

### A Letter from the Task Force Co-Chairs

We've learned many things about American society as a result of the pandemic, but one overarching lesson is clear -- broadband connectivity is essential in nearly every aspect of people's lives. Access to high-speed internet is critical for students to learn, and, at times, to even attend school; for many workers to do their jobs; for patients to receive quality health care; and for everyone to access government services and resources.

The pandemic revealed more clearly than ever that far too many people lack broadband access, and that lack of access exacerbates the systemic racial and economic gaps we see in other areas. We learned how incomplete and inaccurate our connectivity maps have been and how we have misunderstood the problem. But now we're learning how we can properly evaluate gaps in high-quality internet access and make targeted investments to address them at the federal, state, and local levels.

With the ability to use an unprecedented infusion of federal funding from the American Rescue Plan and Bipartisan Infrastructure Law to address broadband access, states and localities have an extraordinary opportunity to close the digital divide. The Bipartisan Infrastructure Law alone provides \$65 billion through various programs targeted to address the topics highlighted in this report. It is more important than ever to lift up and spread state and local initiatives that can have the biggest impact on expanding access to high-speed internet. In a series of convenings beginning last spring, the Broadband Task Force brought together state and local policymakers who are making progress in closing the digital divide, along with advocates and other nonprofit and private sector leaders with expertise in improving access, adoption, and digital skills attainment.

The initiatives outlined here, which constitute a selection of policy efforts drawn from those discussions, provide a blueprint for how other states and cities can tackle their broadband needs and inequities with new federal funds. We are grateful to all of the participants who helped us understand the key challenges our country faces, offered guidance, and shared best practices. Read on for case studies about improving mapping and data collection, building out new broadband networks, tackling rural connectivity, improving K-12 student access, expanding access to telehealth, and supporting digital skills training.

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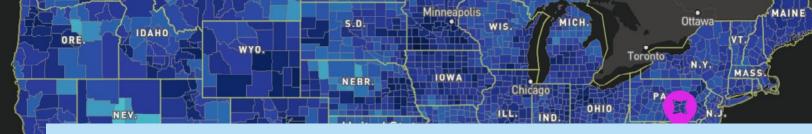
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#### About the NewDEAL Forum:

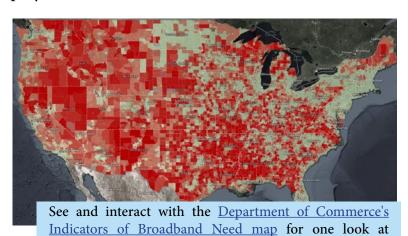
The NewDEAL Forum is a Washington-DC based non-profit organization which identifies and promotes future-oriented state and local pro-growth progressive policies that can improve the lives of all Americans. By facilitating the identification and spread of innovative policy ideas, the NewDEAL Forum seeks to foster economic growth, reduce barriers to opportunity, and promote good government in communities, cities, and states throughout the country.



# Improving Mapping & Data Collection

Current broadband data does not deliver an accurate picture of where households lack connectivity, and does not measure the impact of affordability and other obstacles besides physical access to a broadband connection. Congress passed the Broadband Data Act in 2020 to begin to address these issues by requiring all broadband providers to report more granular data and the FCC to collect and use the data for broadband maps to guide funding. This act is still yet to be implemented, however, and even after implementation, it will still result in our reliance on self-reporting by carriers and providers. The Act also does not require address-level data, nor data on price, speed, or outage. With the leadership of Chair Jessica Rosenworcel, the FCC is finally undertaking a massive effort to revise its maps, but outside input is needed to guide data collection to promote equity.

Policymakers need information about affordability, reliability, and inequities in access to make sound decisions about broadband investments for their communities. State and local elected officials can collect local-level data and create their own maps for their areas. These efforts also create opportunities to collect precise data on speed and pricing, and to overlay that with demographic information to identify gaps and where to focus funding and resources.



broadband availability based on data currently available.

# **Elevating Digital Equity**

At the core of the digital divide is an important fact for policymakers to consider for each topic in this report: lack of broadband access disproportionately impacts individuals and families of color and those whose incomes are below the federal poverty threshold. According to existing research, just 71% of Black and 65% of Hispanic adults have home broadband compared to 80% of white adults. Similarly, over 30% of Black and Hispanic adults do not own a desktop or laptop computer. The lack of internet access can negatively impact health outcomes, employment opportunities, and education attainment. The divide is exacerbated by digital redlining, such as the prevalence of upgrades in affluent neighborhoods and by unconscious biases, for instance, expecting students to have access to high-speed internet at home. In data mapping and in all issues related to expanding access to broadband service, it is essential for officials to identify and reform the policies and investments that create or maintain inequities and ensure that all citizens have equal access to broadband.

### Case Studies

### Florida: Office of Broadband

The Florida Office of Broadband was created by <u>legislation sponsored by Senator Loranne Ausley</u> to ensure broadband investments would be prioritized in the state's budget, and to streamline infrastructure expansion especially in unserved, underserved, and rural communities. The office is building its strategic plan based on public input on broadband availability and speeds. Through the office, the state is investing <u>\$1.5M</u> to <u>fund geographic information system (GIS) mapping</u>, which will "identify where broadband capable networks exist, where service is available to users, and gaps in rural areas, along with download and upload transmission speeds across Florida." In addition, a feasibility study will help leaders understand the nature of the connectivity gap and why it exists.

The Office of Broadband is working with broadband service providers, state agencies, local governments, private businesses, educational institutions, and community organizations, and must confirm that any previously gathered information is "verified and reliable."

### Washington: Statewide Broadband Office

The Washington Statewide Broadband Office has created <u>new maps</u> to identify gaps in high-speed internet service by surveying residents to gather data. The Office conducted a <u>first-in-the-nation survey</u>, soliciting over 44,000 residents across the state to conduct one-minute speed tests. The survey results will assist the state in prioritizing grants and investments in specific areas to reach a 2028 goal of providing high-speed broadband to all residents and businesses.

### Colorado: Broadband Expansion for the Underserved

Colorado Senator Jeff Bridges sponsored a bill to help fund broadband expansion through an improved grant distribution process that prioritizes critically underserved communities, including low-income and hard-to-reach areas on tribal land. The bill requires the broadband deployment board to develop a map identifying critically unserved areas in the state and reference it when reviewing applications. Grant applicants are required to provide more granular mapping data to demonstrate the community needs and to report on how the funds were used to improve speeds, rates, and services.

"Going to school these days requires books, backpacks, and broadband. Especially after this last year, more and more of our economy is online, and we have an obligation to make sure every Coloradan can participate in that economy. Connecting unserved and underserved communities to high-speed reliable internet creates more opportunity for everyone, and increases statewide equity and prosperity for all of our families."

Colorado State Senator Jeff Bridges

# Building New Broadband Networks



Improved mapping and data will reveal that some communities have an especially poor availability of service, with limited service options, inadequate speeds, and prohibitively high costs. To reach these users, new broadband infrastructure is necessary, but building out this infrastructure can be costly. Reaching these communities also requires middle mile expansion, or expanding infrastructure that does not connect directly to an end-user location, which is often given lower priority in funding decisions. Leveraging federal

funding for middle-mile expansion and public-private partnerships, as well as investing in ongoing network maintenance, is essential to building out networks for the long-term.

For many rural communities, connecting households to the internet presents a unique set of challenges. The cost of extending networks to rural households is often much higher, which is a major reason that some rural areas remain unconnected. Often, other obstacles arise as well: rural households may be physically more difficult to connect due to terrain or because of property rights that make it challenging to lay fiber or other required infrastructure.

Maryland Delegate Brooke Lierman expressed the need to communicate the benefits of broadband to rural residents, and to educate them on the importance of digital skills in the modern economy. Where a household may block the construction of broadband infrastructure that needs to cross their property lines, education and communication are key tools in overcoming resistance to this lifeline for people beyond their property lines.

Insights from the Electeds

**Florida Senator Loranne Ausley** stressed the importance of educating legislators on the need in rural areas to ensure funding goes to extending broadband to those communities. Those living in well-connected areas may not always be aware of the situation in rural areas, or they may not understand that these areas do not necessarily have mobile or mesh networks to fall back on.

### Case Study: Infrastructure Investments in Brownsville, TX

Brownsville, the 16th largest city in Texas, was one of the most economically depressed areas in the United States, as well as one of the least connected. In October 2019, newly-elected Mayor Trey Mendez

assembled a task force to take on the connectivity problem. The task force hired a consultant to assist with the process, with the ultimate goal being an end to the digital divide in Brownsville. Their first step was to conduct surveys and collect information on connectivity, which was used to create maps that identified where infrastructure was lacking. Mayor Mendez prioritized building out a fiber network to ensure the city's network would be sustainable long-term, rather than cheaper and easier solutions like investing in hotspot and mobile access, but understood that the cost would be significantly greater.



Mayor Trey Mendez

The funds available via the American Rescue Plan proved to be a major opportunity for the infrastructure build-out. With help from the Bloomberg Pilot Program, the city was able to use local maps to show need and to navigate ARP requirements to qualify the broadband project for federal funding. In 2021, the city commission approved \$19.5 million in ARP funds for the Middle Mile Broadband Initiative, which is building 90 miles of infrastructure to bring quality connections into Brownsville homes. Brownsville will partner with a third party to provide last-mile connectivity to the community. This will make broadband more accessible and affordable. Focusing on middle mile projects will address the needs of underserved communities that face barriers to access such as prohibitive costs and unreliable and overburdened connections. These projects add bandwidth and resiliency to existing networks, reduce costs for consumers, and help cities develop the infrastructure needed for last-mile projects.



Mayor Mendez highlights the importance of partnerships to add technical know-how to building new infrastructure, saying, "Unless you're in the industry, you're not going to really know a lot about how this works."

The Middle Mile Broadband Initiative is estimated to be completed in 2023, and the program is prioritizing fast speeds for both download and upload, which is important for households with multiple users. The program is expected to turn a profit five years after its completion.

### Additional Case Studies

### Maryland: Office of Statewide Broadband

The office was established in 2021 by a bill introduced and championed by Maryland Delegate Brooke Lierman. One of the office's many goals is to assist local governments by making funding available to help cities reach those still unconnected or struggling with poor connectivity. The state office defines what is considered high-speed but allows local governments to determine how they want to expand their network. Local governments can pursue partnerships with local providers or build their own network with fiber cables, hotspots for a mesh network, or other solutions.

### Colorado: Legislation Directing Funds to Rural Areas

Legislation modified the broadband fund structure to ensure that sufficient funding would be available for the many rural communities difficult to reach due to mountainous terrain or other geographic variability. Now 60% of funding must target rural areas. Senator Kerry Donovan and Representative Dylan Roberts sponsored legislation that authorized utilities with an easement on private property to install broadband capacity or lease excess capacity of any existing fiber optic line for broadband use. The law was necessary to provide flexibility in leveraging established transmission corridors to support rural communities.

### **Indiana:** Broadband Ready Communities Program

The <u>Broadband Ready Communities Program</u> outlines the necessary procedures communities need to take to help streamline and accelerate new broadband projects. This includes removing potential barriers such as rights-of-way disputes and establishing a collaborative environment with other government agencies for rapid broadband deployment.

## Federal Highlight

As part of the Bipartisan Infrastructure Law, Congress and President Biden have approved a historic \$65 billion investment in expanding broadband access, including \$42.5 billion for broadband deployment, \$14.2 billion for the Affordable Connectivity Program (ACP), and \$2.75 for digital equity programs. The ACP replaces the short-term Emergency Broadband Benefit and provides a long-term assistance program with a \$30-\$75 monthly stipend available to help qualified families to pay for home internet service.

Through the <u>Broadband Equity</u>, <u>Access</u>, <u>and Deployment Program</u>, each state will receive an initial \$100 million grant to develop a 5-year plan to identify their needs and how funds will be utilized. The remaining funding will be allocated by a formula that factors in the number of unserved and high-cost locations as determined by the FCC's broadband data maps. The law requires states to prioritize funds to provide reliable high-speed internet to all unserved locations, many of which are rural communities, with additional funds available to support projects in underserved areas, followed by community organization, such as schools and libraries.

# Innovating to Address Affordability and Adoption

The quality of existing and new broadband infrastructure only matters if people have the means to connect to it. COVID has exacerbated existing barriers, as families and students quarantining at home struggled to remain connected to school, services, and work. A 2020 study by All4Ed found that 16.9 million children didn't have high-speed home internet before the pandemic, and 7.3 million children didn't have a desktop, laptop, or tablet computer. According to EducationSuperHighway, 18 million unconnected households, or 47 million people, have access to internet service but cannot afford to connect. As the organization notes, disconnected families and individuals often are unaware of what's available, do not trust in the government and providers, and have difficulty enrolling in programs. Targeted investments based on data and in partnership with trusted community groups are necessary to help overcome these barriers and reach disconnected families and students.

### Case Study: Free Apartment WiFi in Oakland, CA

#OaklandUndivided, the City of Oakland's initiative to connect every student, partnered with Education SuperHighway to successfully pilot a replicable model of providing free WiFi to disconnected students and tenants in five subsidized low-income apartment buildings. The initiative involves installing and maintaining a single WiFi network for the entire building, similarly to a hotel, at a low monthly cost for the landlord and no cost to the residents. Education SuperHighway and the city plan to expand the program by leveraging Mayor Libby Schaaf's investment of CARES Act funding to improve the city's broadband infrastructure.

Additionally, #OaklandUndivded, in partnership with Education SuperHighway, is establishing a broadband adoption center to provide one-on-one support and enrollment assistance programs to minimize the amount of information necessary to sign up for the apartment WiFi and other available resources, including the <u>Affordable Connectivity Program</u>. Local leaders played a key role in raising awareness of the ACP's monthly broadband stipend by using their platforms to coordinate messaging efforts and reach their constituents. These combined efforts have led to widespread adoption from residents and a significant increase in the percentage of students connecting to the internet.

Learn more about Education SuperHighway's work that has resulted in agreements with 130 providers covering 90% of U.S. households and school districts, teaming up with these regional and national providers to confidentially share information to identify students without broadband at home, and enabling states and school districts to purchase internet services for families through sponsored service agreements. EducationSuperhighway plans to work with cities around the country to take advantage of the federal funding available to fund Free Apartment WiFi and Broadband Adoption Centers.

### Additional Case Studies

### Clark County, NV: Internet for Students

The Clark County School District in Las Vegas, NV <u>collaborated with local organizations and service providers</u> to contact every student and established a virtual family support center to provide resources to get them online.

They reached an agreement with service providers to provide no-cost internet to families and mobile hotspots to large families that required more bandwidth, those located outside of the service area, and those facing housing insecurity and homelessness. A robust outreach campaign raised awareness of the available services and a call center coordinated with schools to conduct targeted outreach to unresponsive families, first calling and then going door-to-door to reach the disconnected students.

### New Castle County, DE: Free WiFi and Device Lending

County Executive Matt Meyer helped expand the county's free wireless broadband connection spots program. This initiative started in <u>library parking lots</u> and has now grown to include <u>all county facilities and parks</u> through partnerships with a range of service providers. The expansion effort was quickly approved and enacted within a single week to help meet the growing connectivity needs in the community during the pandemic. New Castle County partnered with county libraries and the state to use American Rescue Plan funds to start a <u>device lending program</u>, allowing residents to borrow Chromebooks and WiFi hotspots for a week at a time. New Castle County has also upgraded WiFi accessibility at the <u>Hope Center</u>, a hotel-turned-homeless shelter established as an emergency shelter during the pandemic, and purchased chromebooks for guests to use until they transition into permanent housing.



#### San Jose, CA: Public-Private Partnerships

San Jose, CA Mayor Sam Liccardo has launched a public-private partnership with <u>an open-source blockchain-based IoT network</u> to enable impactful smart city applications while also reducing the cost barrier to broadband access for San Joseans. This initiative will use the proceeds from cryptocurrency tokens mined through hotspot devices on the Helium LoRaWAN network to fully subsidize low-cost internet plans for households whose



incomes are below the federal poverty threshold. The California Emerging Technology Fund has purchased 20 Helium-compatible Hotspots to deploy at volunteer residences and small businesses. Once a device is up and running, it begins to mine Helium cryptocurrency tokens (HNT). During its pilot period, the program aims to cover the expenses of low-cost internet plans for over 1,300 qualified households for one year by providing participants with a one-time \$120 payment.

The Mayor has made public-private partnerships a cornerstone of the city's comprehensive broadband affordability efforts. Another example has involved working with <u>SmartWave Technologies</u> to deliver community WiFi to solve some of the city's last-mile connectivity issues, with more than 100,000 residents reached so far and another 300,000 set to be connected by summer 2022.

# Promoting Digital Skills

Increasing access and connectivity to broadband is not enough to ensure individuals are fully utilizing the internet to meet their personal and professional goals. As more and more aspects of jobs and everyday life move online, it is essential that resources be made available to help individuals gain the digital fluency and skills needed to navigate current and future technologies. A report by the U.S. Department of Education found that over 32 million adults lack basic digital skills, such as using basic computer commands and input and output devices and the ability to think critically about electronic texts and data. The skills gap cuts across generations, with nearly 58% of millennials lacking digital problem-solving abilities. While many white adults lack these abilities, the need for training is more concentrated in communities of color: 22% of all Black adults and 35% of all Hispanic adults currently need digital skills training. Training programs should prioritize targeted programming to reach communities of color by partnering with community groups equipped to understand the varied needs of this population. These skills are essential, as they are an on-ramp to workforce development as well as the ability to use broadband for things like healthcare, entrepreneurship, and more.

### Case Studies

### **Tennessee:** Training Opportunities for the Public

The <u>Training Opportunities for the Public program</u>, administered by the Tennessee State Library and Archives, provides up to \$20,000 for local libraries to improve access to technology through digital skills training.

#### **Tallahassee, FL:** South City Tech Learning Hub

In Tallahassee, Florida, the <u>South City Tech Learning Hub</u> provides internet access and technical assistance to build skills and address the needs of students, workers, parents, and older adults.

#### Washington: Digital Navigators

In Washington, the <u>Washington State Broadband Office awarded \$7 million</u> to fund four digital navigator programs throughout the state. These programs will provide targeted populations with one-on-one support to get connected and additional resources and trainings to gain the digital skills they need.

### Michigan: High Speed Internet Office

Michigan established the <u>High Speed Internet Office</u> through executive directive to coordinate and streamline the state's efforts to expand internet access and provide direct assistance to individuals. The Office acts as a clearinghouse and single point of contact to coordinate various private and public initiatives as well as providing one-on-one support. This initiative has found success in connecting constituents with services, such as their health navigators, and has also helped to empower and educate residents to utilize the internet to meet their needs.

### Case Study: Digital Navigator Programs

According to Digital US, fewer than 10% of adults who need additional digital skills are accessing training. While leaders are making historic investments in expanding access to broadband, many families with home internet are not ultimately utilizing it to address their needs. This is caused in part by a lack of access to adequate devices and the absence of available, high-quality training programs. Further complicating the issue, over half of Americans have reported being uncomfortable using technology to learn.

Leading a diverse coalition of partners, Digital US designed the digital navigator program with funding from Walmart to train staff and volunteers to support learners by providing just-in-time, individualized support for accessing devices, navigating the internet, and teaching other relevant digital skills, with flexible options to participate. The program is designed to be easily replicated and scalable, and Digital US and their partner, the National Digital Inclusion Alliance (NDIA) published <u>best practices</u> and additional resources to help establish new programs or strengthen existing ones.

### Examples of Digital Navigation Services in Communities:

NDIA conducted a digital navigator pilot program in partnership with <u>Salt Lake City Libraries and the Urban Libraries Council</u>, embedding digital navigators within trusted community groups. The program found success when it provided training at multiple, easily accessible locations while also ensuring navigators could be available to work either remotely or in-person and at times that matched with participants' availability. Once training begins, it is critical to accompany that work with investments in access to devices



and to ensure that navigators are familiar with the range of programs that help disadvantaged residents acquire an internet connection. As of July 2021, the Salt Lake program reached 558 individuals and provided over 150 devices and 24 hotspots.

Ramsey County's TechPak program gave out 2,150 Techpaks to residents of Ramsey County in Minnesota affected by COVID through a lottery system. Each TeckPak included a laptop, hotspot, free wifi for a year, printed easy-to-understand guides in five languages, and access to digital navigation services.

Sitting Bull College, a postsecondary educational institution on the Standing Rock Reservation located in southern North Dakota and northern South Dakota, launched its Digital Navigator program by deploying AmeriCorps members to assist learners pursuing GED preparation online. Their Digital Navigators have supported learners by onboarding them to loaner devices, setting up emails, and familiarizing them with software and online programs such as Microsoft Office.

Digital US's mission is to create sustainable solutions to help individuals build digital resilience and obtain the skills to navigate current and future barriers to utilizing technology. The EdTech Center @ World Education serves as the backbone organization for the Digital US coalition.



What largely started out as a way to better serve rural communities, telehealth has developed into an essential lifeline for many during the pandemic. The rapid growth in use of telehealth (38 times higher than pre-pandemic use) is breaking down barriers and increasing access to care for many, including those impacted by transportation, work, and childcare constraints. Practitioners have seen more people taking advantage of their healthcare benefits, leading to better health outcomes such as early disease diagnosis, fewer missed appointments, and more consistent adherence to treatments. Concerns remain about how to ensure fairness in costs, access, and quality of services so that these improved outcomes can be felt equitably across the country.

### Case Study: Measured Telehealth Expansion in Connecticut

During the height of the pandemic, with shelter-in-place orders and hospitals at capacity, many patients were deferring their routine healthcare needs. To address the growing access issue, Governor Ned Lamont took bold action and signed an executive order to expand the use of telehealth. A long-debated issue in the state, leaders had to contend with potential issues concerning equity of access for those with limited technology and ensuring privacy and security while also protecting patients against scams and abuse. Additional concerns focused on allowing for geographic flexibility, and ensuring pay parity would allow patients to use their health insurance without facing overcharges for substandard care.

The Connecticut General Assembly met in a special session to codify the emergency telehealth expansion and <u>subsequently passed a bipartisan extension for an additional two years</u>. Provisions to improve access to care include allowing for audio healthcare as an option for those who may not have the devices or digital skills to access video care. In addition, the state now offers an expansive list of providers who can meet

remotely, such as physical therapists, dentists, behavioral therapists, and more. Additionally, the Connecticut law removes geographic restrictions, so patients can meet with out-of-state providers that best meet their needs. Another key provision provides pay parity and requires insurers to cover reimbursement expenses. State leaders are also optimistic that telehealth will provide a long-term option for patients but are taking a measured approach to their telehealth expansion. The short-term authorization will allow leaders to review and evaluate the program for any unintended consequences.

"I feel very proud of the law that we passed. Many of our community health providers and local health departments are glad to have this law. They are not only attracting new patients, but existing patients, who sometimes miss appointments or would skip appointments for any number of reasons, are now able to make their appointments and have healthier outcomes."

Connecticut Senate Majority Leader Bob Duff

### Additional Case Studies

### Virginia: Medical License Reciprocity

Delegate Kathy Tran authored a <u>bill</u> requiring the Virginia Department of Health to report on the <u>feasibility of establishing medical license reciprocity with neighboring states</u> and on establishing a <u>Medical Excellence Zone Program</u> to utilize telehealth in rural communities. Both reports confirmed the viability of each policy and laid out recommendations to implement these efforts. Currently, the Virginia Legislature is considering a <u>bill</u> to codify license reciprocity with Maryland and the District of Columbia, while at the same time each entity's Board of Medicine is in support and meeting to work on implementation.

### **Delaware:** Expanding Telehealth

Senator Sarah McBride sponsored <u>legislation to extend and expand telehealth in the state</u>. The law includes provisions, such as audio-only options and a waiver for initial in-person visits, to expand access for those with disabilities and individuals in rural communities with limited access to broadband. In addition, the law enters Delaware into the Interstate Medical Licensure Compact with other participating states. This is a key provision for small states, allowing providers to easily obtain medical licensure in other states and increasing patient access to see specialists.

"A single working mom will be able to better communicate with her provider after hours. People with disabilities will face diminished barriers to care."

Delaware Senator Sarah McBride



