to further their participation and equity interests in the development of relevant State digital equity plans under this program. Some of the digital equity plan requirements that apply to States may not be applicable or appropriate for territories or Tribal organizations, whereas some information not pertinent to States may be relevant to other entities.¹⁵ NTIA looks forward to working with these entities to agree on project deliverables, project budgets, and overall project goals and objectives that are reasonable and effective for individual territories and Tribal organizations.

APPENDIX C

Templates and Worksheets

Click the titles below to access templates and worksheets to help you build your plan.

[C.1-Stakeholder Identification](#)

[C.2-Community Outreach Planning Matrix](#)

[C.3-Mapping Local Resources](#)

[C.4-Data Collection Landscape](#)

[C.5-Developing Measurable Objectives](#)

[C.6-Conducting a Literature Review of Local Digital Inclusion Plans](#)

[C.7-Aligning BEAD and DEA](#)

[C.8-State Digital Equity Survey Template](#)

APPENDIX D

National Coalitions and Organizations to Know

While we recommend you identify stakeholders within and throughout your state, national coalitions and organizations can also give support in identifying and connecting you to their members. Below is a list of coalitions and organizations that may have ties to or represent covered populations in your state. Organization names below are hyperlinked to corresponding homepages.

ORGANIZATION	DESCRIPTION
<u>AARP</u>	National nonprofit advocacy organization dedicated to supporting the needs of aging individuals
<u>American Library Association (ALA)</u>	National nonprofit representing libraries across the US
<u>American Planning Association</u>	National membership organization of professional planners
<u>Black Churches for Digital Equity</u>	Faith-based coalition advocating for digital equity
<u>Common Cause</u>	National nonprofit advocating for a variety of public interest policies, including broadband access
<u>Common Sense Media</u>	National nonprofit focusing on policies at the intersection of technology and the well-being of kids, families, and communities
<u>Digitunity</u>	National nonprofit organization focused on device ownership and sustainable device solutions for communities.
<u>National Association of Counties (NACo)</u>	National nonprofit representing county governments

<u>National Association of Housing and Redevelopment Officials (NAHRO)</u>	Membership organization of housing and community development providers and professionals
<u>National Association of State Chief Information Officers (NASCIO)</u>	National organization representing state chief information officers, offering mentorship and resource-sharing for members
<u>National Associations of Telecommunications Officers and Advisors (NATOA)</u>	National membership organization of local government representatives directing or advising communications policy within their state
<u>National League of Cities (NLC)</u>	National nonprofit representing cities, towns, and villages
<u>National Skills Coalition</u>	National nonprofit advocating for inclusive skills training, building networks bringing together businesses, workers, colleges, community organizations, public officials, and advocates
<u>Next Century Cities (NCC)</u>	National nonprofit supporting leaders at the local level in efforts to expand broadband access and adoption
<u>NTEN</u>	Nonprofit providing a national network for individuals interested in leveraging technology for social change
<u>Pew Charitable Trusts</u>	Nonprofit conducting public policy research and analysis, including issues related to broadband access
<u>Schools, Health, and Libraries Broadband Coalition (SHLB)</u>	National nonprofit promoting broadband for anchor institutions and their communities

<p style="text-align: center;"><u>TDI</u></p>	<p>National organization advocating for equitable access to information and communications technologies for deaf and hard of hearing people</p>
<p style="text-align: center;"><u>United States Conference of Mayors</u></p>	<p>National network of mayors of cities with populations over 30,000</p>
<p style="text-align: center;"><u>United Spinal Association</u></p>	<p>Nonprofit organization representing disability rights and veteran services</p>

APPENDIX E

NDIA Asset Mapping Templates User Guide

E.1 Asset Mapping Inventory Template

Access a Copy of the Asset Mapping Inventory Template in [Google Sheets](#) or in [Microsoft Excel](#).

OVERVIEW OF THE TOOL

This tool is designed to give a flexible framework for organizations to identify and organize digital inclusion resources, programs, and funding sources within a geographic area. With input from the working group and the broader network of digital equity practitioners and researchers, NDIA developed this Inventory Template in a basic spreadsheet format to organize information about assets into sections and fields according to common types of digital inclusion work.

GUIDANCE AND USAGE OF TIPS

The intended user of the Asset Mapping Inventory Template is anyone who is interested in doing an asset map scan of a defined geographic area. This may be a representative from a local or regional coalition, a statewide convening entity, or an individual or organization looking to find digital inclusion partners. The Inventory Template is an ideal tool for an individual or small group of users to enter multiple records for different assets. Each row in the Inventory Template represents a single asset (a digital inclusion organization or program), and data may be entered directly into the template or imported from external sources, such as the Asset Mapping Survey Template described below.

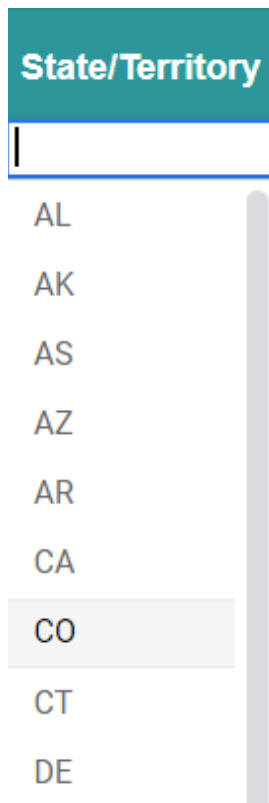
To begin using the Asset Mapping Inventory Template, users will first save a local copy of the template to a desired Google Drive location using the link provided in this document or on the NDIA website. This local copy, and all of the data entered into it, are owned and managed by the user, and users have full control over access and editing controls of their copy of the tool. At the moment, NDIA does not claim ownership or have access to data collected from the copies each user creates of the tool. There is no central data repository, so each instance of this tool is to be managed locally.

The template contains two visible tabs: the “Digital Inclusion Asset Inventory,” which is the spreadsheet where the user will input asset data, and the “Data Dictionary,” which provides guidance and definitions for the sections and all of the fields in the Asset Mapping Inventory. Note: there is a third hidden tab called “List Values,” which populates all of the dropdown menus in the inventory. Users are encouraged not to edit this unless they are very familiar with field validation functionality.

The Asset Inventory is broken into six sections, which are labeled in Row 1 and denoted with alternating colors for ease of use. The “Data Dictionary” also includes a brief description of each section. The six sections are: Basic Information, Broadband Access & Affordability, Device Access, Digital Skills & Technical Support, Public Device & Internet Access, and Digital Inclusion Funding. It is likely that all sections may not be applicable for many organizations and programs; therefore, NDIA recommends that users populate only the fields and sections that apply to a given asset and level of detail that is useful.

Usage Tip: Users may hide unused fields or leave entire sections blank, and both are OK. It is not recommended that users delete fields from the inventory, however, as this may result in loss of some functionality, namely the ability to select multiple values from dropdown lists.

Figure 1



Reflecting the adaptive nature of the digital inclusion field, NDIA has refined this tool to accommodate different organization and program types. The data fields (row 2) in the Asset Inventory are intended to capture comprehensive information about an organization or program providing digital inclusion services. Users should customize their use of the tool according to their specific needs and interests, so not all fields are necessary to complete. An organization that provides services only in English for example, may not find use in completing the “Languages Supported” field and therefore may leave that field blank. Likewise, the “Days of Operation” and “Hours of Operation” fields may only be relevant for assets that are open to the public and for which the user wishes to track that information. For organizations that serve key populations but that do not provide digital equity services themselves, it may be sufficient to only populate fields in the basic information section.

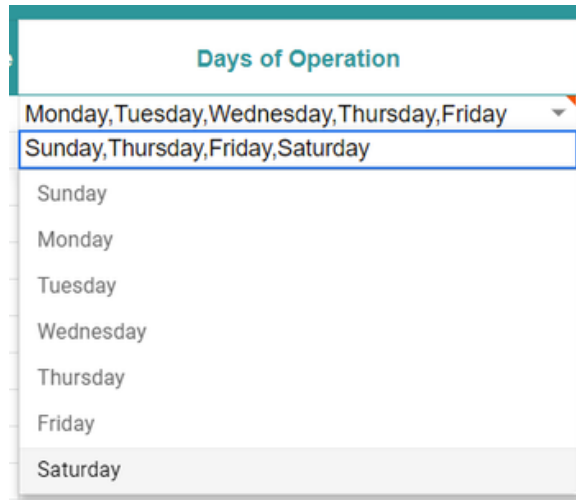
The fields in the Inventory Template are divided into three formats:

- Free text: users may type any values into these fields
- Single-value select: users may select one value from a predefined list
- Multi-value select: users may select one or more values from a predefined list

The format for each field is noted in the “Data Dictionary” tab of the Inventory Template.

The single-value and multi-value select fields are used to improve usability and standardize responses. In the “Asset Inventory” tab, these appear as searchable dropdown menus for many fields, such as Organization Type or State/Territory. For single-value fields, users simply click the arrow in the cell and select the most appropriate value from the dropdown list.

Figure 2



The image shows a dropdown menu titled "Days of Operation". The menu is open, displaying a list of days: Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, and Saturday. The current selection is "Monday, Tuesday, Wednesday, Thursday, Friday", which is highlighted in blue. The dropdown is titled "Days of Operation" in a teal box at the top.

Multi-value select fields are indicated by field names with colored text on a white background (see Figure 2). These fields allow a user to select multiple values for that field. In the case of an organization that is open several days of the week, for example, this option would be necessary. These fields with colored text on a white background are intended to mimic checkboxes on a survey form. To use this function, a user simply selects one option from the dropdown list and then clicks the arrow to make another selection. Rather than replacing the first selection, the second value will be added to the first. This can be repeated to add as many values to the cell as needed. To remove or redo values, users should delete the values in the cell and make new selections. Usage tip: A small red arrow with a warning reading *“Invalid: Input must fall within specified range”* will appear in the upper right corner of the cell when multiple values have been selected. This is due to the data validation in the cell, but can be ignored—there is not actually an error.

E.2 Asset Mapping Survey Template

Access a Copy of the Asset Mapping Survey Template in [Google Forms](#).

OVERVIEW OF THE TOOL

The Asset Mapping Survey Template is a companion tool to the Inventory Template, designed to gather asset information from external sources in a user-friendly format. In many cases, it may be preferable to crowdsource asset information from multiple sources, rather than having a single person or small group collect and document assets. The Survey Template allows users to host a basic survey, 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 inclusion resources captured during the asset mapping process and is more likely to surface assets that have not been previously considered.

GUIDANCE AND USAGE TIPS

Designed with the end user in mind, the Survey Template offers a more familiar user interface to allow for individuals of all skill levels to complete the form. This tool is also intended to alleviate the data collection and management burden for any one entity. Similar to the Inventory Template, the user of the Survey Template may be a representative from a local or regional coalition, a statewide convening entity, or an individual or organization looking to find digital inclusion partners.

Recognizing that spreadsheets aren't for everyone, the Survey Template collects the same information in the same sequence as the Inventory Template spreadsheet. The survey questions mimic the fields in the spreadsheet and the standard response options are all the same. Data exported from the Survey Template maps directly to the spreadsheet as well, with minimal formatting required, allowing for data gathered using the two tools to be seamlessly integrated.

Accessing the Asset Mapping Survey Template follows the same process as the Inventory Template. Users will first save a local copy of the Survey Template to a desired Google Drive location using the link provided in this document or on the NDIA website. The local copy of the Asset Mapping Survey Template, and all of the data entered into it, are owned and managed by the user—this includes full control over access and editing of the survey tool, how responses are collected, and uses of the data that is gathered. Survey responses will not come back to NDIA, and NDIA does not claim ownership or have access to data collected from the variant iterations of this tool. There is no central data repository, so each version of this tool is to be managed locally.

As with most online survey instruments, there are multiple options for gathering responses through the tool. Users may provide the survey link to potential respondents, they can embed the survey as a form on a website, or they can do both. Either option allows respondents to access the survey and submit responses in their own time.

Usage Tip: Coalitions may find it useful to embed the Survey Template in the coalition's website and use it as an intake or registration form for new organizations joining the coalition.

One key difference to note between this Survey Template and the Inventory Template is that some fields in the "Basic Information" section have been marked as required with a red asterisk. These required fields ensure that survey respondents provide at least the minimum necessary information to make a useful contribution to the asset mapping.

Figure 3

Basic Information

Key descriptive information about the organization or program, such as physical location and contact information, along with populations and issue areas of focus. Most of these fields should be populated for every entry in the asset mapping template.

Organization Name *
Name of the organization offering digital inclusion services.

Your answer

This is a required question

The Survey Template is divided into sections according to the same categories as the Inventory Template. Only the “Basic Information” section has any required fields. All questions in the remaining sections should only be answered if they are relevant. In fact, users can navigate through sections of the survey using the “Back” and “Next” buttons at the bottom of the screen. This allows respondents to quickly skip sections that do not apply to a given asset.

Figure 4

Number of Customers/Recipients Last Year
General measure of the scale of the organization/program based on the number of customers or recipients served with broadband access & affordability services in the last year.

Choose

Back **Next** **Clear form**

Never submit passwords through Google Forms.

This form was created inside of National Digital Inclusion Alliance. [Report Abuse](#)

Google Forms

The Survey Template includes three question types, which align with the field formats in the Inventory Template: text responses, dropdown lists (single-value select), and checkboxes (multi-value select). A brief description of each field, corresponding to the “Data Dictionary” tab in the Inventory Template, is also included in the Survey Template to help guide respondents.

APPENDIX F

Sample Job Descriptions

Staffing will vary across state offices, particularly because of differences in internal resources, partnerships, and established functions among different state offices. Some states focus digital equity office hiring on digital inclusion specialists with research, data analysis, and program development skills, whereas others explicitly articulate that certain roles will lead the Digital Equity Act planning. Regardless of the skills and job duties you identify for each role or the staffing structure you implement, it's imperative your state dedicate a minimum of one FTE to digital inclusion work. Committing one FTE to digital inclusion work will allow the digital equity staff to develop digital equity subject matter expertise and designates a clear digital equity point of contact for stakeholders, among other benefits.

The organizational structure of digital equity roles will vary depending on accepted approaches to hiring in your state, available funding support, generally accepted approaches to hiring, available funding and hiring capacity, and previously developed broadband and digital equity functions to date.

This appendix includes examples of core functions that support the development and implementation of the State Digital Equity Plan: contracts and grant management, stakeholder engagement, and data analysis. Depending on your state's staffing capacity, you may decide to blend some job functions within a "jack of all trades" role or create distinct roles for different domains of core activities. We did not include salary ranges as those will vary by state.

F.1 Digital Equity Program Manager Job Description

Digital Equity Program Manager

Job Title: Digital Program Manager

Location:

Status: Full-time

Annual Salary:

Benefits:

Job Purpose: The Digital Equity Program Manager will lead State initiatives to advance digital inclusion across all communities. This position will support the digital equity office in the planning and implementation of the State Digital Equity Plan, maintain strong relationships with community stakeholders, and lead implementation of the State Digital Equity plan.

Duties and Responsibilities

- Contribute expertise to the development and implementation of the state digital equity plan
- Manage contracts and agreements with partners to support the planning and execution of the state digital equity plan
- Establish and maintain relationships with community partners, including local governments, community-based organizations, faith-based organizations, and community anchor institutions
- Develop presentations and outreach material to raise awareness of the state's digital equity initiatives
- Serve as a key point of contact with local governments, coalitions, and community digital inclusion programs
- Identify funding opportunities that promote digital equity from state or federal agencies
- Represent the digital equity office in meetings and events
- Ensure timely and accurate federal reporting of program performance
- Track federal and state policy impacting digital equity
- Establish and maintain partnerships with stakeholders to advance digital inclusion

Skills and Qualifications

- Experience in project management and program development
- Ability to partner and collaborate with federal, state, and local partners
- Ability to communicate technical concepts to non-technical audiences
- Strong organizational, presentation, and project management skills
- Ability to represent the organization with external partners
- Strong communication and leadership skills
- Experience in developing and managing programs

State policy statement on commitment to diversity

F.2 Data Specialist Job Description

Data Specialist

Job Title: Data Specialist

Location:

Status: Full-time

Annual Salary:

Benefits:

Job Purpose: The data specialist is responsible for conducting and analyzing research to inform the state digital equity plan and other digital equity initiatives. This position plays a key role in socializing key findings of digital equity research to policymakers, government staff, and community stakeholders.

Duties and Responsibilities

- Support the development and implementation of the digital equity office's research agenda for the state digital equity plan and other research projects
- Analyze and provide recommendations for research design through research, surveys, and focus groups
- Serve as project lead for digital equity office research and data projects, developing and managing project scopes and schedules and ensuring deadlines are met
- Build out and maintain the digital equity office's internal and public-facing data resources, including data collection, organization, analysis, and communication of key findings
- Provide data collection, analysis, and visualization support to team members for digital equity office projects, publications, and presentations
- Remain current with digital inclusion research conducted at the local level, and develop new data analyses and research methods to inform the work of digital inclusion practitioners and policymakers
- Represent the digital equity office in meetings, presentations, and conferences both remotely and in person
- Assist with other tasks as needed

Skills and Qualifications

- Strong knowledge of quantitative and qualitative data collection and analysis methods
- Coding skills for data collection, processing, analysis, and visualization (e.g. Python, R)
- Experience with ESRI ArcGIS software, geospatial data, and web-mapping platforms (e.g. ArcPro, ArcGIS Online, ArcGIS, file geodatabases)
- Good organizational, leadership, and communication skills and a positive approach to working with peers and external partners
- Excellent analytical/problem-solving skills and demonstrated process-oriented approach to work
- Expert self-starter, who can work independently and collaboratively
- Prior work experience in digital inclusion research and data analysis

State policy statement on commitment to diversity

F.3 Community Outreach Manager Job Description

Community Outreach Manager

Job Title: Community Outreach Manager

Location:

Status: Full-time

Annual Salary:

Benefits:

Job Purpose: The Community Outreach Manager is responsible for building and maintaining relationships with the public, including community-based organizations, community anchor institutions, faith-based organizations, and individuals from historically marginalized or economically disadvantaged communities. This position will strengthen existing partnerships and socialize digital equity resources throughout the state. This position will develop and implement strategies to increase the visibility of the State Digital Equity Office.

Duties and Responsibilities

- Represent the state digital equity office at community events
- Establish and maintain partnerships with community digital inclusion practitioners and organizations with digital inclusion programming
- Plan and implement strategic outreach activities to engage organizations serving individuals adversely impacted by the digital divide
- Manage CRM software to track and organize community contacts
- Plan and organizes special events and initiatives
- Convene stakeholders across the state to gather input and feedback on state digital equity initiatives
- Develop outreach materials and presentations to community groups on digital inclusion

Skills and Qualifications

- Must possess strong interpersonal and public speaking skills
- Strong relationship management and community building skills
- Excellent writing, communication, and presentation skills
- Experience in working with communities adversely impacted by the digital divide, including individuals living with disabilities, English language learners, people of color, older adults, justice-involved individuals, veterans, individuals residing in rural areas, and individuals in households with low incomes.
- Ability to maintain and build positive relationships with digital inclusion advocates
- Knowledge of or experience in advancing digital inclusion

State policy statement on commitment to diversity

APPENDIX G

Public and Authoritative Sources for Digital Inclusion Data

G.1 Public and Authoritative Data Sources

FCC FORM 477

Internet service providers are required to report internet service availability and adoption data to the FCC every six months using Form 477. Availability data, officially called [Fixed Broadband Deployment Data](#), offers the most complete dataset of broadband coverage. Form 477 deployment data documents where ISPs could or do deliver service to at least one customer in an area. For every block where a provider offers service, they must report key information including the technology used to deliver service (fiber, cable, DSL, etc.) and maximum download and upload speeds. This data is reported at the census block level and can be downloaded for the entire country, for individual states, or viewed in an [interactive online map](#).

While it is currently the best source of information on broadband coverage across multiple providers, Form 477 deployment data comes with a number of limitations and accuracy concerns. Most notably, a provider only needs to be able to serve a single customer in a given block for that block to count as being “served.” This means that even if the remaining households and businesses in that block lack access to service, or if they are completely unserved by broadband, they would still be counted as being served. Additionally, the data only captures maximum download and upload speeds for available service as reported by ISPs; however, these speeds may or may not reflect the actual quality of service experienced by customers.

Broadband adoption data is also reported by ISPs on Form 477 and is published by the FCC as [Internet Access Services Reports](#), along with accompanying maps and some underlying data at the census tract level. These reports are generated using total numbers of internet subscriptions reported by providers, making them potentially more accurate than other broadband adoption datasets that rely on survey data. However, the publicly available data published in these reports is limited to subscriptions per 1,000 households at two outdated speed tiers (200 kbps and 10 Mbps), and at the time of publication, the most recent data available is for June 2019. Given these constraints, the relevancy of the currently available Form 477 adoption data is severely limited, but an updated and more detailed version of this dataset would be very useful for understanding levels of broadband adoption.

AMERICAN COMMUNITY SURVEY

The ACS includes several questions about digital devices and internet access and use in households. It is the most frequently used source of data about residential broadband adoption, as well as computer and other device adoption. It also incorporates some high-level information about the types of internet service people have. The ACS data is aggregated for numerous geographic levels, ranging from the entire nation and whole states down to census tracts and block groups consisting of just a few thousand or even a few hundred households.

Digital inclusion data in the ACS are reported in the following tables:

- B28001 - Types of Computers in Household
- B28002 - Presence and Types of Internet Subscriptions in Household
- B28003 - Presence of a Computer and Type of Internet Subscription in Household
- B28004 - Household Income in the Last 12 Months by Presence and Type of Internet Subscription in Household
- B28005 - Age by Presence of a Computer and Types of Internet Subscription in Household
- B28006 - Educational Attainment by Presence of a Computer and Types of Internet Subscription in Household
- B28007 - Labor Force Status by Presence of a Computer and Types of Internet Subscription in Household
- B28008 - Presence of a Computer and Type of Internet Subscription in Household
- B28009A-I - Presence of a Computer and Type of Internet Subscription in Household by Race/Ethnicity
- B28010 - Computers in Household
- B28011 - Internet Subscriptions in Household
- B28012 - Age and Enrollment Status by Computer Ownership and Internet Subscription Status

Using ACS Data: Remember that ACS estimates are generated from survey data, not total counts of the population. This is why all ACS estimates are accompanied by a margin of error (MOE), which indicates the level of certainty that it is correct. Generally, ACS data is best suited for reporting rates and for making relative comparisons between different geographies. It is less well suited for reporting specific numbers, as MOEs can be quite large, particularly for smaller areas and for detailed data points. For this same reason, it is advisable to use census tracts as the lowest level of geography for ACS data. Block group estimates, while available, can be unreliable and should only be used with a strong understanding of ACS sampling methods and MOE calculations.

1-Year vs. 5-Year Estimates: ACS data are reported in two time intervals, 1-year and 5-year ACS estimates, both of which have their strengths and limitations. The 1-year estimates are released annually and represent a single year of data, making them the most current ACS data. However, they are only released for geographies with 65,000 or more residents. The 5-year estimates are also released annually, but they represent an aggregate of five years of data (e.g. 2016-2020). While less current than 1-year estimates, 5-year estimates are available for all geographies down to the block group, so they are key to understanding conditions in neighborhoods, small communities, and even many counties with low populations.

THE INTERNET AND COMPUTER USE SUPPLEMENT TO THE CURRENT POPULATION SURVEY

The Internet and Computer Use survey is a partnership of NTIA, the Bureau of Labor Statistics, and the US Census Bureau to measure household internet and digital device access and usage. It also includes information on where, how, and for what purposes people use computers and the internet, along with perceptions and concerns related to internet usage. It is the only national-scale public dataset with information on people's online behaviors and attitudes. In the absence of an authoritative source for digital skills data, the user behavior and perception data is used to infer digital skills needs based on disparities in the use of the internet for certain purposes (e.g. job searching, accessing health records, or making online purchases), concerns with internet usage (e.g. identity theft or online harassment), and reasons for not having home internet.

The Internet and Computer Use Supplement is published every one or two years (biennially since 2013), with the most recent vintage being 2019. This dataset is generally less user friendly than some of the other federal sources, but data aggregated to states and counties can be accessed through the Census Bureau's Microdata Access Tool, or the entire dataset of individual responses is available for download, but it requires significant formatting to be usable.

BROADBAND SUBSIDY DATA

Data about participation in broadband subsidy programs are valuable for understanding the extent to which existing broadband affordability resources are being leveraged and where greater outreach and engagement may be needed. The Universal Service Administrative Company (USAC) administers ACP, Universal Service Fund programs (E-Rate, High-Cost, Lifeline, and Rural Health Care), and the Emergency Connectivity Fund (ECF). Part of USAC's administrative role is to collect and publish data about these programs, which it does through its Open Data Portal. Data on the ACP program is published separately on the ACP Enrollment & Claims Tracker.

Data on the programs administered by USAC vary in detail, granularity, and update schedule by program. For the two household-level broadband subsidy programs, the following data are available:

- Lifeline: County-level subscriber counts by service type; state-level total subscribers vs. eligible households
- ACP: Zip code, county, and state-level enrollment and claims data, with details such as breakdown by verification method, subscription, and device claims

DEMOGRAPHICS AND OTHER SUPPLEMENTAL DATA

Along with information about broadband availability and adoption, device access, and digital skills needs, understanding who is most impacted by the digital divide is key to advancing digital equity. An early step for most digital inclusion efforts is identifying and quantifying the groups that are most in need of support—typically, historically marginalized groups, including households with low incomes, people of color, older adults, people with disabilities, and people with English language barriers.

Whether developing a digital equity plan, applying for funding, or simply trying to understand the needs of a particular segment of the community, understanding the size and location (geographic distribution and concentrations) of key population groups is necessary to successfully meet their needs and measure progress over time. Depending on the area and population of interest, a wide range of publicly available data sources can be used to conduct demographic analyses.

Among the most common federal data sources, the US Census Bureau, namely the Decennial Census and ACS, offers the most comprehensive demographic information, while the Bureau of Labor Statistics publishes information on employment, earnings, and key occupations requiring specific skills:

DECENNIAL CENSUS

- Actual count of housing units, household size, and population by race/ethnicity and age
- Serves as the baseline for many other datasets
- Updated every 10 years, so becomes outdated

AMERICAN COMMUNITY SURVEY

- Wide range of subjects and variables: income, educational attainment, language spoken at home, disability status, and many more
- Ongoing survey with new data annually
- Estimates based on survey data, so reliability can vary significantly, especially for small geographies

BUREAU OF LABOR STATISTICS

- Wide range of data on employment, earnings, and workforce development and needs
- Updated frequently, some data as often as monthly
- Geographic availability varies depending on dataset

State and local agencies are often the best sources of detailed information about particular population groups. Many publish data on the populations they serve or can provide specific information upon request. Leveraging these existing data sources can save significant effort in future data collection and help ensure solutions reach their intended recipients.

G.2 Data Visualization Tools

DIGITAL INCLUSIONS DATA AGGREGATION AND VISUALIZATION TOOLS

Combining and analyzing data from multiple sources can be time-consuming and challenging. These are useful data tools, which will support those working in digital equity:

- [NTIA Digital Equity Act Population Viewer](#) and [NTIA Indicators of Broadband Need Map](#): Interactive mapping tools that compile several data sources targeted at identifying areas with high digital inequities
- [Internet Is Infrastructure \(I3\) Connectivity Explorer](#): Create and save multiple “notebooks” with custom analyses and data visualizations, using numerous publicly available datasets in the tool (must first register for a free account).
- [Microsoft Digital Equity Data Dashboard](#): Allows users to select a state or territory, create custom measures of digital equity from more than 20 variables, and visualize the measure across different demographic groups
- [Technology Policy Institute Broadband Map](#): Supports mapping, time series, and robust statistical analyses of data from a range of digital equity data sources
- [Purdue Center for Regional Development Data Tools](#): Several tools for analyzing digital equity and comparing across geographies, including a County Connectivity Landscape Dashboard, Digital Distress Measure, and Digital Divide Index