



CONNECT NEW MEXICO
NEW MEXICO BROADBAND
ACCESS, EQUITY + DATA COLLECTION

ANNUAL REPORT | OCTOBER 2022

Connect New Mexico Council and Office of Broadband Access and Expansion
Governor Michelle Lujan-Grisham

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Executive Summary

The New Mexico Office of Broadband Access and Expansion (OBAE), in coordination with the Connect New Mexico Council (the Council), is pleased to report progress toward meeting its statutory obligations per the Broadband Access and Expansion Act (Senate Bill 93) and the Connect New Mexico Act (House Bill 10). Just as important, the Office has made significant progress toward meeting the moment – the unique confluence of historic state and federal funding opportunities, cross-sector and public interest alignment, and vision for universal access to reliable, affordable, high-speed internet statewide.

In 2022, OBAE has hired staff, contracted with expert consultants, supported the Council, engaged a variety of stakeholders throughout the state, met critical deadlines to unlock historic federal funding, and launched the Connect New Mexico Pilot Program – a matching grant program to make immediate progress toward universal broadband access throughout New Mexico.

The Council convened in January 2022, established a monthly meeting cadence and six working groups, elected an interim chair and interim vice chair, and contributed considerable time and insight into creation of the *Connect New Mexico Pilot Program*, a \$123 million matching grant program leveraging a portion of the state’s Capital Projects Fund dollars per the *American Rescue Plan Act (ARPA)*.

This report marks the first in a series of annual updates intended to summarize, on a county-by-county basis, “access to and quality of service of broadband across the state.” The report builds on the 2020 broadband plan – the *State of New Mexico Broadband Strategic Plan and Rural Broadband Assessment* – and anticipates creation of a State Digital Equity Plan and Five-Year Action Plan as required to leverage the state’s full share of federal broadband and digital equity funding per the *Infrastructure Investment and Jobs Act (IIJA)*. Initial federal funding – along with the robust statewide engagement, data collection, and planning it will support – is expected to commence coordinated, year-long activity in October 2022.

Although the State Digital Equity Plan and Five-Year Action Plan will guide future investment of federal funds, these plans will be completed to align with and meet similar statutory requirements and legislative interests established in state law. Much of this work lies ahead, but OBAE knows – through various data sources – that New Mexico faces significant barriers to universal broadband access and true digital equity:

- An estimated 196,000 New Mexico households lack access to broadband service of at least 100/20 Mbps – the standard federal benchmark for “underserved” and threshold for use of federal funding.

- Twenty-six New Mexico counties are considered to have high or moderate levels of “digital distress” – that is, significant households relying upon mobile broadband and/or lacking access to computing devices.
- Demand among qualifying New Mexico households for the Affordable Connectivity Program (formerly Emergency Broadband Benefit) is considerable, with the state consistently ranking among the top three in participation among households with school-aged children seeking monthly subscription assistance (now \$30 per household, \$75 per tribal household).

The following report summarizes known measures for broadband access and digital equity; OBAE progress toward digital equity planning and programming; similar progress toward implementation of the state broadband plan; identified obstacles to an integrated system of permits, licenses and rules for broadband access; recommended statutory, regulatory, and policy changes; and the status of broadband grant programs, including those expanding access, pursuing digital equity, and supporting local planning.

I. Digital Equity Planning

Introduction and Background

The importance of broadband to the life of New Mexicans has never been more apparent. Even before the COVID-19 pandemic, broadband internet access had become foundational to economic activity, political and civic engagement, education, healthcare, and delivery of public services. The pandemic crisis highlighted the necessity of broadband to support telework, economic activity, education, and health care, and expanded awareness of the central role that broadband plays in our social, political, economic, and educational culture. This increased awareness helped drive portions of the 2021 federal Infrastructure, Investment, and Jobs Act (IIJA) that “includes the largest investment in broadband deployment and adoption in U.S. history.” Funding for broadband in the IIJA will target deployment to unserved and underserved areas, support affordable connectivity for those who lack the means to pay for service, and invest in creating and implementing digital equity plans to “improve broadband access, affordability, and adoption among underserved ... populations, including rural area residents.”

New Mexico began work on expanding broadband access years ago, with strong participation in various federal programming ranging from the American Recovery and Reinvestment Act (ARRA) of 2009 to Department of Agriculture ReConnect program to the Rural Digital Opportunities Fund (RDOF), its predecessor universal service fund programs, and various other opportunities. This work included ARRA-funded mapping, which has continued to this day, and, beginning in 2015, development of broadband and digital literacy plans. In 2019, the Department of Information Technology (DoIT) commissioned the *State of New Mexico Broadband Strategic Plan and Rural*

Broadband Assessment that establishes the foundation for the current New Mexico Digital Equity Strategy. Key findings from the 2020 strategic plan included the following observations:

- Between 13 and 20 percent of New Mexico homes, businesses and community institutions did not have access to any or to adequate broadband;
- Rural broadband requires public funding and New Mexico faces greater rural broadband challenges than its neighboring states;
- Rural broadband is particularly important in New Mexico given the agriculture and oil and gas industries; and
- Permanently filling rural broadband gaps with fiber optics would cost between \$2 billion and \$5 billion, while a mixed approach of both fiber and wireless would cost less than \$1 billion.

In addition to low rural broadband access, many non-rural New Mexicans in vulnerable communities, such as Hispanic, low-income, indigenous, and disabled populations, continue to experience similarly poor rates of broadband adoption, even within otherwise well-served urban areas.

As New Mexico embarks on an unprecedented investment in planning for the expansion of broadband access and digital equity across the state, it will build on the 2020 findings and work collaboratively. The federal Digital Equity and Broadband Equity Access and Deployment (BEAD) programs, established via IIJA and administered by the National Telecommunications and Information Administration (NTIA), require year-long public engagement, data collection, and planning, scheduled to commence in October 2022 with public and private partners. The coordinated effort will result in complementary State Digital Equity and Five-Year Action plans, required by NTIA to create coordinated, sustained developments that make universal access to reliable, affordable, high-performance broadband a reality for all New Mexicans.

The overall approach to planning taken by the Broadband Access and Expansion Office is premised on strategies and planning that will enable the state to meet these requirements and deliver universal internet access. Tools for achieving this goal include a central focus on Digital Equity to ensure that all barriers to true internet access and participation in digital activities are eliminated. Through digital inclusion, outreach, technical assistance, and project support, the office will apply its assets and expertise to establish the connectivity, tools, and resources needed to leverage those tools for maximum impact and use.

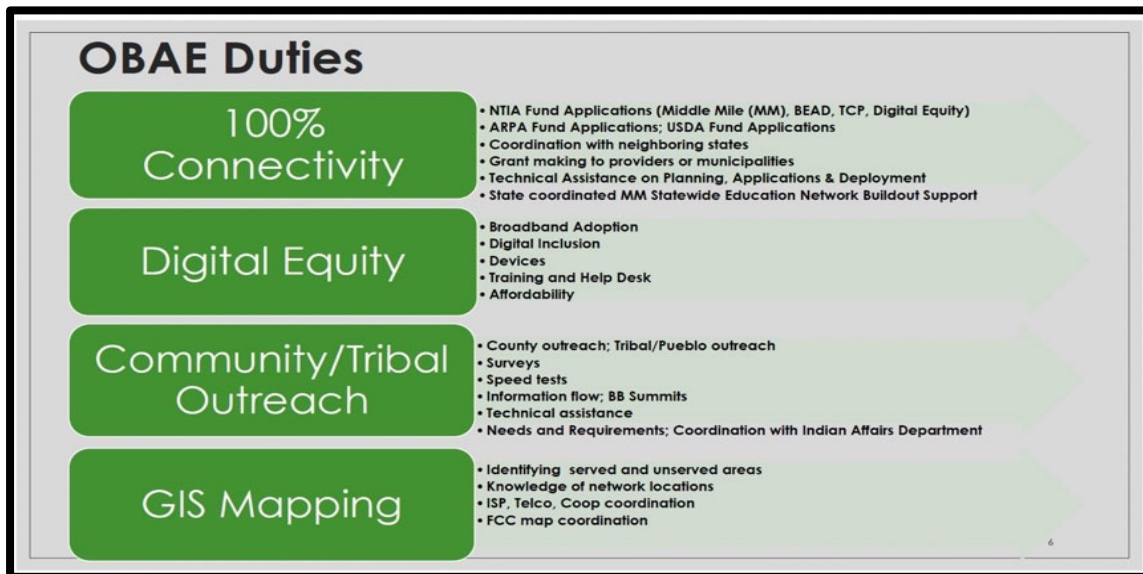


Figure 1: Duties of the Office of Broadband Access and Expansion

Developing the State Digital Equity Plan initiates this process. In building the plan, OBAE will apply a five-phase methodology to: (1) create a preliminary baseline assessment of the current state of digital equity programs across New Mexico; (2) analyze the needs and barriers to digital equity for all residents, specifically for covered populations; (3) create measurable objectives to advance digital equity and create impact on statewide economic development, education, health, civic engagement, and essential services that form the basis of an implementation strategy; (4) draft, review, submit for feedback, and revise the plan; and (5) implement, sustain and improve the approach over time.

Defining our approach

In many states, including New Mexico, a vast and deeply rural state with rugged terrain, many people remain without internet access. The 2021 Census Bureau Community Survey indicates that 20% of New Mexico households lack a broadband connection at home. Taken together, broadband access and adoption data reflects the multiple inter-locking challenges posed by social, economic, educational, and geographic factors that can significantly impact the ability of households to adopt and use broadband. In the coming months, OBAE and the CNMC will conduct studies to identify and refine data on broadband access and adoption. This data is shifting and will continue to guide the national conversation. Conversations include improving broadband access and adoption to one premised on digital equity and structured around a model of digital inclusion practices to address the range of factors and influences that perpetuate the digital divide.

The Digital Equity Act (DEA) of 2021 was created to advance digital equity in every state and set up legislative requirements to guide the states in charting Digital Equity Plans. The Notice of Funding Opportunity (NOFO), released by NTIA in May, added specifications to frame the

processes and goals for Digital Equity Plans and articulated a focus on indicators that include both access and digital inclusion. NTIA specifications entail:

- Focus on the under-served and unserved “covered populations” of incarcerated, seniors, low-income, rural, disabled, low literacy, Veterans, minorities;
- Identification of barriers to digital equity faced by each of the covered populations, including economic, learning, access to devices, and IT support;
- Setting measurable objectives and goals for decreasing these key barriers to digital equity; and
- Setting measurable objectives for assessing the impact of digital equity on key sectors, including education, economic, workforce, health, civic and social engagement, and essential services.

Additional requirements for the plan are listed in Table 1.

Digital Equity Vision Statement
Digital Equity Goals
Digital Inclusion Assets Inventory
Collaboration with stakeholders
Incorporation of existing local digital equity plans and initiatives
List of organizations that contributed to the planning process
Coordination strategy and plan
Outreach plan
Conduct a community organization asset and capacity assessment
Identify digital equity barriers and assets by target population
Provide an explanation of impact of digital inclusion on key sectors
Identify and describe a holistic implementation strategy and plan
Explain how the implementation strategy will address gaps and meet goals
Implementation timeline
Sustainability and continuity

Table 1: Requirements of the NTIA Digital Equity Grant NOFO

Foundational Activities

Through the OBAE, New Mexico has begun preliminary work needed to create a state Digital Equity Plan.

During this foundational phase of the project, New Mexico has been constructing a baseline for the state in the five areas of digital equity (1) broadband access; (2) accessible and inclusive online content; (3) digital literacy; (4) personal data and cyber security; (5) devices and tech support. The OBAE is building an interagency digital equity team to identify, engage and support this initial phase of the project. The team will inventory state stakeholder organizations and establish an Outreach Strategy to engage key stakeholders throughout the process.

Defining Current Conditions

A critical piece of the foundational work is establishing initial benchmarks, as NTIA requires that states engage in a robust asset inventory of existing digital inclusion assets. These assets include all organizations, programs, plans, policies, and activities operating to support, sustain, or expand digital inclusion in New Mexico. In addition, NTIA’s stipulation of extensive outreach to underserved populations requires collection of contact information listings for leadership and representative organizations supporting the underserved populations. OBAE has begun building the databases in all these categories that will support outreach and engagement to these populations and provide a baseline for digital inclusion activities in the state.

Broadbandfornewmexico.org/broadband-coalitions



Figure 2: Broadband Coalitions in New Mexico

Our preliminary assets inventory also includes a baseline measure for broadband access and quality in New Mexico. These early measures depend primarily on publicly available data, which generally do not provide a completely accurate picture of actual speeds experienced locally due to current reporting restrictions. OBAE recognizes the need for ongoing refinement in the data collection and reporting of broadband speeds, and the office has been working to develop more

meaningful measures of broadband services in future surveys and assessments. Nonetheless, these current baseline measures offer a benchmark against which to assess future activities and program impact.

Broadband Mapping

The New Mexico Broadband Map, managed by the University of New Mexico’s Earth Data Analysis Center (EDAC), incorporates a combination of provider-submitted data and similar data sets from the Federal Communication Commission (FCC). The maps are updated biannually to reflect access and speed data by geolocation across the state. Layers within these data sets reflect different types and localities of internet access in New Mexico, including census tract level information. Layers showing broadband coverage reflect areas of concentration, especially along major transportation corridors, as well as large regions without coverage, many in low population areas. nmbbmapping.org/mapping/

The maps for current broadband availability show a concentration of service in densely populated regions, along major transportation corridors, and in areas of strong business and industry demand. Fiber optic service, the most reliable service type for long-term, high-speed, connectivity, is most aligned with these high-demand areas. An inverted view, highlighting areas without access to high-speed broadband, as defined by 100 Mbps download and 20 Mbps upload, captures the geographic mirroring of service and non-service regions across the state. Together, the maps highlight the gap areas in which broadband buildout will be needed to fully serve New Mexico’s populations.

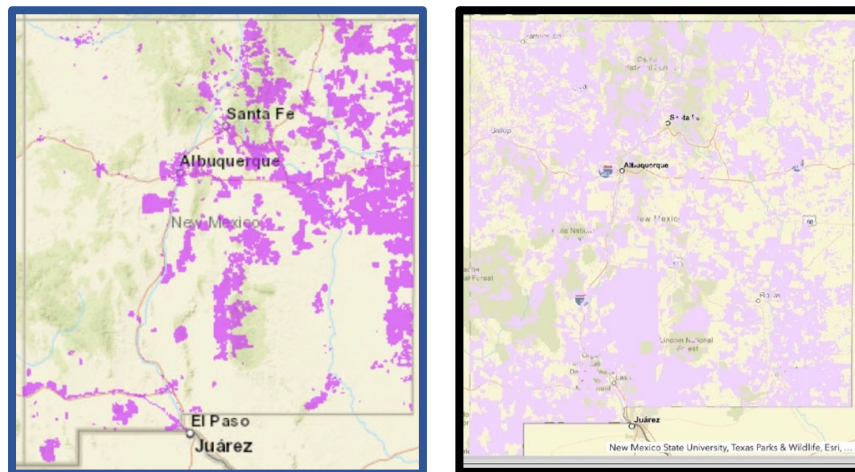


Figure 3: Broadband availability and lack of availability in New Mexico.

Mapping based on current public sources provides useful information, but it is again important to note most publicly available data sources give a skewed representation of actual access and on-the-ground speeds. This is due to collection practices that include non-disclosure agreements that protect reported data through normalization and aggregation of data points. As DoIT notes on their mapping web page, “the Broadband Map is over reporting data that comes from the

Internet Service Provider.” This practice is especially misleading for data on census blocks, for which, “[i]n order to safeguard the proprietary infrastructure data of the provider, if there is one customer in a corner of a “block”, the entire block will be reported as having broadband.” This means the gaps currently visible may be larger and more widespread than those shown on the current maps.

To address these concerns at the state and national level, the FCC has mandated internet service providers biannually provide address level service location data that will be incorporated into updated maps. Because this data will provide a foundation for federal grant awards it is imperative New Mexico, all tribal governments and other organizations verify the accuracy of the data and utilize the FCC challenge process to ensure that New Mexico maximizes federal funding opportunities.

Digital Distress

The Digital Distress Index, developed by Purdue University researcher Roberto Gallardo, uses data from the U.S. Census American Community Survey to calculate a combined measure that has been labeled “digital distress.” The digital distress metric is modeled on economic distress indicators and moves beyond assessing only broadband access and speeds to include four other measures: 1) those having no internet access, 2) those having only cellular data, 3) those with only mobile devices, and 4) those with no computing devices. Each of these factors is important in assessing not only access to service, but other external conditions, such as limited/lack of devices, which can have a significant impact on the effectiveness with which a broadband connection can be leveraged, often limiting use of productive applications or those that require a larger screen for full functionality. The four factors, combined into a single metric of digital distress and assigned in broad groupings of low, medium, and high, can assist planners in better assessing challenges and identify solutions for improving digital inclusion in their states.

[Purdue - What is digital distress?](#)

Charting digital distress for all 50 states shows that 54% of the country is in medium to high digital distress.

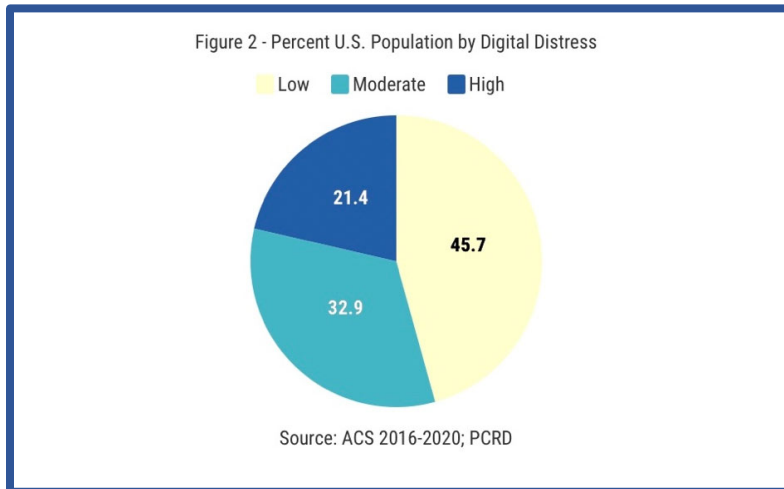


Figure 4: Digital Distress Indices by group for the United States.

Digital Distress maps built for New Mexico show a complex view of the state’s digital divide. The maps reveal a geographically large percentage of the state has a “high” distress index, and a relatively small section is considered “low” in terms of digital distress measures.

[Purdue - Broadband Distress Maps](#)

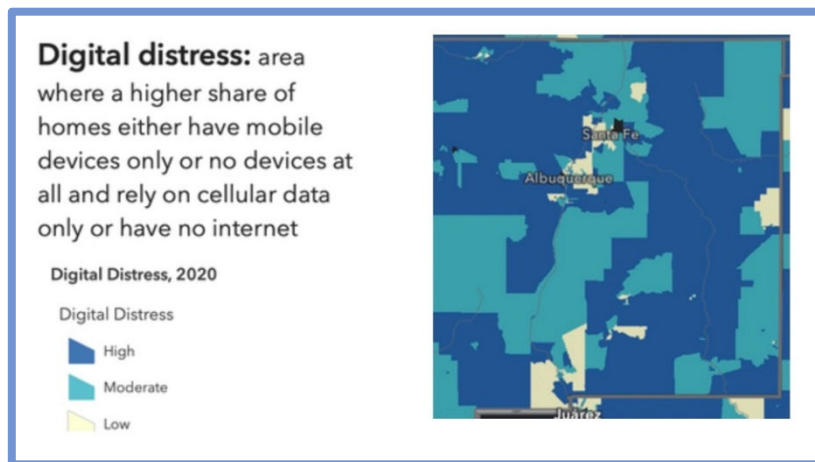


Figure 5: Digital Distress Index for New Mexico.

Digital distress index data was also collected and mapped for each county. These maps give a more nuanced view of digital distress in different regions. Data shows ten counties in high distress, 16 counties in moderate distress, and only seven counties with a low digital distress index. Digital distress data for tribal lands is not currently available. However, considering available indicators, such as poverty rate and education attainment, it is safe to assume tribal areas would be in the high digital distress classification. These high digital distress indicators are not surprising, given the high percentage of non-Anglo residents, the challenges of poverty

statewide, and the impact of these factors on the digital distress metric. They also reflect the overlapping challenges that New Mexico faces as it charts a plan to achieve digital equity during the coming years. Moving forward, OBAE will be working to assess and address the impact of the many broad conditions, such as income level, for tribal and non-tribal areas, in the broadband data that is collected and the proposed digital inclusion solutions.

[New Mexico Digital Distress Map](#)

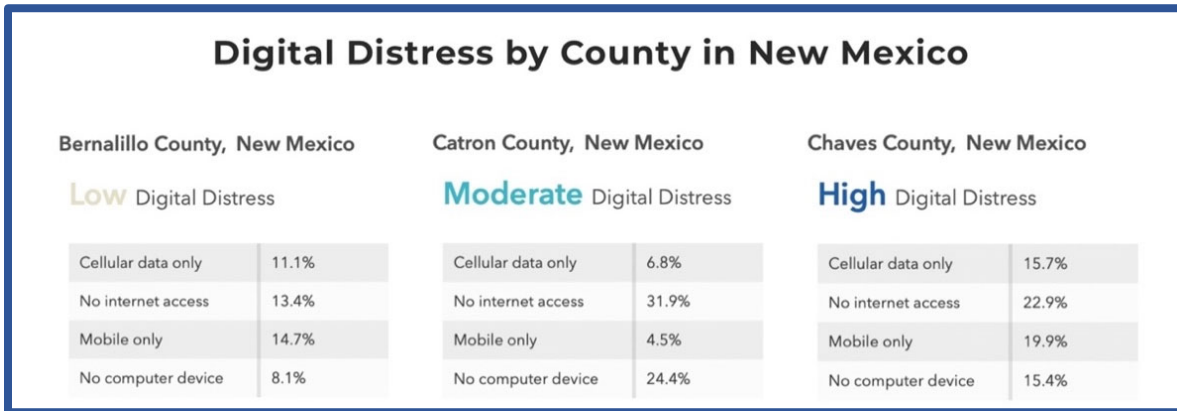


Figure 6: Sample digital distress detail data for New Mexico counties.

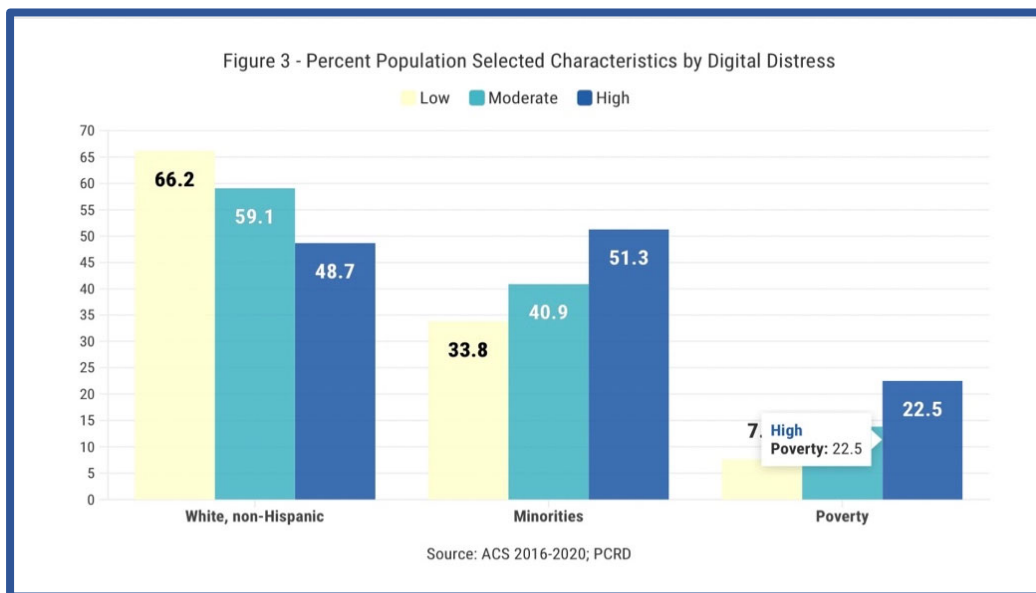


Figure 7: Digital Distress Indices by ethnicity and income levels.

County Broadband Benchmark Data

County [Benchmark data](#) for broadband access and speeds were collected for all 33 New Mexico counties and form the basis of data dashboards developed for each county. County dashboards

help policymakers find areas in their respective regions where funding and programmatic investments are most needed. A broadband dashboard can also be helpful in identifying trends and revealing gaps in access that occur in unexpected areas. These dashboards provide a basis for developing a deeper focus on community level data and presage the need for more nuanced and detailed data collection.

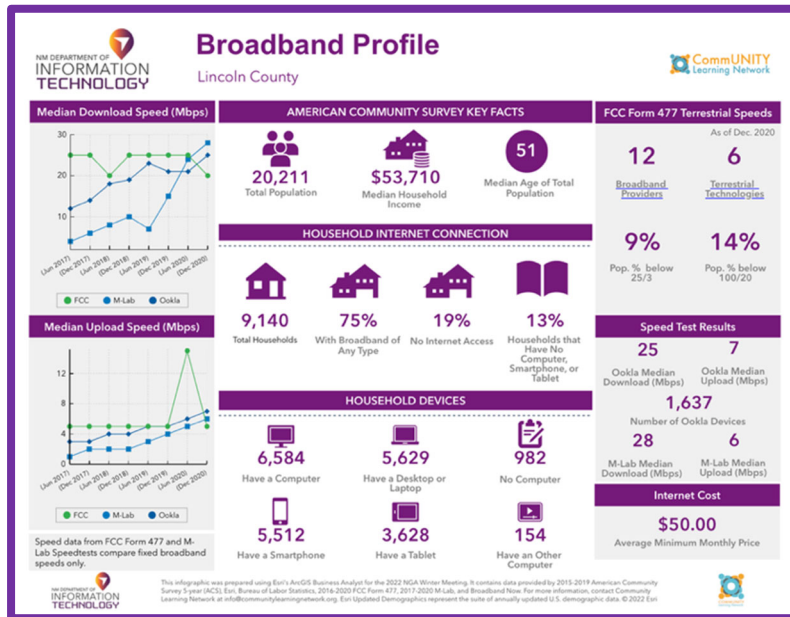


Figure 8: A sample of broadband county dashboard data for Lincoln County.

Data for the dashboards were derived from multiple federal sources and compiled into geospatial data displays using an interactive infographic format. Data sources included but were not limited to ACS, MLAB, Microsoft, Parcel Data, 911, New Mexico Department of Information Technology mapping and CASA, Building Footprints, and ACP statistics. Similar dashboards will be developed for tribes and pueblos as part of the annual digital equity evaluation and reporting process.

Since gaps in broadband access and inequities in digital tool use are often paired with other larger socioeconomic factors, the county dashboards were built to include parallel data sets of demographic and health information for each county. A list of Internet Service Providers was also included. These robust regional summaries give local leaders a valuable tool for assessing trends in their area and monitoring the impacts across sectors that increased broadband access and use create.

BroadbandforNewMexico.org

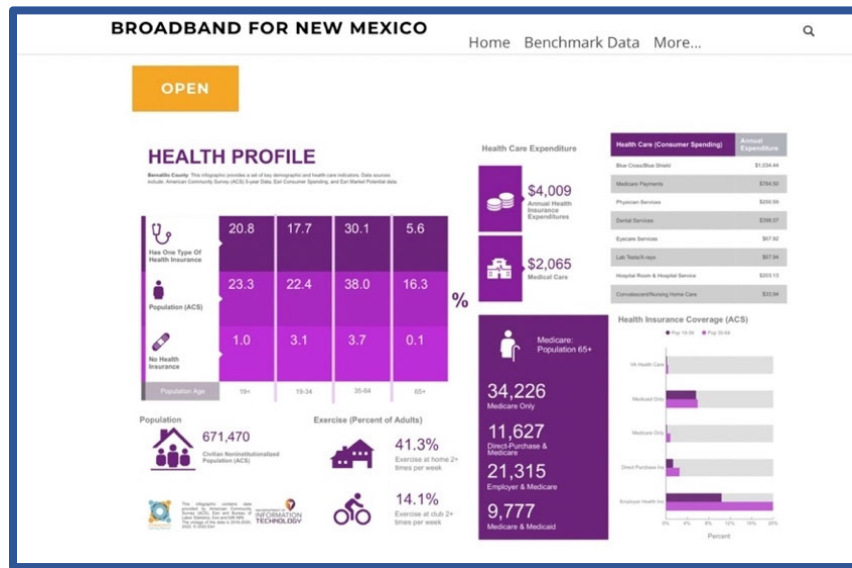


Figure 9: Sample for Bernalillo County of the health and demographic dashboard.

Planning Process

Early planning has focused on aligning project requirements with the planning process and establishing a framework to guide the work over the coming year. The planning process consists of five phases, each of which focuses on activities and tasks needed to build the plan’s components. The process moves from foundational work in the first phase to initiating and refining implementation in the final phase. In between, extensive outreach, data collection, and analysis will be done to fully describe New Mexico’s digital needs and identify strategic solutions that meet those needs and support digital equity.

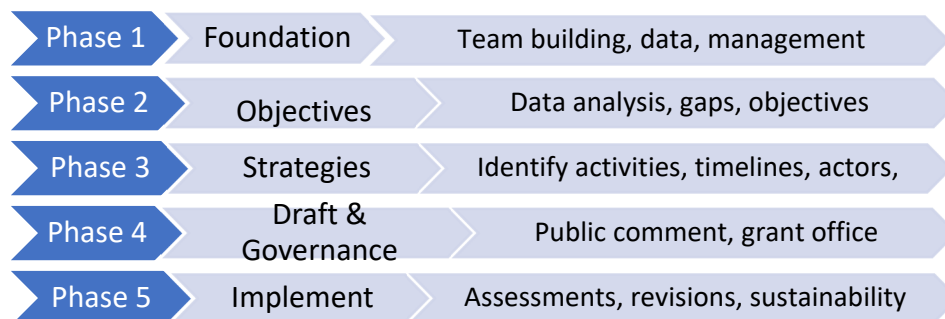


Figure 10: Digital Equity Planning Process Methodology

Phase 1: Foundation

During the current foundational phase, the office is constructing a baseline for the state in five areas of digital equity: (1) broadband access and affordability; (2) accessible and inclusive online content; (3) digital skills (4) concerns about cyber security; (5) access to affordable devices and tech support. OBAE and the Council have formed and will expand a digital equity team to identify, engage and onboard key stakeholder organizations to continue to support planning efforts

through a regional strategy. During this phase, the team will inventory state stakeholder organizations for engagement and establish an Outreach Strategy to engage key stakeholders throughout process.

To build meaningful engagement, the project will provide critical training for the stakeholder community to support contributions to the planning process. The project will include an assessment of stakeholder organizations to identify and benchmark digital equity assets across the state and measure current organizational capacity for digital inclusion programs. In addition to stakeholder engagement, the project will review and analyze publicly available data about digital equity as well as review current regional or local digital equity plans. The foundational phase will include the design, fielding, and analyzing of a resident survey for needs assessment and a barriers analysis that will focus on covered populations. This survey includes a sampling strategy to provide the state an opportunity to make meaningful estimates for each of the covered populations. This phase will also result in a digital equity dashboard that provides data on digital equity programs as well as residents' needs and barriers to digital equity that exist across the state and by covered populations.

Phase 2: Objectives

This phase includes vision-drafting with state leaders and key stakeholders to define the vision of digital equity for New Mexico. Following the visioning and using the analysis from Phase 1, the project will engage stakeholders in drafting measurable objectives for digital equity across all covered populations. This phase also includes conducting an impact analysis and setting measurable objectives for digital equity's impact on state objectives in key sectors, including economic development, education, health, civic and social engagement, and delivery of essential services.

Phase 3: Strategy

To develop implementation strategies, the state will leverage the vision and measurable objectives developed in Phase 2 to draft clear implementation goals and a set of activities, metrics, and timelines for the program. This prioritized and sequenced set of investments will be socialized with key stakeholders at the second round of meetings. In addition, the project will develop a standard set of performance measures and evaluation framework with which to assess success of the implementation phase.

Phase 4: Draft and Governance

During this phase, OBAE will gather content generated during the planning process and draft a State Digital Equity Plan that will include an asset inventory, needs assessments, barriers analysis, measurable objectives for digital equity across covered populations, measurable objectives of state impact, and an implementation strategy that includes activities, metrics, timelines, and program governance. The draft plan will be submitted for public comment and state leaders will engage with key stakeholders for feedback. The office will also establish governance and

operating models to manage and accomplish the implementation of the state digital equity strategy.

Phase 5: Implement, Sustain, and Improve

Over the next five years New Mexico will sustain, support, and monitor progress of the State Digital Equity Plan. It will convene key stakeholders regularly and periodically update the implementation strategy to course-correct and optimize investments and outcomes.

To support the phased plan model, a preliminary work breakdown structure was set up to analyze and assign tasks associated with the accomplishment of each phase of the plan and process. This tool allows the office to predict workloads and staffing needs, identify tasks to complete early in the project, and adds contours to the design of assessment and survey tools to ensure targeted focus on covered populations. In tandem with these planning tools, consultants created data tracking sheets to clarify the cross-referencing of data for multiple NOFO requirements for outreach and data collection activities.

Building OBAE staff

OBAE established an organizational vision and is staffing positions that will allow it to successfully support the Council and execute projects needed to create expansion of broadband infrastructure and digital inclusion across the state over the next five to ten years. OBAE personnel in existing and proposed positions will deliver the technical, collaborative, and management expertise needed to develop and deploy the programs that will effectively bring broadband equity to the state. The staffing plan includes management level positions and part-time consultants working across a range of areas.

OBAE has been aggressively building staff over the past few months, starting with the appointment of Kelly Schlegel, as the Director of OBAE, in July. Since then, the office has contracted an engineering firm for engineering expertise, posted four positions, and filled the Deputy Director and Operations Manager positions. The office has also built and cultivated key collaborations, including with the Council, the Public School Facilities Authority (PSFA) broadband team, and engaged consultants in both tribal and community outreach.

Outreach and Engagement

A central tenet of the NTIA requirements is that outreach to, and collaboration with, multiple stakeholders should occur throughout the digital equity planning process. Framing a vision statement, setting objectives, defining barriers to digital inclusion, and integrating existing plans into future planning requires that OBAE actively engage with New Mexicans at all levels, including state and local leadership, agencies representing covered populations, and community members who lack opportunities because they live without broadband access and digital skills. The vision behind this strategy is that all voices must be heard to understand the challenges and identify relevant solutions.

Stakeholder engagement has been paramount for the project and its efforts thus far. OBAE has worked hand in hand with the Council to engage key stakeholders with the broadband and digital equity planning process as it unfolds, and to gather input from them throughout each stage. In addition to meeting monthly with the Council, project members have met bi-weekly with the Council's Community Projects and Digital Equity Working Groups, sharing updates and listening to input. The newly formed Tribal Working Group will create additional engagement between the office and key state-level tribal leaders. Engagement with tribal stakeholders will also be furthered by the addition of a dedicated tribal outreach liaison to OBAE staff and a series of statewide convenings.

Outreach to community organizations will be another critical piece of the office's overall outreach strategy. In rural states such as New Mexico, where distances are large and anchor institutions widely spaced, community organizations are critical hubs for digital inclusion work, and future implementation of digital equity plans will rely heavily on these organizations to deliver the programs and activities needed to effectively close the digital divide. Our outreach to these community anchors during the foundational phase will enable understanding of the capacity and needs of these entities and allow us to identify what will be required for them to achieve the goals of the digital equity plan.

Through the efforts of community leadership, OBAE has also engaged in several early outreach efforts across the state.

- The **Doña Ana Broadband Initiative**. The Doña Ana Broadband group was supported by the Department of Information Technology in conducting a survey and gathering data as described above. This work included implementing a customized strategic communications and outreach plan and collaborating with community members and stakeholders throughout the region to disseminate information about broadband and its benefits. The outreach included 12 community presentations and listening sessions to understand resident perspectives, and the production of a social media campaign, podcasts, and print materials providing information about broadband across the region.

The **New Mexico Broadband Collective** has been actively engaged in multiple outreach efforts. The group conducted broadband surveys on tribal lands and in over one-third of New Mexico's counties. Engagement with tribal and other communities is ongoing through the Collective's Regional Projects working group, which hosted four statewide broadband convenings between September 30, 2020, and September 30, 2022.

- The **PSFA** conducted extensive listening sessions across several counties, focusing on the southwestern region of the state. Through partnerships with local entities

and staff and comprehensive outreach plans, the sessions were well attended, drew representative voices, and provided valuable insights, perspectives, and qualitative data on digital needs in these communities.

- The **New Mexico Tribal Broadband Convening**, hosted in Albuquerque on September 12th, brought together 74 tribal leaders, IT staff, and representatives from a range of agencies, including OBAE, the New Mexico Department of Transportation, the New Mexico Indian Affairs Department, the Department of Information Technology, and the State Library, as well as NTIA and Federal Communications Commission (FCC) representatives. The group explored challenges and shared best practices in broadband infrastructure and access. The event included presentations by tribal networking staff and tribal ISPs, a roundtable listening session, presentations on grant eligibility and service maps for each tribe, issues and concerns about permits and rights-of-way, and FCC-facilitated sessions to address location data mapping and the challenge process ahead.
- The **FCC Data Challenge Coordination Meeting**, convened in Albuquerque on September 23rd, was hosted by OBAE in collaboration with the Council. The goal of the event was to build awareness and provide information to community members on the FCC broadband location data mapping and challenge process. The meeting supported New Mexico Internet Service Providers and governmental entities, including counties and tribes, in registering, accessing, and challenging the federal data fabric.

Moving forward, OBAE and the Council are committed to ensuring outreach at all levels includes extensive efforts to make all activities, materials, channels, and platforms accessible to all audiences. This includes making information and events available in multiple languages, especially as it relates to targeted and underserved populations, including border lands, tribal lands, and all immigrant communities. Outreach must also entail consideration of access for people with disabilities of all types, as well as sensitivity to and adaptations for different cultural and traditional contexts and frameworks.

II. Expanding Broadband

The Statewide Broadband Strategic Plan, commissioned by the Department of Information Technology in 2019 noted New Mexico's early work in expanding broadband access along critical corridors of need. In particular, the report noted the state's successful work through cross-agency initiatives and public private partnerships, including:

- Improving connectivity to public schools throughout the state in a short period of time through the efforts of the PSFA and local school districts;
- Effectively leveraging federal public safety broadband funding to pioneer new statewide public safety wireless capabilities; and
- Supporting New Mexico companies to successfully compete for extensive federal broadband funding, both through recent programs such as the U.S. Department of Agriculture’s Re-Connect grants and through the American Reinvestment and Recovery Act programs established a decade ago.

These efforts, and the flow of federal dollars that the latter initiatives entailed, substantially improved broadband infrastructure in many parts of New Mexico.

[2020 New Mexico Broadband Strategic Plan](#)

Since then, the OBAE has continued to make advances on similar and expanded fronts that move the state towards meeting the goals of the 2020 Statewide Broadband Strategic Plan. This has been achieved by addressing key recommendations made in the 2020 plan through a combination of strategies that include partnerships, planning, initiatives, and interagency cooperation. As we look ahead to the opportunities presented by unprecedented funding available through the IJA for expanding broadband access further, OBAE remains particularly mindful of the need for these federal funds for addressing the unique challenges New Mexico faces as a predominantly rural state, that has, like other rural regions, “struggled to attract [private] broadband infrastructure investment ... [due to] the high capital costs per user.” OBAE continues to be strategic in the steps it takes to build support for infrastructure and digital inclusion in ways that are both comprehensive and equitable in their structure and reach for all regions of the state.

In addition to these seminal activities, OBAE has anticipated and supported broadband expansion through a variety of other targeted initiatives, partnerships, strategies, and programs. These efforts, summarized below, directly address the recommendations from the 2020 plan while anticipating and preparing for the extensive efforts that will unfold with upcoming federal and state funding.

DEA The Digital Equity Act (DEA), part of the Infrastructure Investment and Jobs Act of 2021, created a \$2.75 billion fund to establish three grant programs to promote digital equity and inclusion. The first of these, the State Digital Equity Act Planning Program, established funding for states and territories to develop digital equity plans. Amounts allocated to each state were calculated based on formula considerations. New Mexico has applied for and expects to receive their full allocated amount, which will support development of New Mexico’s Digital Equity Plan.

BEAD The Broadband Equity, Access and Deployment (BEAD) program establishes a \$42.45 billion fund to expand broadband access through planning, infrastructure deployment, and adoption programs in all 50 states. New Mexico has applied for and intends to maximize its award through presentation of refined mapping data and pursuit of all competitive opportunities. These funds will support the deployment of broadband infrastructure across the state to enable all New Mexicans to be equitably served.

Middle Mile The Middle Mile program is a Request for Information (RFI) project that aims to increase success for New Mexico broadband service providers in obtaining middle-mile grant funds from the NTIA by identifying and coordinating applications for NTIA’s Enabling Middle Mile Broadband Infrastructure Program. The Middle Mile Program is administered by OBAE.

Pilot Program The Connect New Mexico Pilot Program was set up to bridge the digital divide and foster socioeconomic progress by making \$123 million available through infrastructure grants for broadband deployment to unserved and underserved communities across New Mexico. The program supports sustainable, scalable networks with financially viable business plans that will serve the community comprehensively with high-quality, reasonably priced solutions. The Pilot Program is administered by OBAE.

TAP The New Mexico Technical Assistance Program (TAP) supports economic development by providing technical assistance to qualified government entities to explore broadband planning, deployment, or expansion efforts; helping communities lay the groundwork for building broadband infrastructure; and expanding broadband for existing industries in the state. The TAP program is operated by DoIT through support from an Economic Development Administration grant.

PED Help Desk The Public Education Department (PED) Help Desk, also known as NM Student Connect, helps students and teachers who lack high-speed broadband internet service or devices get access to the internet. Through collaboration between NM Student Connect and school districts, students and teachers can connect to online learning and homework resources via high-speed internet connections in their home and over devices such as laptops or tablets.

2022 Broadband Community Planning Guide This guide provides a phased approach to support local communities in deploying broadband infrastructure that addresses communities’ connectivity challenges. The guide gives a simple roadmap approach to the complex challenge of establishing a local broadband network. The Planning Guide was created by OBAE.

Council and Working Groups The Council was established in 2021 to coordinate broadband planning work across jurisdictional boundaries and oversee the appropriations to the Connect New Mexico Fund for broadband grants and infrastructure appropriations made during the following legislative session. The Council continues to provide guidance and advice on broadband in New Mexico through monthly meetings and bi-monthly meetings of its various working groups.

OBAE collaborates with the Council through participation in monthly meetings and bi-monthly meetings of the Digital Equity and Community Projects Groups.

OBAE Senate Bill 93 established OBAE to operationalize broadband projects funded with state and federal appropriations and awards, and coordinate projects across state government agencies, local governmental bodies, tribal governmental organizations, and internet service providers. OBAE is responsible for developing a three-year broadband strategic and operational plan providing guiding principles and operational criteria for significant broadband deployment and expansion for New Mexico.

FIVE PILLARS The Five Pillars articulates the strategic guideposts framing the approach of OBAE. These guides directly support the 2020 plan’s recommended focus on collaboration and partnership, innovation and flexibility, and fiber focus. The Five Pillars are:

1. Foster Collaboration and Partnerships
2. Support a Robust Fiber Statewide Middle Mile
3. Plan the Foundation for Broadband Connectivity within a five-year Period
4. Create and Adopt Innovative Approaches
5. Nurture Alternative Technologies



Figure 12: The Five Pillars defining OBAE's approach and plan

The Digital Equity Planning and BEAD programs will move New Mexico toward universal broadband access and digital inclusion. In tandem with existing and developing programs, these programs will frame New Mexico's broadband efforts during the decade ahead.

III. Infrastructure Obstacles

Obstacles to deploying broadband infrastructure in a timely and efficient manner across the state are numerous. Some are historic, such as permits, licenses, and Rights of Way (ROW), and others are a byproduct of our current world economic condition induced by the pandemic, such as supply chain delays, material shortages, and the federal mandate to buy American parts. All these obstacles drive long cycle times to build infrastructure and begin construction when the funding is available. There is quite a bit of coordinated work to be done to develop an integrated system of permits, licenses, and rules for broadband infrastructure across the state, including an expedited process for ROW:

- Complex jurisdictional authorities (local, tribal, state, federal, private), lack of sufficient and/or qualified resources and personnel, incomplete or inaccurate records and tracking tools, lack of transparency, and conflicting priorities are only a few examples of the obstacles that, if not addressed, will impede (prevent) expeditious deployment of new broadband infrastructure and upgrades of existing broadband infrastructure. It has been cited that the process for acquiring State Land Office and Federal Bureau of Land Management (BLM) or National Forest permits can take one to two years and sometimes longer. This will significantly affect the five-year broadband build-out timeline.
- While the role of OBAE is to reduce costs and facilitate infrastructure deployment timelines, some local, tribal, state or federal organizations are mandated to monetize public assets (land) and minimize disruptions to artifacts and sites with cultural significance, threatened flora and fauna etc.
 - Example: Archeological studies (could cost \$14,000+ per occurrence), and new land surveys, paleontological studies, and environmental studies according to the National Environmental Policy Act (NEPA), represent the norm as pre-requisites to the permits and ROW submission. Utility poles are often too short, too far apart or too degraded to have new broadband infrastructure be attached to them, sometimes leading to disputes about who will pay for replacement and how much. These obstacles can significantly drive up the cost and schedule.
- Some permits, licenses and ROWs have ambiguous and lengthy processes for obtaining approval. The Department of Transportation (DOT) has developed a

streamlined process and dashboard to provide a user-friendly means for a user to request a DOT ROW and to track its approval process. At any time, a user could log-on and see where the ROW request is in the queue and what approval steps have been completed. It is recommended the other permit/license holders do something similar.

- The mandate to buy American parts is a conundrum because some broadband parts have been historically manufactured in foreign countries. “The search for suitable and high-quality replacements and alternative manufacturers can be lengthy and at times unfruitful. As NTIA spells out in its notices of funding opportunity for the \$42.45 billion Broadband, Equity, Access and Deployment program (BEAD) and other broadband grants subsidized through the Biden administration's \$2 trillion infrastructure law, "The 'Build America, Buy America Act' requires all the iron, steel, manufactured products (including but not limited to fiber-optic communications facilities), and construction materials used in the project or other eligible activities are produced in the United States unless a waiver is granted. Trade groups representing Internet Service Providers (ISPs) have been pushing back on the "Buy America" mandate for months, amid pandemic-era supply chain constraints. Back in January, for example, a coalition including Competitive Carriers Association (CCA), Cellular Telecommunications Industry Association (CTIA), NCTA – The Internet & Television Association, NTCA – The Rural Broadband Association, TechNet Telecommunications Industry Association (TIA) and USTelecom – The Broadband Association, sent a letter to Commerce Secretary Gina Raimondo urging NTIA to issue a waiver on "Buy America" for information and communication technology (ICT).” (Nicole Ferraro, “‘Buy America’ rules have broadband industry on edge”, *www.lightreading.com*, Light Reading, August 8, 2022).

The Council established the “Permits, Rights of Way and Pole Attachments” (PROP) working group to focus on essential processes that will make or break the effective deployment of broadband to all New Mexicans. The composition of the working group is diverse, including state and federal agencies, electric utilities that own poles, and internet service providers. The working group goal is to develop policy recommendations that will improve existing processes and collaboration, supporting the deployment process.

Some of the recommendations to be considered by the Council for further recommendation to decision makers are as follows:

- Develop legally compliant process to expand existing electrical and telephone ROW to broadband.

- Direct DOT to use public land value as matching funds for federal grants and reduce or eliminate fees for hard-to-reach area of the state.
- Establish a group or entity that can facilitate and/or streamline disputes.
- Establish a fund that will assist with resources required to expedite the permitting process (pay for engineers, permit specialists etc.) and help with the utility poles replacement.

OBAE and the Council will need the help of legislators, state, and federal agencies to remove these obstacles. See Section IV for suggested legislation to mitigate the impact of these obstacles to the broadband deployment plan.

IV. Recommendations: Statutory, Regulatory, Policy, and Budget

There are several policy, budgetary, and statutory issues in the State of New Mexico that hinder the expansion of broadband to every person in the state.

Governance of State-Owned Broadband Assets

Several states have created a public entity to manage their statewide broadband networks. New Mexico can follow the successful states' models to establish a public corporation (non-profit) to be responsible for those assets as well as managing interaction/contracting with tribal governments and private entities (IRUs, fiber swaps, peering agreements, etc.). This will require new legislation – ideally through creation of a Public Benefit Corporation-- to serve public, tribal and private sector needs. The public corporation would have a board with representatives from all three sectors to facilitate the brokering of these needs.

Permits, Rights of Way and Pole Attachments

Permits, rights-of-way, and pole attachments are another hurdle to the expansion of broadband in New Mexico. These obstacles could be minimized or streamlined through legislation that does some, or all, of the following:

- Expand existing electrical (power)/telephone easements and ROW to broadband, while ensuring a fair, yet expedited, process for the landowners.
- Empower OBAE to facilitate/expedite dispute resolution regarding permits, ROW, and pole attachments.
- Establish a fund to allow resourcing of permits, ROW (including tribal), pole replacement, etc. to facilitate/expedite deployment.

- Follow the historic policy of the past to expand access to electrical power (electrifying rural America) by legislating no costs associated with installing broadband circuits (fiber optic cables) in the ground or overhead, and all associated equipment and structures.
- Include solutions and resources to expedite permits, and to speed up and introduce predictability and cost-effectiveness to "Make Ready" of utility poles (prepare utility poles to attach wired broadband infrastructure or add/replace poles where necessary).

Cybersecurity

To secure the state's broadband infrastructure, legislation should be enacted that empowers DoIT/OBAE/Public Corporation to implement broadband-related security directives in the state cybersecurity plan.

Clarify Existing Laws

Amendments to current laws are recommended to clarify the Council membership, and to delineate OBAE's authority and responsibility. Recommendations that may be considered include, but are not limited to:

- Amend HB 10 (2021) to include the following:
 - Create one seat on the Council for each of the following agencies who participate in developing policy and deploying broadband:
 - Public Education Department
 - Department of Health/Human Services Department (one seat)
 - Department of Public Safety
 - one seat to represent all New Mexico counties
- Subject to general laws, such as the State Tribal Collaboration Act, and assuming passage of Constitutional Amendment 2, authorize use of current and future broadband access and expansion appropriations to be used for private sector projects that align with objectives of the state broadband plan.
- Make independent and adequately fund the Office of Broadband Access and Expansion. The budget would be from the recurring funding at 5% of funding/value of projects expected to be overseen including the Connect NM fund, federal grants, New Mexico Rural Universal Service Fund (NMRUSF), etc. Include oversight of NMRUSF funded projects in the duties/responsibilities of OBAE. The level of staffing to be as established by the Director.
- Move the Council seat presently designated for PSFA to OBAE (Director not allowed to be in that seat) or designate PSFA's seat as a broadband subject matter

expert (SME) appointed by the Director of OBAE (Director not allowed to be in that seat).

- Clarify all New Mexico broadband funding will be administered by OBAE.
- OBAE also recommends the following new legislation and amending several statutes in order to bring the Statewide Education Network together with the statewide broadband network.
 - Public School Capital Outlay Act, Chapter 22, Article 24 – amend this statute to move \$10M for broadband for schools to OBAE; also amend HB 10 (2021) and/or SB 93 (2021)
 - SB 144 (2021) – Amend to move education technology infrastructure language to SB 93 (2021) and/or HB 10 (2021)
 - SB 93 (2021) – Amend to move PSFA/BDCP (Broadband Deployment & Connectivity Program) work, staff, and funding to OBAE.
- OBAE recommends Public-Private Partnership (P3) for the following reasons:
 - Allow OBAE or a public corporation to enter into agreements with tribes, neighboring states' broadband network managers and R&E networks to collaborate on the NM SEN and bring high-speed internet access to rural communities close to the borders of New Mexico.
 - Establish a robust state funding structure to provide technical and financial assistance for pueblos, tribes, and local governments to setup their preferred method to provide internet services to their members (e.g., P3, tribal/municipal, ISP etc.).
 - Authorize DoIT/OBAE to direct internet service providers to report non-redundant network configuration data as necessary to identify all broadband infrastructure and service locations within New Mexico for purposes of mapping and planning. DoIT/OBAE should be authorized to deem data confidential as necessary to protect trade secrets and ensure a competitive broadband market.

V. The Broadband Grant Program

Connect New Mexico Broadband Grant Program

The Connect New Mexico Act (HB10) created the Connect New Mexico Fund and a framework for a broadband grant program to be implemented by the Council. The law requires that the program be established in administrative rule, the process for which is currently underway.

A working group of the Council, supported by OBAE staff, scheduled weekly meetings throughout the summer of 2022 to merge elements of the Connect New Mexico Pilot Program (detailed below) with specific grant program requirements included in HB10. The statutory grant program was created to “develop, expand and support digital inclusion” and be available to a variety of eligible entities, specified as: local governments; state agencies; public educational institutions; tribal governments; and entities created by a joint powers agreement pursuant to the Joint Powers Agreements Act.

HB10 further stipulates that the council shall give consideration for Connect New Mexico fund support by recognizing:

- the extent to which the project connects unserved and underserved populations of New Mexico, with priority given to projects that will connect unserved populations;
- the extent to which the project meets or exceeds the baseline standards established by the FCC;
- the extent to which the project leverages existing infrastructure;
- the extent to which the project complements or coordinates with the statewide broadband plan;
- the extent to which the project leverages regional collaboration;
- the degree to which the project fosters digital inclusion;
- the extent to which the project stimulates in-state economic development, including the creation of jobs and apprenticeships; and
- the extent to which the project leverages in-kind or financial support from local agencies or entities, federal assistance funding or federal Coronavirus Aid, Relief,

and Economic Security Act, federal Consolidated Appropriations Act, 2021 or federal American Rescue Plan Act of 2021 funding.

The administrative rulemaking process is expected to conclude by January 2023, which will allow for the resulting Connect New Mexico Broadband Grant Program to launch upon, and apply lessons learned from, completion of the Connect New Mexico Pilot Program.

Connect New Mexico Pilot Program

In July 2022, OBAE published a notice of funding opportunity (NOFO) formally opening its Connect New Mexico Pilot Program, which leverages \$123 million in federal American Rescue Plan Act (ARPA) dollars for broadband access expansion.

The matching grant program is the result of thorough engagement with and input from the Council, and it is built upon well-established best practices from across the country. A wide array of applicants – including local governments, tribal communities, schools, nonprofits, cooperatives, and broadband service providers – are all eligible to apply for state grant support in pursuit of universal broadband access.

The Connect New Mexico Pilot Program will cover up to 75 percent of total project costs for network expansion in unserved and underserved areas of the state – that is, those areas lacking access to wireline broadband service of at least 25 megabits per second (Mbps) download and 3 Mbps upload (25/3 Mbps) and 100/20 Mbps, respectively.

Applications will be accepted in three waves, the first extending through September 23, the second through December 9, and the third through February 27, 2023. All application content – including the notice of funding opportunity, application template, interactive broadband map, and other helpful materials – are available on the [OBAE website](#).

To align with federal priorities and programming, the Connect New Mexico approach includes a short-term goal of universal access to broadband service of at least 25/3 Mbps and a longer-term goal of universal access to broadband service of at least 100/100 Mbps – resulting in access to basic broadband for all New Mexico homes and businesses.

The Connect New Mexico Pilot Program is designed as a forerunner to the Connect New Mexico Broadband Grant Program, established in 2021 under the Connect New Mexico Act and currently subject to administrative rulemaking as required by law. At least \$70 million in additional state funding will be available for the next round of Connect New Mexico investments, expected in 2023.

In the weeks following the NOFO publication, OBAE offered an informational [webinar series](#) for potential applicants and other stakeholders interested in learning more about the Connect New

Mexico Pilot Program. The full series was recorded and remains available on the [Connect New Mexico Pilot Program webpage](#).

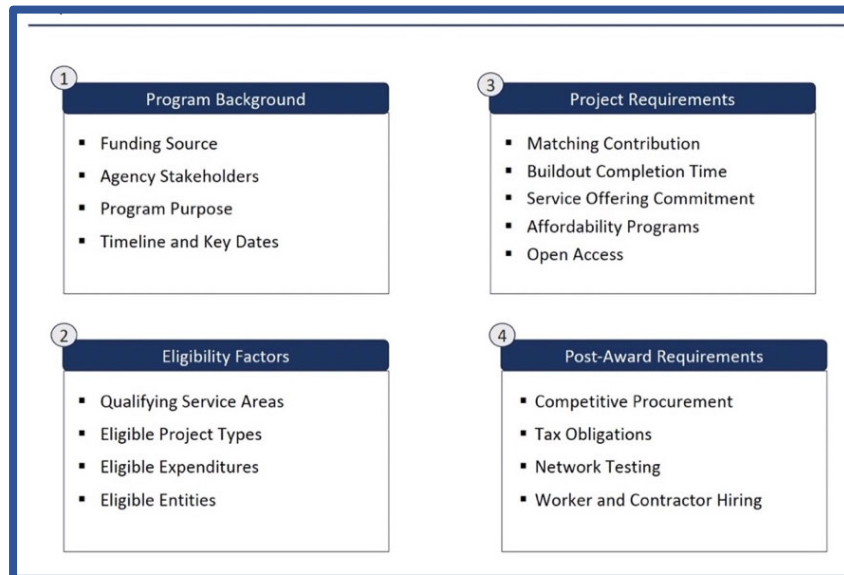


Figure 13: Sample slide from the Pilot Grant Program information webinar.

OBAE realized high rates of success in broadband funding awards across New Mexico during the past year. These include independently awarded: USDA broadband grants, made through the USDA Reconnect Program-Rural Development; Broadband Equity Fund grants, provided through the New Mexico Broadband Collective; and Tribal Broadband Connectivity Program awards, issued through NTIA and the Department of Commerce. The breadth and number of these awards speaks to the need for broadband resources across the state and highlights the commitment and initiative so many communities have shown in seeking out and successfully accessing these resources.

Broadband Funding

Broadband Funding Award Highlights

USDA Reconnect Program - Rural Development (July 2022)

- Continental Divide Electric Cooperative Inc.(Cibola and McKinley Counties) \$3,681,000
- Eastern New Mexico Rural Telephone Cooperative (Chaves, Colfax, DeBaca, Guadalupe, Harding, Lincoln, San Miguel, Torrance, and Union Counties) \$14,749,747
- Peñasco Valley Telecom (Chaves Eddy, Lincoln, and Otero Counties) \$28,927,570
- Tularosa Basin Telephone Company Inc. (Lincoln and Otero Counties) \$5,825,102
- Valley Telephone Cooperative (Hidalgo and Luna County) \$44,924,000

Broadband Equity Fund Grants - NM Broadband Collective (June 2022)

- Colores United (Luna County) \$75,000
- Picuris Pueblo (Taos County) \$59,904
- True Kids 1 (Taos County) \$33,000
- Pueblo of Cochiti (Sandoval) \$40,500
- Pueblo of Laguna Utility Authority (Cibola County) \$71,596
- Yee Ha'oolniidoo (San Juan and McKinley Counties) \$75,000

Tribal Broadband Connectivity Program - NTIA & Department of Commerce (Fall 2021)

- Taos Pueblo Planning, Feasibility, and Sustainability Studies (Taos County) \$477,817

Figure 14: Broadband Funding awards in New Mexico

A more detailed breakdown for the grants awarded by the New Mexico Broadband Collective demonstrates the variety of recipients and the success of these awards in reaching populations that are historically unserved and under-served. Information and outcomes from these grant projects will help inform the needs and best practices for future grant programs that will become available during subsequent years.

Date	Awardee	Granting project	Amount	Brief Description	Relation to BB Plan	How supports un-served
June 2022	Colores United	NM BB Collective	\$75,000	Luna County		Low-income, border, immigrant
June 2022	Picuris Pueblo	NM BB Collective	\$59,904	Taos County		Tribal Lands
June 2022	True Kids 1	NM BB Collective	\$33,000	Taos County		Rural, youth, minority
June 2022	Pueblo of Cochiti	NM BB Collective	\$40,500	Sandoval County		Tribal Lands
June 2022	Pueblo of Laguna	NM BB Collective	\$71,596	Cibola County		Tribal Lands
June 2022	Yee Ha'oolniidoo	NM BB Collective	\$75,000	San Juan & McKinley counties		Tribal Lands

Table 2: Grants awarded through the New Mexico Broadband Collective

Conclusion

Improving secure broadband access, adoption, and use is expected to bring improvements to New Mexico, expanding educational and economic opportunities, extending the reach of health providers, and improving delivery of general services to the most remote and inaccessible populations. As OBAE works toward these goals, it will continue to build on its partnership with the Council, on the strength of early statewide efforts, and the ongoing guidance of agencies and organizations with first-hand knowledge of the burdens created by lack of broadband access for their clients. As the office frames priorities and strategies for infrastructure and construction, it will simultaneously seek input from individuals and communities that represent the most unserved and historically excluded populations, listening to their stories, learning from their experiences, and developing solutions that have meaningful impact for their futures. In New Mexico, secure broadband access and digital equity will be a resource that all New Mexicans can experience, benefit from, and utilize to build better lives.

BRIEF LIST OF REFERENCES

2020 State of New Mexico Broadband Strategic and Rural Broadband Assessment

https://www.doit.nm.gov/wp-content/uploads/sites/4/2022/03/nmbbp_strategic20200616Rev2Final.pdf

Broadband Equity, Access, and Deployment (BEAD) Program Application

https://www.doit.nm.gov/wp-content/uploads/sites/4/2022/09/BEAD-Application_Final.pdf

Broadband Equity, Access, and Deployment Program (BEAD) Notice of Funding (NOFO)

<https://broadbandusa.ntia.doc.gov/sites/default/files/2022-05/BEAD%20NOFO.pdf>

Broadband for New Mexico

<https://www.broadbandfornewmexico.org/benchmark-data.html>

City of Albuquerque Department of Technology and Innovation

<https://www.cabq.gov/technology-innovation>

Connect New Mexico Council

<https://www.doit.nm.gov/programs/broadband/connect-new-mexico-council/>

Connect New Mexico Pilot Program

<https://www.doit.nm.gov/programs/broadband/connect-new-mexico-pilot-program/>

Digital Equity Act (DEA)

<https://www.congress.gov/117/bills/hr1841/BILLS-117hr1841ih.pdf>

Doña Ana Broadband

<https://www.donaanabroadband.com>

Doña Ana Broadband Survey Report

https://www.donaanabroadband.com/uploads/1/3/6/7/136790955/dona_ana_broadband_survey_report_2022_as_approved_pdf.pdf

New Mexico Broadband Collective

<https://www.groundworksnm.org/broadband-collective>

New Mexico Broadband Mapping Program

<https://www.doit.nm.gov/programs/broadband/mapping/>

New Mexico Broadband Program

<https://www.doit.nm.gov/programs/broadband/>

New Mexico Department of Information Technology (DoIT)

<https://www.doit.nm.gov>

New Mexico House Bill 10

<https://www.nmlegis.gov/Sessions/21%20Regular/final/HB0010.pdf>

New Mexico Statewide Middle Mile Network RFI

<https://www.doit.nm.gov/programs/broadband/new-mexico-statewide-middle-mile-network-rfi/>

New Mexico Technical Assistance Program

<https://www.doit.nm.gov/programs/broadband/new-mexico-technical-assistance-program/>

NTIA Digital Equity Planning Grant Application <https://www.doit.nm.gov/wp-content/uploads/sites/4/2022/07/Digital-Equity-Planning-Grant-Application-2022.pdf>

Public Schools Facilities Authority (PSFA) Broadband Program

<https://www.nmpsfa.org/wordpress/bdcp-information/>

Purdue University Center for Regional Development Digital Divide Index

<https://pcrd.purdue.edu/the-state-of-the-digital-divide-in-the-united-states/>

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

<https://broadbandusa.ntia.doc.gov/sites/default/files/2022-05/DE%20PLANNING%20GRANT%20NOFO.pdf>

APPENDICES

[APPENDIX A: NEW MEXICO HOUSE BILL 10](#)

[APPENDIX B: LOCAL BROADBAND PLANNING GUIDE](#)

[APPENDIX C: DONA ANA BROADBAND REPORT](#)

[APPENDIX D: COUNTY BROADBAND BENCHMARK DATA](#)

[APPENDIX E: 2020 BROADBAND STRATEGIC PLAN](#)

[APPENDIX F: ADVANCED EFFORTS](#)

As part of this foundational work, the office has been fortunate to have had significant preliminary efforts made by statewide and regional partner projects. The office recognizes these accomplishments as a critical piece of early statewide digital equity efforts and is working to support these efforts and to document this work within the state Digital Equity Plan.

Doña Ana Broadband Coalition

The Doña Ana Broadband group, a regional broadband coalition based in Doña Ana County, conducted a local broadband survey that provides a granular picture of broadband access and use in this county. The survey was piloted to “provide support for community planning and improvement of broadband access and adoption in the region, while also revealing best practices that could inform broadband community planning and survey implementation statewide. “The survey included a speed test, and these speeds were used to determine levels of service for respondents at their location. Levels of service used standard broadband definitions of 100 Mbps download and 20 Mbps upload, defining only those with 100/20 speeds as “served” and measures below that speed assessed as “underserved” or “unserved”. Anyone with tested speeds of 25/3 or below were considered “unserved” – the equivalent of having no connection. Because the categories of service for these respondents with broadband service were those measured using survey-provided speed tests, they do not give us information about the speeds that are available or subscribed to for that location or household.

Of the 3028 responses that were collected, fewer than half (1474) of the respondents indicated that they had internet service in their homes. Of this group, based on the standard service definitions outlined above, the results indicated that only 8.5% of the population were “served” at speeds of 100/20 or higher. Of the remaining respondents with broadband subscriptions, 91% were either “underserved” or “unserved”. Of all respondents with service, 54% reported speeds lower than a 25/3.

Responses from the Doña Ana Broadband Survey are segmented based on the following definitions:

- SERVED = Service is at or above 100/20 Mbps download/upload
- UNDERSERVED = Service is less than 100/20 Mbps download/upload
- UNSERVED (Low Internet) = Service is less than 25/3 Mbps download/upload
- UNSERVED (NO Internet) = No service is available

Fast and reliable Internet connectivity creates opportunities and provides residents with the ability to access education, business, healthcare, household, social, and entertainment resources, as well as shopping and many other quality-of-life services.

Speed test data gathered from community members WITH Internet access revealed the following:

- 8.5% of respondents were SERVED
(at or above 100/20 Mbps download/upload)
- 37% of respondents were UNDERSERVED
(above 25/3 Mbps download/upload but below 100/20 Mbps download/upload)
- 54% of respondents were UNSERVED
(below 25/3 Mbps download/upload)

Figure F.1: Doña Ana Broadband survey summary data.

For the 1,553 respondents lacking service, 75% identified as Hispanic and the majority reported a household income under \$21,000. Within the entire group, 1,143 respondents identified price as the most significant barrier to adoption, while only 143 respondents noted lack of availability as a barrier to having a subscription. Of the entire pool of those without service, 691 stated that they would consider getting Internet if barriers were removed. These figures strongly emphasize the significant impact of factors other than access in broadband adoption rates. In this, they echo the 2021 American Community Survey Census data in which only 3% of New Mexicans stated access as the reason they did not have a home broadband connection. Moving forward, OBAE is committed to documenting and addressing the critical barriers that financial and other factors create to digital inclusion and equity in the state.

<https://www.donaanabroadband.com/survey-report.html>

The New Mexico Broadband Collective

The New Mexico Broadband Collective “consists of funders and nonprofit organizations committed to ensuring access to broadband in “hard to connect communities” in the state of New Mexico.” Through their funding efforts, six grants have been awarded, four of them to native communities, to address access to, and gaps in, broadband internet service in their communities.

<https://www.groundworksnm.org/broadband-collective>

Public School Facilities Authority

PSFA has been working to “correct deficiencies in broadband infrastructure affecting public schools statewide” since 2015. They are committed to developing and supporting the technology infrastructure needed to support educational institutions and systems throughout the state. They have built broadband access for students and teachers and are working to build a Statewide Education Network (SEN) that will connect students and teachers wherever they are.

<https://www.nmpsfa.org/wordpress/>

Doña Ana Broadband

The Doña Ana Broadband coalition is a public-private regional partnership formed to collaboratively develop and implement a plan to increase access to affordable, efficient broadband, especially to Dona Ana’s underserved communities. In addition to setting a vision and goals, the group partnered with the New Mexico Broadband Program to develop and implement a regional survey in order to “gather community input on a range of broadband factors including access, performance, costs, and training needs within Doña Ana County. The results, which were based on the 3,028 responses collected, were summarized in a report that recommended the need to address multiple factors in order to provide digital equity in the region, including access to and cost of service, cost of devices, public awareness, and digital skills.

<https://www.donaanabroadband.com>

Albuquerque Office of Technology and Innovation

The City of Albuquerque’s broadband initiatives have focused on developing a long-term vision for the future of broadband in Albuquerque to expand access for all residents and businesses. Led by the Department of Technology and Innovation, the city has taken substantive steps to expand broadband access for city residents over the past year. Their efforts include:

- Installation of free Wi-Fi hotspots at distinct city facilities such as community centers, parks, public housing facilities, libraries, and more. The hotspots enable residents to access much-needed government services.

<https://www.cabq.gov/technology-innovation/wifi>

- Agreement to begin construction of a fiber-optic network, to be available city-wide, including underserved areas. Because the project’s internet Service Provider participates in the FCC’s Affordable Connectivity Program (ACP), customers may be eligible for service discounts.

- Hosting the city’s first Internet Resource Fair in October and participation in the Department of Interior’s 2022 National Tribal Broadband Summit.

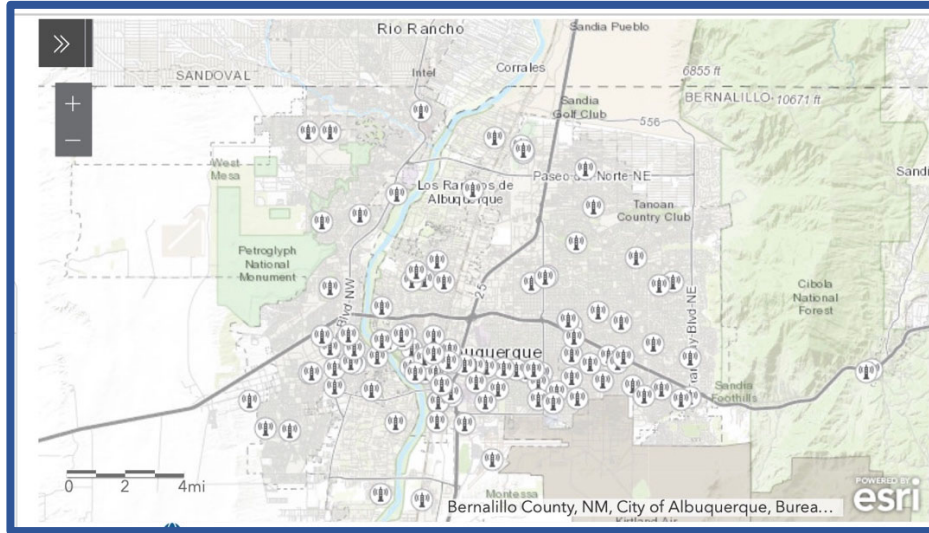


Figure F.2: Map of WiFi hotspots in Albuquerque neighborhood locations.

The office’s efforts are led by a Broadband Program Manager, who leads the city broadband initiatives, analysis, planning, collaboration, education, and implementation, and to work with all stakeholders to expand digital inclusion and adoption.

<https://www.cabq.gov/technology-innovation>