

LOUISIANA DRAFT DIGITAL EQUITY PLAN

MAY 2023



ConnectLA

Louisiana Office of Broadband Development and Connectivity

MESSAGE FROM CONNECTLA

Many assume the key to eliminating the digital divide is simply providing residents with the infrastructure to access the internet. However, if there is anything that the last two years has taught us, it is how flawed that line of thinking really is.

The most important thing we want to emphasize to stakeholders is that the digital divide is not a monolith. Each of Louisiana's 64 parishes and hundreds of communities has its own unique challenges. Farmers have different barriers from educators, and educators have different barriers from tribal communities. We have even compiled many of these stories throughout the years and published them on our website, connect.la.gov, and will be sharing even more over the next few months to highlight this challenge.

We are extremely grateful for the community, academic and governmental leaders throughout the state who have opened their doors to us and shared how the digital divide is affecting their communities. To tackle these obstacles and create our first digital equity plan, we have partnered with a wide-ranging coalition, including Higher Education Commissioner Kim Hunter Reed and the Louisiana Board of Regents, Dr. Stephen Barnes and the Blanco Public Policy Center, colleges and universities such as Southern University and Grambling University and planning commissions throughout the state.

ConnectLA would greatly appreciate your feedback on our plan, and the form to submit suggestions can be found at connect.la.gov under the "Comment" tab. The deadline to submit feedback is July 7, 2023. We will also be mailing paper copies of this plan to local libraries throughout the state for residents to view.

Please do not hesitate to contact us at connect@la.gov if you have questions or need clarification on any points. Thank you for your continued dedication to our mission, and we look forward to hearing your thoughts.

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DRAFT

1. Plan Summary

2. Introduction and Vision for Digital Equity

This plan outlines Louisiana's first coordinated effort to assess the state's digital divide and move Louisiana toward digital equity. According to the National Digital Inclusion Alliance (NDIA), the digital divide is the gap between those who have affordable access, skills, and support to effectively engage online and those who do not (National Digital Inclusion Alliance, n.d.). Addressing this gap will move Louisiana toward digital equity, which means that all individuals and communities have the information technology capacity needed for full participation in our society, democracy, and economy.

2.1 Vision

Louisiana's vision is that digital equity will be achieved for all residents and communities. Digital equity for Louisiana means that all residents will have access to affordable broadband, opportunities to obtain the appropriate devices, accessible applications, and support to acquire the digital skills needed to improve their quality of life. By 2029, the necessary structures will be in place to sustain Louisiana's work toward digital equity for all Louisianans.

2.2 Alignment with Existing Efforts to Improve Outcomes

Achieving digital equity will require alignment with public and private sectors and collaboration between local and state governments. While this is the first, comprehensive digital equity plan in Louisiana, various cities, parishes, and planning entities have touched on digital equity-related issues in their strategic plans. To overcome the digital divide that Louisianans face, collaboration across various public, private, and community entities is necessary. Digital equity barriers must be addressed, especially where those barriers disproportionately affect underserved populations across the state.

Here we discuss how existing plans can align with this digital equity plan and the ways in which digital equity can improve outcomes related to these five areas:

- Economic and workforce development
- Education
- Health
- Civic and social engagement
- Delivery of other essential services

2.1.1 Economic and Workforce Development

The digitization of the contemporary workforce has amplified both opportunity and inequality in the workplace. The increasing demand for digital skills in the job market requires workers to have digital literacy and comprehension. This trend is becoming more prominent with recent research indicating that over 80% of middle skill jobs require concrete digital skills.

Rapidly changing technology requires quick adaptation from workers. The ratio of computer-based tasks to in-person tasks is rapidly changing with research showing that by 2025, 50% of work tasks will require digital skills. Existing skill sets are becoming obsolete at an ever-increasing rate. Workers across the economy require a baseline of digital skills and the ability to adapt and re-learn to remain competitive in both current and future jobs.

Louisiana's current plan to expand broadband infrastructure will require a corresponding rapid expansion of workers to build the infrastructure and maintain the service.

As the state's agencies overhaul their own processes to reflect current technology, digital skills of both workers and beneficiaries of these agencies become paramount, making collaboration between innovation and digital skills training beneficial to all sectors of Louisiana's economy.

Stakeholders report positive outcomes when digital training is provided in the workplace and suggest further incentives can improve participation, eliminating the need to outsource services that require digital literacy.

2.1.2 Education

The role of technology in today's education system is vital. Technology-based teaching tools are now critical for a student's educational success. Areas of digital inequity include lack of technology, lack of access to internet services and lack of digital skills within the student population. In Louisiana, 80,000 students in K-12 education are without a computer or internet access at home. Where programs to address this divide exist, information technology staff are needed to guide students and parents when using digital technology.

While 97% of enrolled postsecondary students reported having a computer and internet access, the remaining 3% represents 17,000 students without either. The major barrier to this advantage being the expense of technology and internet access. Gaps in digital skills further exacerbate the digital divide even when access to technology is presented through libraries and other sources.

The large demand for digital skills in the workforce emphasizes the importance of teaching digital skills in both K-12 and postsecondary education. This is borne out by reports from stakeholders who highlighted the need for a larger role for digital skills in education.

Programs and initiatives addressing digital equity in K-12 and postsecondary education include:

- FCC's E-Rate program, providing technology discounts from 20 to 90 percent to qualifying schools and libraries
- Louisiana Department of Education's (LDOE) 2022 Education Technology Plan, presenting strategies to integrate technology in the state's school systems, with the goal of increasing digital education and providing internet access to every K-12 student.
- COVID-19 pandemic legislation, passed in December of 2020, allocating \$8 million to LDOE to procure 23,000 Chromebooks for public school students.

- Louisiana Statewide Digital Inclusion Pilot, reducing the percentage of residents who lack digital skills
- Northstar Digital Literacy Program, available at many postsecondary and libraries across the state to provide digital skills assessment and online digital skills classes
- WorkReady U, providing digital literacy instruction embedded in other education programs
- Louisiana Optical Network Infrastructure (LONI), providing a network connecting the state's research universities
- The LCTCS's Louisiana Infrastructure Skills Academy, increasing accessibility to digital literacy training programs with campuses across the state, including rural areas and open enrollment with a diverse student body

There are numerous opportunities across Louisiana's the four postsecondary systems (Louisiana Community and Technical College System, Louisiana State University System, Southern University System, and University of Louisiana System). These institutions provide a range of degree and non-degree programs and credentials that prepare students for careers in technology and the technology-based aspects of jobs across the economy.

2.1.3 Health

Access to highspeed broadband is an integral component in both public health and health care. To improve health care practices, health services researchers, clinicians, and other health care professionals have been implementing and expanding the use of information technologies and telecommunications. Telehealth lies at the intersection of these efforts due to its reliance on both mainstream and innovative technologies. Telehealth provides health care access to underserved communities and reduces the overall cost of health care.

Louisiana suffers from a health care professional shortage, especially in rural areas. The use of telehealth can help make up for that shortage. Unfortunately, many of the underserved populations that would benefit most from these innovations in health care reside in areas with limited or no access to broadband or lack the devices, familiarity, or digital skills to take advantage of these options.

Given that the inability to access high speed broadband intersects with other social determinants of health, many national organizations are characterizing broadband access as a “super determinant of health.” When combined with other determinant factors and cost as a further barrier to access, digitally isolated communities are more susceptible to worse health outcomes.

Research efforts such as The FCC's Connect2Health Task Force will help planning agencies target areas and populations with the greatest needs.

In Louisiana, many providers are now offering telehealth services and working to expand access. Pilot programs working to bring access to underserved populations show promise and

may be a guide for future programs. Large gaps in service areas and uneven digital skills will continue to challenge future efforts and should be considered as programs move forward.

2.1.4 Civic and Social Engagement

The state's digital equity plan can play a strong role in accomplishing goals and producing desired outcomes with respect to civic and social engagement. During the outreach conducted to learn about the digital equity challenges, barriers, assets, and resources available across Louisiana, over a hundred individuals representing non-profit and local organizations participated. These participants included leaders of local foundations, volunteers with organizations such as United Way or 100 Black Men, and others involved with organizations that have an interest in improving digital equity in Louisiana.

2.1.5 Delivery of Other Essential Services

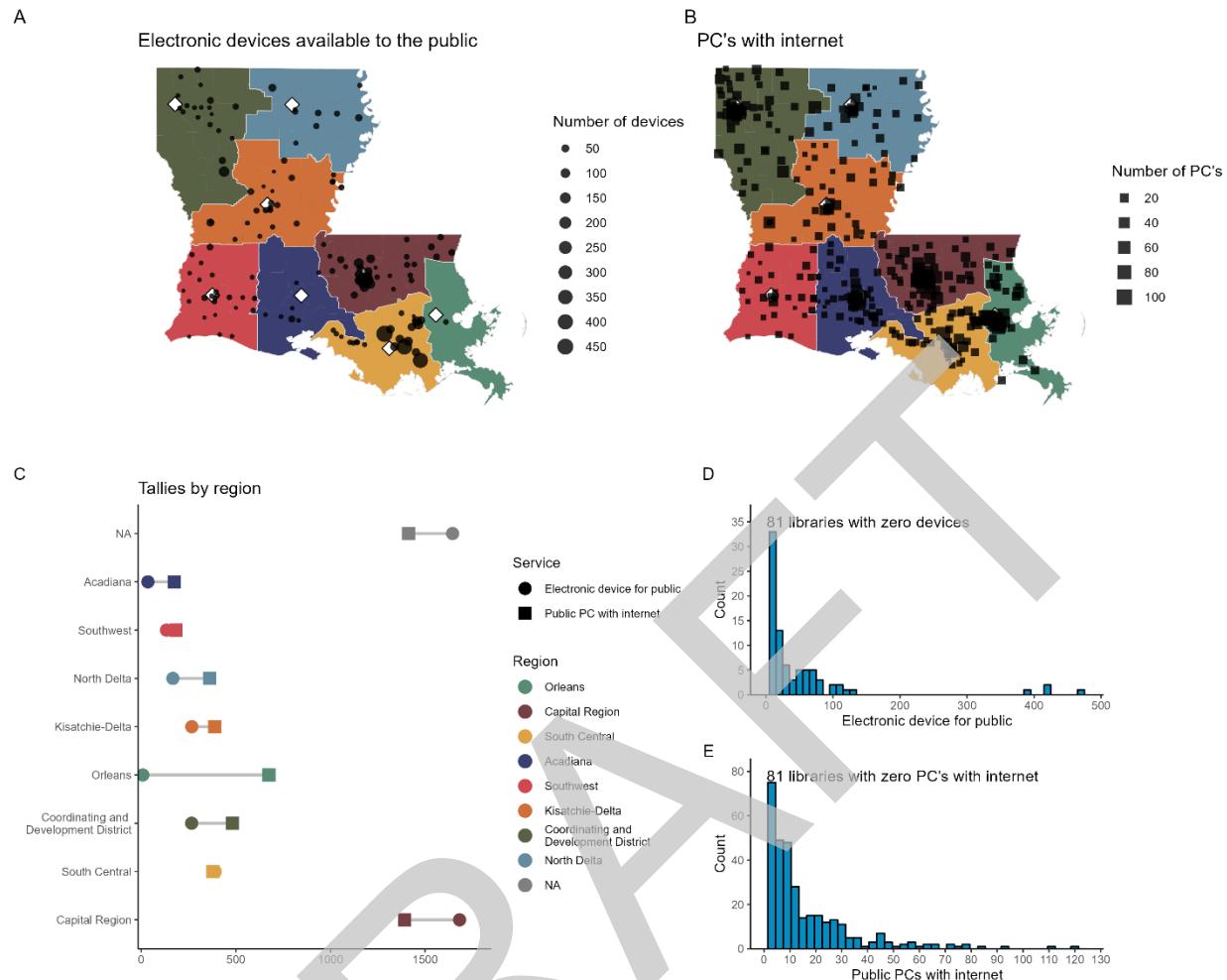
2.1.5.1 Libraries

Public libraries play a substantial role in providing digital access and encouraging adoption of internet use, which impacts the education, health, and vitality of surrounding communities. Libraries meet a critical need across Louisiana. A 2021 Pew Research survey found that “26% of respondents reported they usually need someone else’s help to set up or show them how to use a new computer, smartphone or another electronic device.” Participants in stakeholder engagement events described how libraries meet much of this need in their daily activities.

Libraries can meet learners where they are and help learners grow technological skills at all stages, with a wide range of educational opportunities. Libraries’ longstanding partnerships with a broad and varied group of trusted community organizations make them ideal for reaching underserved, remote, or specific communities (e.g., programs aimed at non-English speaking communities or older adults).

Some programs and initiatives to address digital equity in libraries include:

- Free internet available at all libraries and wi-fi hotspot available to check out at many libraries.
- Most libraries have desktop computers available to use at the library and electronic devices (e.g., tablets, laptops) available to check out (see Figure 2.2).
- Librarians at all locations provide digital support for patrons. This assistance can vary from a traditional classroom setting, individualized one-on-one coaching, or overall technology assistance.
- The Louisiana Statewide Digital Inclusion Pilot program is a one-year effort at five libraries to address digital inclusion needs in Louisiana. This program has an emphasis on digital skills and includes 65 professional librarians and other staff designated to serve as digital navigators and improve digital inclusion programming.



(Figure 2.2) Distribution of desktop computers with internet and loaner electronic devices

2.1.5.2 Other Agencies

Other agencies across the state have goals aligned with the Louisiana Digital Equity Plan. These include public and internal facing programs. An example of an internal-facing initiative is the requirement for cybersecurity training for state employees. Another example is a goal of securing the technological infrastructure to allow state agencies to respond to crises across the state in a timely manner.

Improving externally facing digital services is a key component of improving delivery of state services to Louisiana's citizens. One example is the use of applications, websites, and social media by the state's Court System to make legal processes more accessible. Most other agencies have plans in place or are currently implementing plans to improve their strategies for providing accessible electronic services.

3. Current State of Digital Equity: Barriers and Assets

3.1 Overview of Broadband in Louisiana: Review of Access & Affordability

This section explores the gap in broadband adoption in Louisiana by comparing available data from the U.S. Census Bureau, the Federal Communications Commission (FCC), and other sources on access and affordability of broadband subscriptions. Broadband access and affordability are not the only factors influencing broadband adoption, but they are the primary hurdles that must be passed before an individual can adopt broadband. Other factors like capability and trust also have an impact on the individual decision to adopt broadband, but these influences are more subjective in nature and difficult to measure at the population level.

Broadband access refers to whether or not reliable broadband service is physically available in an area. Louisiana has defined broadband as a connection that provides speeds of 100 Mbps download and 20 Mbps. However, with technology continuing to evolve, a common definition has not yet emerged. The highest quality data available on internet service comes from the U.S. Census Bureau through the American Community Survey (ACS), which defines internet access based on the technology of delivery (i.e., cable, fiber optic, DSL, cellular, satellite, or another service other than dial up). By limiting those options to cable, fiber optic, or DSL, this report uses ACS data to provide the best available measure of broadband availability and adoption.

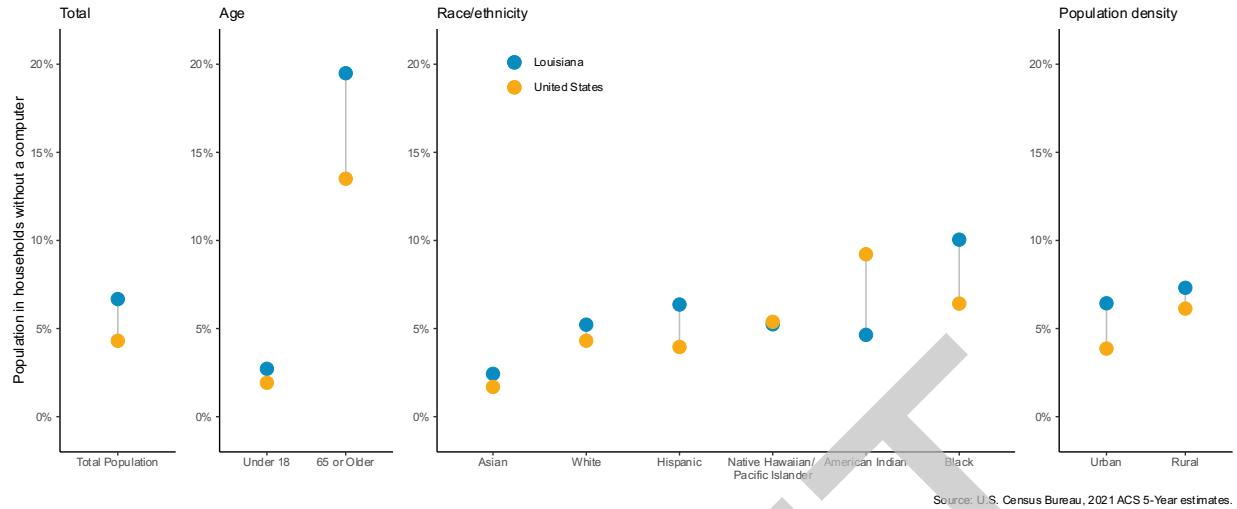
According to ACS data, broadband access in Louisiana falls short of the national average: 85.1% of Louisiana residents have broadband connections, whereas the national average is 89.9%. Furthermore, there are noticeably large disparities between rural and urban regions in Louisiana, with the former having lower levels of accessibility than the latter by a large margin.

3.1.1 Affordability

The rate of household broadband subscription aligns well with income brackets with the share of households with a highspeed internet subscription generally increasing as income levels rise. Louisianians in higher brackets were far more likely to have a broadband subscription with 93.9% of those earning \$75,000 or more having a subscription compared to less than 70% having a subscription among those earning less than \$20,000. Related to the affordability challenges, Louisiana has made significant progress in supporting public awareness of financial support programs for broadband with enrollment in the Affordable Connectivity Program reaching 430,028 as of May 2023. Many more individuals and families are eligible and there is continued work ahead to increase awareness and encourage participation.

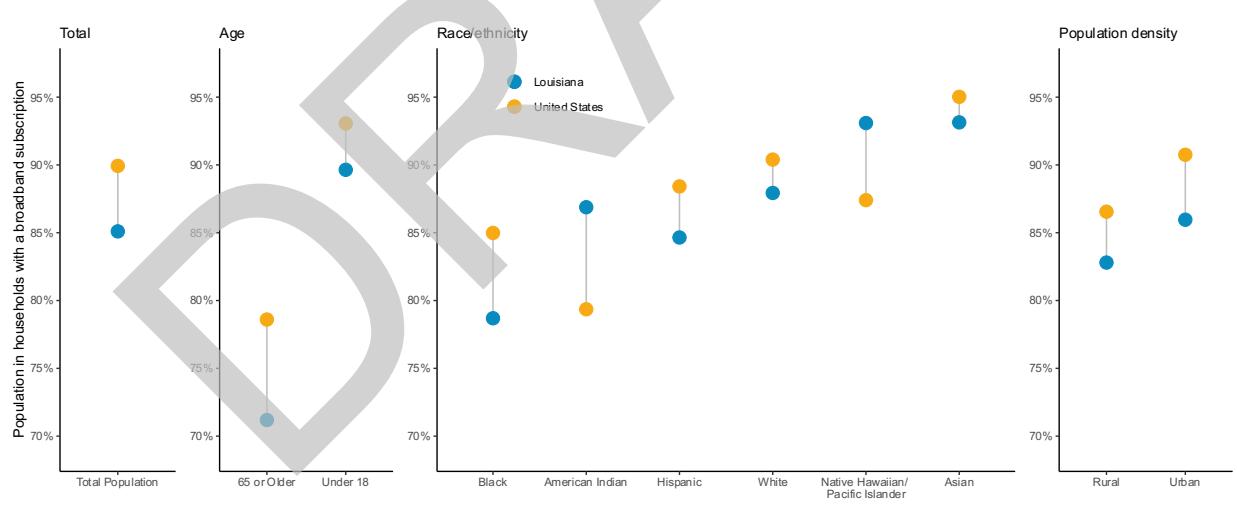
3.1.2 Adoption by Covered Population

The adoption of broadband internet subscriptions is evaluated using ACS data including information based on age, race and ethnicity, and population density. Two proxies are used to measure broadband adoption: household internet subscriptions and access to internet-capable devices. While most Louisiana households have some type of internet-capable device, there are large disparities based on age, with almost one in five older adults lacking such access. Racial disparities also exist, with Black Louisianians being far less likely to own an internet-capable device than any other group. Louisianians of all races and ages, except for the Census category for "American Indians" (Native Americans), were less likely to own an internet-capable device than national averages would suggest.



(Figure 3.10) Share of populations in households without a computer in Louisiana (blue) and the United States (yellow) by group.

Data on broadband subscriptions show similar patterns with most covered populations including large disparities by age and race, with Black Louisianians being far less likely to have a broadband subscription than other race/ethnicity groups. Most covered populations in Louisiana have lower rates of broadband subscription than is the case nationally, except for American Indians and Native Hawaiian/Pacific Islander, which are more likely to have a broadband subscription than those same populations at a national level.



(Figure 3.11) Share of populations in households with a broadband subscription in Louisiana (blue) and the United States (yellow) by group.

Finally, trends across urban and rural parishes are reviewed showing that the state's fourteen urban parishes have much more robust digital infrastructure than the remaining parishes and also have much higher rates of broadband subscription.

3.2 Needs Assessment and Asset Inventory

Achieving digital equity requires an understanding of the barriers and challenges that covered populations endure to acquire full access to the benefits of broadband connectivity.

Engagement activities with stakeholders across Louisiana illustrate that covered populations in all parts of the state face complex barriers and challenges centered around the following core themes: broadband affordability, access, and digital skills attainment. Each of these themes requires unique intervention strategies and programs to ensure that they do not impede Louisianians' ability to access broadband, devices, or use technology.

Several programs were highlighted repeatedly by multiple stakeholder groups and provide broad support for moving Louisiana toward digital equity. Two federal programs, the Affordable Connectivity and Lifeline programs, aim to address the issue of broadband affordability. Louisiana's Granting Unserved Municipalities Broadband Opportunities (GUMBO) program targets broadband accessibility through grants to internet service providers to increase areas where high-speed internet is available. The Northstar Digital Literacy Program focuses on digital skills. Together, these programs provide a much-needed safety net for digital access for all covered populations. Additional programs provide support for specific groups of Louisianians.

3.2.1 Aging individuals

Louisiana has growing population of aging adults. From 2010 to 2021, the proportion of adults over the age of 65 increased from 12.1% of Louisiana's total population to 15.5%. Older adults in Louisiana face unique challenges when it comes to digital equity. They are less likely to have adequate access to both a reliable internet connection and devices to access the web.

Estimates show that 28.8% of the 65-and-over cohort in Louisiana lacked home access to a broadband internet subscription and that 19.5% likely do not have a computer in their home. Compared to the rest of the United States, older adults in Louisiana are less likely to have a broadband subscription and more likely to not own a computer.

Challenges and Barriers for Older Adults

Much like the challenge of affordability that faces all low-income residents, older adults report affordability as a common challenge, especially among those on fixed incomes. Lack of digital skills and hesitancy to adopt new technology are also notable challenges among older adults. Based on stakeholder input, older adults in Louisiana report unfamiliarity with the basics of digital skills more than any other group. Limitations like poor eyesight, motor functioning, and mobility can also make it difficult to use certain devices or travel to locations where digital access or learning resources are available. Despite these challenges, this covered population has considerable diversity when it comes to digital skill levels. On average older adults who report having good financial status and more experience using computers also report higher ability levels when using personal computers. Furthermore, older adults in the 65–74 report having a better understanding of newer smart devices and emerging technologies than those age 75–84 or age 85 and over.

Resources and Assets for Older Adults

Older adults who participate in federal assistance programs like Medicaid, Supplemental Security Income (SSI), and others are eligible to receive a discount on internet service through the Affordable Connectivity Program (ACP). The development of new options for telehealth are quickly becoming an important digital resource for older adults. The ability to access and meet with healthcare providers functions as a valuable service, particularly for those who may have mobility issues, live in rural areas, or have difficulty traveling to medical appointments. These technologies can also help seniors avoid exposure to infectious diseases.

3.2.2 Incarcerated Individuals

Louisiana has the second-highest rate of incarceration in the nation (564 per 100,000). The vast majority of incarcerated individuals (95%) will re-enter society. Digital inequity serves as a barrier to an individual's rehabilitation both during their time incarcerated and upon re-entry, and the underdevelopment of digital skills due to the digital divide within prisons may be an underlying cause of many issues that formerly incarcerated individuals experience within their communities.

Challenges and Barriers for Incarcerated Individuals

Stakeholders shared that digital technology has become essential to prisoners' ability to communicate with family, friends, lawyers, and others; internet access is also required to engage in virtual court appearances, receive telehealth services, receive many education services, and navigate legal resources. Formerly incarcerated individuals, families of those currently incarcerated, and practitioners in the field stated that the currently available means of accessing technology and digital services while in prison (i.e., JPay tablets/kiosks and ATLO education software) is limited, outdated, cost prohibitive, and exploitative. For example, JPAY charges prisoners \$0.30 per page of email text, and the JPAY tablets are often inaccessible due to unresolved repair needs, lack of internet access, scarcity, and/or other restrictions. ATLO education software is generally only provided through grant-funded non-profit programming that has limited funding and, as a result, expansive waitlists.

The largest barrier that underlies all of this is internet access – broadband connectivity in prisons and jails is central to the use of communication technology, but stakeholders report that rural prisons and jails throughout the state have longstanding issues with connectivity, reliability, and speed. For example, prisoners cannot receive proper healthcare due to the rural, isolated location of their prison and the firewalls and connectivity issues that telehealth providers face when trying to virtually connect to inside the prisons.

According to stakeholders, the stark contrast between the (lack of) technology in prisons and the highly digitized world outside prisons made transition difficult. Basic communication, online banking, transportation, finding assistive resources, and acquiring/maintaining employment are just a few of the activities that digital skills are needed for. Individuals reported that their digital skills barrier left them feeling underprepared and dependent on the assistance of others upon re-entry.

Resources and Assets for Incarcerated Individuals

As mentioned above, JPay and ATLO are existing resources available to some – not all – prisoners across the state of Louisiana. JPay charges prisoners for each email they send/receive, video sharing/receiving, internet downloads, and video connect calls. This technology is reliant on internet connectivity and proper software maintenance – both of which are unreliable. ATLO is the state's contracted education software service provider, but the cost (\$600-800/device per year) has prevented any widespread use of this software. Stakeholders were not aware of any digital skills training offered within prisons/jails.

Upon re-entry, formerly incarcerated individuals can go to community campuses and libraries to access computers. Some libraries also have a limited number of computers that can be taken home on a loan system. Lifeline services can be used to receive a government-provided phone, but the qualification requirements for this are stringent. Stakeholders shared that the most critical element to their success upon re-entry was digital skills, but they were not aware of any existing digital skills programming targeted specifically toward formerly incarcerated individuals.

3.2.3 Veterans

Veterans include individuals from all racial and ethnic groups including individuals from urban and rural areas. Yet, veterans face unique challenges and barriers when it comes to digital inclusion. Louisiana veterans are older than the general population, more likely to have a disability and more likely to live in rural areas. While they are less likely to live below the federal poverty line, The United Way reported that 36% of veterans live in an ALICE-defined household (Asset Limited, Income Constrained, and Employed). Like most people in low-income households, these veterans are far less likely to have access to broadband service.

Challenges and Barriers for Veterans

Veterans in Louisiana make up 11.9% of the homeless population despite being only 5% of the overall population. Veterans are also twice as likely to be disabled, have a higher poverty rate and more likely to live in rural areas. Of those living in rural areas, 27% do not have broadband internet access. Broadband serves as a vital means of social cohesion and connection for those living in sparsely populated rural areas and the lack of broadband access prevents veterans from accessing mental health resources such as support groups, therapy, and referral services. The social isolation made worse by the digital divide can exacerbate preexisting health concerns, including the risk of substance abuse and suicidal ideations.

Resources and Assets for Veterans

Stakeholders shared that many resources, programs and support groups for veterans are digitally based. As with the general population, Veterans have access to two Federal Communications Commission (FCC) programs to provide discounts on broadband access, the Affordable Connectivity Program and Lifeline. For qualifying VA pension recipients, a streamlined eligibility process makes access to these programs more efficient. The VA introduced the Digital Divide Consult as a way of helping connect Veterans with these programs and others to improve broadband access, with 100,000 Veterans already assisted nationally.

For Veterans in the Veterans Health Administration healthcare system, telehealth, resources to help navigate healthcare, mobile apps, and online portals are available. Use of these services increased post-pandemic, illustrating the importance of digital equity and access for Louisiana's veterans.

3.2.4 Individuals with Disabilities

Approximately 1 in 3 adults in Louisiana have one or more disabilities. Of those, 24% are living in poverty and 35% are Asset Limited, Income Constrained, Employed (ALICE). To be able to use broadband services, an individual must be able to interact and communicate with the equipment. Most users of modern technology engage through a combination of reading a screen and entering commands via the use of a mouse, touch screen, and/or standard keyboard. These modalities pose different limitations to different disabilities. Assistive/adaptive technologies are designed to address these limitations. These resources are vital to the disabled community because assistive technology allows broadband to serve as a lifeline, as most of these individuals struggle to maintain independence. This technology includes:

- software to enlarge screen elements or audibly read text
- closed captioning and/or interpretation
- speech interfaces
- modified keyboards
- eye-movement-tracking software

Challenges and Barriers for Individuals with Disabilities

Individuals with disabilities shared that the major barriers that they face are lack of access to adequate internet and affordable devices that accommodate their specialized needs. As businesses and governments continue the transition to more Internet-based services and programs, this lack of connectivity for people living with disabilities translates into digital exclusion and social isolation. As common experiences diverge, the disability community becomes an exception – laying the groundwork for increased marginalization.

Those living with disabilities are known to face disproportionate vulnerability and disadvantage during and following a disaster – internet accessibility and lack of assistive/adaptive technology become a greater challenge during a disaster.

Resources and Assets for Individuals with Disabilities

Based on input from stakeholders within the disabled community, existing programs and resources do not address the digital equity issues that this community faces. The challenges of existing programs include:

- small population targeted by programs
- limited funding
- lack of assistive/adaptive technology
- dysfunction of current programs
- lack of adequately trained staff
- restrictive requirements for participation

The lack of access to assistive/adaptive technology for young children has the effect of excluding them from access to education and instructional materials and severely limits their opportunity for successful outcomes. With respect to digital equity, this systematic digital exclusion puts children at the highest risk within the disability community.

The inaccessibility of Louisiana state government websites and standard technology poses a significant barrier for those living with disabilities. This inaccessibility prevents people with disabilities from:

- using public transportation
- accessing education
- accessing public benefits
- finding assistive resources

The accessibility of government websites and technology is already codified in federal law: Section 508 of the Rehabilitation Act requires that all federally funded programs provide accessible websites and technology, and Title II of the Americans with Disabilities Act requires that all public entities provide accessible Internet services. Although many government programs and services have become heavily internet-based, little attention has been paid to making them accessible. According to comments from participants in stakeholder engagement events, some state agencies have failed to ensure that state IT employees and contractors follow these standards.

3.2.5 Individuals with a Language Barrier

Although the United States has not adopted a national language, English is the primary form of communication used throughout the country. Non-English-speaking communities face many challenges that impose barriers to digital equity. The largest non-English-speaking group in Louisiana is Hispanic residents (mostly Spanish speakers), with small pockets of Vietnamese-speaking residents along Louisiana's coast. Individuals with a language barrier are more likely to be living in poverty and to have received less education.

Language barriers contribute to digital inequity in many ways including:

- accessibility and affordability of internet access
- barriers to education, resources, and services
- usability of technology
- translation technology focused on English speakers
- barriers to telehealth

Resources and Programs aimed at non-English speaking communities include:

- Louisiana Statewide Digital Inclusion Pilot programs targeting Spanish-speaking populations at specific pilot sites and vulnerable at all sites
- Northstar Digital Literacy classes at several locations

3.2.6 Black Individuals

Those who identify as Black or African American make up 33% of Louisiana's population, representing the largest covered population in Louisiana. A similar percent of Louisiana's K-12 students and of the state's labor force are Black. While the statewide poverty rate is 19.6%, the poverty rate within the Black population is approximately 31%. Continued large-scale investment in broadband offers an opportunity to address long standing digital equity gaps for this covered population, which will be critical to addressing equity more generally.

Challenges and Barriers for Black Individuals

Across focus groups with the Black population in Louisiana, lack of access and affordability were the major factors discussed when it came to digital equity. The Black population has the highest percentage of households in Louisiana with no internet subscription at 11.2%. In Louisiana, 10.1% of the Black households do not own a computer, higher than all other racial demographics, and 11.2% of the Black households do not have an internet subscription, again the highest in all racial demographics for Louisiana.

On average, lower household incomes and higher rates of poverty disproportionately affect Louisiana's Black population. With many Black Louisianians struggling to make ends meet, the affordability of broadband internet services hinders many from accessing its benefits. In Louisiana, the Black median household income is \$33,576 compared to white households being almost double at \$64,597. These disparities are important to consider when addressing digital equity gaps because research shows that as household income increases, so does the adoption of broadband internet.

Participants in stakeholder engagement events identified the development of digital skills as another key challenge. Digital skills are critical when using technology for personal needs, but also serve as an important steppingstone to economic opportunity.

Resources and Assets for Black Individuals

The Urban League of Louisiana – Offers virtual classes and trainings at no cost, helping participants gain knowledge and learn digital skills, build confidence to operate in a digital environment, and be able to respond to the challenges of an increasingly digital economic environment.

100 Black Men Non-Profit Organizations of Baton Rouge, New Orleans, Lafayette, and St. Mary Parish – Offer youth programs, trainings and classes in digital skills specifically targeted toward Black youth in the respective areas each organization serves.

3.2.7 Hispanic Individuals

In Louisiana, 5.6% of residents are Hispanic and face higher rates of poverty (25.5% compared to 19.6% statewide). Hispanic individuals also make up the largest non-English-speaking minority group in Louisiana. According to the ACS, 48.3% of Hispanic/Latino individuals in Louisiana are foreign-born and, as a result, many are likely to experience an English language

barrier. Each of these factors can help to contextualize the extent of this population's need and help to begin the discussion of the specific digital equity barriers they experience.

Challenges and Barriers for Hispanic Individuals

Almost a quarter of all Hispanic people living in Louisiana live below the poverty line, with 66% living in ALICE (Asset Limited, Income Strained, and Employed) defined economic strain. These socioeconomic factors contribute to the digital divide, as many in the Hispanic population struggle to afford broadband internet service and computer equipment.

Digital skills training and technology use are heavily dependent on English language fluency and training for non-English speakers is more limited. Multilingual outreach programs addressing digital skills in education and telehealth have not yet matched the needs of the Hispanic community.

Resources and Assets for Hispanic Individuals

Digital skills programs, small business mentoring, as well as outreach efforts in Spanish and English have been facilitated through Louisiana libraries and other organizations. Such programs help to bridge the digital equity divide. For example, Louisiana's Digital Inclusion Pilot included a special effort in Jefferson Parish to have staff learn Spanish to be better equipped to serve this population.

The Hispanic Chamber of Commerce of Louisiana and its foundation have opportunities for training, grants, and other services that support Hispanic business owners and employees in Louisiana.

3.2.8 Asian Individuals

In Louisiana, roughly 80,000 residents identified as being Asian alone, representing 1.7% of the state's population. When combined with the nearly 21,000 additional persons who identify with multiple races or ethnicities that include Asian, the total increases to 102,350 individuals, or 2.2% of the state's population. As it stands, 93.1% of those identifying as Asian alone reported having a broadband internet subscription, which is above the statewide average of 85.1%. While this group on average is more affluent and highly educated, there are communities facing significant barriers.

Challenges and Barriers for Asian Individuals

Language is a significant barrier for the Asian population. Among those who identified as Asian, 26,000 reporting that they spoke English "less than 'very well.'"

The coastal region has a dense pocket of Vietnamese individuals engaged in commercial fishing and shrimping who face challenges with a remote location that is actively receding, compounding existing language barriers.

Resources and Assets for Asian Individuals

Resources for Asian communities include:

- Coastal Communities Consulting, providing targeted technical assistance to Vietnamese fishermen with limited English proficiency
- Asian chambers of commerce, offering a range of opportunities for community connection
- Programs such as the Vietnamese Initiatives in Economic Training (VIET) of the New Orleans Chamber of Commerce.

3.2.9 Indigenous, Native, or American Indian Individuals and Tribal Members

Louisiana's Native American population includes four federally recognized Tribes and eleven state recognized Tribes. These Tribes live in multiple regions of the state, making them susceptible to geographically unique broadband challenges. Tribal members and other Native America residents include about 227,000 people or 5% of Louisiana's population. A broad range exists in access to a high-speed internet subscription and to a computer at home for Tribal and Native American residents in Louisiana. While some have similar access to the average U.S. resident, many Tribal members lack access at a much higher rate than the average Louisianian or U.S. resident.

Challenges & Barriers for Indigenous, Native, or American Indian Individuals and Tribal Members

Lack of access to smart devices or a broadband connection poses significant barriers to Native American and Tribal households in Louisiana. However, the ability to create, navigate, and understand digital resources can be key to preserving cultural assets important to Tribal members.

The resilience of broadband infrastructure is critical for this mostly rural covered population. Attendees at Tribal consultations, regional stakeholder meetings, and focus groups cite a lack of diverse internet/cellular service providers (ISPs). Natural disasters such as hurricanes makes service recovery after storms more sluggish for some state Tribal residents when compared to residents in other regions of the state.

Resources & Assets for Indigenous, Native, or American Indian Individuals and Tribal Members

Tribal consultations and focus groups helped identify digital equity resources and assets. The Jena Band of Choctaw, Tunica-Biloxi, and Coushatta Tribes provide a technology stipend for members around age 16 and around age 55-65 to purchase a smart device. Multiple Tribes have or are in the process of setting up Telehealth options for members. Additionally, the Affordable Connectivity Program (ACP) provides a \$75 discount on internet services to members of federally recognized tribes living on Tribal lands.

Digital skills training will begin soon at several Tribal locations in Louisiana. The Jena Band of Choctaw and Tunica-Biloxi will host digital literacy classes starting in 2023. The Jena Band of Choctaw will offer in-person trainings that include general digital literacy skills and cybersecurity best practices. The Tunica-Biloxi will partner their digital skills classes with a call center for technical assistance.

Several Tribes in Louisiana have formed partnerships with postsecondary institutions to address digital technology as it relates to preservation of culture and language. The Jean Charles Choctaw, in partnership with the University of Louisiana at Lafayette, is collecting digital histories and digital representations of their Tribe and historic Tribal lands. The Tunica-Biloxi Tribe partnered with Tulane University to support preservation of the Tunica language.

3.2.10 Individuals in Rural Areas

For those living in rural Louisiana, the challenges and barriers to accessing and adopting broadband services intersect along geographic and socio-economic lines. The interests of internet service providers also play a part in where broadband infrastructure is provided, who it is provided by, and the cost of those services. These factors can limit accessibility and affordability of broadband internet and the attainment of basic digital literacy skills in rural Louisiana. In Louisiana, 17.8% of the population living in parishes defined as 'rural' do not have a broadband internet connection compared to 14% in parishes defined as urban and 9.7% of the rural population have no internet subscription compared to 7.5% in urban parishes.

The agricultural sector plays a key role in rural Louisiana and stakeholders provided a high level of engagement related to agriculture. Examples of the role of broadband in agriculture are included in the plan with a full discussion of the agricultural sector and broadband provided in the Appendix.

Challenges and Barriers for Individuals in Rural Areas

Low population densities in rural areas and the high cost of installing and operating broadband infrastructure present a non-viable proposition for service providers, disincentivizing large-scale private investment in rural internet infrastructure.

The consequences of low broadband accessibility include barriers to learning digital skills, virtual education, and telehealth.

Affordability is another barrier where broadband is available. Research shows that nearly 1-in-4 individuals in a rural parish live below the poverty line, compared to less than 1-in-5 in urban and suburban parishes. Research shows households with higher incomes are correlated with higher adoption rates of internet services.

Resources and Assets for Individuals in Rural Areas

- The current GUMBO grants are incentivizing ISPs to expand broadband infrastructure into rural areas, with over \$170 million awarded in 50 different parishes, affecting 80,000 locations in need.
- The United States Department of Agriculture's Rural Development Broadband ReConnect Program, furnishing loans and grants to provide funds for the costs of construction, improvement, or acquisition of facilities and equipment needed to provide broadband service in eligible rural areas.

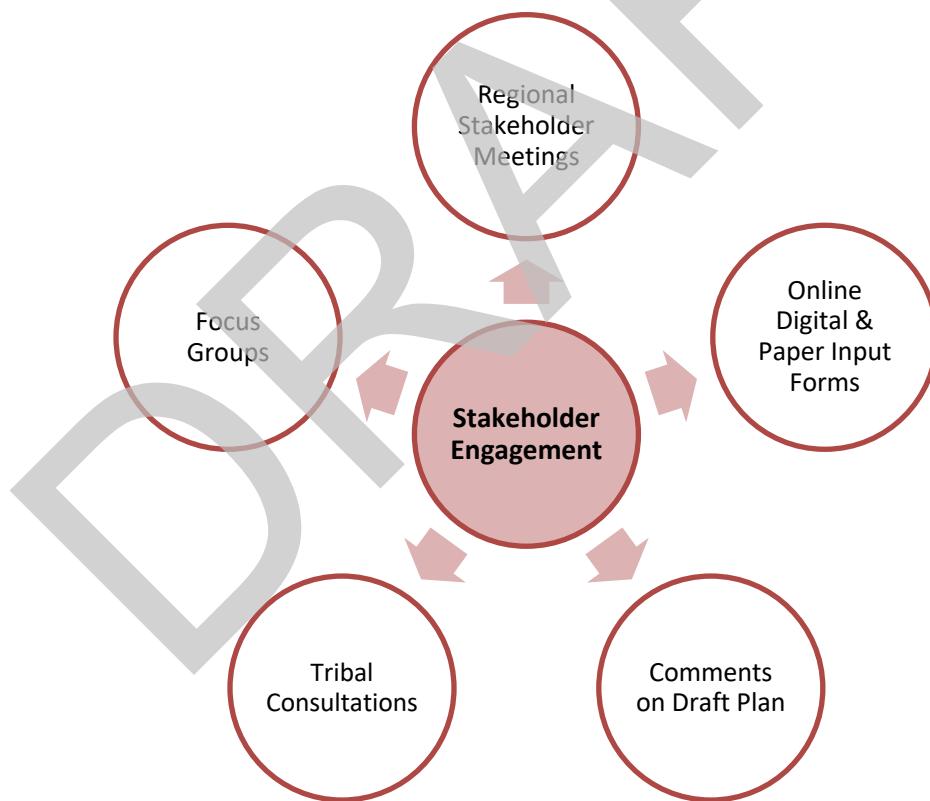
4. Collaboration and Stakeholder Engagement

4.1 Coordination and Outreach Strategy

The collaboration and stakeholder engagement efforts for this plan centered on meeting people where they are and actively listening to their feedback to ensure the plan accurately articulates the state of digital equity in Louisiana, the needs of Louisianians, and the outcomes that will help the state address digital equity deficiencies.

To effectively engage with a diverse representation of Louisiana residents, the following outreach strategies were used:

- In-person stakeholder meetings (All were recorded and livestreamed)
- Tribal Consultations
- An online digital form (Paper copies that could be returned via mail were distributed at in-person meetings and stakeholders were asked to distribute copies through their networks to amplify the outreach effort)
- In-person and virtual focus groups
- Public comment period for the draft plan



4.2 Stakeholder Engagement

4.2.1 Tribal Consultations

Four official tribal consultations were held with Louisiana's federally recognized tribes. In addition to tribal leaders, staff from the Office of Broadband and Connectivity, the Blanco Center, and the U.S. Commerce Department's NTIA Tribal Division attended each meeting. Staff from U.S. Senator Bill Cassidy's office attended meetings with the Coushatta Nation, Jena Band Choctaw Nation, and Tunica Biloxi Tribe.

4.2.2 Regional Stakeholder Meetings

Stakeholder meetings were scheduled in each of the state's eight planning and development districts. Collectively, 260 people across the state attended the meetings. Regional planning groups gave greater outreach consideration to covered populations and other hard-to-reach populations in each region. Each stakeholder engagement event had two regional leaders from the planning group to moderate the event, present digital equity background material, and address all participant questions that arise during the stakeholder Q&A portion of the event. Each event was staffed and supported by representatives from the Blanco Center, the regional planning and development district, the LOUIS Library Network, the Louisiana Office of Broadband and Connectivity (Connect LA), and select postsecondary institutions located in the region. At the conclusion of each stakeholder meeting all attending state partners met for further in-depth discussions regarding each region's unique broadband challenges and timely solutions to address those challenges.

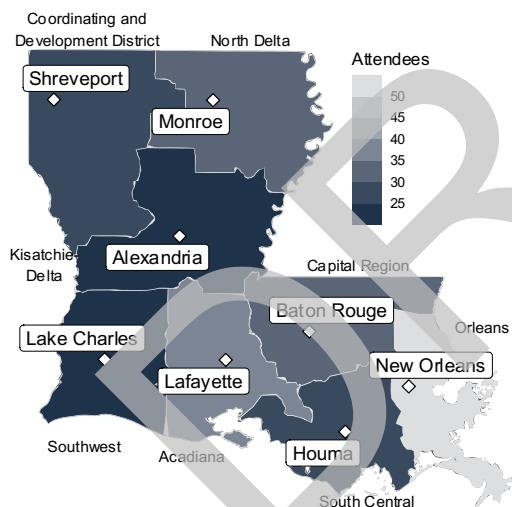


Figure 4.2. Attendance at each regional meeting

4.2.3 Online Digital and Paper Stakeholder Input Forms

Louisianians were able to provide input regarding their unique broadband experiences via an online form or a paper copy of the same form at their local library. The existence and access to this form was heavily advertised at regional stakeholder meetings, in follow-up information about the meeting, at focus groups, and through multiple media channels. All who attended regional stakeholder meetings were asked to share the link with others. Librarians were given copies of the form to distribute at the library.

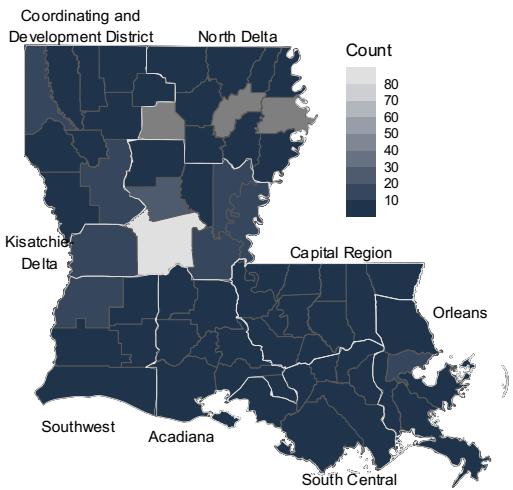


Figure 4.3. Number of responses to stakeholder form by parish

4.2.4 Focus Groups

For a more in-depth understanding of covered populations within the state and as a follow-up to the regional stakeholder meetings, the Blanco Center conducted multiple focus groups across the following populations or groups:

- Agriculture
- Black Community
- Disabled Individuals
- Education
- Healthcare
- Hispanic Community
- Formerly Incarcerated Individuals
- Individuals with a Language Barrier
- Older Adults
- Indigenous, Native, or American Indian Individuals and Tribal Members
- Veterans
- Libraries
- Unions

In total Blanco Center staff held 29 focus group meetings which were attended by 224 people. Seven meetings were in-person focus groups and 22 were conducted virtually. Attendees had the opportunity to provide feedback during the meeting via the digital form or paper form.

5. Implementation

5.1: Implementation Strategy and Key Activities

This section identifies specific implementation activities tied to each of the strategies identified in Section 2. Those activities are grouped according to the 5 main digital equity goals.

Goal 1: Broadband Availability & Affordability

Louisiana will improve and expand digital infrastructure serving covered populations while also improving affordability for lower income residents.

Key Activities

- A. Creation of a digital equity dashboard that tracks clearly defined access and affordability metrics (e.g., service availability, speeds, and prices) alongside data on covered populations in served and unserved areas to illustrate the progress toward reaching digital equity for Louisiana. The dashboard should include aggregated metrics to track general trends and maps to display information visually. By making this information available to the public, the state can information on broadband infrastructure improvements in different areas of the state.
- B. (1) Design future grant programs to prioritize access and affordability for covered populations.
 - (2) Evaluate how public broadband infrastructure dollars are spent and provide a scorecard for Louisiana's broadband investment that highlights covered populations.
 - (3) The Office of Broadband and Connectivity will continue to study opportunities for different types of infrastructure deployment that may benefit covered populations, including a middle mile approach, as recommended by Tribal governments, and ensure that public grant programs prioritize best practice approaches to achieve access and affordability for covered populations. If applicable, targeted grant programs could allow local governments, Tribal organizations, and LONI to test different modes of broadband deployment and construction.
 - (4) The Office of Broadband and Connectivity will produce a report on best practices in infrastructure deployment and results on from other states related to access and affordability for covered populations.
- C. Track and maintain public-facing information on existing local, state and federal assistance-based initiatives including the Affordable Connectivity Program and Lifeline. This information will include eligibility requirements, how to apply, and participation rates across covered populations.
- D. Expand outreach to covered populations through accessible online resources; community centers; libraries; health clinics; K-12 and postsecondary schools; Spanish language pamphlets; advertisements with newspapers, radio, or television; social media; and/or related in-person events.
- E. A digital equity advisory panel (e.g., BEL Commission or similar), supported by staff at the Office of Broadband and Connectivity and in collaboration with leaders of organizations supporting covered populations, will meet a minimum of twice annually to

review the results metrics on the broadband dashboard and make recommendations for addressing deficiencies.

Goal 2: Device Availability and Affordability

Louisiana will support, promote, and create opportunities to ensure that residents have access to affordable smart devices.

Key Activities

- A. Provide funding to community anchor institutions such as libraries to purchase laptops, tablets, and hotspots. Providing devices to organizations like these can serve multiple residents per device. Moreover, prioritizing those community anchor institutions that offer digital skills classes or support digital navigators within the community will ensure that devices are available to support other goals of the digital equity plan.
- B. Identify and promote private sector organizations that recycle or refurbish devices and sell at reduced costs. Private sector efforts can be supported through grants or subsidies based on the sale of those devices. Promotion can be done using outreach to covered populations through accessible online resources; community centers; libraries; health clinics; K-12 and postsecondary schools; Spanish language pamphlets; advertisements with newspapers, radio, or television; social media; and/or related in-person events.
- C. (1) All public funding for devices will be tracked with reporting by covered population to ensure progress toward digital equity is being made. Promotion about opportunities to obtain discounted or low-cost devices will be done through outreach to covered populations through accessible online resources; community centers; libraries; health clinics; K-12 and postsecondary schools; Spanish language pamphlets; advertisements with newspapers, radio, or television; social media; and/or related in-person events.

(2) The state will sustain efforts to increase public awareness of support for connected devices through both the Affordable Connectivity Program (ACP) and Lifeline program including information on eligibility, how to apply, and reporting on enrollment by covered population.
- D. A digital equity advisory panel (e.g., BEL Commission or similar), supported by staff at the Office of Broadband and Connectivity and in collaboration with leaders of organizations supporting covered populations, will meet a minimum of twice annually to review opportunities across the state that promote availability and affordability of devices for covered populations and make recommendations for addressing deficiencies.

Goal 3: Online Accessibility and Inclusivity

Ensure that state resources and activities delivered or accessed online are designed to be accessible for all covered populations in Louisiana.

Key Activities

- A. (1) State agencies will audit website content to identify and implement updates that will improve accessibility and ensure the sites meet accessibility standards for covered populations.
- B. (1) Audit of state-run programs to ensure that online applications are available in language that can be understand broadly across covered populations, are easily accessible for learning or hearing-impaired individuals, translatable to ESL applicants, and function in a way that they can be used on a variety of devices (computers, tablet, or phones).
 - (2) Convene state agencies to present results on website accessibility and offer opportunities for collaboration across agencies at the bi-annual meeting of the digital equity advisory panel.
 - (3) Provide training and technical support for digital navigators at community anchor institutions such as public libraries who provide training to computer users across a variety of needs.
- C. (1) Creation of a subcommittee on accessibility which will report to the digital equity advisory panel. This subcommittee will develop a suite of digital inclusion opportunities in partnership with public libraries, postsecondary institutions, adult education programs, and community organizations to provide options that address new and changing accessibility and inclusive technology needs.
 - (2) Continued training for state employees to ensure websites, forms, and state business activities are accessible and meet the needs of covered populations

Goal 4: Digital Skills

Louisiana will increase and promote opportunities for covered populations to develop digital skills and monitor progress toward more equitable attainment of digital skills.

Key Activities

- A. (1) Designate and fund the State Library of Louisiana as the organization to manage the statewide digital navigator program in public libraries
 - (2) Designate and fund the Louisiana Board of Regents as the organization to manage the statewide digital navigator program in postsecondary institutions.
 - (3) Provide funding to local and parish governments, Tribal organizations, community anchor institutions, and non-profit organizations to develop and manage digital navigator programs for specific covered populations.

(3) Fund a statewide subscription to NorthStar Digital Literacy to allow public libraries, workforce centers, postsecondary institutions, and others to use the program to assess and teach foundational digital skills.

(4) Create a subcommittee on a subcommittee on digital skills which will report to the digital equity advisory panel. This subcommittee will support a coordinated system of digital skills providers, including postsecondary, adult education, library systems, Tribal governments, and others, that link digital skills into workforce programs and adult education

- B. (1) Promotion of opportunities for digital skill development classes and activities will be done through outreach to covered populations through accessible online resources; community centers; libraries; health clinics; K-12 and postsecondary schools; Spanish language pamphlets, advertisements with newspaper/s, radio, or television; social media; and/or related in-person events.
 - (2) Create a process for all public sector agencies to provide updates on digital skills related programming and activities
- C. (1) The digital equity advisory panel will convene a roundtable with diverse industry representatives to highlight best practices in digital skills training and technical support for covered populations.
 - (2) Showcase private sector digital skills training and technical support through reoccurring Office of Broadband and Connectivity communication and other outreach activities.
- D. Provide funding to a minimum of one library per each parish to offer opportunities for technical support. This funding could be braided with funding for digital navigators or digital skills classes.

Goal 5: Online Privacy and Cybersecurity

The state will promote best practices in the design and maintenance of information technology systems and support efforts to protect and educate the public on online privacy and cybersecurity.

Key activities

- A. Expand the scope of Louisiana's Cybersecurity Commission to ensure the unique needs of covered populations are included in all planning activities and recommendations.

- B. The Office of Broadband and Connectivity will coordinate with the Information Security Team (INFOSEC) in the Office of Technology Services to ensure state online privacy and cybersecurity policies address unique needs of covered populations.
- C. The Office of Broadband and Connectivity will coordinate with State Civil Service to ensure educational trainings are designed to accommodate the baseline knowledge and familiarity of individuals from all covered populations.
- D. Partner with state and regional banking partners and community anchor institutions to deliver training on cybersecurity.

5.2: Implementation Timeline

This digital equity plan lays out priorities and specific activities for Louisiana to make progress toward digital equity over the next five years. A timeline for each activity is included in the full plan in Section 5.1. The full timeline identifies the expected duration the foundation tasks that will launch this effort as well as the expected cadence for updates, meetings, or revisions as may be relevant for specific activities.

6 Summary and Conclusion

Digital equity is a critical issue in today's world, particularly in Louisiana. This report has explored the state of digital equity in Louisiana and found that while Louisiana has made significant strides in recent years to close digital gaps present throughout its populations, it continues to face numerous challenges. Rural areas, low-income households, and communities of color have lower rates of digital access and proficiency than their urban, affluent, and white counterparts. This divide exacerbates existing social and economic disparities and hinders opportunities for individuals and communities. Access to technology and the internet is critical for education, employment, healthcare, and civic engagement, among other areas. Without it, individuals are at a disadvantage, and the state as a whole cannot reach its full potential.

Addressing the digital divide is not only a matter of equity but also crucial for the socio-economic development, educational attainment, and overall well-being of Louisiana's residents. Expanding broadband infrastructure, improving affordability, and promoting digital literacy are key priorities for the state. To achieve these goals, Louisiana needs to take a comprehensive and inclusive approach that involves government, private sector, and community organizations. Such an approach should prioritize the needs of underserved communities and involve their active participation and input. By working together, Louisiana can build a more just and equitable society that benefits all of its residents.

2. Introduction and Vision for Digital Equity

This plan outlines Louisiana's first coordinated effort to assess the state's digital divide and move Louisiana toward digital equity. According to the National Digital Inclusion Alliance (NDIA), the digital divide is the gap between those who have affordable access, skills, and support to effectively engage online and those who do not (National Digital Inclusion Alliance, n.d.). Addressing this gap will move Louisiana toward digital equity, which is defined by NDIA as a condition in which all individuals and communities have the information technology capacity needed for full participation in our society, democracy, and economy.

As the internet has evolved and become more deeply integrated into daily life, expectations for an acceptable level of service have also changed. This plan will focus on broadband as a minimum level of service, which is defined by Louisiana as 100 Mbps download and 20 Mbps upload. Achieving digital equity is not, however, only about providing internet speed. Four key elements impact digital equity: affordable and sufficient internet, devices available for all users, accessible applications and services, and digital skills. Affordable and sufficient internet means that service is not only available, but affordable and reliable. Being able to take make use of the service also requires devices and applications and services that are accessible. Finally, navigating these technologies requires digital skills, which are the skills individuals need to make effective use of digital devices to find, evaluate, use, share, and create content using digital devices (University of Nevada, Las Vegas, n.d.).

These terms will be discussed in more detail throughout the plan alongside information from stakeholders and additional research that have helped to identify the barriers and challenges facing different covered populations as well as programs and resource that can help move Louisiana toward digital equity. The remainder of this section lays out Louisiana's vision for digital equity and specific goals that are essential to achieving that vision as well as specific strategies for accomplishing each goal and performance indicators that can be used to measure progress. Finally, this section summarizes other ongoing efforts to improve outcomes for Louisiana residents and how they align with the goal of achieving digital equity.

2.1 Vision

Louisiana's vision is that digital equity will be achieved for all residents and communities. Digital equity for Louisiana means that all residents will have access to affordable broadband, opportunities to obtain the appropriate devices, accessible applications, and support to acquire the digital skills needed to improve their quality of life. By 2029, the necessary structures will be in place to sustain Louisiana's work toward digital equity for all Louisianians.

2.2 Strategy and Objectives

This section identifies Louisiana's primary goals related to digital equity including broadband availability and affordability, device availability and affordability, online accessibility and inclusivity, digital skills, and online privacy and cybersecurity. For each goal, Louisiana has identified key strategies that will help the state improve equity across covered populations

within each dimension of digital equity as well as one or more key performance indicator(s) (KPI) that will be used to track progress toward achieving the goal.

Goal 1: Broadband Availability & Affordability

The goal of achieving digital equity is reliant upon Louisianans having access to broadband both geographically and financially. **Louisiana will improve and expand digital infrastructure serving covered populations while also improving affordability for lower income residents.**

Key Strategies

- A. The state should identify areas without broadband and maintain updated information on areas and the covered populations in those areas with unmet needs.
 - a. The state should track clearly defined metrics that combine population size, population density, and the demographic profile of served and unserved areas to ensure that future plans move the state toward a more equitable distribution of services.
- B. Ensure public broadband infrastructure dollars are spent equitably to improve access and affordability for covered populations.
 - a. For funds disbursed through grant programs, prioritize applications that promote competition, or use other targeted approaches to and reduce the long-term cost of broadband for covered populations.
- C. Coordinate future initiatives addressing affordability to ensure that they are targeted to fill gaps in federal and local supports and equitably improve access for covered populations.
 - (a) As the state explores new assistance-based initiatives to help those with lower incomes, being mindful of existing local, state, and federal programs (such as the Affordable Connectivity Program or the hotspot loan programs enacted at various local libraries across the state) can help develop programs that work in conjunction with those that already exist.
- D. Conduct outreach to covered populations to provide details about service and programs that can make broadband more affordable.
- E. Develop a mechanism for long-term public oversight to promote broadband availability, reliability, and affordability for covered populations.

Key Performance Indicator

KPI: Percent of covered populations with access to broadband at their home.

The American Community Survey (ACS) provides statewide estimates of the percent of population with a broadband subscription. As new, more robust mapping data on availability become available, the state will develop more targeted measures of

broadband access for covered populations. ACS data show the following rates of broadband subscriptions by covered population:

- Baseline:

Table 2-1. Share of population with a computer and broadband subscription at home.

Group	Louisiana	
Total Population	3,859,185	85.1%
65 or Older	499,642	71.2%
Black	1,124,316	78.7%
Asian	73,755	93.1%
Hispanic	202,963	84.7%
American Indian	21,636	86.9%
Rural	1,022,127	82.8%

Source: U.S. Census Bureau, 2021 ACS 5-year estimates.

Note: baseline estimates for other covered populations will be developed during year 1

- Near-term Target: 50%
- Long-term Target: 100%

KPI: Number of state residents enrolled in Affordable Connectivity Program

- Baseline: Statewide enrollment of 430,028
- Near-term Target: 30% increase
- Long-term Target: 100% increase

Goal 2: Device Availability and Affordability

Beyond availability and affordability of broadband service, residents require devices to fully take advantage of the opportunities that come with a broadband connection. **Louisiana will support, promote, and create opportunities to ensure that residents have access to affordable smart devices.**

Key Strategies

- Dedicate public funding to support access to devices, leveraging bulk purchasing power where possible to reduce costs.
- Encourage and promote private sector efforts to increase access to devices and/or lower costs of devices through computer refurbishing and recycling.
- Conduct outreach to covered populations to provide information about vendors who provide discounted, or low-cost refurbished devices.
- Develop a mechanism for long-term public oversight to promote availability and affordability of devices for covered populations.

Key Performance Indicator

KPI: Percent of covered populations without a computer, smartphone or tablet.

The American Community Survey provides statewide estimates of the percent of households without a computer, defined as desktop, laptop, smartphone, tablet, or other portable wireless computer.

- Baseline: These data show the following rates of device ownership by covered population:

Table 1-2. Share of population without a computer at home.

Group	Louisiana	
Total Population	302,643	6.7%
65 or Older	136,786	19.5%
Black	143,519	10.1%
Asian	1,925	2.4%
Hispanic	15,259	6.4%
American Indian	1,156	4.6%
Rural	90,282	7.3%

Source: U.S. Census Bureau, 2021 ACS 5-year estimates.

Note: baseline estimates for other covered populations will be developed during year 1

- Near-term Target: Reduce ownership gap relative to statewide average by 50% for each covered population
- Long-term Target: Ownership rates equal to the statewide average for each covered population

Goal 3: Online Accessibility and Inclusivity

Ensure that state resources and activities delivered or accessed online are designed to be accessible for all covered populations in Louisiana.

Key Strategies

- A. Align efforts across state government to ensure information provided online meets current accessibility standards.
- B. Ensure that state-run programs using online processes for applications or to manage services are designed for maximum accessibility and integrated as much as possible to simplify access to the public.
- C. Develop a long-term mechanism to continue improving accessibility and inclusivity as technology and unmet needs for covered populations change over time.

Key Performance Indicator

KPI: Number of pages on State of Louisiana websites that fail accessibility audit.

- Baseline: To be determined during first year of plan implementation
- Near-term Target: Reduce by 50%
- Long-term Target: Reduce to 0

Goal 4: Digital Skills

To achieve digital equity, Louisiana must ensure that residents have both the basic and technically proficient digital skills to function in the digital world. **Louisiana will increase and promote opportunities for covered populations to develop digital skills and monitor progress toward more equitable attainment of digital skills.**

Key Strategies

- A. Establish a Statewide Framework for Digital Skills Attainment
 - a. Identify best practices and provide guidance on integrating digital skill development into K-12 and post-secondary education, workforce training, and other public training and programming.
- B. Monitor and promote ongoing activities related to digital skill development across the public sector to help residents identify and access digital skill training.
- C. Cultivate and promote efforts by the private sector and community-based organizations to provide digital skill training and technical support to covered populations.
- D. Develop and maintain technical support for residents to ensure that state-run programs using online processes can be accessed and used broadly.

Key Performance Indicators

KPI: Number of individuals completing a digital skill training or program by covered population.

- Baseline: To be determined during first year of plan implementation
- Near-term Target: Reduce skill attainment gap relative to statewide average by 50% for each covered population
- Long-term Target: Bring skill attainment rate gap to zero relative the statewide average for each covered population while continuing to expand participation in digital skill programming.

Goal 5: Online Privacy and Cybersecurity

The state will promote best practices in the design and maintenance of information technology systems and support efforts to protect and educate the public on online privacy and cybersecurity.

Key strategies

- A. Expand the mission of Louisiana's Cybersecurity Commission to ensure the unique needs of covered populations are included in all planning activities and recommendations.
 - a. Louisiana's Cybersecurity Commission was created by Executive Order Number JBE 17-31 (amended by JBE 19-19 and JBE 22-9) with the task of coordinating cybersecurity efforts among state governmental agencies, local governments, tribal governments, private companies, academic institutions, and other entities in both the public and private sectors. Ensuring that these discussions consider the unique needs of covered populations will lead to more robust planning and better protect individuals in those groups.
- B. Promote state policies that are sensitive to online privacy and cybersecurity in consideration of unique needs of covered populations.
- C. Ensure that online privacy and cybersecurity educational resources for public sector employees are designed to accommodate the baseline knowledge and familiarity of individuals from all covered populations.
- D. Cultivate and promote efforts by the private sector and community-based organizations to provide online privacy and cybersecurity training to covered populations.

Key Performance Indicator

KPI: Number of individuals who completed an internet safety program

- Baseline: To be determined during first year of plan implementation
- Near-term Target: Reduce safety training rate gap relative to statewide average by 50% for each covered population
- Long-term Target: Bring safety training rate gap to zero relative the statewide average for each covered population while continuing to expand participation in digital skill programming.

2.3 Alignment with Existing Efforts to Improve Outcomes

Achieving digital equity will require alignment between the public and private sectors including alignment of state and local government in maximizing the state's ability to leverage federal resources. While this is the first comprehensive digital equity plan in Louisiana, many of the longstanding planning efforts at the state and local effort naturally touch on digital equity issues. Aligning opportunities to improve digital equity in Louisiana with existing state plans and initiatives provides an opportunity to elevate existing plans while also building collaborative work that has synergistic outcomes and leverages existing expertise. Beyond this, alignment increases the impact of resources and programs.

Parishes located across the state have developed a range of local strategic plans (see Section A2 of the Appendix, Table A2-1). These plans include a summary of activities designed to address

particular priority areas. Although digital skills, software and device accessibility, and internet affordability/availability are mentioned, the issue of digital equity is generally not a focal point of discussion. To overcome the digital divide that Louisianans face, state agencies, local government, and community-based organizations must collaborate and coordinate goals and efforts that directly address digital barriers, how these barriers disproportionately affect groups across the state, and include strategies to improve outcomes. This section discusses how existing plans align with this digital equity plan as well as ways in which progress toward digital equity can improve outcomes related to economic and workforce development, education, health, civic and social engagement, and delivery of other essential services.

Economic and Workforce Development

The digitization of the contemporary workforce has amplified both opportunity and inequality and achieving digital equity would have a tremendous impact on the state's economy and workforce. The increasing demand for digital skills in the job market requires workers to have digital literacy and comprehension, especially as both automation and innovation alter the nature of work. This trend is becoming more prominent with recent research indicating that "82 percent of middle-skill jobs have become digitally intensive, with digital skills listed as concrete requirements" (Bradley et al. 2017). The increased number of new jobs requiring digital proficiency has left numerous workers without the foundational digital literacy skills to compete for these positions. A recent report from the Federal Reserve Bank of Philadelphia asserts that digitization of tasks can adversely affect job prospects of digitally illiterate and low skilled workers, thus amplifying income inequality (Harker, Ding, and Leigh 2018). In addition to digital automation, inadequate access to training programs that prepares workers with relevant experience is another contributing factor to the skills gap, further inhibiting economic growth. Furthermore, this trend challenges young workers who are entering into a continuously evolving job market, displaces incumbent workers with aging skill sets, and can limit economic productivity if the digital skills gap isn't addressed.

Technological progress is necessitated by swift skill adaption from workers. The proportion of computer-based task hours compared to in person is on pace to increase from 29% in 2020 to 50% by 2025 (Ernest & Young Global Limited, n.d.). This positive trend is inhibited when the skills necessary to fulfil work obligations become obsolete at a rapid pace. The half-life for professional skills was estimated historically at 10-15 years while today the half-life for a newly acquired skill is estimated to be around 5 years meaning that skills learned today are half as valuable in only five years with a shorter half-life for technical skills (Kasriel 2017). Farming stakeholders shared examples of how broadband access and digital skills are increasingly necessary to adopt emerging agricultural technology so they can compete economically (a full discussion on broadband and digital skills in agriculture is available in Section A5 of the Appendix). These examples highlight the importance of workers across the economy having a baseline of foundational digital skills and experiences. This requires continuous re-skilling effort for workers to remain competitive in both current and future jobs.

Workforce considerations in broadband must also address the specific skills needed to support large-scale expansion of broadband within the state and long-term maintenance and support to

service this expanded infrastructure. In addition to the ongoing investments Louisiana has made through the GUMBO program, the federal dollars that Louisiana expects to receive and direct through this digital equity plan and the broader BEAD plan represent historic investments that will require a rapid expansion of skilled workers to build out the infrastructure. Long term, these investments will require a sustained effort to support the workforce needed to maintain broadband and provide ongoing training to build and sustain the digital skills to best use these resources.

From a workforce development perspective, achieving digital equity is imperative to ensuring Louisianians can participate in the digital economy. In Louisiana, 90% of jobs are estimated as requiring a skill that is likely digital with 41% of job postings requiring a skill that is definitely digital in nature (Bergson-Shilcock, Taylor, and Hodge 2023). According to the Organization for Economic Cooperation and Development (OECD) Survey of Adult Skills, “around 13% of workers ages 16-24 are digitally illiterate, and an additional 18% have limited digital skills” (Rampey et al. 2016). Digital access across racial lines highlights a deeper disparity across the workforce. Black workers comprise 12% of overall workers, but represent 15% of the subset of workers who are digitally illiterate and 21% of workers with limited digital skills (National Skills Coalition and American Institutes for Research 2020). Latino workers represent 14% of overall workers, but represent 35% of the subset of workers that are digitally illiterate and 20% of those with limited digital skills (National Skills Coalition and American Institutes for Research 2020).

Resources, Assets, and Aligned Initiatives

Louisiana’s existing economic development and workforce training programs represent a highly visible and broadly available resource for digital skill building. Education is deeply integrated into workforce development and is discussed in detail below. But outside of the K-12 and postsecondary education system, Louisiana benefits from a range of other workforce training programs including FastStart, which is operated by Louisiana Economic Development and offers employers customized training programs to support company recruitment and retention. The program has been recognized by Business Facilities magazine as the top workforce training program in the nation for 13 consecutive years (Louisiana Economic Development n.d.). The program has developed customized training for a wide range of employers and has integrated virtual reality and artificial intelligence into some trainings.

Many state agencies, such as the Office of Motor Vehicles, suggest using improvements in the state’s digital infrastructure to more efficiently train their workforce to serve the Pelican State. By training the state’s public workforce electronically, services can be delivered effectively to Louisianans in a shorter timespan than would otherwise be possible. Additionally, digital tools may be more relevant when it comes to the type of training necessary given that digital skills are now integral to many occupations.

This, of course, leads to the second major way that the state’s digital equity efforts can benefit the public workforce. By collaborating with departments and agencies that currently plan to overhaul and update their technology, the digital equity plan can bolster ongoing efforts to equip state departments with proper technology and resources, which would lead to increased

effectiveness. Most state agencies, at this time, do not currently have tech-driven initiatives that explicitly impact the goals that one might expect to see reflected in the private sector. However, it should be noted that by making state services more efficient and accessible, private industry will undoubtedly benefit in very tangible ways.

More generally, employers in all sectors play an important role in supporting digital skills for Louisiana's workforce. In conversations with stakeholders across Louisiana, participants mentioned digital literacy courses available through their place of work as well as incorporating digital skills programs into job trainings. Moreover, participants stated that they had to hire consultants or work with independent IT services occasionally rather than having the digital skills to perform these tasks in house. Four participants in the stakeholder groups recommended providing a tangible incentive for attending and completing digital literacy courses as a means of improving digital skills. The workplace presents a logical place for supporting digital skills. Stakeholder group participants also mentioned the lack of awareness of the public about technology/digital skills courses at public libraries. Since employees have an existing relationship with their employer and an incentive for continuing to improve their workforce-relevant skills, additional digital skill training that happens at work is likely to be successful.

In addition to the role that broadband plays across the economy, a wave of new investment in broadband infrastructure will sharply increase demand for skilled workers to carry out those investments, maintain a significantly larger broadband system, and provide training to develop digital skills necessary for all Louisianians to take advantage of that infrastructure. Addressing the gaps in the broadband workforce is important to building an equitable workforce. The federal government has begun taking preemptive steps to ensuring that employment in the broadband sector is both accessible and adaptive. These endeavors are in conjunction with numerous public and private sector employers, one of which is the commitment to expanding high quality training programs and pre apprenticeships for broadband workforce development. For example, Communications Workers for America (CWA) and AT&T have created a task force to design broadband apprentice programs, create pathways for tuition reimbursement for AT&T's union employees, and work with local colleges to expand career opportunities for current workers. Endeavors like this serve as a template for equitable broadband workforce development by the private sector employers, with some job protection for these positions.

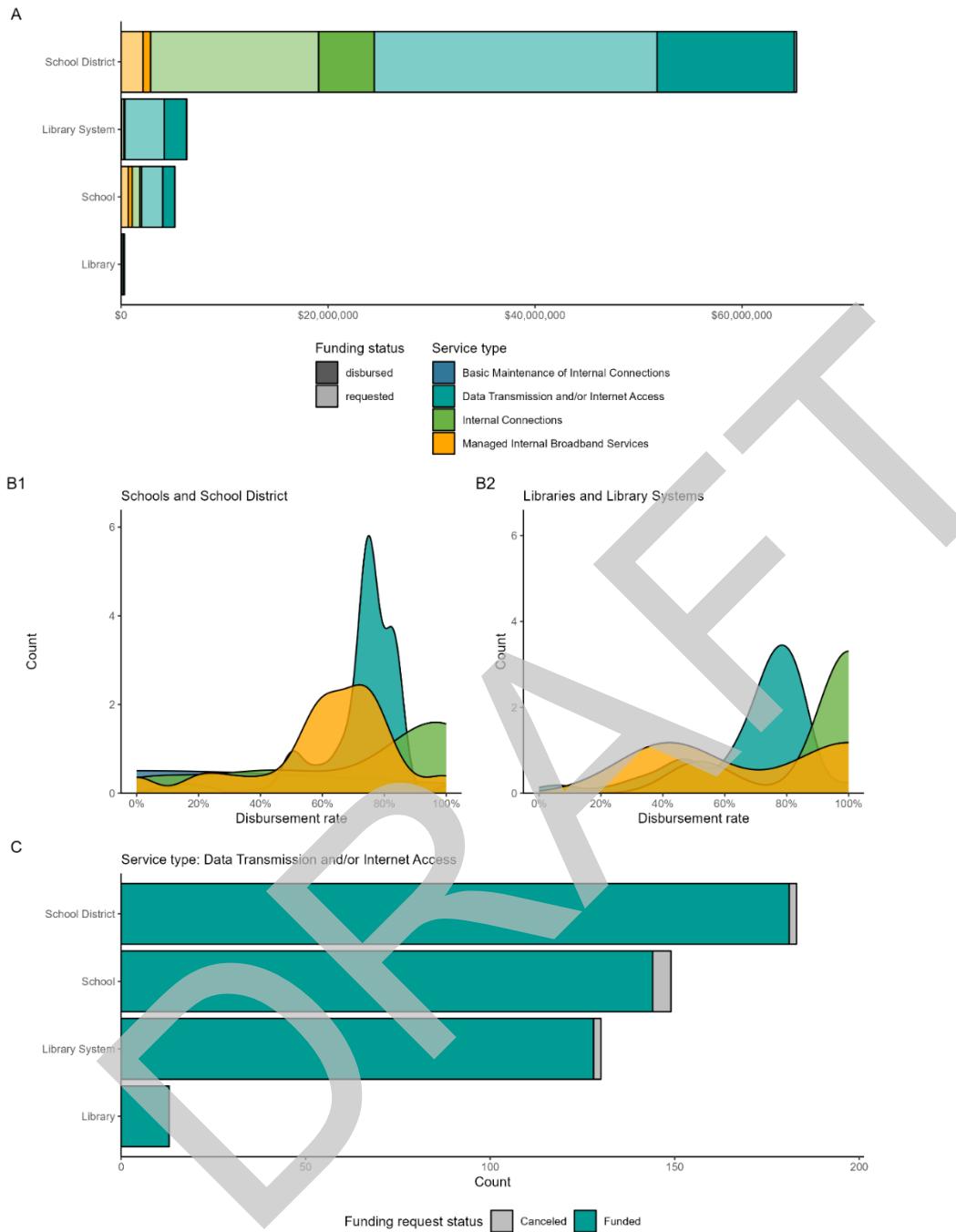
Education

The role of technology in today's education system is vital. Teaching tools such as smartboards and projection monitors are used in the classrooms while learning tools and resources (such as laptops, desktops, tablets, and software to run on these devices) have become critical for students' educational success. Institutions understand that not all students may have access to the required resources for learning at home and have begun making these resources available at school and for students to take home. Various organizations and programs understand that there exists an internet access dilemma in various parts of the state. As such, these organizations have begun to embark on initiatives to provide reliable internet access to areas in need. This section examines Louisiana's K-12 and postsecondary education systems, their

challenges and barriers, and the resources and assets which aid in their ability to provide students and teachers with adequate digital tools and resources to create high-quality learning environments.

Institutions are striving to ensure that faculty and staff are provided with the resources needed in a digital and technological-centered educational environment. However, one obstacle to this goal is that some institutions simply cannot afford the resources for enhanced digital access. As a result, the FCC has put in place the E-Rate Program, which provides discounts ranging from 20 to 90 percent for internet access and internal connections to schools and libraries which are eligible (Federal Communications Commission 2021). A school's eligibility is determined based on its ability to meet the statutory definition for schools and libraries by the E-Rate Program Support. Once eligibility is confirmed, priority is granted to schools and libraries with the highest poverty levels.

In 2022, 62.8% of the schools and school districts in Louisiana that applied for the E-Rate Program requested funding for data transmission and/or internet access service (Federal Communications Commission 2021). While none of these applications for data transmission and/or internet access were denied, 97.9% were funded and the other 2.1% were cancelled by the applicant (Federal Communications Commission 2021). Of the 242 funded applicants, 118 received 75% or more of the funding commitment requested, and only 3 of these applicants received more than 85% of the funding requested (Federal Communications Commission 2021). (See Figure 2.1)



Source: Universal Service Administrative Co. (<https://opendata.usac.org/>).

Figure 2.1. Funding request amounts and request status by organizational entity and service type (color). Opaque = disbursed, transparent = requested. N = 606. B) Disbursement rate of requested funding by service type for schools and school districts (B1, N = 503), and libraries and library systems (B2, N = 176), respectively. C) Funding request status for data transmission and/or internet access by organizational entity (N = 466).

While over 90% of K-12 students in Louisiana own a computer and have access to an internet subscription, over 80,000 students in grades K-12 do not (see Section 3.1.2, Table 3-1 under Education Level). Lack of access to a computer at home or to high-speed internet puts students at a disadvantage in a world where homework, textbooks, and more are frequently only available in a digital format.

The disadvantages for students without access to a computer or high-speed internet were echoed across multiple community engagement events. At one in-person focus group, a middle school teacher from West Carroll Parish indicated that during the pandemic, many students had no access to internet connection, hardware, or software to allow them to participate in virtual learning. At other events, participants indicated that the Chromebooks their students brought home from school made a difference but that completing homework was problematic when internet service was unavailable or unaffordable for their family.

Resources, Assets, and Aligned Initiatives

In 2015, the Louisiana Legislature required development of a statewide educational technology plan that would, among other things, ensure that all public K-12 schools have the infrastructure, devices, and staff training to provide a high-quality digital learning and teaching environment which integrates technology into the classroom (*Statewide Educational Technology Plan 2021*). Since the implementation of the statewide plan, Louisiana's public school systems have seen gradual improvement in digital learning and educational technology opportunities. Between the years 2015 and 2018, Louisiana progressed in meeting the FCC's minimum bandwidth and improving its student to device ratio. In 2015, 67% of school districts met the FCC minimum, this increased to 79% in 2016, then a further rise to 88% in 2017 (State of Louisiana 2018). By 2018 the state was ready to take on the new 1 Mbps benchmark set by the FCC (State of Louisiana 2018). Louisiana's students to devices ratio improved from 1.6 in 2016 to 1.3 students per device in 2018 and furthermore in 2021, 1.1 students per device (State of Louisiana 2018).

The Louisiana Department of Education's (LDOE) 2022 Educational Technology Plan presented vital strategies to integrate technology in the State's school systems. This plan is designed to adequately prepare teachers for the continual integration of digital technology into learning environments. Additionally, the plan mentions the strategic goals to provide equitable access to high-quality, inclusive learning environments for parents and learners regardless of age. LDOE recognizes the importance of promoting continuous learning, where students and educators alike can continue learning and working from home. For this to be successful, individuals will need access to devices and internet from their homes, which is why the department explicitly sets the goal of broadband internet access in the home of every student and educator (Louisiana Department of Education 2022). To complement this, the department also strategizes to provide access to digital technology in every classroom, complete with programs to increase digital literacy (Louisiana Department of Education 2022). Although school systems have been able increase the availability of devices and other technology provided to students and educators, the department strives to maintain the quality and standard of digital technology present in the school systems. One must also note that as individuals progress in their educational or professional track, programs that facilitate technology fluency will take on

greater importance. As such, the goals put forth by the state's Department of Education explicitly outline the widespread use of technology and digital education as both an end unto itself and a means of better preparing students for an increasingly digitized educational environment and workforce (Louisiana Department of Education 2022).

The presence of the COVID-19 pandemic adversely impacted school systems and resulted in a drastic push for devices and internet access. School institutions and districts required assistance to maintain their education system throughout the pandemic. Financial aid was made available through federal grants and state legislature allocated funds, and the parishes and school districts in Louisiana have increased their efforts to provide students with devices (Chromebooks, tablets, laptops, etc.) that improve their educational experience. In December 2020, the Louisiana Legislature allocated \$8 million to the Louisiana Department of Education (LDOE) which was utilized for the procurement of over 23,000 Chromebooks (Louisiana Department of Education 2020). In addition, Louisiana received federal allocations, such as the Governor's Emergency Education Relief Fund (GEER Fund), in which \$32.3 million was used for devices, internet connectivity, technology, and professional development for distance learning (Louisiana Senate Finance Committee 2021).

Postsecondary

According to the U.S. Census, 97% of enrolled postsecondary students¹ in Louisiana have a computer and an internet subscription (United States Census Bureau 2021f). However, over 17,000 (3%) individuals who are enrolled in higher education have no computer or internet subscription (see Section 3.1.2, Table 3-1 under Education Level) (United States Census Bureau 2021f). While schools and libraries have been working together to provide access to devices and internet to these students, there remains a location and income dilemma. In addition, due to the limited availability of services, low-income families in those areas and others cannot afford a high-speed internet subscription. Students who don't own computers or have access to an internet subscription find themselves using libraries or scavenging across their communities in search of an internet connection. Participants in multiple focus groups shared that they or people they know sometimes sat in library parking lots beyond regular hours or frequented fast-food restaurants to access open Wi-Fi.

Although schools and libraries provide digital access to the internet and devices, a gap in digital skills of both learners and educators hinders their full use of these tools in the learning environment. The large demand for digital skills in the workforce emphasizes the importance of teaching digital skills in the postsecondary education system. A report from the National Skills Coalition indicated that 92% of jobs require digital skills and one third of U.S. workers do not have the foundational digital skills (Bergson-Shilcock, Taylor, and Hodge 2023). Many institutions do understand the role that digital skills play in the labor market and are seeking ways to bridge the digital divide. Research done by the Chronicle of Higher Education in their research brief, "The Myth of the Digital Native: How colleges are dealing with student digital-

¹ The American Community Survey uses "undergraduate or higher" for this category. See ACS [Table 28012](#).

literacy gaps" revealed that 85% of students, 84% of faculty and 89% of leaders believe that teaching digital skills should be a bigger part of their institution's curriculum. Furthermore, 15% of faculty and 16% of leaders think students are very well prepared to use digital tools in a work environment (The Chronicle of Higher Education 2023).

Resources, Assets, and Aligned Initiatives

Broadly speaking, postsecondary institutions play a critical role in building digital skills. The Louisiana Board of Regents serves as the state's coordinating board to oversee postsecondary public education in Louisiana through four systems: Louisiana Community and Technical College System (LCTCS), Louisiana State University System, Southern University System, and the University of Louisiana System. The 28 public colleges and universities that make up these systems provide a wide range of degree programs and non-degree credentials that prepare students for careers in technology and technology-related aspects of jobs across the entire economy that require digital skills.

In Louisiana, The Board of Regents, and LOUIS: the Louisiana Library Network lead the Louisiana Statewide Digital Inclusion Pilot in a collaborative effort to reduce the percentage of Louisiana residents who lack essential digital skills to efficiently function in today's society. Postsecondary institutions in Louisiana have implemented the Northstar Digital Literacy program, an interactive digital skills assessments of an individual's computer skills, software skills, and ability to use technology in daily life. The Northstar Literacy program offers four services: Assessments, Assessment Certificates, computer classes, and Northstar Online Learning accounts for learning and practice. There are 42 postsecondary institutions and adult basic education programs which implement Northstar Digital Literacy in Louisiana and 29 of these offer all four services. At almost all postsecondary institutions individuals can take assessments and receive assessment certificates (see Section A2 of the Appendix, Table A2-2).

Northstar digital literacy certificates are also attainable through WorkReady U (WRU), Louisiana's comprehensive adult education network, which is governed by LCTCS. WorkReady U's varied network of 22 local providers includes community and faith-based organizations, correctional institutions, local education agencies, and community colleges that offer free programming for Louisiana's adults to increase foundational skills, prepare for postsecondary transition, or develop career skills. With nearly 200 sites across the 22 WorkReady U providers, adult education services are present across Louisiana.

An essential component of a high-quality adult education program is the integration of digital literacy into curriculum and instruction. WorkReady U requires all programs to support the digital skill development of students at every class level. In WorkReady U Programs, digital literacy instruction is often embedded into ESL, High School Equivalency (HSE), or Foundational Skills classes. In other cases, computer skills classes are taught separately from math, reading, or language classes. Many programs also offer distance learning to help students practice and use digital literacy skills, often while working on other instructional content such as ESL or HSE prep.

The Board of Regents has seen the growing importance of research at postsecondary institutions, owning a statewide program called Louisiana Optical Network Infrastructure (LONI). LONI is a fiber optics network that's runs through the state connecting research universities. With this network, the state aims to encourage greater collaboration on research, promoting more efficient results. The universities connected with LONI are Louisiana State University (LSU), Louisiana Tech University, LSU Health Sciences Center in New Orleans, LSU Health Sciences Center in Shreveport, Southern University, Tulane University, University of Louisiana at Lafayette, and University of New Orleans.

LONI connects these universities through a fiber network that crosses the state. This fiber connection provides member institutions with access to Internet2, a community that provides a secure high-speed network and other resources tailored to research and education. Also available to LONI members are commodity internet and access to major national and international networks. With a world-class network, a high-performance computing environment, the strategic integration of highly available and scalable bandwidth, and computational, storage, and personal resources available to LONI participants, the network was intended to transform research and education in Louisiana.

Some components of other state plans impact digital equity related to the state's postsecondary systems. For instance, the Louisiana Board of Regents set forth the goal of launching a website for dual enrollment. In addition, the Board of Regents also worked to implement the goals of providing community colleges with mobile labs, establishing regional STEM centers, and producing and disbursing cybersecurity education grants; these goals have been largely successful.

In Louisiana, the LCTCS will play a central role in addressing workforce challenges in a way that provides broad accessibility to training programs and the creation of pipelines for skilled graduates and has committed \$20 million to establish the Louisiana Infrastructure Skills Academy (LISA) (The White House n.d.). The geographical footprint of the LCTCS is evidence of the agency's commitment to accessibility. The LCTCS's twelve community and technical colleges have multiple campus locations, with the majority of campuses strategically located in the state's rural areas. The LCTCS colleges have reduced or eliminated many barriers to accessing training programs. For example, the LCTCS colleges are open enrollment institutions; hence allowing the training programs to be available for all adult learners.

The diversity within the LCTCS student population is achieved through the accessibility of training programs. Allowing new programs such as Power Lineman and Fiber Optics to be offered through noncredit courses broadens the audience to more nontraditional students. In addition, the average age of an LCTCS adult learner is 27 years old. Older students with more life experiences may bring more intellectual, social, and cultural diversity into the workforce, benefiting the industry and communities they serve. Additionally, the LCTCS has two minority-serving institutions, both located in large metropolitan areas of the state. These institutions have strong community partnerships and TRIO programs that support recruiting and retaining low-income, first-generation college students and students with disabilities.

Further, training and education play a significant role in recruiting diverse populations. Therefore, the LCTCS intends to use educational promotions, apprenticeships, classroom environment (diverse instructors), and flexibility in training for adult learners with jobs, childcare, or elderly care responsibilities to promote training programs that impact broadband careers. Also, the LCTCS plans to offer diverse training programs to ensure every type of learner has options for skill obtainment in the program design. Currently, the LCTCS plans to offer sixteen training programs related to Broadband jobs, including telecommunications programs for those students seeking less labor-intensive jobs and infrastructure programs for those students seeking more skilled craftsmanship jobs. Continuous engagement between the internet service providers, telecommunication companies, and contractors helps inform the instructional design of the broadband training programs which leads to a highly skilled workforce. The LCTCS uses advisory boards to convene and facilitate the engagement between relevant stakeholders, which serve as the sounding board and validate the skills required for employment now and in the future.

Health

Access to highspeed broadband is an integral component in both public health and health care. To improve health care practices, health services researchers, clinicians, and other health care professionals have been implementing and expanding the use of information technologies and telecommunications. Telehealth lies at the intersection of these efforts due to its reliance on both mainstream and innovative technologies. According to the Health Resources Services Administration, telehealth is the “use of electronic information and communications technologies to support long-distance clinical health care, patient and professional health-related education, public health and health administration” (Office of the National Coordinator for Health Information Technology 2019). Utilization of telehealth practices can reduce health care disparities by bridging gaps in access to specialized health care for underserved communities leading to substantial reductions in health care expenditures (Noel et al. 2004).

Among the wide range of health-related services that can be classified as telehealth is telemedicine, which is the remote delivery of care to patients (Office of the National Coordinator for Health Information Technology 2019). Interest in telemedicine has grown offers an opportunity to partially address health professional shortages in parts of the state Another major component of telehealth is digital health (or digital medicine), which includes the use of smartphones, smart watches, apps, sensors, wearable devices, or other devices, software, or technology-based services (U.S. Food and Drug Administration 2020). These tools can provide additional health information to providers and assist patients with self-management of health conditions including tracking physical activity, weight, blood sugar, and other metrics. The increasing integration of technology into the operations of health care providers also means that reliable broadband service is now required for provider locations to access and manage electronic medical records and to support some diagnostic testing such as digital imaging that may use offsite resources for processing or evaluation.

Historical estimates of telehealth usage are limited, but research strongly suggests that the COVID-19 pandemic rapidly and dramatically increased use of telehealth services raising the stakes for addressing digital equity in the health care context. A national survey conducted in 2019 suggests that while half of residents had used some form of telehealth including a patient portal or e-mail, only 6.3% had completed an e-visit with only 4.2% having completed a videoconferencing visit (Fischer et al. 2020). Another study tracking insurance claims showed that weekly telemedicine visits increased from 0.8 per 1000 enrollees in January 2020 to roughly 30 visits per 1000 enrollees in April 2020, before falling to an average of 17.8 visits per 1000 enrollees by the end of the study period in June 2020 (Patel et al. 2021). That study estimates that there were 15.9 telehealth visits per 1000 enrollees in Louisiana by June 2020, well below the national average. In addition to the overall level of usage, Louisiana Medicaid claims data show significant disparities in the use of telemedicine with pre-pandemic use among White enrollees 1.92 times higher than among Black enrollees and 2.02 times higher than among Hispanic enrollees while rural parishes used telemedicine at a ratio of 1.27 compared to other urban parishes (Callison et al. 2022).

More recent nationally representative survey data shows that in 2021 around 37% of adults used telemedicine to receive care (Lucas and Villarroel 2022). More than one third of non-elderly adults and almost half of older adults had at least one telehealth visit during the first year of the pandemic (Barrie Smith, Blavin, and O'Brien 2022). Among Louisiana Medicaid enrollees, pre-pandemic differences in telemedicine service use between White and Black Medicaid recipients narrowed by 34% through December 2020 while differences between White and Hispanic beneficiaries increased by 10.5% (Callison et al., 2023). However, White Medicaid recipients continued to use telemedicine at higher rates than both Black and Hispanic recipients during the early phase of the pandemic in Louisiana. Telemedicine use increased for rural Medicaid recipients compared to urban recipients. In addition, a recent needs assessment for people living with HIV in Louisiana showed that 57% of people living with HIV had an HIV-related telehealth visit within the last 12 months, which can offer a comfortable and destigmatizing option for receiving care (Qaragholi and Mayfield n.d.).

A wide range of social factors known as social determinants of health have become well established as having an important impact on health and generating health inequity. Those social determinants include access to broadband, devices, and the digital skills to use them. Recent research on telehealth service to provide mental health care in rural northeast Louisiana showed notable differences across social factors with younger, female and more highly educated residents engaging in more telehealth visits for mental health treatments (Sizer et al. 2022). Given that the inability to access high speed broadband intersects with other social determinants of health many national organizations are characterizing broadband access as a “super determinant of health” (Bauerly 2018). Specifically, rural communities suffer from unstable health care access, stemming from geographic barriers and shortages of health care providers, among other hinderances. Being that broadband is a super determinant of health, many of these digitally isolated communities are more susceptible to worse health outcomes resulting from the effects of limited broadband access. Similarly, even in areas where broadband service is available, lower income households that cannot afford reliable, high-

quality access and Policies and laws at each governmental level can be used to facilitate the expansion of access and improve affordability in these communities.

The need for telehealth expansion in the state is buoyed by the shortage of available health care professionals, which impact a large portion of the population. Louisiana has an estimated 155 designated Professional Shortage Areas (HPSAs). HPSAs are designated by the U.S. Department of Health and Human Services' Health Resources and Services Administration and are geographic areas, facilities, and populations where the need for care exceeds the supply of geographic health care providers. More than 2.5 million residents, or 56.4% of the state's population, lives in a primary care health professional shortage area. Mental health care shortages are more severe with more than 3.6 million residents, or 79.0% of the state's population, lives in a mental health care professional shortage area. In Louisiana there are around 26 physicians per 10,000 residents, but that varies greatly across the state's 64 parishes (Nastasii and Peterson, n.d.). More specifically the following parishes have five or fewer active physicians: St. Helena, Assumption, Cameron, Grant, Tensas, Catahoula, Bienville, Madison, and Red River. While rural areas tend to have fewer health care professionals per capita than urbanized areas, Louisiana's numbers are exceedingly low (Nastasii and Peterson, n.d.). Unfortunately, many of the underserved populations that would benefit most from these innovations in health care reside in digital deserts without broadband access or without the devices, familiarity, or digital skills to take advantage of these options.

Resources, Assets, and Aligned Initiatives

As technology continues to advance, current information to provide ongoing guidance on areas of greatest need will be critical. National programs like the Connect2Health Task Force, which relies on FCC developed mapping tools, allows users to interface components of broadband availability (e.g., rural access, download speed, upload speed, broadband access, etc.) with health indicators (e.g., obesity, physician access, and blood sugar levels) and may be helpful in planning to address areas of greatest need ("Mapping Broadband Health in America 2017," n.d.). In Louisiana, many providers are now offering telehealth services and working to expand access. For example, Ochsner Health's Digital Medicine pilot program has helped to improve health outcomes for Medicaid patients dealing with chronic conditions such as diabetes type 2 and hypertension. Ochsner Health launched this pilot program June 2020 at Ochsner LSU Shreveport and has since expanded the pilot to additional sites and enrolled over 4,400 patients. In Louisiana, nearly 40% of the adult population has hypertension and 14% have diabetes. After 90 days nearly half of all program participants were able to stabilize their out-of-control hypertension, this is 23% more than usual care. Furthermore, after 180 days, around 59% of program participants with poorly managed diabetes were able to achieve control over their condition, which is twice the rate of usual care.

Various telehealth initiatives and partnerships with private health care entities across the state are prominent in the long-term plans set forth by Louisiana's state agencies. These, however, are more concentrated in private entities, as evidenced from the Stakeholder Engagement. Despite this, the state does have a few tech-related strategies and initiatives that may have strong implications for the state's health outcomes. The State's Department of Health has

initiatives that focus on empowering the infrastructure designed to respond to mental health crisis calls—the stated goal is an in-state answer rate of 90% or higher (Louisiana Department of Health 2023). There are also other initiatives that come from the Departments of Juvenile Justice and the Department of Children and Family Services that seek to use the force of technology to keep families together and to extend help to minors in need. Given that a large proportion of minors in need of assistance struggle with mental health issues, these initiatives hold tremendous potential to produce better health outcomes.

Civic and Social Engagement

The state's digital equity plan can play a strong role in accomplishing goals and producing desired outcomes with respect to civic and social engagement. During the outreach conducted to learn about the digital equity challenges, barriers, assets, and resources available across Louisiana, over a hundred individuals representing non-profit and local organizations participated. These participants included leaders of local foundations, volunteers with organizations such as United Way or 100 Black Men, and others involved with organizations that have an interest in improving digital equity in Louisiana. Of these organizations, people representing non-profit organizations made up about 17% of all participants (Table 2-3). More information about the outreach and collaboration efforts are detailed in Section 4, including a list of organizations attending stakeholder engagement events.

Table 2-3. Types of organizations represented at stakeholder engagement meetings.

Type of Organization	Percent
Government	28%
Postsecondary	21%
Non-profit	17%
Library	17%
Business	10%
K-12	5%
Health care	4%

Source: Stakeholder engagement sign-in sheets

Delivery of Other Essential Services

Libraries

Public libraries play a substantial role in providing digital access and encouraging adoption of internet use, which impacts the education, health, and vitality of surrounding communities. Families without broadband or devices at home find the services available at libraries to be especially critical as libraries offer opportunities to connect to the internet at no cost and often have devices available to check out or use at the library.

Acquiring digital skills and becoming digitally literate is an integral part of digital equity. Continual access to the internet and smart devices is important but is not sufficient if the consumer cannot use the device or internet effectively. Digital skills development works best

when guided by a knowledgeable professional that assists learners to use technology to accomplish their goals and are not tied to a designated tool. Furthermore, digital skills teachings should transcend basic and technical skills to also include problem solving and critical thinking to ensure receptiveness towards continuous learning as technologies evolve.

Public libraries remain a respected and trusted source of information and venue to receive digital skills training (Geiger 2017). A 2021 Pew Research survey found that “26% of respondents reported they usually need someone else’s help to set up or show them how to use a new computer, smartphone or another electronic device. One in ten reported they have little to no confidence in their ability to use these devices to do the things they need to do online” (McClain et al. 2021). Libraries can meet learners where they are and help learners grow technological skills at all stages, from developing early technological skills to assessing digital codes and digital creation. Assistance can range from traditional classroom setting, individualized one on one coaching, or overall technology assistance and drop-in labs. Assistance is often resource intensive, especially for learners with the least digital skills.

Libraries increase public awareness regarding the significance of highspeed broadband and offer community members opportunities to take advantage of it. In 2021, around 43 million Americans accessed the internet (National Telecommunications and Information Administration 2021), and public libraries alone hosted around 224 million public internet use sessions (Institute of Museum and Library Services 2019). Over the course of the pandemic many libraries provided comprehensive solutions to extend broadband services to surrounding communities beyond their walls, including library vehicles with internet access, hotspot lending, underwriting home internet access for low-income families, and amplifying their own Wi-Fi (Byrne and Visser 2022). A survey conducted by the Public Library Association in March 2020 highlighted that around 93% of libraries kept their Wi-Fi operational beyond business hours (American Library Association 2020).

Libraries act as hubs in their community and regularly help connect their residents to organizations that serve their unique and diverse needs. They have existing – and in many cases – longstanding partnerships with trusted community organizations, such as older adult programs, veteran organizations, state and local government agencies, health care providers, churches, workforce development entities, adult basic education providers, and community colleges. Additionally, libraries help refer people from covered populations to agencies and services which can address “underlying systemic issues such as low literacy, houselessness, food insecurity, and mental and physical health services that may be substantial barriers to social, economic, and educational opportunity” (American Library Association 2022).

Beyond the internet and devices available at public libraries, emerging collaborative models allow libraries, often with community-based partners, to share resources and expertise across multiple locations. For example, the Louisiana Statewide Digital Inclusion Pilot is a one-year effort to address digital inclusion needs in Louisiana with an emphasis on digital skills. This pilot seeks to reduce the percentage of Louisiana residents who lack the digital skills needed to fully participate in today’s society. Louisiana has designated a cohort of 65 professional librarians

and other library staff as digital navigators and will provide digital skills courses and outreach to the communities surrounding their public libraries. The pilot sites are across five public libraries and will provide digital skills programming and establish needed roles to develop a sustainable program with Louisiana's public libraries and other community partners. This effort is led by LOUIS: the Louisiana Library Network and the Louisiana Board of Regents in partnership with the State Library of Louisiana and Connect LA. Participating libraries trialed the Northstar Digital Literacy online learning platform, enhanced their existing digital skills instruction, and tried some new outreach strategies to reduce the number of people in their communities who lacked foundational digital skills. Existing library staff received digital navigator training to serve as trusted guides who assist community members in using computing devices, as well as locating affordable internet access, acquiring devices, building technical skills, and locating application support. This pilot serves as an initial step towards achieving the goal of digital equity and reducing the percentage of Louisiana residents who are digitally illiterate. While only in the first year, if effective, this pilot could serve as model the state could scale and implement to address digital skills gaps.

In addition to the pilot's effort to promote and improve digital skills, the State Library intends to construct a "virtual library," which would provide for accessibility to resources to those that would otherwise struggle to effectively utilize the library (Hamilton 2017, 11). This initiative and others like it are positive developments, but long-term effectiveness of these types of programs will depend on upon the community's access to broadband internet.

Libraries in Louisiana support many digital equity needs. However, their services are hindered by infrastructure, staffing, and budgetary restrictions. According to the State Library, all of the main libraries in Louisiana have fiber service with speeds of >100 megabit (1 gig is the average speed). However, not all branch locations have fiber. The State Library noted the lack of fiber at some locations is a result of the excessive cost related to laying fiber to the branch. As a result, libraries need funds to upgrade their internet infrastructure. A common theme that ran through stakeholder engagement meetings in all regions was that funding was limited; there simply is not enough funds to expand library programs to a size appropriate for the communities that the libraries serve. The State Library Plan also cites challenges beyond—though related to—funding, such as outdated hardware and software, an inability to secure or train the necessary workforce to maximize the effectiveness of existing initiatives, and the need to maintain "baseline" services (such as managing physical books and running community programs) (Hamilton 2017). Another prominent issue mentioned by some library representatives was that libraries ceased daily operations before working families could effectively make use of the services offered. Additionally, libraries located in rural areas sometimes experience low bandwidth during certain times of the day.

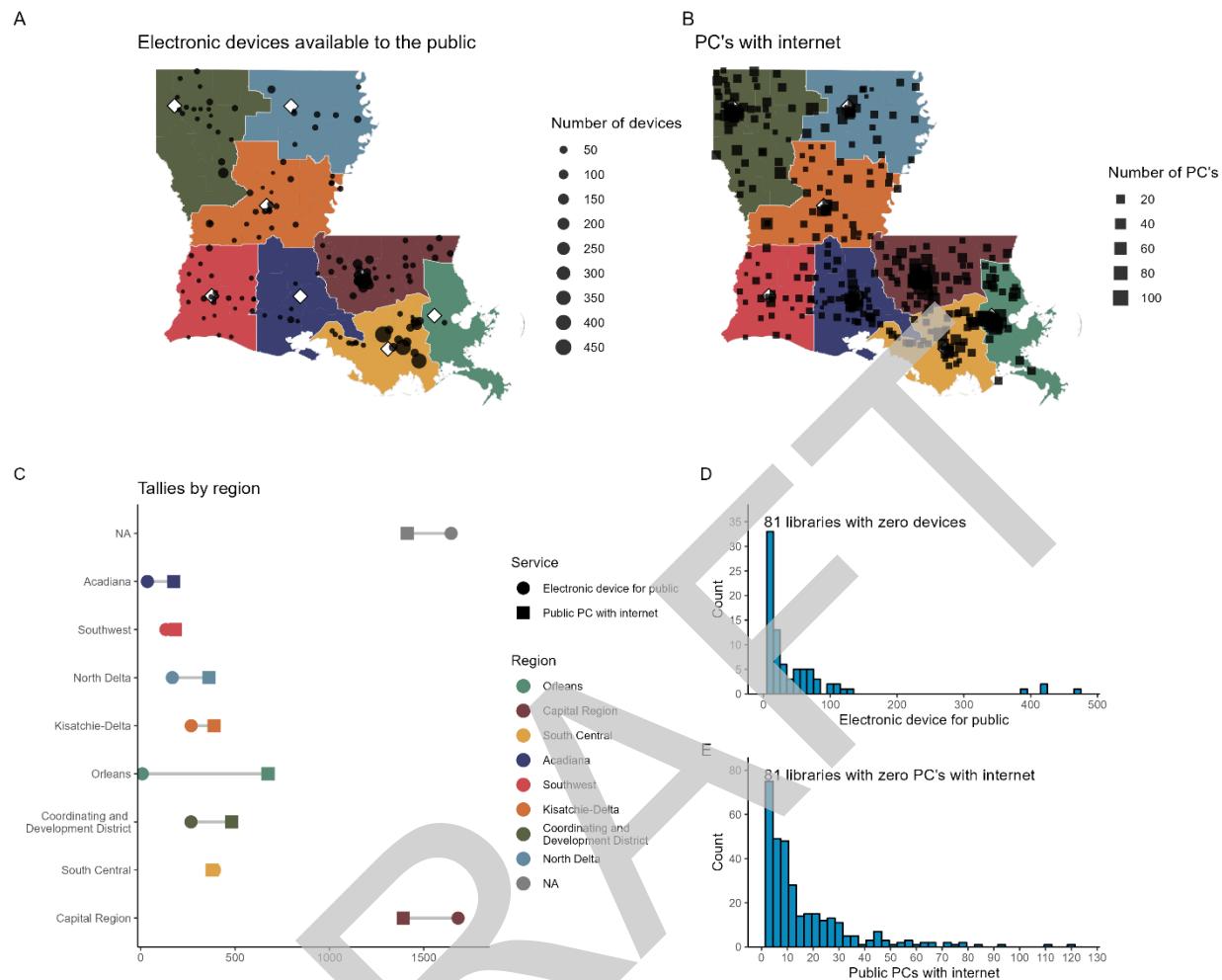
Library public (open) wi-fi meets a substantial broadband deficiency for some communities. In the regional stakeholder engagement meetings librarians described, in five separate instances, how individuals used library parking lot after hours to access Wi-Fi. At three meetings, librarians also discussed the interest their patrons have in checking out hot spots and other devices but pointed out that these devices are useless in cell phone dead spots.

While many library systems have state-of-the-art computer labs with robust schedules of digital skills workshops along with personal librarian services, other libraries lack the capacity (staff size and/or budget) to build a digital navigator program or host regular group computer classes. In regional stakeholder engagement meetings, fourteen different librarians expressed their capacity is limited due to staff shortage, limited hours, or lack of funding. Lack of capacity hinders libraries' ability to conduct community outreach and market digital skills initiatives. Many libraries lack laptops, tablets, and hotspots to lend to residents who attend digital skills classes or are working with a digital navigator for individual support. This will allow learners to practice their new digital skills at home between sessions and help them become familiar with these devices while learning the skills. The devices may help increase adoption of internet service and enable the learner to see the value in owning a device of their own. One focus group member noted that the small rural library nearest his house had only two devices to use on site which did not provide sufficient options for the need in the area (see Figure 2.2 for an illustration of availability of devices to borrow on site or to check out for use at home). One participant in a regional stakeholder engagement meeting mentioned that Hurricane Ida destroyed two library branches in the towns of Bourg and Golden Meadow, restricting the Terrebonne and Lafourche Parish Libraries' capacity to support digital equity needs.

Resources, Assets, and Aligned Initiatives

In Louisiana, most libraries provide their community with access to wi-fi and public computers (Figure 2.2). These services are supported through federal E-rate funding, which provides discounted internet access based on poverty level of schools in the area, with some rural schools and libraries eligible to receive a higher discount rate (Federal Communications Commission 2021). According to the State Library of Louisiana, most public libraries in Louisiana apply and receive between 80 and 90% discount on internet services. One of the libraries which does not apply is a municipal library which receives its services through the municipality. Recently, the Federal Communications Commission has refocused E-Rate to improve access to wi-fi. The State Library of Louisiana provides significant staff support for public libraries in the annual application process for E-Rate funds. Ongoing E-Rate funding is critical for funding library connectivity.

Public libraries serve as trusted anchor institutions in communities across the state. Many of their community members are from historically disadvantaged populations. As a result, libraries provide free access to the internet, computers, and digital skills training to unserved and underserved people in their communities. This includes people from low-income households, people of color, older adults, people who live in rural areas, veterans, people with disabilities, those who were previously incarcerated, and people with language barriers – either low-literacy skills or those who are learning English. Based on data from the State Library of Louisiana, Figure 2.2 illustrates the distribution of desktop computers with internet and loaner electronic devices (e.g., tablets, laptops, etc.). While 81 libraries have no devices to loan or desktop computers with internet access, most libraries have both.



Source: State Library of Louisiana (2023), "Devices by Library Location"

Figure 2.2. Distribution of desktop computers with internet and loaner electronic devices

Libraries use a variety of means to advertise their services. For example, Rapides Parish Library, a pilot site for the Louisiana Statewide Digital Inclusion Pilot, made a significant attempt to conduct outreach to their community through a variety of organizations, such as churches, assisted living senior centers, prisons (for employees), and to those who serve Spanish-speaking community members. Digital navigators shared information about the Northstar assessments at community events and to homebound patrons through their bookmobile program. The bookmobile provides outreach services to areas of the parish or organizations that have a hard time accessing the brick-and-mortar libraries. Additionally, the library promoted their digital skills classes and the Northstar Digital Literacy platform in their library newsletter, on the website, in Facebook posts, and on local television and radio stations. Another library in the pilot program, Livingston Parish Library, conducted general outreach to their community to promote their digital navigator program and computer classes by hosting booths at the Denham Springs Fall Festival, the Livingston Parish Book Festival, and a community resource

fair. As a result, attendance in their classes and one-on-one consultations with digital navigators gradually increased over the course of the pilot.

"These types of programs are successful because the people in the community know the people in their library. They trust them. And, a lot of times, the people that are lacking these basic foundational, digital skills are very hesitant to admit that they don't have the skills. There's a little bit of embarrassment that they don't know this. And so going to someone that they trust- someone that they've communicated with in the past- that's been helpful to them. And their public library is someone that is trusted, and they go to them, and they know that they're going to help them." – Attendee at Louisiana Board of Regents stakeholder meeting

All libraries provide help to library patrons seeking career or job-seeking assistance, such as applying for jobs online or improving their skills while looking for a new job. As state, federal, and some local governments reduced their physical footprint or moved services and resources online only, local libraries provided the only place some community members could access these services online. Public libraries provide communities with both access (to the internet and device) and help completing forms. Of particular benefit are people who need online access and help applying for unemployment benefits, SNAP benefits, and many other state and federal social service programs. In many cases, application forms are only available online and individuals are not able to get assistance with them over the phone. Some agencies require residents to use a computer with a camera for visual identification. This is a challenge for some libraries that don't have equipment to meet this need.

Digital navigators provide an excellent example of how digital skills instruction in their libraries can impact residents. Two examples of some early approaches to a digital navigator program conducted as part of the Louisiana Statewide Digital Inclusion Pilot include using a more formal appointment-based program along with one that is more informal but driven by word-of-mouth. At Livingston Parish Library, community members who approach a service desk with technology-related questions that require more than few minutes to answer are encouraged to make an appointment with a digital navigator. This book-a-librarian service allows the digital navigator to provide personalized instruction in a private setting. This same library decided in early 2023 to take the library instruction outside the library to the community members. In February 2023, digital navigators taught computer classes for older adults at their local Council on Aging location. The East Carroll Public Library digital navigator also provided one-on-one digital skills training to patrons. In the small community of Lake Providence, residents began to spread the word about how this digital navigator helped them learn new digital skills. This led to an increase in community members seeking her services.

Libraries meet the needs of non-native English speakers. In regional stakeholder engagement meetings, two participants pointed out that it is also extremely difficult to get non-English speakers to engage with digital skills programs. One specifically mentioned a library program as an example of a successful program that provided accommodation for these individuals and

how the program fulfilled an unmet need in the community. In a related vein, according to librarians involved in the Louisiana Statewide Digital Inclusion Pilot, leaders at Jefferson Parish Library decided early on to focus their digital skills initiative on the Hispanic community in Jefferson Parish. The library hosted booths at Que Pasa, a large Hispanic festival, and several other parish events. At these events, digital navigators promoted library services along with the digital skills program, including Northstar Digital Literacy and their computer classes.

Additionally, the library paid for advertisements in a local Spanish-language newspaper and on a local Spanish radio station. This targeted outreach to the Hispanic community in Jefferson Parish has led to an increase in both enrollment and the number of computer classes offered. Recently, library leadership has offered Spanish language classes for employees as part of their professional development program so their staff is better able to support all community members.

Another Louisiana Statewide Digital Inclusion Pilot site explored incorporating both digital navigator assistance and the Northstar Digital Literacy platform into their relatively new career center. The digital navigator at Livingston Parish Library's Career Center holds workshops on digital skills needs for career pathways, such as creating a resume and applying for jobs. As these workshops are more hands-on, with individual learners getting personalized instruction for their specific needs, they are limited to four people per session. The digital navigator creates handouts for each class, so attendees can refer to the document when they practice their new skills. Additionally, she assists learners in creating their Northstar accounts and encourages them to take the pre-assessments so they can use the self-paced learning modules to continue learning on their own time. Some learners like the certificates they can download to show they have gained proficiency in a skill, such as Microsoft Word, Excel or PowerPoint.

Digital skills resources are often included on the website of every library; parish libraries typically offer basic resources within their library systems, such as access to Wi-Fi and computer labs, and contribute further by offering digital skills training and tutoring to people of any age. Table A2-3 in the Appendix provides an overview of the digital equity programs and resources that may be accessed through local libraries. However, options to access wi-fi and computers are not indicated on all library websites, the Louisiana State Library system states that all public libraries in the state have these services. Additional programs and resources such as NorthStar Digital Literacy and any others related to digital equity are also included in the table when available. One challenge with local library resources is that some parishes lack a proper website and do not provide any information about the services they provide for digital equity.

Other Agencies

Several state services such as internal operations or external operations impact or have goals aligned with digital equity in Louisiana. Such initiatives relate to digital equity in that the state's various departments and agencies may better serve Louisianans as broadband expansion and investment in up-to-date technology and resources provide new opportunities. For example, the Court System places an emphasis on implementing e-filing to increase productivity. Several agencies set forth strategies for digital skills-oriented training, including cyber security, for its

employees (e.g., Department of Administration and State Library). Additionally, public safety initiatives, which often involve securing more technology or infrastructure to enable more timely and adequate responses to crises across the state, are impacted by attainment of technology, appropriate software, and digital skills of agency staff.

Several external or public-facing initiatives either impact or are aligned with Louisiana's digital equity efforts. Many state agencies and municipal governments set forth goals of connecting with citizens and residents via the internet in some way that would make operations more accessible, convenient, and useful for both parties. For example, the Department of Public Safety, the Louisiana District Court System, and the Department of Environmental Quality all advanced some form of an electronic payment system for patrons as part of their plans. In addition to the Court system and the Department of Environmental Quality, the Ethics Administration expressed an interest in integrating a similar electronic filing system for required forms.

Other agencies use digital means to improve delivery of services. One example is the use of applications, websites, and social media by the state's Court System to make legal processes more accessible. Several others have plans to achieve similar accessibility. The Department of Environmental Quality particularly expressed a desire to utilize social media outlets (such as YouTube, Facebook, and Twitter) to raise awareness of environmental degradation. The Department of Children and Family Services put forth a similar goal, as did the Louisiana District Courts and the Department of Children and Family Services. Other agencies and departments, namely the Department of Public Safety and Corrections, the Department of Veterans Affairs, and the Governor's Office of Elderly Affairs cited more broad goals and strategies that may not necessarily involve the use of electronic media but would nonetheless be advanced by bolstering public access to information via the advances made by the Digital Equity Plan. Finally, the Office of the Lieutenant Governor plans to support an online volunteer management system to coordinate volunteers.

The increased availability of broadband and technology on the part of the population at large will make many agency initiatives more viable, whereas the internal improvements made by these agencies will make the delivery smoother. Additional information on the how individual state agency plans interact with digital equity focus areas can be found in Section A2 of the Appendix, Table A2-4.

3. Current State of Digital Equity: Barriers and Assets

3.1 Overview of Broadband in Louisiana: Review of Access & Affordability

This section explores the gap in broadband adoption in Louisiana by comparing available data from the U.S. Census Bureau, the Federal Communications Commission (FCC), and other sources on access and affordability of broadband subscriptions. Broadband access and affordability are not the only factors influencing broadband adoption, but they are the primary hurdles that must be passed before an individual can adopt broadband. Other factors like

capability and trust also have an impact on the individual decision to adopt broadband, but these influences are more subjective in nature and difficult to measure at the population level.

Definitions

The National Digital Inclusion Alliance (NDIA) defines **broadband adoption** as, “daily access to the internet at speeds, quality, and capacity necessary to accomplish common tasks, with the digital skills necessary to participate online, and on a personal device and secure, convenient network” (NDIA n.d.).

The following four characteristics are consistently cited in literature on broadband adoption as factors that impact an individual's decision to adopt broadband as a service:

1. *Access/Availability* - Is there infrastructure to provide reliable access to a high-speed connection?
2. *Affordability* – If broadband infrastructure is available, are low- and middle-income residents able to afford a subscription?
3. *Capability* – Do residents have access to affordable devices and skills necessary to utilize a subscription (computer ownership, level of education)?
4. *Trust* – Does a person feel comfortable using the service? This factor is difficult to measure, but is certainly a consideration for some groups, like older adults.

Broadband access refers to whether or not reliable broadband service is physically available in an area. Broadband service is typically defined in terms of download/upload speeds and the type of transmission technology, with an emphasis on reliability, but there is no consistent definition. The FCC considers Digital Subscriber Lines (DSL), Cable Modem, Fiber, Wireless, Satellite, and Broadband over Powerlines (BPL) connections to be broadband as long as they can reliably provide download speeds of 25 Mbps or greater and upload speeds of at least 3 Mbps. However, this definition has been in place since 2015, and the FCC has proposed increasing the national broadband standard to speeds of 100 Mbps download and 20 Mbps upload (Perez 2022). The state of Louisiana has already adopted the 100/20 Mbps requirement in its definition of “broadband service,” with any specification on the technology used to deliver a connection left to the discretion of the Office of Broadband Development and Connectivity (Connect LA).²

The National Telecommunications and Information Administration (NTIA) further expands on the speed-based definition of broadband with three levels of service based on available upload and download speeds which will be used to allocate funding for the Broadband Equity, Access, and Deployment (BEAD) Program. The NTIA defines an *underserved* area as having download/upload speeds between 100/20 and 25/3 Mbps. An *unserved* area receives download/upload speeds of less than 25/3 Mbps.

² La. R.S. 51:2370.2

Finally, the U.S. Census Bureau—which serves as the source of population estimates on access to broadband subscriptions for this section and others—does not use a speed-based definition of broadband, instead opting for a definition based on the delivery technology. According to the Census Bureau, a household is considered to have a broadband subscription if an American Community Survey respondent replies “Yes” to having one or more of the following types of subscriptions:

- A “broadband (high speed) such as cable, fiber optic or Digital Subscriber Line (DSL)”
- A “cellular data plan for a smartphone or other mobile device”
- A “satellite” internet subscription
- “Some other service other than dial up” (Martin 2021).

This report narrows the Census definition of broadband by only considering respondents as having a broadband subscription installed in the household if they responded “Yes” to having a *high-speed cable, fiber or DSL connection*.

Broadband affordability is primarily dependent on income levels and the cost of subscriptions in an area, but research shows that the number of providers in an area serves to lower prices and increase quality through competition, making broadband more affordable (Wallsten and Mallahan 2010). Data on subscription prices and consumer purchases of broadband services are not readily available, but we are able to see the relationship between income levels and broadband subscription rates through data from the U.S. Census Bureau.

Focus on Access and Affordability

This section focuses primarily on findings and figures from the latest data on broadband access and affordability in Louisiana. The factors of capability and motivation receive limited focus here, as both factors are qualitative measures which lack rigid definitions or adequate sources of data to analyze. However, computer ownership—for which the U.S. Census provides estimates—can serve as an incomplete proxy for capability and so figures on computer ownership are reviewed in Section 3.1.2 (Adoption by Covered Population). The concepts of capability and motivation are referenced in subsequent sections, on the barriers to adoption for covered populations.

What is clear from our review of the data is that broadband is not equally available or adopted across geographic areas or population groups within the state. At the geographic level, rural parishes—especially those in northern districts of the state—lack the degree of connectedness that is seen in more populous southern districts of the state. Credit for discrepancies in access can be attributed to inadequate infrastructure in some cases, but even within areas where high-speed infrastructure is widely available, we find households who lack broadband subscriptions. These results indicate that physical access alone is not an adequate indicator of broadband adoption or equity.

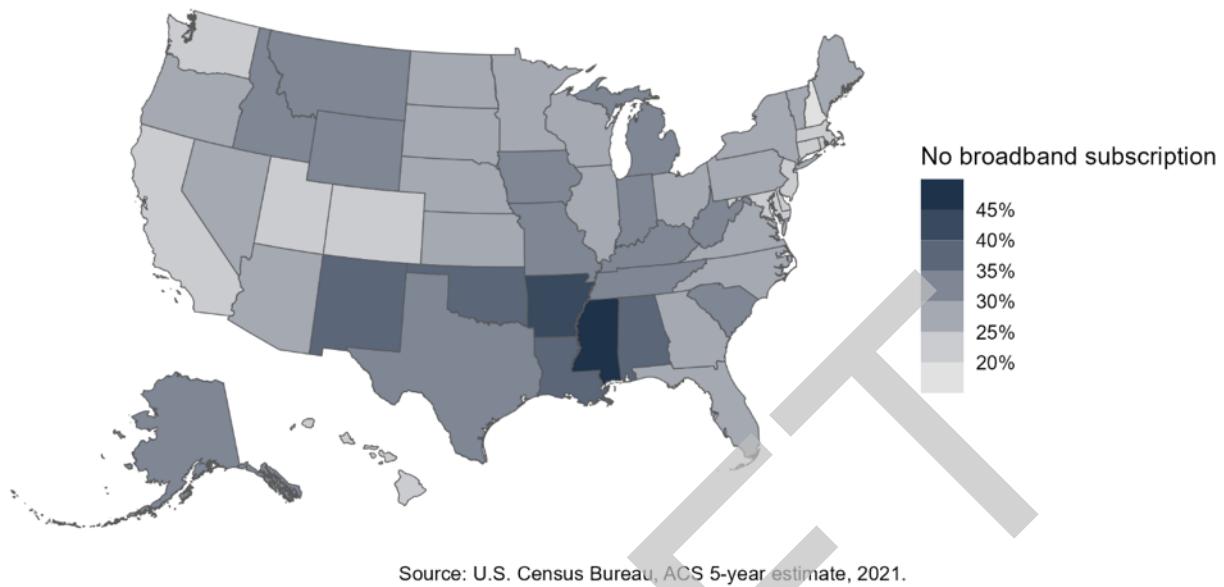


Figure 3.1. Share of households without a broadband subscription in the United States.

A major barrier to an individual's ability to access the internet is the infrastructure available in the area. If a household's local internet service provider (ISP) is not able to provide a connection, then personal and household characteristics like age, income, education, or device ownership have little bearing on subscription status. We examined two key measurements to better understand the limitations of broadband access in Louisiana: 1) data on the physical connections available using service provider data from the Federal Communications Commission (FCC), and 2) U.S. Census data on broadband subscriptions by household and individual characteristics. The FCC data allows us to see where shortcomings in broadband infrastructure exist in the state, while the U.S. Census data provides insight beyond infrastructure and enables us to examine why access and adoption might be limited even in places where infrastructure is adequate.

Data Overview: FCC Form 477 Filings and the National Broadband Map

The FCC requires ISPs to provide broadband deployment data by filing Form 477. An effort to refine accuracy and granularity of broadband infrastructure data is underway (the National Broadband Map) and will be used in future efforts to improve our understanding of broadband availability in the state. In the meantime, we used Form 477 data to examine current broadband infrastructure in Louisiana. A more detailed description of the FCC broadband datasets and their limitations can be found in Section A1 of the Appendix under FCC Form 477 Filings and the National Broadband Map.

Level of Service Definitions

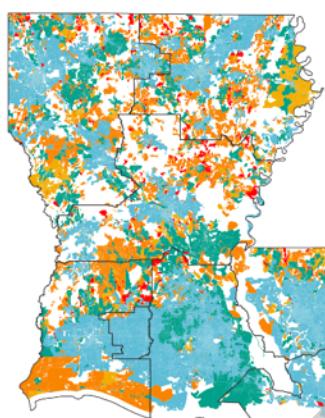
The FCC categorizes internet service based on available download speed as follows: "Basic" (3 to 8 Mbps), "Medium" (12 to 25 Mbps), and "Advanced" (more than 25 Mbps). To include

connections below “Basic” service (below 3 Mbps), we added the label “Slow”. The National Telecommunications and Information Administration (NTIA) considers areas which receive connections below 25 Mbps as *unserved*, and areas which receive connections below 100 Mbps as *underserved*. For the purposes of this report, any download speed equal to or greater than 100 Mbps has been labeled a “Broadband” connection.

Geographic Variation in Broadband Availability

According to FCC data, broadband internet is available to 74.31% of U.S. census blocks. Louisiana ranks 37th compared to other U.S. states, with broadband connections to 64.94% of the state’s census blocks (Figure 3.1). In Louisiana, 7.54% of census blocks are underserved (between 25 and 100 Mbps), and 27.52% are unserved (below 25 Mbps), with 20.27% entirely without internet.

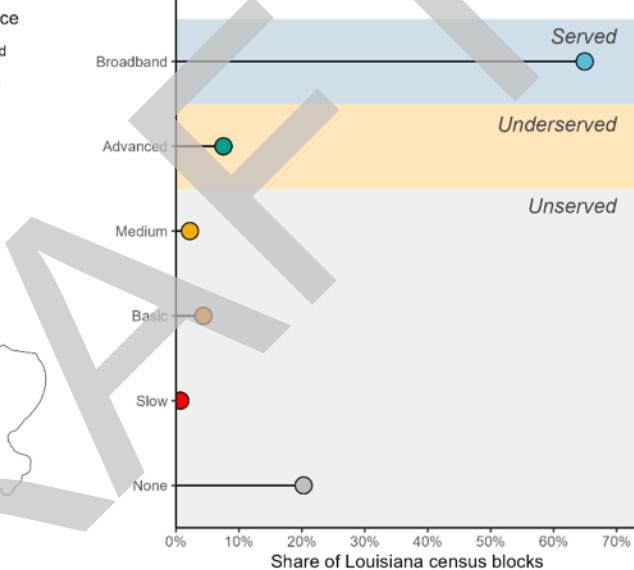
A



Internet service

- Broadband
- Advanced
- Medium
- Basic
- Slow

B



Form 477 data available on FCC.gov (Dec 2021). Census block data from 2020 Decennial Census.

Figure 3.2. Fastest available internet by Louisiana census blocks. Service categories: (1) Broadband, 100 Mbps and above; (2) Advanced, 25 – 100 Mbps; (3) Medium, 12 – 25 Mbps; (4) Basic, 3 – 12 Mbps; (5) Slow, below 3 Mbps. A) Geographical representation of service coverage in Louisiana. B) Share of census blocks with fastest available internet by service category.

The FCC data suggests that broadband availability is overall greater in the southeast compared to the north of the state (Figure 3.2). Generally, urban parishes tend to have higher percentages of census blocks with access to broadband than rural parishes.³ Figure 3.3 shows a geographical representation of Louisiana’s urban and rural parishes, and the share of census blocks with broadband infrastructure per census tract. Gaps in internet access service are much more pronounced in northern Louisiana than in the southeast.

³ Louisiana state legislature defines parishes with a population of below 100,000 as “rural”.

<https://legis.la.gov/Legis/Law.aspx?d=86171>

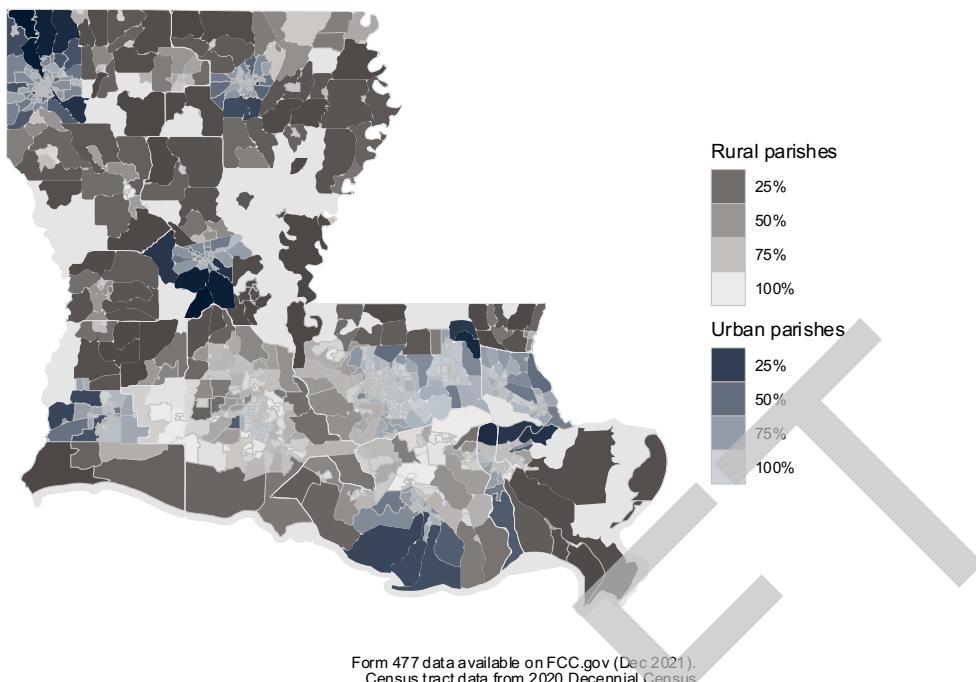


Figure 3.3. Broadband (100 Mbps and above) percent coverage in Louisiana census tracts in urban (blue) and rural (tan) parishes.

Regions in southeast Louisiana have higher shares of parishes classified as urban, and overall have above-average access to broadband compared to the state, with three out of four regions ranking higher than the U.S. average (Figure 3.4**Error! Reference source not found.**). Most regions show high within-region variability in broadband coverage between parishes, with rural parishes generally lagging urban parishes. Region average access varies between 87.67% (Orleans) and 27.48% (Kisatchie-Delta), with parishes ranging from 97.79% (Lafayette, Acadiana Region, urban) to 0.12% (Catahoula, Kisatchie-Delta Region, rural).

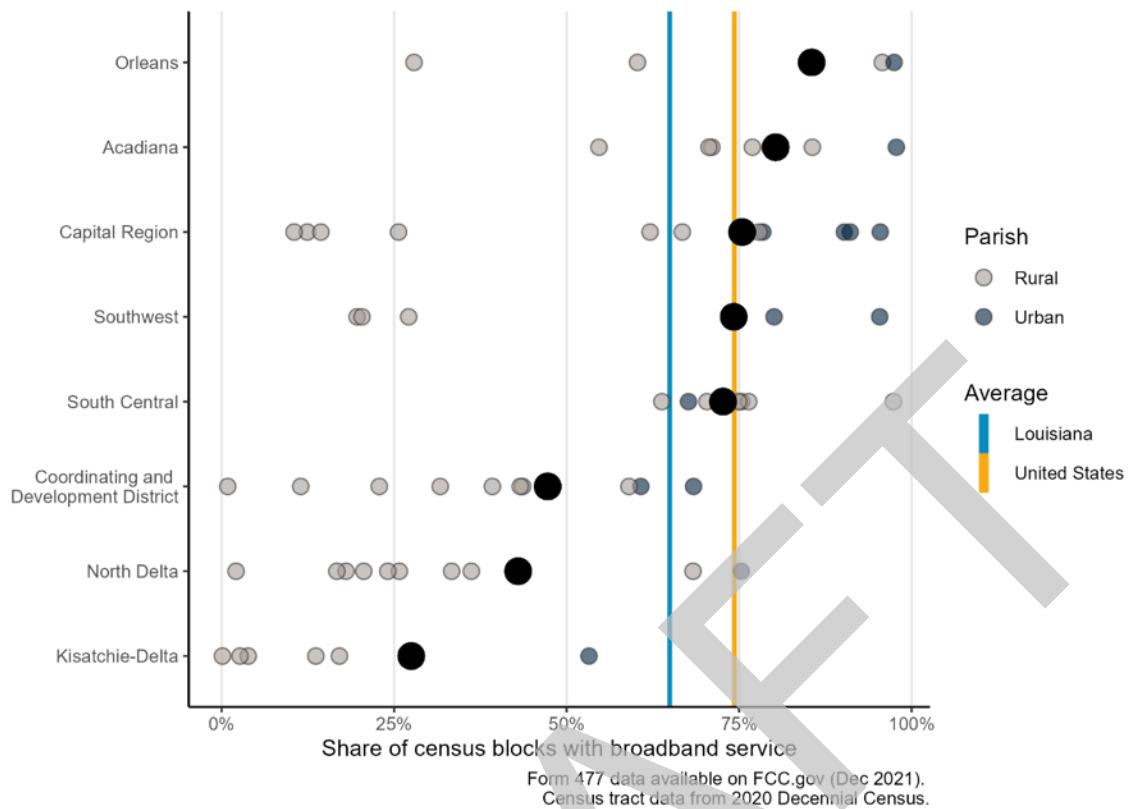


Figure 3.4. Broadband (100 Mbps and above) percent coverage in Louisiana parishes (small points) and regions (large points). Vertical lines show averages for the U.S. (yellow) and Louisiana (blue).

Internet Subscriptions

The number of broadband internet subscriptions has been rising in U.S. and Louisiana households, however, not every household is connected yet (Figure 3.5). As of 2021, nine out of ten U.S. residents live in households with a broadband subscription. The Louisiana average is slightly lower (85.1%). Louisiana ranks fifth among states and U.S. territories entirely without internet connection, with the state average (8.1%) higher than the national average (5.6%) (Figure 3.6).

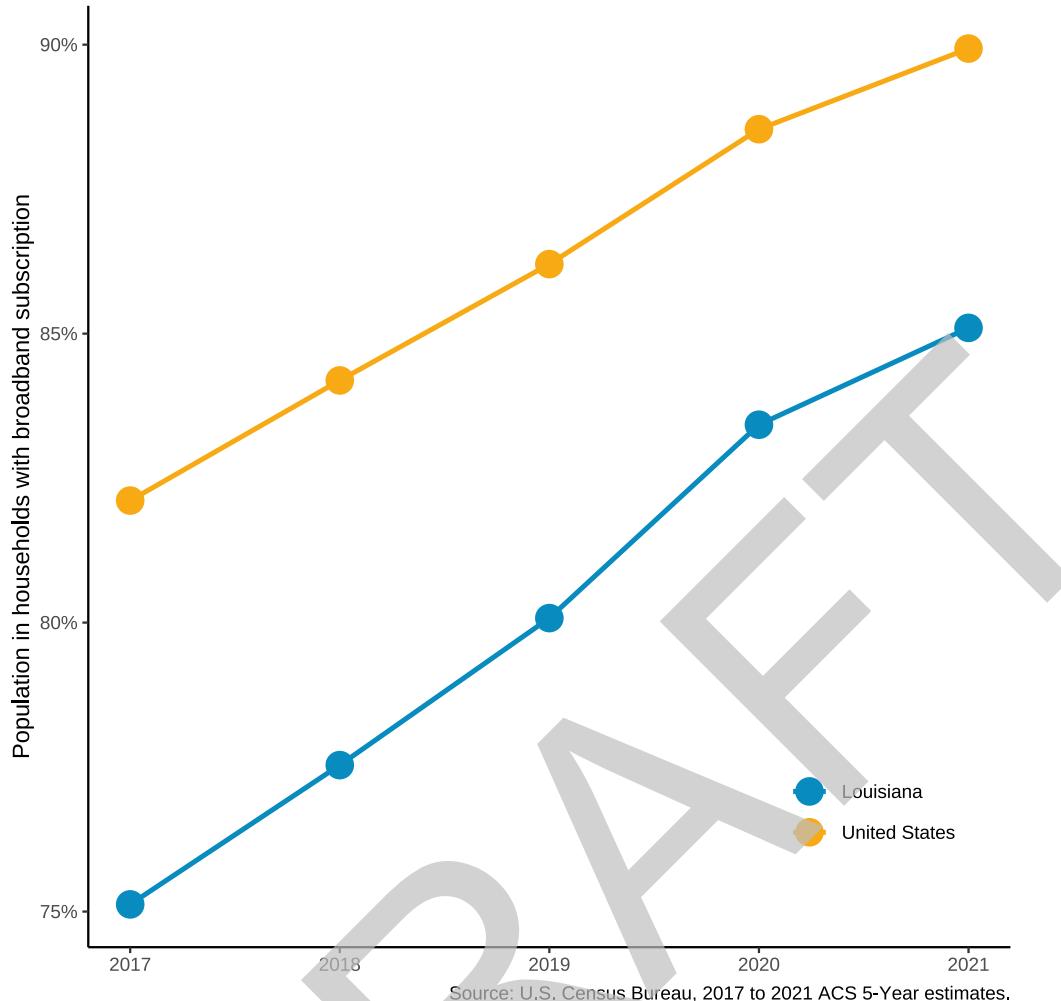
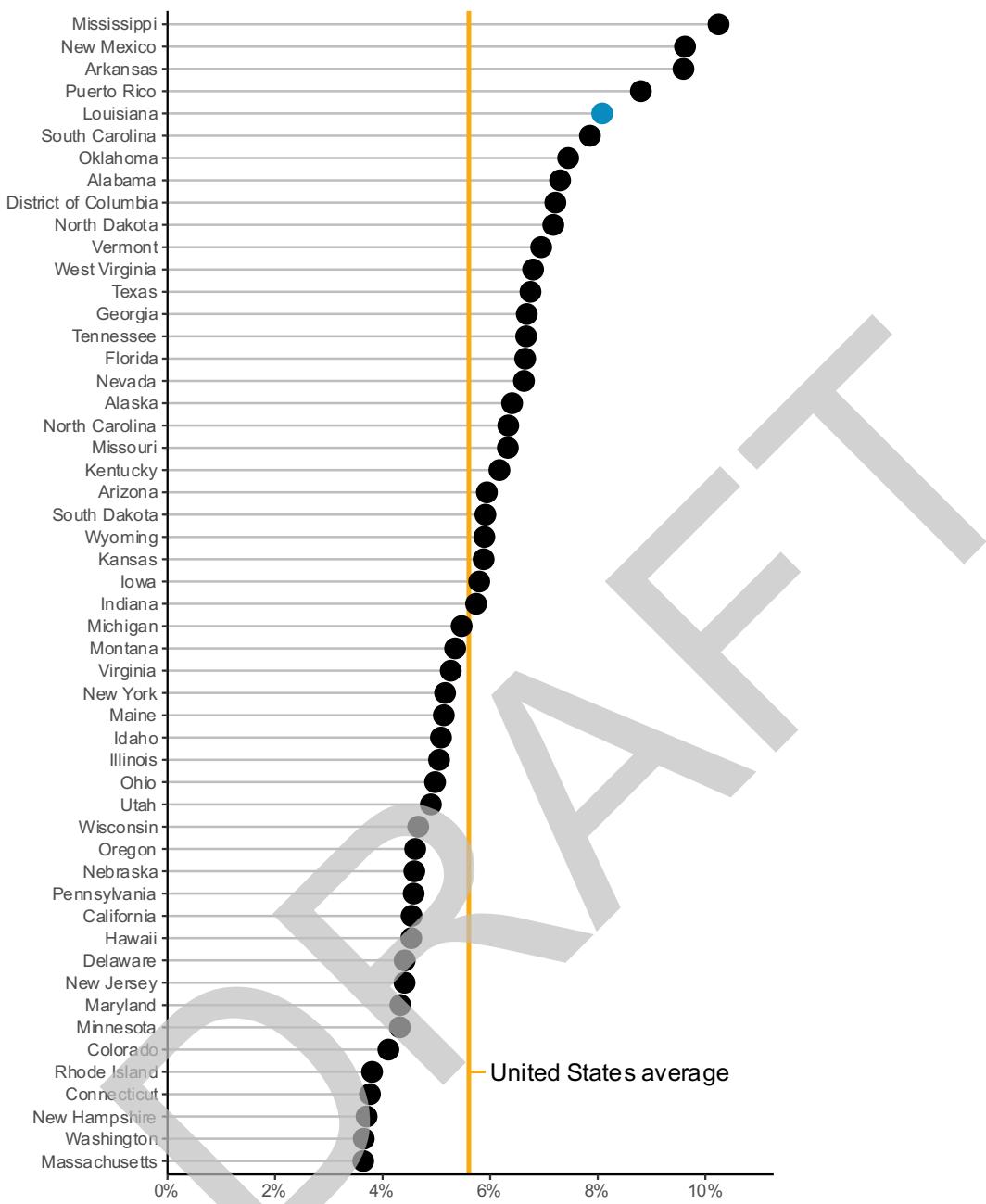


Figure 3.5. Share of population in households with a broadband internet subscription in Louisiana (blue) and the United States (yellow).



Source: U.S. Census Bureau, 2021 ACS 5-Year estimates.

Figure 3.6. Share of population in households with an internet subscription by U.S. state. Vertical yellow line represents U.S. average.

3.1.1 Affordability

Household Income

The rate of household broadband subscription aligns well with income brackets. The share of households with a highspeed internet subscription increases as income levels rise, except for the group earning \$10,000 to \$19,999 (Figure 3.7). This trend follows what is seen in the rest of

the nation. The U.S. average for broadband subscriptions is consistently higher than for Louisiana, but the difference decreases at higher income levels. High-earning Louisianans are almost as likely to have access to a broadband subscription (93.9%) as the average high-earning U.S. resident (95.6%). In contrast, Louisiana households with low income are far less likely to subscribe to highspeed internet (59.5%) than the average American household in the same income bracket (67.5%).

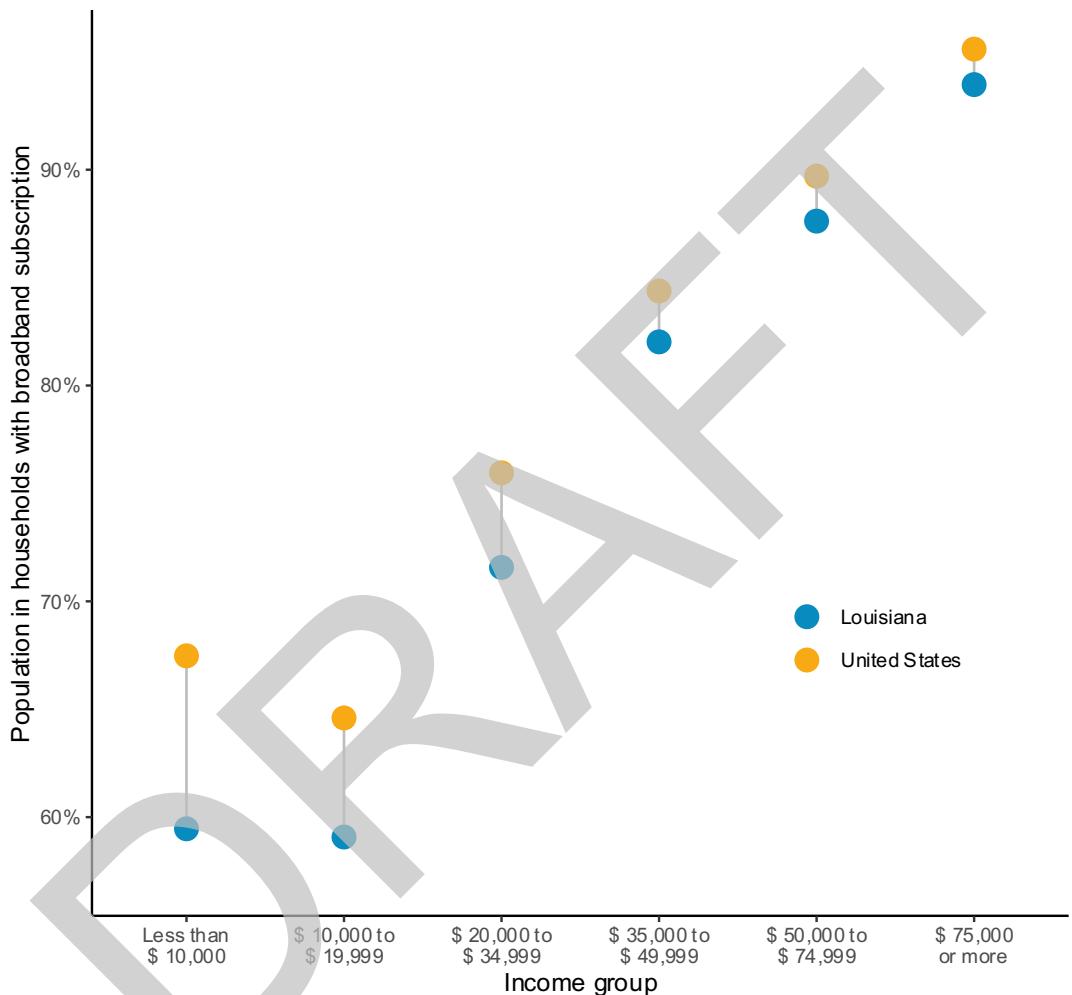
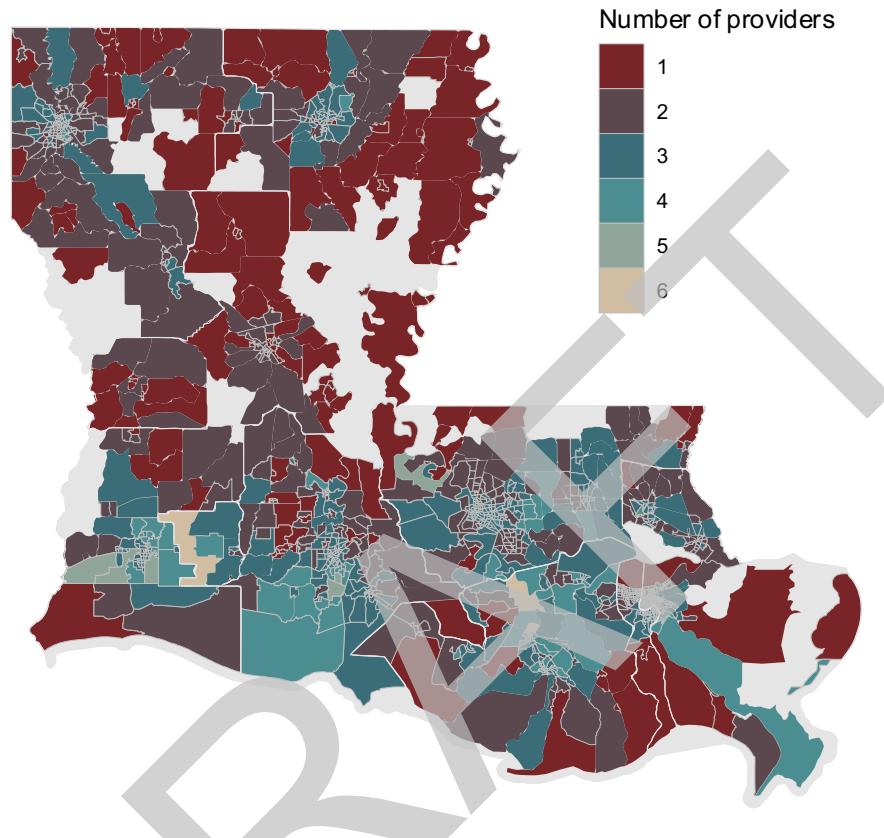


Figure 3.7. Share of population in households with broadband internet subscription by income group in Louisiana (blue) and the U.S. (yellow).

Competition among ISPs

In many communities, options for broadband access are limited to only a few or even a single provider (Figure 3.8). This issue is especially prevalent in rural communities where service coverage is lacking. During stakeholder engagement meetings and focus groups, residents from rural areas reported that ISPs without competition charge high prices for subscriptions, and thus, make broadband subscriptions inaccessible for many households and small businesses. Lack of affordable options for adequate internet access affects low-income households especially severely.

"I have ten career centers in ten rural parishes, and I am only aware of one provider: AT&T." – Stakeholder meeting participant



Form 477 data available on FCC.gov (Dec 2021). Census tract data from 2020 Decennial Census.

Figure 3.8. Number of broadband providers per census tract in Louisiana.

Participation in the Affordable Connectivity Program

The above subsections noted the issue of affordability and how it affects individuals' ability to subscribe to the internet. In addition, some households may simply have limited options for internet service providers, sometimes resulting in inflated subscription costs. The FCC provides qualifying low-income households with the opportunity to participate in the Affordable Connectivity Program (ACP). The program provides \$30 a month to low-income households, and \$75 a month to qualifying households living on tribal lands towards their internet subscription.

"Whether you meet the income requirement or not, that's still a bill and expense you have." – Stakeholder meeting participant

To be eligible for the ACP a household's income must be at or below 200% of the federal poverty threshold or they must participate in one of several federal assistance programs. In 2021, 1,732,660 Louisiana residents (38.2%) were eligible using the household income criteria. Participation in SNAP, Medicaid, and Free and Reduced Lunch program (and several other federal programs, more at <https://www.fcc.gov/acp>) classifies an individual as eligible for ACP. Louisiana had 822,600 SNAP participants in 2022. About 45% of Louisiana's total population (2,032,783) were enrolled in Medicaid in January 2022. Additionally, about 403,194 Louisiana students were eligible for free and reduced lunch/breakfast in the 2019-2020 school year (56.8% of students).⁴ ACP enrollment in Louisiana was 430,028 in May of 2023.⁵

3.1.2 Adoption by Covered Population

In this section, we explore census data on broadband adoption for segmented population groups across Louisiana and the U.S. by the following characteristics: 1) age, 2) race and ethnicity, and 3) population density. We examine adoption using two different proxies — household broadband internet subscriptions and access to internet-capable devices (computer ownership). The U.S. Census Bureau defines a computer as: desktops, laptops, smartphones, tablets or other portable wireless computer. The combination of owning a device and subscribing to broadband internet allows household members to access the internet without the need to travel to a public space, such as a library or school campus.

Computer ownership and broadband internet subscription

The share of Louisiana's population in households who do not own a computer, or other such internet-capable device is generally low, an average of 6.7% (Figure 3.). While the share of under-18-year-olds without a device in the household is very small in Louisiana, the share of 65-year-olds and older is drastically larger. Almost one in five older adults (19.5%) have no computer or similar device at home. Among different races and ethnicities in Louisiana, Black households show the highest percentage without a device, and Asian households the lowest. Computer ownership is marginally higher in urban than in rural households.⁶ Across all population groups, Louisiana follows the same trend as the U.S. average, albeit at slightly higher percentage points, except for American Indians, where the trend is reversed. The largest disparity between Louisiana and the U.S. average is seen with older adults (65 years and older).

⁴ Via the National Center for Education Statistics (https://nces.ed.gov/programs/digest/d21/tables/dt21_204.10.asp). 2019-2020 school year is latest available data.

⁵ Enrollment figure via <https://www.usac.org/about/affordable-connectivity-program/acp-enrollment-and-claims-tracker>.

⁶ The U.S. Census Bureau delineates urban and rural geographic areas at the state level after each decennial census. Areas with at least 2,000 housing units or a population of 5,000 or higher are classified as "urban" in the 2020 decennial census. <https://www.census.gov/programs-surveys/geography/guidance/geo-areas/urban-rural.html>

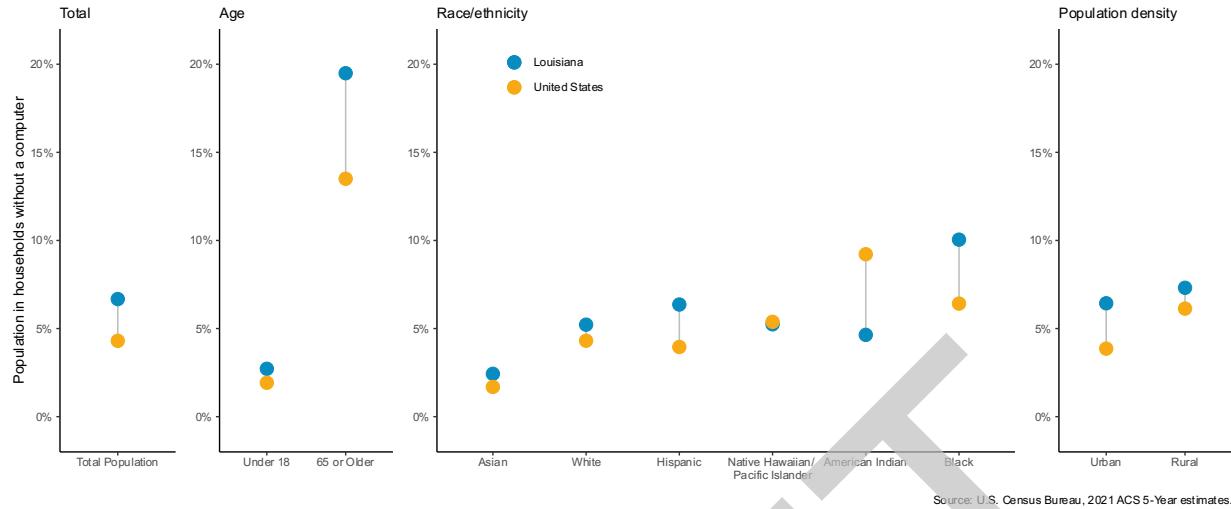


Figure 3.9. Share of populations in households without a computer in Louisiana (blue) and the United States (yellow) by group.

(Figure 3.0 shows the share of population in households who own a computer and subscribe to broadband internet. Patterns in broadband subscriptions are similar to those in computer ownership (Figure 3.) across both Louisiana and the nation. Nine in ten people live in households with a broadband subscription in the U.S., however, the Louisiana average is slightly lower (85.1%). Young Louisianians (under 18-year-olds) are far more likely (89.6%) to have access to highspeed internet at home than older adults (65 years and older, 71.2%). Members of the Black community have lower access to broadband subscriptions compared to other races and ethnicities in Louisiana, while Asian and Native Hawaiian/Pacific Islander households, respectively, have the highest access. The broadband subscription rate is slightly higher in urban than in rural households (more detail in Figure 3.11 through Figure 3.9). Overall, Louisiana lags behind the U.S. by several percentage points but follows a similar trend across age, population density, and total population.

"We've been lucky enough to be one of the pilots, widely successful, where it's a laptop giveaway. The numbers that we're seeing that we're up against – New Orleans is 60% black or brown people. [...] Our needs are pretty great when it comes to providing families with laptops. We know that there's between 35-40% of families in the city that don't have a device at home – a device being a computer or laptop which provides more of an experience digitally for people. They learn a lot more. If you place a computer in a home and everybody uses it, we know that it can uplift everybody. So, the importance of having a device cannot be underestimated. We run a lottery. If you do not have a device at home, you can enter the lottery. [...] We had over 2500 families sign up. Unfortunately, the number we're giving out is only 200 laptops." – Stakeholder meeting participant

The overview on computer ownership and broadband subscription provides insight into access and adoption across different population groups in Louisiana and the U.S. Members of the Black community have lower-than-average access to devices and highspeed internet at home compared to other races and ethnicities and the general public. The data suggest that older adults are the most severely impacted group by the digital divide in Louisiana, as well as in the nation.

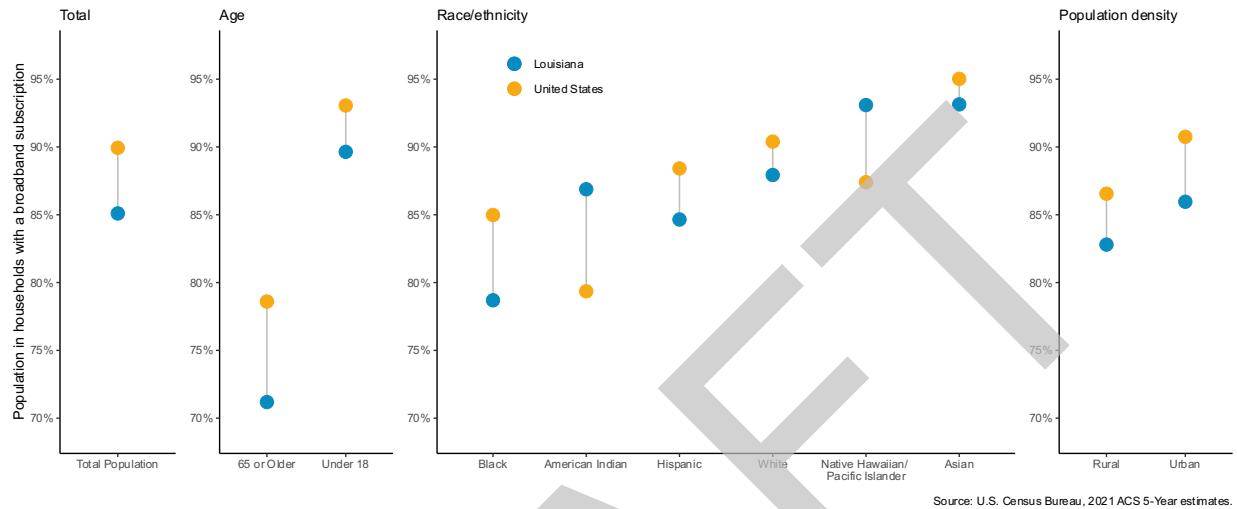


Figure 3.10. Share of populations in households with a broadband subscription in Louisiana (blue) and the United States (yellow) by group.

Education Level

Louisiana trails the U.S. average at every education level for in-home broadband internet subscription (Table 3-1). In Louisiana, households with members enrolled in school are more likely to have access to broadband at home than households without members attending school. Almost every household with a member in college has a broadband subscription.

Table 3-1. Population with a computer and internet subscription by Enrollment

Group	Louisiana	United States
Not Enrolled in School	2,697,469	83.0%
Population under 2	150,944	92.6%
re-K to 4th Grade	339,673	93.1%
5th to 8th Grade	229,102	91.3%
9th to 12th Grade	219,248	92.3%
Undergraduate or Higher	229,273	97.4%

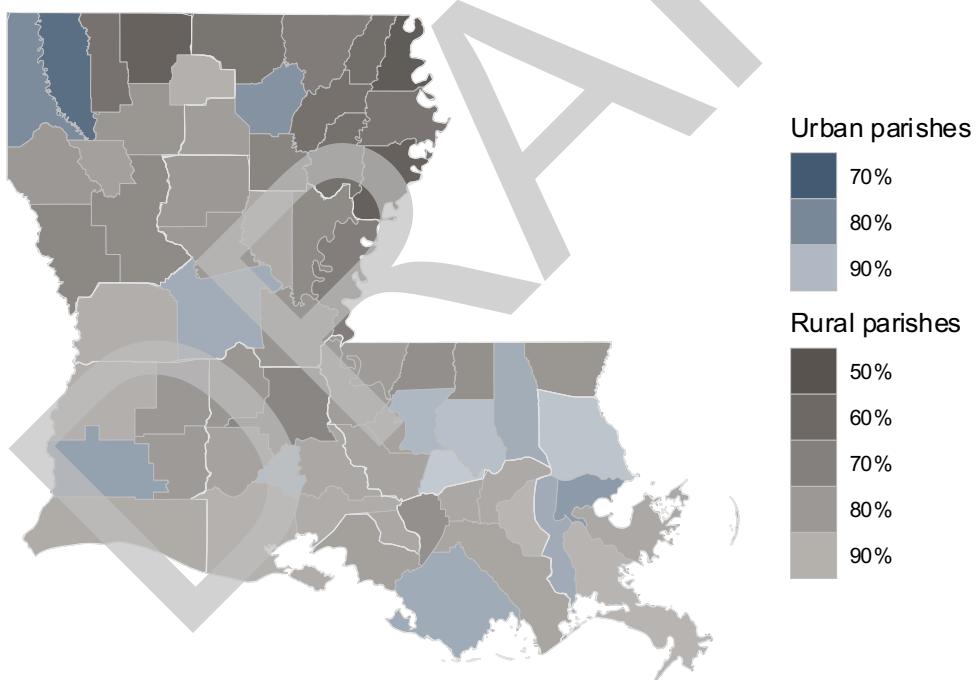
Source: U.S. Census Bureau, 2021 ACS 5-Year Estimates, Table B28012.

Urban and Rural Parishes

Most parishes in Louisiana are classified as rural and only 14 out of 64 parishes meet the population density threshold to be considered urban.³ Broadband infrastructure is far more

readily available in urban parishes than it is in rural parishes (Figure 3.4, Figure 3.7). Areas with higher broadband subscription rates tend to overlap more closely with areas serviced by multiple providers (Figure 3.) than with areas in which broadband infrastructure is available (Figure 3.2), suggesting that infrastructure alone, without competition among providers, is not a strong enough incentive to subscribe to highspeed internet. Across the state, people in urban areas are more likely to have a broadband subscription in their home than people in rural areas do (86% and 82.8%, respectively).⁷

In all but one of the 14 urban parishes, at least eight in ten people have a broadband subscription at home (Figure 3.8). In two-thirds of all urban parishes, broadband subscriptions are above state average. Ascension Parish (Capital Region) has the highest share of in-household highspeed internet subscription (93.3 %), and Bossier Parish (Coordinating and Development District) has the lowest share (74.6 %). In over two-thirds of Louisiana's rural parishes, people have below-average access to a broadband subscription at home, compared to all Louisianans (Figure 3.9). Subscription rates in rural households range from 53.9 % (East Carroll, North Delta Region) to 92 % (St. Charles, South Central Region). The northern and north-eastern parishes have the lowest share of households subscribed to highspeed internet (Figure 3.7).



Source: U.S. Census Bureau, 2021 ACS 5-Year estimates.

Figure 3.7. Share of population in households with a broadband subscription in rural (tan) and urban (blue) parishes.

⁷ See reference 6

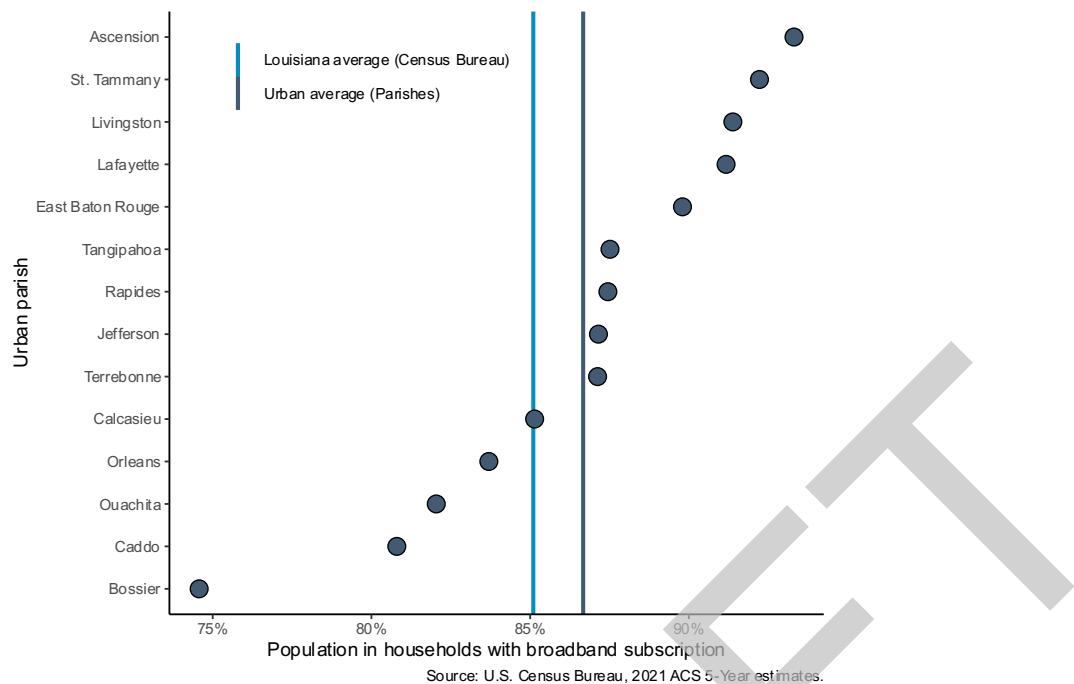


Figure 3.8. Share of population in households in urban parishes with broadband subscription. Vertical lines show the overall average for Louisiana (blue) and the calculated average of all urban parishes (dark blue).

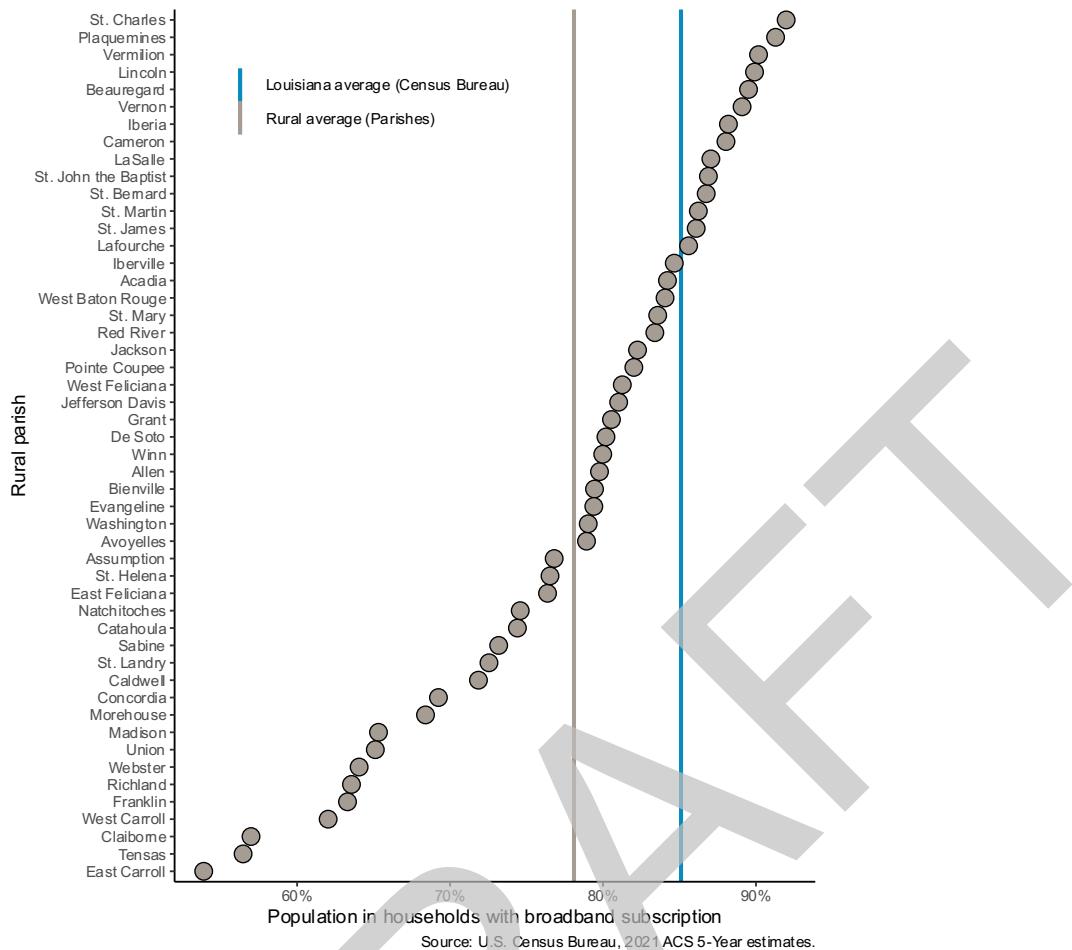


Figure 3.9. Share of population in households in rural parishes with broadband subscription. Vertical lines show overall average for Louisiana (blue) and the calculated average of all rural parishes (tan).
Source: U.S. Census Bureau, 2021 ACS 5-Year estimates.

3.2 Needs Assessment and Asset Inventory

Achieving digital equity requires an understanding of the barriers and challenges that covered populations endure to acquire full access to the benefits of broadband connectivity.

Engagement activities with stakeholders across Louisiana illustrate that covered populations in all parts of the state face complex barriers and challenges centered around the following core themes: broadband affordability, access, digital skills attainment, and accessibility. Each of these themes requires unique intervention strategies and programs to ensure that they do not impede Louisianians' ability to access broadband, devices, or use technology.

The following paragraphs provide an overview of four major programs geared towards reducing barriers that cross multiple groups. These barriers have inhibited covered populations' ability to access and use a robust and affordable broadband connection. Additional information on programs aimed at specific groups is included within sections for each covered population. Two federal programs, the Affordable Connectivity and Lifeline programs, aim to address the issue of broadband affordability. Louisiana's Granting Unserved Municipalities Broadband Opportunities (GUMBO) program targets broadband access through grants to internet service

providers to increase areas where high-speed internet is available. The Northstar Digital Literacy Program focuses on digital skills.

Affordable Connectivity Program

The Affordable Connectivity Program (ACP) is a Federal Communications Commission (FCC) benefit program to assist households in paying for internet service and devices. The program provides eligible households with a discount of up to \$30 per month toward internet service and up to \$75 per month for households on qualifying Tribal lands. Eligible households can also receive a one-time discount of up to \$100 to purchase a smart device (i.e., tablet, computer, or laptop) from participating providers if they contribute more than \$10 and less than \$50 towards the purchase price. The discounts are limited to one monthly service discount and one smart device discount per household.

Eligibility for the ACP is dependent upon household income. To receive benefits, the household income must be at or below 200% of the Federal Poverty Guidelines, or a household member must meet at least one of the criteria below:

- Received a Federal Pell Grant during the current award year
- Meets the eligibility criteria for a participating provider's existing low-income internet program
- Participates in one of these assistance programs:
 - Free and Reduced-Price School Lunch Program or School Breakfast Program, including at U.S. Department of Agriculture (USDA) Community Eligibility Provision schools.
 - SNAP
 - Medicaid
 - Federal Housing Assistance, including:
 - Housing Choice Voucher (HCV) Program (Section 8 Vouchers)
 - Project-Based Rental Assistance (PBRA)/Section 202/ Section 811
 - Public Housing
 - Affordable Housing Programs for American Indians, Alaska Natives or Native Hawaiians
 - Supplemental Security Income (SSI)
 - WIC
 - Veterans Pension or Survivor Benefits
 - or Lifeline
- Participates in one of these assistance programs and lives on Qualifying Tribal lands:
 - Bureau of Indian Affairs General Assistance
 - Tribal TANF
 - Food Distribution Program on Indian Reservations
 - Tribal Head Start (income based)

More information is available at www.fcc.gov/acp. Some individual providers (e.g., AT&T, Cox, and others) also have information about the program on their website.

Lifeline

The Lifeline program is an FCC program meant to ensure the affordability of communication services for low-income subscribers. Lifeline provides subscribers with a monthly discount on internet service, telephone service, or bundled phone-internet packages purchased from participating providers. The discount provided is up to \$9.25 a month on service for eligible low-income subscribers and up to \$34.25 a month for eligible subscribers that reside on Tribal lands. Subscribers have a choice to apply their discount to either a wired or wireless service but cannot receive a discount on both services simultaneously. FCC rules disallow more than one Lifeline subscriber per household.

Lifeline is available to eligible low-income individuals in every state, territory, commonwealth, or Tribal land. To qualify for the Lifeline program, individuals must have an income status that is at or below 135% of the Federal Poverty Guidelines or participate in certain federal assistance programs such as Medicaid, Supplemental Security Income, the Veterans Survivors Pension Benefit, the Supplemental Nutrition Assistance Program (SNAP), Medicaid, Federal Public Housing Assistance, or specific Tribal programs.

More information is available at www.lifelinesupport.org.

Northstar Digital Literacy

Northstar Digital Literacy program (Northstar) provides an online program to allow individuals to improve their computer and online skills. The program was originally developed to assist job seekers improve the digital skills needed to seek, obtain, and retain employment, as well as the digital skills needed for everyday tasks. Northstar characterizes necessary digital skills into the following four modules:

- Essential Computer Skills: Basic Computer Skills, Internet Basics, Using Email, Windows OS, Mac OS
- Essential Software Skills: Microsoft Word, Excel, PowerPoint, Google Docs
- Using Technology in Daily Life: Social Media, Information Literacy, Career Search Skills, Accessing Telehealth Appointments, Supporting K-12 Distance Learning, Your Digital Footprint.

Northstar allows users to take assessments from any location via their homepage free of charge, but users can also attend a designated Northstar location to earn a Digital Literacy Certificate when they pass the necessary aptitude assessments. Many libraries, postsecondary institutions, and community-based organizations in Louisiana have access to Northstar and have staff available to support the programming (see Appendix A2, Table A2-2) for more information about locations with Northstar programming in Louisiana).

Granting Underserved Municipalities Broadband Opportunities (GUMBO) Program

The Granting Unserved Municipalities Broadband Opportunities (GUMBO) grant program was established to support private internet service providers in expediting the deployment of broadband services to underserved regions of Louisiana. Any municipality within the state can partner with a private broadband provider to apply for a GUMBO grants. Round one awarded over \$170 million to projects across 50 different parishes.

Learn more about the GUMBO program and view grant locations here: connect.la.gov/gumbo.

3.2.1 Aging individuals

Louisiana has a growing population of aging individuals. From 2010 to 2021, the proportion of adults over the age of 65 has grown from 12.1% of Louisiana's total population to 15.5% (Figure 3.14) and the 65-and-over share of Louisiana's population is likely to expand further over the next decade. The Census Bureau estimates that "one in every five Americans is projected to be retirement age" by 2030, and the group's size is expected to peak at about 25% of the national population by 2060 (Vespa, Medina, and Armstrong 2018).⁸ As services in areas like healthcare, banking, insurance, disaster recovery, and general communication become more dependent on the Internet and digital technologies, it will become critical for the health and well-being of older adults in Louisiana to have effective access to those technologies and the ability to use them.

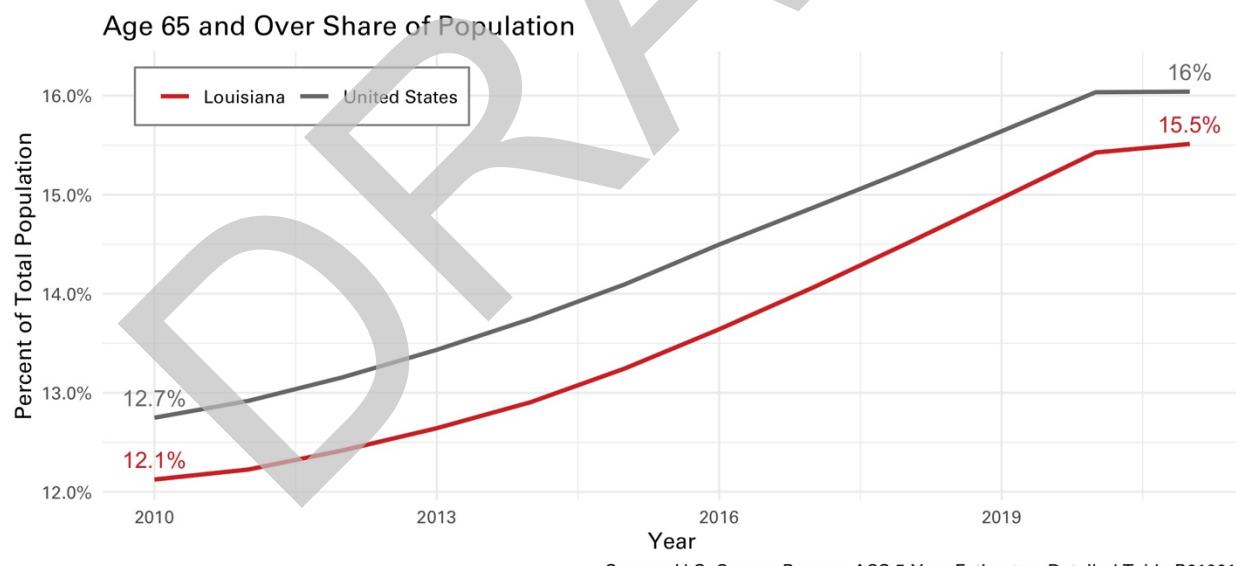


Figure 3.10. Share of Population Age 65 or Over in Louisiana (red) and the United States (grey) from 2010 to 2021.

⁸ There is variation in how older adults are defined as a group, sometimes starting as young as age 50, or using retirement status as a designation rather than age. For the purposes of this document, "older adults" follow the federal definition of "senior" as an individual aged 65 or older.

“Older adults” in Louisiana face unique challenges when it comes to digital equity.⁹ They are much less likely than younger residents to have adequate access to both a reliable internet connection and devices to access the web. In 2021, 28.8% of the 65-and-over cohort in Louisiana lacked home access to a broadband internet subscription, compared to 13.2% of 18-to 64-year-olds. Older adults are also more likely to not have a computer in their home (19.5% of 65+ vs. only 5.0% of 18- to 64-year-olds).¹⁰ When compared to the rest of the United States, Louisiana residents over 65 are less likely to have a broadband subscription and more likely to not own a computer (Table 3-2).

Older adults in the United States may be less likely to have adequate access than their younger counterparts, but the gap in usage between cohorts has narrowed substantially over the past decade (Faverio, 2022). The COVID-19 pandemic also intensified the adoption of digital services by older adults across the country, who became more likely to use digital services for communication, content streaming, telehealth appointments, and financial transactions (Kakulla, 2021).

Table 3-2. Digital Access for Residents Aged 65-And-Over

Access Type	Louisiana		United States	
	Number	Percent	Number	Percent
Aged 65-and-over with a broadband subscription	499,642	71.2%	40,461,170	78.6%
Total population with a broadband subscription	3,859,185	85.1%	289,492,704	89.9%
Aged 65-and-over with no computer	136,786	19.5%	6,950,022	13.5%
Total population with no computer	302,643	6.7%	13,857,812	4.3%

Source: U.S. Census Bureau, ACS 5-Year Estimates, 2021.

Challenges and Barriers for Older Adults

Affordability

Being over the age of 65 is one of the strongest demographic predictors, alongside income level and educational attainment, for whether a person will lack a broadband subscription or home computer in Louisiana. Thus, older Louisiana residents with low incomes are especially likely to lack equitable digital access. According to U.S. Census Bureau estimates for 2021, over 92,000 residents—or 2% of the state’s population—were 65-and-over and had incomes below the federal poverty level.¹¹ Affordability also becomes an issue in retirement, as some retirees are limited by fixed incomes. When costs for food, housing, and other expenses rise, older adults may choose to cancel their subscriptions. A representative of the Madison Parish Council on Aging reported older adults in his predominantly rural parish as being more concerned with their ability to pay rent and utilities than being able to access the internet reliably.

⁹ Our focus group input shows that Louisiana residents over 65 likely prefer the term “older adults” over “seniors” or “senior citizens,” though some focus group participants took pleasure in the phrase, “seasoned citizens.”

¹⁰ All figures via Census ACS 5-year estimates for 2021.

¹¹ U.S. Census Bureau, ACS 5-year estimates for 2021, Table B17001, “Poverty Status in the Past 12 Months by Sex by Age.”

Digital Skills and Accessibility

While many aging individuals struggle with affordability and access to digital technology and services, the most prevalent barriers mentioned during the stakeholder input process were a lack of digital skills and the willingness to adopt new technology. Based on stakeholder input, older adults in Louisiana report unfamiliarity with the basics of digital skills more than any other group. One participant indicated a reluctance to use internet services and other digital tools due to a lack of knowledge and skills. It may be difficult for many older adults in Louisiana to keep up with rapid changes in technology systems, especially retired residents who no longer use certain technologies on a day-to-day basis through work. Some focus group participants reported feeling wary of adopting web-based services due to fears over data security, scams, and the possibility of user error. Other barriers to using digital devices and services are physiological in nature. Limitations like poor eyesight, motor functioning, and mobility can also make it difficult to use certain devices or travel to locations where digital access or learning resources are available. These types of limitations are discussed in greater detail in the section on individuals with disabilities (see Section 3.2.4).

There are a growing number of digital services older adults in Louisiana may need or want to take advantage of. One critical and fast-growing area of digital services is telemedicine and telehealth (see section 2.3 under Health). Older adults can utilize web portals through their healthcare provider to manage prescriptions, schedule appointments, file intake forms, and communicate with their providers. These services can be incredibly useful for older adults who are mobility limited or live in a rural area where accessing healthcare requires traveling longer distances, but only if there is an adequate level of access to affordable subscription services. These services also require a level of technical proficiency and access to devices—for example, the ability to fill out electronic PDFs or webcams for remote consultations—that some older adults may not possess.

Despite the common challenges noted above, it is difficult to generalize about the 65-and-over cohort. There is considerable diversity of digital skill levels within the group. For instance, older adults who report having good financial status and more experience using computers also report higher self-efficacy in using personal computers (Spears and Zhang 2020). Digital skill levels also vary by age within the cohort. For example, (Weil et al. 2021) report that those aged 65–74 have greater familiarity with digital devices and new media than those 75–84 or 85 and over. The gap in digital skills among older adults was illustrated during focus group sessions in which one participant expressed frustration, hesitation, and fear of using digital services like cloud storage or online payment processing while another embraced the possibilities of new technology. As time goes on, the digital needs of older adults will change based on the past experiences of the age group and programs centered around digital equity for older adults in Louisiana should reflect this fact.

Challenges and Barriers Mentioned During Stakeholder Input

"I think a big piece we're missing when we talk about skills and educating people is our older generation. A lot of them have grandkids that live with them and

whenever COVID happened well, ‘Why do we need this internet?’ You need access for your kids. Not only that, you need this for telehealth. They don’t know what they even need it [for]. And I think that’s kind of the piece we’re missing. We need that public outreach so that you can educate them on why they need it.” – Stakeholder meeting participant

Focus group members reported **varying levels of comfort** in using digital devices and services. For some, there is a hesitancy to use services like cloud storage and online payments due to concerns about privacy and hacking while others embraced the “portability” of data—being able to access lab results, communicate with family and friends, and shopping, all accessible from many locations.

User interface and experience design of many apps and devices do not always meet the needs of older adults, especially those with declining vision, hearing, and motor skills. Participants indicated that frustration with poor accessibility design can hinder efforts at adoption. Adding to the previous point, participants noted a need for physical documentation (e.g., user manuals) for devices and applications can make it difficult for older adults to adopt new technologies. Online user manuals can be difficult for older adults to find and navigate, and physical manuals for software and devices are becoming less commonplace.

One focus group participant commented on feeling “forced” to adopt digital services as available **non-digital options** become less common. This concerned stemmed from a low level of comfort using digital technologies, but it touches on the idea that digital equity for some older adults may mean *not* having to rely on digital services for critical needs.

A number of participants were aware of programs and classes for **learning digital skills** but were not aware of courses specifically designed to meet the needs and learning styles of older adults.

Summary of Challenges and Barriers for Older Adults

Access and Subscription Availability – While not an issue specific to older adults, Louisiana residents aged 65-and-over are the least likely covered population to own a computer. This fact could be attributed to multiple causes like affordability or a low perceived benefit of owning a device. In addition to low levels of device ownership, many older adults in Louisiana also lack access to a broadband subscription. Some may live in rural areas where subscriptions are less reliable, or they may opt out of purchasing a subscription due to concerns over price or relevance.

Affordability – Another issue that is not specific to older adults, however there are over 90,000 Louisiana residents at or over the age of 65 and with incomes below the federal poverty level. Some older adults may be on a fixed income and may not have the financial resources to afford a subscription.

Staying up to date on changes in technology – Many older adults have prior experience with digital devices and services but may not stay informed on changes in technology. Keeping up on changes can be difficult for retired adults who are less likely exposed to digital devices and services on a daily basis.

Age-related physical and cognitive decline – Older adults may experience physical and cognitive changes that affect their ability to use digital technology, such as declining vision, hearing, and motor skills, as well as memory loss and difficulty learning new skills.

Lack of relevance or perceived benefit – Older adults may not see the relevance or value of digital technology to their daily lives, or they may not understand how it can benefit them. They may also have concerns about privacy and security, which can make them hesitant to adopt digital technology.

Resources and Assets for Older Adults

Digital Adoption & Skills

In recent years, there has been an increasing amount of literature and programs focused on addressing the digital divide in older adults. This trend has been especially pronounced since the start of the COVID-19 pandemic. However, many of the programs and studies currently in place are still in the trial phase or have only been implemented in response to the pandemic. As a result, there is still much to learn about effective methods and interventions for helping older adults gain digital skills.

In one example, AARP has implemented a program called “Older Adults Technology Services” or “OATS”, which works, “alongside AARP State offices to provide guidance and resources to ensure state implementation of digital inclusion plans are age-friendly and sustainable, and help eligible older adults sign up for the Affordable Connectivity Program,” however there is no evidence that the OATS program has been offered in Louisiana (“Digital Equity - OATS” n.d.). A case study on the OATS program, conducted in 2021 by Joyce Weil, Thomas Kamber, Alexander Glazebrook, Marisa Giorgi, and Kimberly Ziegler, provides insight into teaching methods and policy interventions for improving technology adoption in older adults.

Internet Subscriptions

Older adults who participate in federal assistance programs like Medicaid, Supplemental Security Income (SSI), and others are eligible to receive a discount on internet service through the Affordable Connectivity Program (ACP). While the ACP does not specifically target older adults, a significant portion of Louisiana residents over the age of 65 are eligible to participate.¹²

Telehealth

¹² For instance, based on analysis of the Transformed Medicaid Statistical Information System (T-MSIS) by KFF, there were 153,200 residents aged 65 or over enrolled in Medicaid in 2019 (“Medicaid Enrollment by Age” n.d.). This figure represents 21.9% of the 65+ population for that year. In addition, 30% of national SSI recipients in 2021 were 65 or over. (https://www.ssa.gov/policy/docs/statcomps/ssi_asr/)

The development of new options for telehealth are quickly becoming a digital resource for older adults. The ability to access and meet with healthcare providers functions as a valuable service, particularly for those who may have mobility issues, live in rural areas, or have difficulty traveling to medical appointments. These technologies can also help seniors avoid exposure to infectious diseases, which is particularly important given the risks posed by COVID-19.

Medicare recipients in rural areas are able to receive coverage for telehealth services. This coverage was expanded during the COVID-19 pandemic to include recipients in all locations through the end of 2024.¹³ AARP also maintains a web page listing telehealth resources for seniors.¹⁴ More discussion of telehealth programs not specific to older adults can be found in Section 2.3 under Health.

Resources and Assets Mentioned During Stakeholder Input

Stakeholder input and focus groups yielded the following insights regarding digital resources and assets for older adults in Louisiana:

- Not all digital skills training programs explicitly target the digital needs of older adults. For instance, library programs on basic computer and internet usage are likely to be utilized by seniors—provided they have the time and ability to access the offerings. Programs aimed at developing workplace and productivity skills will be less relevant.
- A plurality of older adults reported being unaware of digital skills programs for older adults available in the regions that they represented. In some cases, this could be due having no existing programs in an area, but other reports may be due to a lack of awareness of existing programs. Programs mentioned that were specific to older adults are included below.
- Focus group participants made multiple mentions of YouTube as a helpful resource for learning digital skills. Participants also emphasized learning from peers or family members as a method of reducing frustration.
- Computer and technology classes targeting the general public are only available on a limited basis at many parish libraries.

Specific digital skills programs for older adults mentioned during stakeholder input meetings:

- Shreve Memorial Library offers classes on basic computer and internet usage, plus Microsoft Word.
- Ouachita Parish Senior Center offers PC classes.
- A focus group participant who serves as a member of the New Orleans Council on Aging, reported that Dillard University and Saint Augustine High School have a program where students work with seniors to show how to use digital devices.
- The Tunica-Biloxi Tribe's Elder Council has digital skills classes for tribal members.

¹³ <https://www.medicare.gov/coverage/telehealth>

¹⁴ <https://www.aarp.org/health/conditions-treatments/telehealth/>

3.2.2 Incarcerated Individuals

Louisiana has the second-highest incarceration rate of all 50 U.S. states, with a rate of 564 incarcerated individuals per 100,000 residents – 60% higher than that of the national average (Bureau of Justice Statistics 2022). According to the Bureau of Justice Statistics, at least 95% of prisoners will eventually reenter their communities (Bureau of Justice Statistics n.d.). Addressing the digital equity needs of those who are incarcerated is important in improving the eventual reentry of these individuals into society.

Research has also found that due to the lack of access to technology within prisons, the consequent lack of skill development and access to these technologies may serve as a crucial barrier for individuals upon reentry (Reisdorf et al. 2022; Zivanai and Mahlangu 2022). According to this research, improving and emphasizing access to ICTs within prisons/jails may help with rehabilitative outcomes. A case study of the Broadband Technology Opportunities Program (BTOP) Sustainable Broadband Adoption (SBA) reentry project implementation (2011–2014) at the Orleans Parish Prison (OPP) in New Orleans found that there was a 47% reduction in recidivism since the start of this reentry program (Jill Casteek et al. 2015). More research is needed to determine what, if any, direct effect digital literacy programming has in reducing this recidivism rate.

The following information was provided by formerly incarcerated individuals, their families, and practitioners in the criminal justice field. These individuals hold valuable insight into first- and second-hand experiences within prisons/jails and reentry.

Challenges and Barriers for the Currently and Formerly Incarcerated Internet access

The most essential element that must be addressed for those who are incarcerated as well as those reentering society from prisons/jails is internet access – more specifically the availability, quality, and costs that influence access. For those who are in a state prison or parish jail, internet access has become an increasingly common necessity. For example, communication with lawyers, family/friends, and others is largely done over email.

The availability and quality of Internet within prisons and jails is problematic due to the rural setting and limited infrastructure capacity of many of these facilities. In these rural areas where other resources such as healthcare are more difficult to access locally, virtual resources act as a critical alternative. However, this option is often not possible due to the lack of internet access, poor quality speeds, and/or the technology required to connect to virtual resources. Specifically with telehealth services, strict firewalls and unreliable servers often prevent healthcare providers from reaching individuals who are incarcerated (Rural Health Information Hub n.d.; Deslich, Thistlethwaite, and Coustasse 2013).

Internet access is often treated as a privilege – individuals who are incarcerated are altogether prohibited from accessing the internet or they are allowed heavily restricted, limited access often at a monetary cost (e.g., a set rate is charged to the inmate for each email sent). Though this is often said to be done for security purposes, access can be supervised in a secure way that

provides individuals with the benefits of digital resources while still maintaining security protocols. In the digital age, stakeholders shared that supervised internet access should be provided to individuals who are incarcerated rather than be used as a means of leverage or control over them.

Technology and software

Technology in prisons/jails is highly limited. JPay functions through mobile kiosks and offers prisoners technology and services at a cost; these services include money transfer, email send/receipt, videogram exchange, live video connect, and media purchasing. Although kiosks/tablets are provided at some facilities, there are several issues associated with this. Use of this technology is often exploitative, wherein it is limited as an earned privilege and/or the usability is restricted by paywalls (e.g., a cost of \$0.30 per page of email text and \$2.50 per 10 minutes of video connect service). See <https://www.jpay.com/Agency-Details/Louisiana-Department-of-Corrections.aspx> for cost breakdowns by service. Additionally, the infrastructure for this is often constrained by the aforementioned internet access issues that both rural prisons and jails experience. Furthermore, when JP Pay kiosks become dysfunctional or entirely inoperable due to technical issues or damage, they are often left unrepairs. This limits the digital access of those who are incarcerated, and the oversight of prompt repair of these kiosks leaves many without adequate means of communication and information. Stakeholders within this community also shared that the JP Pay system was suddenly changed without notice at one or more prison facilities, leaving the individuals at the facility and those they were communicating with within their communities unaware and blindsided.

Through a partnership with the Louisiana Department of Corrections, ATLO (Assemble, Test, Launch, Operate) is the sole technology provider of educational software and hardware in prisons across the state. ATLO offers vocational and professional training certifications to prisoners via online modules and testing. While the ATLO educational software is beneficial, the service is cost prohibitive. Although there is infrastructure for this across many prisons in the state, not many individuals incarcerated in Louisiana use this software because of the monetary cost of the devices and associated software (\$800/device for the first year, and \$600/device annually following that). Some programs cover the cost of ATLO devices and software (e.g., Loyola's education in prison program), but the waiting lists are extensive and far exceed current programming capacity (e.g., cohorts of 20 students accepted but a waiting list of 160+ individuals).

Across the country, virtual healthcare has become a central mode of healthcare delivery since the COVID-19 pandemic began; however, is difficult for telehealth providers to gain entry past a facility's firewalls, and even then, the strength of the connection to the prison's servers is often weak and unreliable. Although telehealth services can provide necessary care that is otherwise difficult to provide to facilities located in rural areas, these facilities are often unable to offer virtual care due to connectivity issues. These connectivity issues extend to other virtual services such as lawyer meetings, court hearings, etc.

For those who are reentering society upon release from prison, smartphones are central to daily life within one's community – from finding transportation, providing a basic means of communication, conducting online banking, submitting government-required paperwork, finding resources and programs, etc. This technology could be used productively to improve field contacts for probation and parole. However, the cost and digital skills required to use these devices often pose a significant barrier for individuals upon reentry. As a result, individuals report being often left dependent on the assistance of others and underprepared, underserved, and struggling to get by.

Digital skills

Unstable, restricted, or altogether unavailable access to usable internet services hinders the ability of those who are incarcerated to develop their digital skills. As daily needs are increasingly reliant on the internet and technology, digital skills have become necessary for formerly incarcerated individuals to successfully reintegrate into their communities and achieve long-term self-sufficiency. Stakeholders shared that those who have been released following decades-long sentences cannot properly adjust to the current technology. Even those who were incarcerated for less time shared that they struggled with digital skills due to constantly evolving technology.

"We have a huge population of elderly that come out, that have done 20+ years. And they were never around for the first iPhone [...]. They have to learn all that. [...] So we have to teach them that. [...] We have a program in the 16th JDC to do that, but [...] I have to find that person and then I have to coordinate times and places that they can access computers [...]. Finding a location to do it. I partnered with the libraries because there's a library everywhere. But then I also have to coordinate with the library. Do they have an event going down? Can I personally even show up between 8 and 5? Can I do it based on other jobs that I have? I cover St. Martin, St. Mary's, and Iberia Parish. And it's just non-stop." – Stakeholder meeting participant

Although smartphones are the primary means of communication and information gathering used by individuals upon reentry, many of these individuals do not have the digital skills required to properly use these devices to their fullest potential. Individuals report experiencing issues with navigating transportation applications, finding and submitting government documents/applications, submitting employment applications, and other general issues managing the user interface of these smartphones.

Lack of digital skills is a major barrier for returning citizens in accessing jobs in an increasingly digital landscape. Furthermore, remote work is often ideal for the circumstances of the formerly incarcerated because the positions potentially have less intensive background checks, would not require transportation (which is a significant issue for many returning citizens), and are generally more flexible than office work. Though jobs may provide the technology required to conduct remote work, individuals still need digital skills and reliable Internet access. Digital

skills are becoming a crucial aspect that determines one's employability. All of these factors related to digital skills potentially influence an individual's reentry outcome.

Resources and Assets for the Currently and Formerly Incarcerated Incarceration

JPay kiosks/tablets can be used to find online resources, conduct daily communication (email), and do some other limited activities. However – as discussed in the barriers section above, these aren't available at all jails and prisons and often are out of service or limited in use/functionality due to service costs or supervision restrictions.

ATLO laptops and software provide individuals who are incarcerated with beneficial educational resources and courses, but there is very limited use throughout the state – primarily due to limited funding.

Stakeholders report not knowing of any specific digital skills training that is offered in prisons/jails across the state.

Reentry

There are reentry services that individuals can utilize upon release, but stakeholders report that none of these services incorporate specific digital skills training or technological assistance specifically to the formerly incarcerated population. At best, practitioners can help individuals navigate online resources and provide ad hoc assistance if they experience digital barriers. However, this assistance can't help in addressing long-term need. Adult literacy courses at local community colleges may include a section on digital skills, but this is limited and not well known. Community colleges also offer technical trainings related to jobs in the broadband industry (see section 2.3 under Economic and Workforce Development).

Community campuses often have computers available that can be utilized by those on probation or parole, but individuals must find a means of transportation to get to these campuses. Another alternative is utilizing computers at public libraries or receiving a library computer on loan (see Figure 2.2 'Distribution of desktop computers with internet and loaner electronic devices' in Section 2.3 under Libraries). Though libraries are more accessible, this mode of technical access also requires transportation. Beacon Community Connections is exploring potential pathways for formerly incarcerated individuals to receive monetary assistance for internet access and tablets/laptops.

Through Lifeline, a government-provided phone may be available to those receiving government assistance, but stakeholders report that the process to apply for these benefits and phone is overcomplicated and frustrating due to stringent requirements (i.e., no one else in the individual's home can have ever had a government phone, and government assistance (e.g., SNAP or Medicaid) must first be established before one can become eligible to receive a phone). Additionally, digital skill barriers and internet access must be addressed in order for individuals to successfully navigate their devices. Stakeholders shared that if applying for government assistance upon reentry is made more difficult by a lack of access to technology.

This barrier may be one of several that is contributing to the underserving of government assistance programs to those in need in the state of Louisiana.

3.2.3 Veterans

Veterans include individuals from all racial and ethnic groups including individuals from urban and rural areas. Yet, veterans face unique challenges and barriers when it comes to digital inclusion. While veterans are on average less likely to be low-income compared to the population (9.7% of veterans live in poverty compared to 16.5% for the general Louisiana population, (U.S. Census Bureau 2021b), the majority of the veteran population that is low-income is far less likely to have broadband access at their residence (U.S. Department of Veterans Affairs 2015). Most veterans are older than the general population, suffer from a disability, or live in a rural area. United Way reports that 36% of veterans living in Louisiana were living in an Asset Limited, Income Constrained, Employed (ALICE) household (Alice in Focus 2022a). While not all of these individuals are living in poverty (as defined by the federal poverty level), it's notable that more than one-third of veterans in the state are low-income. A recent Department of Housing and Urban Development report also suggests that veterans make up 11.9% of the state's homeless population (Henry et al. 2021) despite representing only 5% of the state's population (U.S. Census Bureau 2021b). According to the U.S. Department of Veterans Affairs, the majority of the veteran population that is low-income is far less likely to have broadband access at their residence (U.S. Department of Veterans Affairs 2015). These factors highlight the need for robust broadband access for the veteran population, which on average has lower rates of broadband adoption (Holder, n.d.).

Challenges and Barriers

Veterans are twice as likely as the general population to be disabled (McHenry 2017). The poverty rates for older disabled veterans are much higher, 48% for veterans 65 and older, than that of their younger disabled contemporaries aged 35-54 who have a 33.8% poverty rate (U.S. Department of Veterans Affairs 2015). Disabled veterans are also more likely to reside in rural areas rather than urban areas and the general challenges facing the rural population (see Section 3.2.10) lead to unique challenges for veterans. Veterans often face more complex health issues and while veterans have access to the Veterans Affairs (VA) healthcare system, those living in rural areas tend to be further from brick-and-mortar facilities than those in urban areas. For these cases telehealth services may be an attractive alternative (see Section 2.3 under Health for a more in-depth discussion on telehealth). However, roughly 27% of veterans living in rural areas don't have broadband access at home and face barriers in accessing health care United States Department of Veterans Affairs, n.d.). Mental health is also a critical issue for veterans, and social isolation can exacerbate pre-existing issues with the risk of contributing to substance abuse issues and suicidality. Broadband serves as a vital means of social cohesion and connection for those living in sparsely populated rural areas and the lack of broadband access prevents veterans from accessing mental health resources such as support groups, therapy, and referral services.

Resources and Assets

Stakeholders shared that many resources that veterans can use are most readily accessed digitally. Online resources such as www.combinedarms.us connect veterans with a multitude of resources including wellness resources. Additionally, veteran support organizations such as the Louisiana Department of Veterans Affairs and Team Red, White, and Blue share event details and other resources online. As with the general population, veterans have access to two Federal Communications Commission (FCC) programs to provide discounts on broadband access, the Affordable Connectivity Program and Lifeline (see Section 3.2 for more information on this program). For qualifying VA pension recipients, a streamlined eligibility process makes access to these programs easier and faster. The VA introduced the Digital Divide Consult as a way of helping connect Veterans with the aforementioned FCC programs as well as other programs to help improve broadband access. The VA has already assisted over 100,000 veterans across the country via the Digital Divide Consult process (Lutes, n.d.). The VA has already assisted over 100,000 veterans across the country via the Digital Divide Consult process (Lutes, n.d.).

Veterans who qualify for VHA healthcare benefits and reside in the United States are eligible for VHA telehealth services. In addition to other digital resources that assist veterans in navigating their personal healthcare, all telehealth service users have access to both VA mobile apps and the My HealtheVet online portal. As of 2019, VHA telehealth services have cared for over 900,000 veterans and has continued to expand modalities (Sadej et al., n.d.). A recent cohort study pulled national data from across 138 Veteran Affairs medical facilities from March 2019 through December 2021 and found an increase in primary care telehealth visits for rural veterans post pandemic; more specifically, pre pandemic telehealth visits for rural veterans was 34% and eventually increased to 55% post pandemic (Leung et al., n.d.). The elevated post-pandemic rates of telehealth use by veterans illustrates the importance of this resource, but also highlights the need for continued intervention in addressing the digital divide.

3.2.4 Individuals with Disabilities

Approximately 1 in 3 adults in Louisiana have one or more disabilities; of the more than 1.12 million Louisiana residents who live with a disability, nearly 270,000 (24%) are living below the federal poverty threshold (Centers for Disease Control and Prevention 2022). An additional almost 393,000 (35%) are Asset Limited, Income Constrained, Employed (ALICE) (Alice in Focus 2022b). The ALICE criteria account for the current cost of maintaining a household, in a given location and is inclusive of several essential costs not otherwise accounted for in the federal poverty guidelines.

Access to broadband *and the assistive/adaptive technology to use it* are essential elements for families and households to thrive in today's digital society. The Internet and broadband services facilitate the interconnection of individuals and communities – particularly those in widespread rural communities – and those who face barriers to digital connection experience isolation. For the disabled, the lack of assistive and adaptive technology that is required to function with their specific disability creates a state of digital exclusion. Disabilities are wide-ranging, with individuals in the community experiencing varying degrees of functional limitations as a result

of one or several differing disabilities that they have. There are various considerations depending on the type of disability that an individual needs assistance with.

It is important to understand that disability has different effects on a family or household, depending on which member(s) of the family has a disability. If the family includes a disabled child, the primary issues are related to getting the child an adequate education and the skills to live independently, as an adult. If one or both adults in a family are disabled, the issues are related to obtaining and maintaining employment, paying the bills, and leading a comfortable life (and possibly raising children). If the disabled member is beyond an employable age, the issues are focused on healthcare and the ability to live as independently as possible.

Challenges and Barriers for Individuals with Disabilities

Barriers in a digital world

To be able to use broadband services, the individual must be able to interact and communicate with the equipment. Assistive or adaptive technologies are essential to those with disabilities, but this specialized software and technology carry costs that are above and beyond the availability of a proper Internet connection. Without these costly specialized technologies, many disabled people cannot properly utilize broadband services. The additional costs of specialized software and hardware are a significant barrier to the disabled public. Another important component is the training required to successfully use these technologies. Compounded with the economic cost of assistive/adaptive technologies, the lack of trained professionals and cost of technological training further exacerbate the barriers that those with disabilities face in fully utilizing broadband services.

[The] internet is extremely important to me because it is my link to communication with others. My disability makes communication without my iPad impossible. People with disabilities who are home-bound need the internet as a means of communication and [...] use all types of internet services, otherwise these individuals would be isolated from the outside world.” – Stakeholder meeting participant

Although not every disabled person requires assistive/adaptive technology, it is critical for those who do need specialized technology that we make a concerted effort to avoid falling into the technology gap.

There is no single assistive/adaptive technology that serves all disabled persons. Most users of modern technology engage through a combination of reading a screen and entering commands via use of a mouse, touch screen, and/or standard keyboard. These modalities pose different limitations to different disabilities. Assistive/adaptive technologies are designed to address these limitations. For example, a blind person may need audio technology to interact with online resources, whereas someone with a manual dexterity disability would need devices that are designed for functional impairments.

Blind persons cannot read a standard screen, but there is software that can enlarge screen elements and/or audibly read the text on a screen. Although the deaf do not have these visual problems, audio-/time-based media (audio content that is streamed: radio, web meetings, video feeds, etc.) pose significant accessibility barriers and require closed captions and/or an interpreter.

A manual dexterity disability may make it impossible to use a mouse, keyboard, or a touch screen. Various products allow people to replace these interactions with speech interfaces, modified keyboards, or other technologies that serve people with these functional disabilities. Persons who have no use of their hands (e.g., quadriplegics) can use software and hardware systems that track eye movements to allow them to provide input to the computer.

The functionality of traditional/mainstream technology is not appropriate for and does not address the needs of this community. According to the CDC, of the more than 1.12 million Louisianans with a disability, the rate of functional disabilities is as follows: cognition (16%), mobility (15%), independent living (9%), hearing (8%), vision (8%), and self-care (4%) (Centers for Disease Control and Prevention 2022). The availability of assistive/adaptive technology should match the level and extent of need throughout the state.

Disproportionate impact of broadband inaccessibility

The disabled would benefit from improved broadband connectivity – everyone benefits from more reliable, faster connectivity. However, this subset of the population differs greatly with respect to the impacts suffered due to a lack of access to broadband. For example, as businesses and government continue the transition to more Internet-based services and programs, this further excludes them and adds to this community's social isolation.

As common experiences diverge, the circumstance of the disability community become more unique, thus laying the groundwork for increased marginalization. This cycle is discussed in the presentation "Broadband Outreach Using Digital Independence Navigators (BOUDIN)" made to the National Digital Inclusion Alliance (NDIA) Digital Navigators working group (James Mitchell 2022a). This presentation addresses the social impacts of inequity and how this progression of inequality compounds and contributes to the social exclusion of the disabled community. Inequality of access and opportunity leads to inequitable access to resources including but not limited to digital technologies. This unequal access to digital resources results in unequal participation in society, and this serves to reinforce the exclusion, limited access, and digital divide of those who are afforded equal participation.

These limitations affect disabled persons across all income levels. The extraordinary technology costs have impacts that extend beyond the nearly 60% of Louisiana's disabled population that suffer economic strain. Because the specialized assistive/adaptive technology is so costly, even the remaining 40% of households who do not fit within the criteria of ALICE or the federal poverty level experience technology affordability issues. This is a critical barrier to digital equity for everyone with disabilities.

Daily access and lack of assistive/adaptive technology become a greater challenge during a disaster. Those living with disabilities are known to face disproportionate vulnerability and disadvantage during and following disaster (United Nations n.d.; Center for Disaster Philanthropy n.d.). Most recently, Louisiana has been severely impacted by several hurricanes in 2020 and 2021, resulting in long-term infrastructure and resource destruction/depletion (e.g., unreliable internet services and the sparsity of tele-health services). The broad impacts of hurricanes Laura, Delta, Zeta, and Ida are still evident throughout the declared disaster zones – stakeholders shared that basic infrastructure needs must still be addressed, including but not limited to re-establishing Internet access and bringing Internet speed back up to, or beyond, its pre-disaster levels. Some individuals reported still struggling to get their homeowner's insurance or federal assistance payments following hurricanes that caused severe damage to their homes back in 2020 and 2021. As a result, they are still dislocated from their homes and having to deal with the barriers associated with that.

Resources and Assets for Individuals with Disabilities

Based on input from stakeholders within the disabled community, existing programs and resources do not address the specific digital equity issues this community faces – these programs largely serve small silos of the disability community and therefore remain unknown to the larger community, and funding to pay for the specialized technology needs of disabled people are inadequate and oftentimes non-existent. Additionally, no current digital equity programs in the state directly address the assistive/adaptive technology needs of those with disabilities. Those in the disabled community view the existing programs as dysfunctional or altogether neglectful of the unique technology needs of disabled children and adults. These problems exclude the high-risk, low-income disabled communities who require – but cannot afford – assistive/adaptive technology to use broadband services.

Although state-sponsored programs exist to support the disabled community (e.g., OCDD Regional Resource Centers, Flexible Family Funds, and Individual and Family Support Benefit),(Office for Citizens with Developmental Disabilities n.d.) neither providing technology nor technical digital skills training are their primary missions. Furthermore, they mostly lack staff that have the technical knowledge and training resources to adequately serve this community's need for diversity and breadth of technology. There are other programs and resources provided by non-profit organizations across the state (e.g., LATAN, Families Helping Families resource centers, and Arc of Louisiana State Personal Assistance Services Program),(Louisiana Assistive Technology Access Network n.d.; Families Helping Families n.d.; The Arc of Louisiana n.d.) but they have similar issues.

Through the International Classification of Functioning, Disability and Health (ICF), the World Health Organization (WHO) has codified functional limitations of those with disabilities (54th World Health Assembly 2001) This should be used by practitioners to gain a better understanding of the limitations that this population experiences.

Disabled persons seeking training or education as part of a vocational/employment goal can get assistance from the Louisiana Rehabilitation Services (LRS) through the Louisiana Workforce

Commission (LWC) (Louisiana Rehabilitation Services n.d.). The Vocational Rehabilitation program can provide assistive/adaptive technology for clientele. LRS can also use resources from the Second Injury Fund of the Louisiana Workers Compensation Program to purchase the technology for job retention when an employee becomes disabled (Louisiana Rehabilitation Services n.d.). Yet serious limitations to LRS services exist – it is subject to means testing, meaning that it is only available to individuals who meet income requirements based on the federal poverty guideline. Additionally, it is only available to serve employable individuals with vocational goals. This program is also subject to “Order of Selection” restrictions; when state budgets are cut, services are then limited by an alternative prioritization. These funds are a 4:1 match (federal:state). If Louisiana does not put up the first dollar, the federal dollars are not available.

Centers for Independent Living (CIL) are community-based programs designed to deliver services to individuals with disabilities with the goal of helping them to achieve their highest possible level of independence (Administration for Community Living n.d.). There are eight Independent Living Centers throughout the state (Independent Living Research Utilization n.d.). CIL programs have the ideal structure to support the digital navigators service delivery model – qualified professionals trained to teach disabled clients about assistive/adaptive computer technology and how to use it.

Although there are various programs intended to assist disabled children and their families, these programs are not designed to directly provide assistive/adaptive technology. The lack of access to assistive/adaptive technology for young children has the effect of excluding them from access to education and instructional materials and severely limits their opportunity for successful outcomes. With respect to digital equity, this systematic digital exclusion puts children at the most risk within the disability community.

The accessibility of Louisiana state government websites poses a significant barrier for those living with disabilities. Only 3 of 20 Louisiana departmental websites passed an accessibility audit, in the Fall of 2022 (James Mitchell 2022b). Individuals within the community report that the inaccessibility of the websites and their lack of access to devices and technology prevents them from obtaining services they pay for in their taxes (e.g., public transportation, education), applying for benefits and assistance (e.g., Medicaid, SNAP, FITAP), etc. With affordability being such a prevalent issue within the disabled community, these individuals need adequate access to government resources at all levels – local, state, and federal.

The accessibility of government websites and technology is already codified in federal law: Section 508 of the Rehabilitation Act requires that all federally funded programs provide accessible websites and technology, and Title II of the Americans with Disabilities Act requires that all public entities provide accessible Internet services. Although many governmental programs and services have become heavily Internet-based, little attention has been paid to making them accessible. The solution to these problems is to enforce existing law, policies, and standards [W3G, W3C Accessibility Guidelines (WCAG), version 3.0] (World Wide Web Consortium n.d.). According to stakeholders working in the community, some state agencies

have not maintained adequate controls to ensure that state IT employees and contractors follow these standards.

As captured from the disability community, existing programs for those with disabilities fall far short of serving the entire community. These programs are often only for children and families of those with developmental disabilities, and technology and Internet services generally aren't a predominant focus of these programs. In-house knowledge and resources to help provide technology are very limited and often consists only of referrals and tips.

Summary

Individuals with disabilities shared that the major barriers that they face are lack of access to adequate internet and affordable devices. However, this population experiences the extra burden of requiring expensive assistive/adaptive technology. These resources are vital to the disabled community because assistive technology allows broadband to serve as a lifeline, as most of these individuals lack their own means of transportation or even a driver's license.

3.2.5 Individuals with a Language Barrier

Although the United States has not adopted a national language, English is the primary form of communication used throughout the country. Hispanics make up the largest minority racial/ethnic demographic in the U.S. (18.9%, (U.S. Census Bureau n.d.). Though Black is the largest minority group in Louisiana (33%), Hispanic is still the largest non-English speaking group (5.6%), then followed by Asian (1.9%) and American Indian/Alaska Native (0.8%, (U.S. Census Bureau 2022). Because there is a comparatively larger Hispanic population in the U.S. and Louisiana, most of the discussion on digital equity for individuals with a language barrier in the U.S. focuses on the Hispanic population (see Section 3.2.7). However, there are some notable dense pockets of the Vietnamese population along Louisiana's coast due to the predominately Vietnamese fishing industry (see Section 3.2.8), (Kang n.d.).

Individuals with a language barrier are more likely to be living in poverty and to have received less education. According to 2021 5-year ACS estimate data for Louisiana, the Hispanic population experiences poverty at a higher rate (23.5%) than the White population (12%), only second to that of the Black population (30.3%, U.S. Census Bureau n.d.). This data also indicates that 22.8% of those who speak a language other than English at home are living below the poverty level and 24.8% have not completed high school (U.S. Census Bureau n.d.). This is in comparison to 17.8% of those who speak only English at home living below the poverty level and 12.8% who have not completed high school (U.S. Census Bureau n.d.). In the 2019-2020 school year, English language learners made up approximately 4.3% of enrollment at public elementary and secondary schools in Louisiana (Migration Policy Institute 2013). This population faces not only language barriers, but also affordability, literacy, and accessibility barriers that deepen their digital divide.

Challenges and Barriers for Individuals with a Language Barrier

Stakeholders reported that internet accessibility and affordability are core problems contributing to the digital divide of these often low-income, immigrant communities. Research

has found that potential factors contributing to racial disparities in home computer and internet access rates are education, income, and occupation (Robert Fairlie 2004). However, low rates of computer ownership and internet subscription for Hispanics may best be explained by language barriers (Robert Fairlie 2004). In addition, 6.4% (15,259) of Hispanic households in Louisiana do not have a computer and 8.8% (21,050) of Hispanic households have no internet subscription (see Figures 3.09 and 3.10 in Section 3.1.2 under Adoption by Covered Population).

Compounded with connectivity and affordability issues pervasive throughout these communities, those who don't speak English as their primary language also face barriers to the usability of resources, technology, and the Internet to communicate. Stakeholders shared that language barriers and the digital isolation that results from this divide not only exacerbate education and language barriers but also worsen mental health issues.

"Dealing with Union and Lincoln Parish- there's the access for the satellite internet, but [...] no company is really going and trying to reach the single houses and in both those parishes [there is] a very high amount of Hispanic population in there. So we're seeing a lot of those students have zero internet access inside those two parishes." – Stakeholder meeting participant

Stakeholders also shared that the Hispanic population is growing in some areas (e.g., Acadiana), yet the area is a desert for services accessible to Spanish-speaking individuals. This language barrier could prevent individuals from finding stable employment and education, as well as accessing assistive programs/resources. This could exacerbate internet access and technology issues for individuals who also have to overcome a digital language barrier.

Technology prioritizing the needs of English speakers exacerbates the digital divide. Although English speakers in the U.S. do not experience a digital language barrier in their daily lives, modern technology has increased English speakers' abilities to access language resources. With the popularization of translation software (e.g., Siri and Google Translate) and digital learning applications (e.g., Duolingo), English speakers have ready access and advantage when it comes to overcoming cross-cultural communication barriers (e.g., necessary communication while traveling internationally). This software, however, is often not geared toward the needs of non-English speakers. For example, Siri can only translate *from English* into 10 languages (Arabic, Brazilian Portuguese, French, German, Italian, Japanese, Korean, Mandarin Chinese, Russian, and Spanish, (ULG n.d.). Siri cannot translate from any language *into English* (or any other language). Apple's iOS14 included the Translate app, and this software does allow translations into English and has a slightly broader but still very limited selection of languages, but this software is not as accessible because it is not integrated within Siri. Siri is tailored toward assisting English speakers with 10 different non-English translations, but it does not serve to assist non-English speakers who need to translate into English in order to communicate with a primarily English-speaking population.

Another resource that is often rendered unusable due to language barriers is virtual healthcare (see Section 2.3 under Health). Through a concerted effort to provide multilingual healthcare

video visits during the COVID-19 pandemic, Children's Hospital of Philadelphia (CHOP) observed a 35% increase in patient portal activation for Spanish-speaking patients (Craig et al. 2021). Though improved, the disparity in virtual healthcare remained – English-speaking patients at CHOP still had a 33% higher rate of activated patient portal accounts when compared to the Spanish-speaking patient population (Craig et al. 2021). Language barriers must be addressed in order to provide all populations with equitable access to resources.

Resources and Assets for Individuals with a Language Barrier

NTIA recognizes the significant digital divide experienced by Hispanic communities; in their broadband efforts, NTIA has targeted digital equity grants to predominately Hispanic areas (NTIA n.d.).

Recognizing that those with a language barrier were greatly helped by digital skills training but difficult to reach, the Jefferson Parish Library, as part of the Louisiana Statewide Digital Inclusion Pilot, decided to focus efforts on recruiting individuals with a language barrier (specifically those in the Hispanic community) to participate in their digital skills training.

"We're putting a lot of man hours into marketing. [...] We've been participating in all types of events, especially during Hispanic heritage month. So we've been hitting it hard, hitting all the festivals, setting up our booth, communicating to the public, having that engagement. But the Spanish community is very fearful [that] we're gonna turn over their information to Homeland Security, all of this type of stuff. You've got to explain to them and work through that. So we're looking for partners- and we've made some progress in that, where people that have those connections to the community are willing to work with the library to help bridge that gap. 'Cause they don't know who I am." – Jefferson Parish Library representative

They hosted booths at Que Pasa, a large Hispanic festival, and several other parish events. At these events, digital navigators promoted library services along with the digital literacy program, including Northstar Digital Literacy and their computer classes. Additionally, the library paid for advertisements in a local Spanish-language newspaper and on a local Spanish radio station. This targeted outreach to the Hispanic community in Jefferson Parish has led to an increase in both enrollment and the number of computer classes offered. Recently, library leadership has offered Spanish language classes for employees as part of their professional development program so their staff is better able to support all community members.

3.2.6 Black Individuals

Those who identify as Black or African American make up 33% of Louisiana's population (U.S. Census Bureau 2021), representing the largest covered population represented in Louisiana's digital equity plan. As of the fall semester of 2022, 31% of college students in Louisiana's public institutions identified as Black or African American (Board of Regents), and there were 266,605 Black students enrolled in K-12 public schools (Kids Count Data Center 2022). In 2022, 31% of Louisiana's labor force was Black, a percentage higher than every state in the U.S. except

Mississippi, Georgia, and Maryland (Bureau of Labor Statistics). Of that population, over 100,000 Black Louisianians own and operate small businesses (SBA Office of Advocacy 2021) and over 3,000 own and operate farms (Hendrix 2013). To ensure that Black Louisianians can excel in education, jobs and the operation of their small businesses, as well as navigating daily life in Louisiana, the state must ensure that affordable, reliable, and accessible internet service is available to Black households and Black-owned businesses in order to achieve digital equity.

In February 2023, the Blanco Center collaborated with the Urban League of Louisiana to host 7 focus groups across the state with the intention of bringing Black residents and business owners together to discuss digital equity. Attendees of every single focus group voiced a common sentiment: “broadband internet is a necessity, much like electricity or water.” In the post-pandemic world, our economy, education, and daily life activities like telehealth, banking, and even grocery shopping have shifted and continue to rely increasingly on online platforms. According to a Pew Research Center survey, African Americans in particular are more likely to view a lack of high-speed internet access as a “major disadvantage” in people’s lives when compared to all other demographics (Horrigan and Duggan 2015).

With the explosion of technology that has defined modern times, and the historical, structural, and institutional inequities that have limited the social, economic and educational opportunities of Black/African Americans, it is no surprise that Black communities are particularly invested in utilizing broadband. Large-scale investments in broadband offer a generational opportunity to help close equity gaps and improve the lives of the Black population. This was made abundantly clear across all focus groups, where attendees voiced the ways in which they utilize broadband internet for their education, work, businesses, and daily lives. Focus group participants also expressed their frustration with the intersection of economic, educational, and digital inequities that they see within their neighborhoods and the larger community, and the many ways in which they see the GUMBO grants and other federal and state funding as a start to overcoming the major challenges preventing digital equity in Louisiana.

Challenges and Barriers for Black Individuals

Accessibility

Across focus groups with the Black population in Louisiana, the lack of access was one of the major factors discussed when it came to digital equity. The Black population has the highest percentage of households in Louisiana with no internet subscription at 11.2% (See Section 3.1.2, Figure 3.10). During a focus group meeting in Shreveport, LA, an attendee reported that although gaps in services are stereotypically seen as a rural issue, they do exist across the city of Shreveport as well, and disproportionately affect Black households. Other focus group attendees in Alexandria and New Orleans shared the concern that when households cannot access or afford broadband services, there are not many public places within walking distance to make up for the lack of service. Often distance, availability, and the business hours of libraries, recreation centers, and other public facilities present barriers for significant portions of Black populations living in urban centers. In this sense, access can also be seen as availability of quality public institutions in urban areas, and unfortunately for many lower income Black

communities, studies show that institutions offering high speed access like libraries, are typically found in higher income neighborhoods, which in Louisiana are predominately White (Joanna Sin 2008).

In rural areas, internet accessibility is an ongoing issue for all Louisianians (See Section 3.2.10), however, studies show that rural Black Americans are disproportionately affected. In 2021, Dominique Harrison Ph.D conducted a broadband study across what she terms as the “Black Rural South” (Counties designated as rural by the USDA with Black populations of at least 35%, spread across 10 states: Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, and Virginia). According to Harrison, 38% of African Americans in that area lack home internet, compared to 23% within the White population (Harrison 2021). Again, accessibility is a key barrier to service in rural areas, where broadband infrastructure like fixed wireless towers and fiber optic lines have not yet expanded from urban centers where the population density makes private sector investments in network infrastructure more attractive to internet service providers. Black individuals who attended focus groups and identified as living in a rural area expressed similar sentiments of inaccessible high speed internet services due to the lack of infrastructure and service providers in their areas.

Affordability

In urban areas of Louisiana, broadband penetration rates are generally very high, whereas affordability of service is the main problem (King and Stucka 2021), and affordability was a frequently discussed topic across all of the Black population focus groups. An attendee from Shreveport, LA was quoted as saying, “The economic well-being of the African American community in Shreveport is low, therefore not only access, but the price of internet, hardware and software is out of reach for many people.” Low household income and poverty were both discussed in focus groups as both disproportionately affect the Black population. In Louisiana, median household income for Black households was \$33,576, while median household income for White households was almost double at \$64,597 (U.S. Census Bureau 2021a). These disparities are important because as household income increases, so does the adoption of broadband internet (See Section 3.1.1, Figure 3.7).

While income trends across the entire population impact affordability, special attention is warranted for the lowest income groups, or those living in poverty. As of 2021, approximately 440,904 Black Louisianians had income levels below the poverty line, or approximately 31% of the Black population (U.S. Census Bureau 2021b), higher than any other demographic group in the state. For those living in poverty, affording broadband services and computer equipment to participate in telehealth services is often out of reach. In a Lafayette, LA focus group for Black populations, an attendee stated that “[health] disparities have been heightened as a result of telemedicine because only affluent families can afford it.” Given this broad range of related issues, equitable opportunities for broadband service are imperative for Black individuals and their families.

The ALICE Report (Asset Limited, Income Constrained, Employed)," publishes data on households that are above federal poverty levels but are still constrained by their income and their lack of assets. In other words, they are not eligible for assistance from federal programs, and they do not have enough income to afford basic household necessities. In Louisiana 76% of Black children lived in households below the ALICE threshold compared to 46% of White children (Alice in Focus 2022a). For many Black residents in Louisiana, having an income above poverty levels does not guarantee the access and affordability of technologies that are imperative to participate in modern life. Participants in all focus groups conducted for Black Louisianians stated that affordable service is an absolute "necessity" for those in poverty or in lower income households to improve not just their economic opportunities, but their general well-being as they navigate an increasingly digital world.

Digital Skills

Digital skills and the adoption of technology into Black communities in Louisiana was an extremely important topic brought up in all focus groups. From an economic standpoint, focus group attendees who owned small businesses, or worked in spaces that utilized technology saw digital skill development as one of the most pressing issues for Black Louisianians of all ages. National data show how workers of color are disproportionately affected by digital skill disparities compared to their white peers due to aforementioned gaps in income and quality K-12 education (National Skills Coalition and American Institutes for Research 2020).

The need for digital skills training, particularly as a steppingstone to economic opportunity, extends to entrepreneurs as well. One small business owner from Orleans Parish expanded on the needs of Black entrepreneurs, stating that many small businesses don't have access to e-commerce or a website. In some cases, they do have a website, but it is only one page and often not user friendly. With even a small amount of digital skills training available for entrepreneurs, areas of business such as marketing, advertisement and e-commerce would be an enormous benefit. With over 100,000 black owned small businesses in Louisiana (SBA Office of Advocacy 2021), an investment in digital skills training could realize many opportunities for entrepreneurs that want to develop websites, market products, and engage in online buying and selling.

Digital skill building opportunities for students and young adults were also brought up. A focus group participant from Shreveport, LA voiced the concern that the number of opportunities for young people to learn and adopt digital skills was lacking in their community. In Louisiana, 10.1% of the Black households do not own a computer, higher than all other racial demographics, and 11.2% of the Black households do not have an internet subscription, again the highest in all racial demographics for Louisiana (see Section 3.1.2, Figure 3.09 and 3.10). Without a computer or internet, learning digital skills is exceedingly difficult. During the pandemic disparities in access to broadband and technology equipment became even more apparent when comparing the learning opportunities of Black and White students in Louisiana at their schools. Black students are not only more likely to not have access to a computer or internet at home but are significantly more likely to attend schools with higher poverty rates,

lower teacher retention rates, and with fewer teachers certified to teach in their field (Butkus 2020).

Finally, digital skills as it relates to health was another major concern in focus groups for Black Louisianians. During the pandemic the COVID-19 death rate for Black Louisianians was disproportionately high (Canicosa 2021). This has been attributed to the higher proportion of Black Louisianians using public transportation, being employed by jobs that increased exposure to infection, and even the fact that many of Louisiana's chemical plants were built closer to Black neighborhoods. In the aftermath of the pandemic, telehealth has continued to be important to Black communities to improve health outcomes, and digital skills are an essential component of telehealth. A focus group participant from Lafayette, LA said that "broadband makes inexpensive digital access to healthcare more available, but even with broadband connectivity we will need more [digital skills] outreach to some communities to ensure services can be utilized." For the Black community telemedicine is essential for quality of life and even survival. To decrease disparities in health outcomes for Black residents across Louisiana, digital skills, hardware and software equipment, and affordable access are needed to interact with current and emerging technologies.

Resources and Assets for Black Individuals

Louisiana's Black residents have a few resources and assets to choose from that can be tailored to fit the digital needs of individuals, families, and businesses; however, these resources are often limited by access, availability, and funding.

Attendees of focus groups for Black Louisianians suggested several organizations specific to Louisiana that they or someone they knew had utilized regarding digital equity:

- The Urban League of Louisiana – Offers virtual classes and trainings at no cost, helping participants gain knowledge and learn digital skills, build confidence to operate in a digital environment, and be able to respond to the challenges of an increasingly digital economic environment. <https://urbanleaguelia.org/tech-hub/>
- Louisiana's local NAACP Chapters – The NAACP has long supported policies that help to close the digital divide and make it easier for low-income households with school-age children to have access to broadband Internet. Focus group participants suggested contacting Louisiana's local NAACP chapters for information on accessing resources related to digital skills, affordable internet and computer equipment. <https://www.lanaacp.net/>
- 100 Black Men Non-Profit Organizations of Baton Rouge, New Orleans, Lafayette, and St. Mary Parish – Offer youth programs, trainings and classes in digital skills specifically targeted toward Black youth in the respective areas each organization serves. <https://100blackmen.org/find-a-chapter/>
- Black Sororities and Fraternities across Louisiana's Universities and Colleges – Focus group participants highlighted these organizations as an excellent resource for Black students entering college and looking for guidance in navigating technology resources.

For Black small business owners in Louisiana there are many organizations that provide targeted help for Black owned small businesses and Black entrepreneurs that can potentially help with issues like broadband access, affordability, and utilizing digital skills:

- Black Chamber of Commerce in Louisiana – empowers Black entrepreneurs by fostering networking and business connections, business education and training, and conducting advocacy and civic engagement activities. Southwest Louisiana - <https://www.gslbcc.org/> Baton Rouge - <https://www.brmbcc.org/> New Orleans - <https://www.norbchamber.org/>
- Louisiana Small Business Development Center at Southern University – Offers training, consultations, and DIY (do it yourself) guides for entrepreneurs in Louisiana. Workshops include topics like digital marketing, cybersecurity, and ecommerce. www.louisianasbdc.org
- Louisiana Minority Business Development Agency Business Center (MBDA) - Among other services, the Louisiana MBDA Business Center helps delivers business and technical assistance that aides the growth and sustainability of MBEs. <https://www.louisianambdacenter.com/>

3.2.7 Hispanic Individuals

The Hispanic population in Louisiana makes up 5.3% of the state's population according to the most recent 5-year American Community Survey (ACS) data. There are important factors that may be contributing to the digital divide that Hispanic individuals face. According to ACS data, 23.5% of Hispanic/Latino/a individuals in Louisiana are living in poverty (U.S. Census Bureau n.d.). To further contextualize the economic strain within this community, we can refer to ALICE measurements. In Louisiana, 66% of Hispanic children (52,950) are living in Asset Limited, Income Constrained, Employed (ALICE) households (Alice in Focus 2022a). This is in comparison to the 42% of White children who are living in ALICE households (Alice in Focus 2022a). While not all of these households have income that places them as falling below the federal poverty level, they all experience significant financial strain.

There are many other indicators of the economic strain and barriers that Hispanic individuals face. Hispanic/Latino individuals experience higher rates of unemployment – 6.9% compared to the 4.9% rate observed for White, non-Hispanic individuals (U.S. Census Bureau n.d.). They also have a lower rate of educational attainment – 75.1% of Hispanic/Latino individuals have at least a high-school level education while only 23.2% have a bachelor's degree or higher (these rates are 89.6% and 29.6%, respectively, for White individuals) (U.S. Census Bureau n.d.). Although 7.1% of White individuals do not have health insurance coverage, 27.4% of Hispanic/Latino individuals in Louisiana are uninsured (U.S. Census Bureau n.d.). As mentioned earlier in the report, Hispanic individuals make up the largest non-English-speaking minority group in Louisiana. According to the ACS, 48.3% of Hispanic/Latino individuals in Louisiana are foreign-born (U.S. Census Bureau n.d.) and, as a result, many are likely to experience an English language barrier. Each of these factors can help to contextualize the extent of this population's need and help to begin the discussion of the specific digital equity barriers they experience.

Challenges and Barriers for Hispanic Individuals

Socioeconomic and Language Digital Equity Barriers

In addition to the economic strain and other social disadvantages that the Hispanic/Latino community disproportionately faces, some Hispanic individuals must also contend with a language barrier. The totality of these factors contributes to affordability, accessibility, and technology issues that are further exacerbated by a lack of community outreach targeted toward individuals who speak Spanish as their primary language. While many Hispanic individuals are fluent in English and not immigrants or first-generation Americans, language barriers within this population were often brought up by stakeholders as major barriers to digital equity. Stakeholders shared that while the Hispanic/Latino population is growing, targeted resources and infrastructure are underdeveloped and have not matched the population growth and needs of this community.

Broadband and Device Barriers

In Louisiana, 6.4% (15,259) of Hispanic households do not have a computer and 8.8% (21,050) of Hispanic households have no internet subscription (see Section 3.1.2, Figures 3.09 and 3.10). Stakeholders communicated that some major digital barriers are a lack of broadband availability as well as the availability and affordability of technology. Socioeconomic factors were said to play a large role in these barriers.

Digital Skills Learning Barriers

In the United States, most available technology and digital skills training are highly reliant on having a firm grasp of the English language. Most applications, government services, and digital communications are primarily in English with limited or no options for Spanish language users. Additionally, digital skills are primarily taught in English. With a high Hispanic/Latino immigrant population,(U.S. Census Bureau n.d.) multilingual resources must be considered. Stakeholders shared that Hispanic students also need equitable access to the Internet and technology at home to assist in their education. Students with limited English skills may need additional support to learn digital skills in Spanish or for scaffolding to connect digital concepts across languages.

Telehealth Accessibility Barriers

A case study of virtual healthcare provided by a children's hospital in Philadelphia found that multilingual options provided for virtual healthcare resulted in a higher rate of minority healthcare coverage (Craig et al. 2021). Virtual healthcare has become more popular since the COVID-19 pandemic, but patients need Internet access, technology, and digital skills to utilize it.

Resources and Assets for Hispanic Individuals

Many stakeholders reported being unaware of digital equity programming that is targeted toward the Hispanic community and its needs. While libraries were sometimes mentioned as

helpful resources, stakeholders shared that there are some pitfalls. It is difficult for libraries to reach the Hispanic community to inform them about the available resources. Also, digital skills training and technology are often limited in use due to language barriers. The Jefferson Parish Library, participating in the Louisiana Digital Inclusion Pilot, has tried to tackle this issue head-on by having the option for staff to learn Spanish so that assistance can be provided in Spanish. Additionally, they have participated in community outreach by attending Hispanic community events and putting Spanish language advertisements in the newspaper. Libraries – especially those in communities with large Hispanic populations – have the potential to serve as a vital pathway toward the digital equity of Hispanic individuals.

The Hispanic Chamber of Commerce of Louisiana and its foundation have opportunities for training, grants, and other services that support Hispanic business owners and employees in Louisiana (Hispanic Chamber of Commerce of Louisiana n.d.). Coaching is offered (including in Spanish), and this includes but is not limited to digital skills training. This is one service offered that can provide business owners with an opportunity to improve their skills and grow their businesses. Grants provide another opportunity for helping business owners with digital needs. A grant provided through a partnership between the Hispanic Chamber of Commerce of Louisiana (HCCL), the Hispanic Chamber of Commerce of Louisiana Foundation (HCCLF), and Entergy helps small business owners to help reimburse any losses incurred due to the COVID-19 pandemic. The HCCL reports that the proportion of Hispanic-owned small businesses in the state is rapidly growing, and these grants are meant to facilitate the success of business owners in this community in a time of pandemic-related economic strain. While these grants are limited to the pandemic relief effort, there is potential to extend these resources for general assistance.

3.2.8 Asian Individuals

In Louisiana, roughly 80,000 residents identified as being Asian alone, amounting to 1.7% of the state's population (United States Census Bureau 2021d). When combined with the nearly 21,000 additional persons who identify with multiple races or ethnicities that include Asian, the total increases to 102,350 individuals, or 2.2% of the state's population (United States Census Bureau 2021b). As it stands, 93.1% of those identifying as Asian alone reported having a broadband internet subscription, which is above the statewide average of 85.1% (United States Census Bureau 2021f) Additionally, 4.2% of the Asian population had no internet compared to 8.1% statewide and 2.4% of the Asian population had no computer compared to 6.7% statewide (see Section 3.1.2, Figures 3.09 and 3.10). 60.5% of the state's Asian population lives in the top ten most populous parishes (where 57.7% of the state's total population lives), (United States Census Bureau 2021d). About 48% of the state's Asian population lives in a coastal parish, which is higher than the 36% of the state's total population that lives in these same parishes (United States Census Bureau 2021d). This is influenced in part by high concentrations of Asian residents in East Baton Rouge, Jefferson and Orleans Parishes as well as a notable cluster of Vietnamese immigrants who are engaged in the commercial fishing industry (Kang n.d.).

Challenges and Barriers for Asian Individuals

While statistical analysis indicates that as a whole Louisiana's Asian population is performing above state averages in terms of internet access, computer ownership, and household income, there are many within the community that face significant challenges and barriers to digital equity. For instance, 26,000 of those who identified as Asian (32.3% of this population group) reported that they spoke English "less than 'very well'" (United States Census Bureau 2021c). Individuals who speak English as a second language are disproportionately affected by poverty (see Section 3.2.5). This suggests a digital opportunity gap between more highly educated and affluent Asian residents who may face fewer language and socioeconomic barriers, and those with who face the intersecting challenges of language barriers and/or living in poverty.

In addition, the coastal region has a dense pocket of Vietnamese individuals engaged in commercial fishing and shrimping who face challenges in remote locations that are actively shrinking as Louisiana's coastline continues to recede; this is cause for major concern as land loss and other coastal changes are a threat to the viability of these communities and their livelihoods. 80% of Louisiana's Vietnamese population relies on income from the seafood industry (Dang 2011). The Asian population in these regions will face the compounding and combined struggles of language barriers, poverty, and rural location, all of which affect internet accessibility and the affordability of broadband internet and devices.

Resources and Assets for Asian Individuals

The Asian population can benefit from many of the general resources identified elsewhere in this plan (e.g., ACP, digital skills opportunities, and other programs- see Section 3.2). Given the smaller size of this population, especially when considering the potential disconnect between more affluent and highly connected Asian communities and lower income Asian communities, or those with language barriers, there are not many dedicated resources or programs for the Asian population. A few noteworthy examples include:

- Coastal Communities Consulting, which provides targeted technical assistance to Vietnamese fishermen with limited English proficiency.
- Local and state Asian chambers of commerce, which offer a range of opportunities to connect with others. In Louisiana, the local and state chambers of commerce often offer the opportunity to learn about available resources and find opportunities to upskill workers, such as for digital skills. One such program is the Vietnamese Initiatives In Economic Training (VIET) program, run through the New Orleans Chamber.

3.2.9 Indigenous, Native, or American Indian Individuals and Tribal Members

According to the U.S. Census Bureau (2021), about 25,000, or 0.6% of Louisiana's 4.5 million citizens identify as Native America alone. However, most Tribal members in Louisiana choose multiple races or ethnicities, leading to an overall population of more than 227,000 people or 5% of Louisiana's population (United States Census Bureau 2021a). Louisiana has four federally recognized Tribes and eleven state-recognized Tribes (see Table 3-3 below). These Tribes are in different areas of the state and may encounter unique connectivity challenges based on their geographic locations. Additionally, while many Tribal members live near their native Tribal lands, others live in other areas of the state.

The large discrepancy between the count of Native Americans and the count of the number of people affiliated with a Tribe in Louisiana is indicative of the diverse group of citizens who are part of Louisiana's Tribes. Historically race and ethnicity classifications used by the Census have undercounted Native American populations (Maxim, Sanchez, and Huyser 2023; Strmic-Pawl, Jackson, and Garner 2018). The discrepancy in counts of Louisiana's Tribal members compared to the Census category of "American Indian or Alaska Native" illustrates that the state should use multiple methods to identify Native American citizens when evaluating digital equity concerns. Research by the Brookings Institution highlights how a large number of enrolled Tribal citizens are not counted in government data sets as "Native American" due to a general tendency of these data sets to view race as a binary rather than a potentially complex mix of multiple races and ethnicities (Maxim, Sanchez, and Huyser 2023). Due to the challenges in the identification of the correct number of people to include in this category, we use multiple types of data to evaluate digital equity issues.

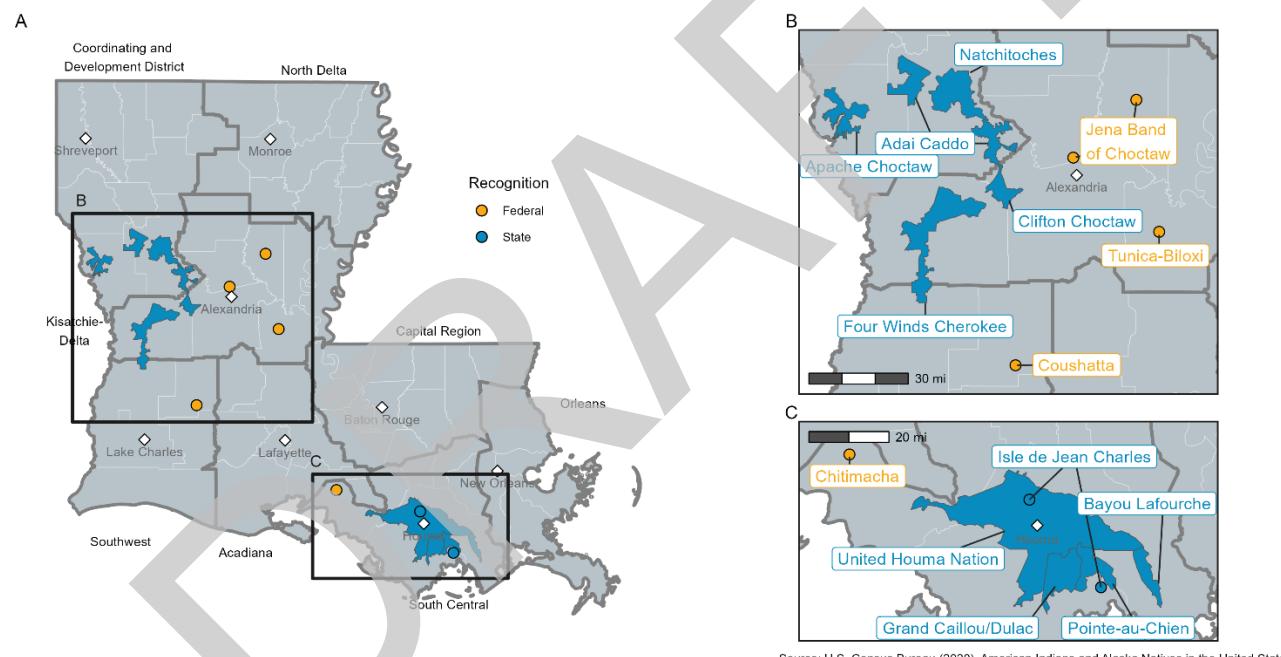


Figure 3.15. Tribal lands in Louisiana by recognition (yellow, federal; blue, state). A) Geographic overview. B) Detailed view of Tribal lands in central Louisiana. C) Detailed view of Tribal lands in southeast Louisiana.

Table 3-3. Federal and State Recognized Tribes in Louisiana

Tribe	Recognition
Chitimacha Tribe of Louisiana	Federal
Coushatta Tribe of Louisiana	Federal
Jena Band of Choctaw	Federal
Tunica-Biloxi Tribe of Louisiana	Federal
Adai Caddo Indians of Louisiana	State

Bayou Lafourche Band of Biloxi-Chitimacha Confederation of Muskogeess	State
Choctaw-Apache Tribe of Ebarb	State
Clifton Choctaw Tribe of Louisiana	State
Four Winds Cherokee	State
Grand Caillou/Dulac Band of Biloxi Chitimacha Choctaw	State
Jean Charles Choctaw Nation	State
Louisiana Band of Choctaw	State
Natchitoches Tribe of Louisiana	State
Pointe-au Chien-Indian Tribe	State
United Houma Nation	State

Source: Louisiana Governor's Office of Indian Affairs (2022)

Louisiana's Native American citizens appear similar to the average Louisianian in terms of the percent of individuals with a home broadband subscription and with access to a computer in their home (Table 3-4). About 87% people identifying as American Indian and Alaska Native alone (the Census category most closely linked to Native Americans in Louisiana) have access to broadband internet, compared to about 85% of all Louisianians and 90% of all U.S. citizens (United States Census Bureau 2021e). About 8% of Louisiana's Native American population does not have an internet subscription, similar to the 8.1% of all Louisianians, but higher than the 5.6% of all U.S. citizens. Like the U.S. population, slightly less than 5% of Native Americans in Louisiana do not have access to a computer in their household which is lower than the 6.7% of all Louisianians without a computer in their household.

Table 3-4. Internet subscription, and computer usage for Native American households

	Louisiana		United States	
	Total Population	American Indian and Alaska Native	Total Population	American Indian and Alaska Native
Total Population	4,534,907	24,903	321,899,278	2,632,189
Percent w/ Broadband Internet Subscription	85.1%	86.9%	89.9%	79.4%
Percent w/o an Internet Subscription	8.1%	8.0%	5.6%	11.2%
Percent No Computer in Household	6.7%	4.6%	4.3%	9.2%

Source: American Community Survey, Table S2802, 5-year estimates (2017-2021)

While at an aggregate level the internet connectivity and access to computers for Native Americans in Louisiana appear quite similar to the average Louisiana citizen, there are stark

differences for individual Tribes. Table 3-5 illustrates the differences for each federal and state recognized Tribe in Louisiana (United States Census Bureau 2021a). Due to the small survey sample size for an individual Tribe, margins of error are notably high for some Tribes (e.g., a range for the Coushatta Tribe of +/- 44% of the Census estimate for broadband Internet subscription access). When looking at computer access by Tribe, the percent of households with a computer ranges from 59% to 100%. There is a similarly large range in the percent of Tribal households with an internet subscription. The Adai Caddo (49%) and the Tunica-Biloxi (91%) have the lowest and greatest rates of households access to broadband. However, there are no data available about computer access or broadband internet subscription by household for the Jena Band Choctaw or six state Tribes.

Table 3-5. Household broadband subscription and computer access by Tribe in Louisiana.
Margin of error for estimates are in parenthesis.

Name	Federal or State Recognition	Parish	State Region	Total Population	Total Households	% Households w/ Computer	% Households w/ Broadband Internet Subscription	
Adai Caddo	State	Natchitoches	Central	2,560 (+/- 370)	1,021 (+/- 153)	58.7 (+/- 7.1)	48.9 (+/- 8.2)	
Bayou Lafourche	State	Lafourche	Bayou	no data available				
Chocktaw-Apache	State	Sabine	Central	6,820 (+/- 528)	2,435 (+/- 206)	81.4 (+/- 3.1)	70.8 (+/- 4.3)	
Chitimacha	Federal	St. Mary	Bayou	778 (+/- 129)	335 (+/- 55)	82.4 (+/- 8.9)	83.6 (+/- 8.2)	
Clifton Chocktaw	State	Rapides, Vernon	Central	519 (+/- 169)	198 (+/- 51)	76.3 (+/- 13.5)	66.7 (+/- 14.4)	
Coushatta	Federal	Jefferson Davis	Acadiana	153 (+/- 46)	127 (+/- 39)	100 (+/- 27.8)	75.6 (+/- 44.9)	
Four Winds Cherokee	State	Allen	Acadiana	29,638 (+/- 1335)	11,435 (+/- 508)	91.6 (+/- 0.8)	83 (+/- 1.4)	
Grand Cailou/Dulac	State	Terrebonne	Bayou	no data available				
Jean Charles Chocktaw	State	Terrebonne	Bayou	no data available				
Jena Band of Choctaw	Federal	La Salle	Central	no data available				
Louisiana Band of Chocktaw	State	Concordia	Central	no data available				
Natchitoches	State	Natchitoches	Central	no data available				
Pointe-au-Chien	State	Terrebonne	Bayou	no data available				

Tunica-Biloxi	Federal	Avoyelles	Central	433 (+/- 124)	118 (+/- 78)	93.2 (+/- 7.4)	90.7 (+/- 11.4)
United Houma	State	Terrebonne, Lafourche, Jefferson, St. Mary, Plaquemines, St. Bernard	Bayou	186,515 (+/- 1986)	70,081 (+/- 1169)	88.5 (+/- 1.1)	82.5 (+/- 1.3)

Sources: American Community Survey 5-Year Estimates using the My Tribal Area viewer ([2017-2021](#)). Tribal location from the Louisiana Governor's Office of Indian Affairs.

Challenges and Barriers for Indigenous, Native, or American Indian Individuals and Tribal Members

Native American communities in Louisiana have varying degrees of access to broadband and computers in their home. The lack of access to a device or connection poses significant barriers to some households. However, these challenges are not the only digital equity issue to impact this group. Access to the skills needed to fully participate in the digital world and the applications needed for full digital participation are also issues that impact Native American communities in Louisiana.

Accessing digital technology, both with the appropriate devices and applications, is a challenge for many Native American communities, yet the ability to create, navigate, and understand digital resources can be key to preserving cultural assets important to Tribal members.

Preserving cultural assets with the use of digital technology, such as storytelling, can improve the richness of the information available about historical collections and cultural traditions (Marsh 2022). Additionally, archiving digital recordings of traditional language for use by future generations (“language archiving”) can preserve Indigenous languages that have a declining number of fluent Native speakers and provide opportunities for language revitalization (Chase and Borland 2022). Digital recordings can provide cultural interpretations to existing physical archival resources. Language archiving can take many formats, including supplementing existing digital and non-digital archives, creation of new community-based archives that engage community in the maintenance of the recordings, and collaborations bring together language experts, visuals, and professional linguists for the creation of materials (Linn 2014). Native language preservation is a challenge in Louisiana with several Tribes mentioning in focus group meetings that there are few living speakers of their Native language. Multiple Tribes mentioned their interest in digital opportunities to address language preservation or discussed interest in opportunities to overcome the technology challenges associated with language preservation.

Beyond preservation of Native languages, there are specific digital skills needed to support workforce (see Section 2.3 under Economic and Workforce Development), education (see Section 2.3 under Education), and cultural needs. While the workforce and education needs are similar to the needs of other populations covered in the plan, Tribal communities have some digital skill needs that are unique. The Jena Band of Choctaw identified the goal of enabling

members to virtually attend and participate in Tribal council meetings as a unique need for their Tribe. Other examples include the ability to access cultural resources located in remote locations/in electronic formats and the ability to use digital technology to preserve items of cultural importance. Digital skills can lead to the opportunity to collect digital narratives (“digital storytelling”) that go alongside digitized collections of materials (Zhang 2021). These digital narratives can provide impactful and meaningful ways of conveying the importance of cultural resources (Marsh 2022) and reduce the misrepresentation of cultural resources (Winter and Boudreau 2018). Nonetheless, lack of resources to train Tribal members and non-Tribal archive, library, and museum staff to collect and preserve Indigenous resources so they can be accessed digitally presents a challenge to many Tribal communities (Jorgensen 2011). Consultations with Tribal leaders and focus groups revealed interest in both the cultural preservation skills and the challenge of digitally tracking cultural resources. One individual noted how antique tribal baskets from their Tribe occasionally arise for sale online, but without the ability to track this information there is little the Tribe can do to address these cultural preservation and tracking challenges.

In multiple Tribal consultations and focus groups, leaders identified resilience to disasters as a key broadband concern. Several individuals mentioned how only one internet provider served their community, but that the service was dependent on electricity. The area around and including the Pointe au Chien Indian Tribe lost power for about three months after Hurricane Ida. A company donated solar panels to provide electricity and support internet service in the Tribal community center. Internet service at the community center allowed members to come in and use the computer to fill out disaster relief forms. Other Tribal members mentioned challenges that occurred during the COVID-19 pandemic due to uneven broadband accessibility. One individual noted that her child’s school district sent home Chromebooks for K-12 students. Unfortunately, there was not always internet in the homes of children in her Tribe. She noted that this problem was especially challenging in the Bayou region where there are few internet service providers and uneven coverage. In two Tribal consultations, the type of new broadband infrastructure was also a concern with regards to disasters. The Tunica-Biloxi Tribe has a requirement that all new infrastructure built on their land be placed below ground due to concern about high winds and hurricane damage. The Coushatta Tribe noted a preference for construction of resilient infrastructure, which included multiple types of technology (e.g., fiber, CBRS) and placing new fiber lines underground.

Many Tribal members live in rural areas and their rural locations present digital equity challenges (see Section 3.2.10). In focus group meetings, participants indicated that the state has uneven cell service coverage and wired broadband near where they live. Both types of connectivity are seen as important. Leaders also noted that rural location impacts digital literacy and the opportunity to improve digital literacy skills. One Tribal leader from Pointe-Au-Chien Indian Tribe indicated that the rural public library nearest to where he lives does not have sufficient equipment to support access since it only has two computers. Another participant who lives in a rural area suggested that Tribal members would like to see digital skills classes at public libraries and at the satellite campuses for the community and technical colleges. However, if these areas are more than a 40-minute drive from their homes on Tribal lands,

participants felt there needed to be additional opportunities for learning computer skills at a Tribal center or other location.

The rural location is one piece of the reason that Native American communities have historically lacked access to health care options or had poor health outcomes. Complex health disparities can be exasperated by lack of quality internet access. The ability to access broadband is one aspect of the social determinants of health (See Section 2.3 under Health) and there are health equity concerns for how broadband technology deficiencies may impact some communities more than others. Deficiencies may include access to health technology devices that allow patients to analyze their own health or to provide input for physicians to monitor patient health (Brewer et al. 2020).

Resources and Assets for Indigenous, Native, or American Indian Individuals and Tribal Members

Several digital equity resources and assets were identified in Tribal focus groups and consultations. Several Tribal members noted the role of the Affordable Connectivity Program (ACP). The program allows Tribal members of federally recognized tribes, living on Tribal lands, to receive a \$75 discount on internet service (more in Section 3.2). Nonetheless, several noted the small size of approved Tribal lands in Louisiana and how that size impacts the ability of Tribal members to use the ACP. Since most federally recognized Tribes in Louisiana have limited housing options due to the small reservation area, few Tribal members are able to live on Tribal lands, making it difficult for their members to take advantage of the ACP benefit. Leaders of state recognized Tribes are not eligible for the larger discount, but may be eligible for the regular ACP benefit of \$30. However, several state Tribal members noted that internet in rural areas is unaffordable and that a \$30 credit would not allow members with limited incomes to pay for the \$100+ monthly cost of high-speed internet in their area.

Several Tribes offer assistance to their members for the purchase of technology. The Jena Band of Choctaw, Tunica-Biloxi, and Coushatta Tribes provide a technology stipend for members around age 16 and around age 55-65 to purchase a computer/tablet/phone. All three recognized, however, that this one-time benefit would not address the long-term device needs with the rapid pace of technological change or the continuous digital skills upgrades needed to access changing applications and digital services.

Digital skills training will begin soon at several Tribal locations. The administrative building for the Jena Band of Choctaw will host digital literacy classes starting in 2023. Using a community development block grant, the Tribe will offer in-person trainings that include general digital literacy skills and cybersecurity best practices. One goal is to teach Tribal elders the skills needed to access Tribal meetings via a livestream link if they are unable to attend the meeting in person. The Tunica-Biloxi will use a grant from NTIA to both host digital literacy classes for members and set up a call center to help Tribal members on and off the reservation. They are also moving into training and development with the aim to open a postsecondary training institute that can train people in areas needed for broadband infrastructure construction and

support. Similarly, they hope to develop a staffing company that can support the broadband infrastructure growth needs of Louisiana.

Multiple Tribes provide or are setting up telehealth options for their members. Tribal consultations revealed that Jena Band of Choctaw, Tunica-Biloxi, and Coushatta Tribes are in the process of setting up or recently added telehealth options for their members. In the case of the Tunica-Biloxi, telehealth options are also offered for all employees of the Tribe. The Coushatta Tribe has partnered with Oceans Behavioral Health to set up mental health services through a telehealth app. Other Tribes indicated interest in the option of telehealth, but also worried that device or digital skills deficiencies might impact the ability of members to use the service.

Several Tribes in Louisiana have formed partnerships with postsecondary institutions to address digital technology as it relates to preservation of culture and language. Digital histories and digital representations of the Jean Charles Choctaw is also being undertaken in partnership with the University of Louisiana at Lafayette. The Indigenous residents of the Isle de Jean Charles are known as the first climate refugees in the United States (Simms et al. 2021). In light of the changing landscape and relocation of residents, a virtual tour of the island with interviews from residents takes on new importance and offers a way to learn about a vanishing place (Stone 2023; Stone et al. 2020). The Coushatta Tribe is also working to make their history and cultural resources available in a digital format. Using the Mukurtu platform, an open-source platform for Indigenous peoples, the Coushatta Tribe partnered with Arizona State University to organize cultural resources and delineate which digital information should be available on a public-facing or Tribal-only site (Melkozernova and Bates 2019).

At least two Tribes are using digital resources to preserve their Native language. The Tunica-Biloxi Tribe partnered with Tulane University to support preservation of the Tunica language. The Kuhpani Yoyani Luhchi Yoroni/Tunica Language Working Group used several digital tools to assist in this process, including creation of digital memes to help learners understand and interact with the language (Anderson 2013), digital recordings of Tunica tales (Maxwell 2013), and an online pronunciation guide (Kuhpani Yoyani Luhchi Yoroni / The Tunica Language Working Group 2022). During the Tribal consultation with the Coushatta Tribe, leaders mentioned their interest in adding language learning options to an app being built for the Tribe. One leader noted that an app would put language learning in the hands of the average member rather than requiring them to take a class.

Two Tribes have NTIA grants. The Tunica-Biloxi will use their grant to address critical broadband challenges. The activities include improving digital skills training (discussed above), providing members with discounted broadband equipment for seniors and school age children, vocational training as it relates to broadband, and discounted broadband services. The Coushatta Tribe will implement a planning, engineering, feasibility, and sustainability project. This project will evaluate multiple options for the Tribe to consider and ultimately lead to an outcome that will support the broadband deployment for the Coushatta Tribe. The Coushatta Tribe has significant concerns about affordability and has an interest in Tribally owned middle-

mile infrastructure. Tribal leadership believes self-ownership of middle-mile infrastructure is an important part of the solution for Tribal digital equity since they will be able to self-determine the network and technology standards. Moreover, the Tribe asserts that middle-mile ownership will provide an opportunity for economic development that can allow the Tribe to further fund internal programs (e.g., healthcare, cultural preservation, and community connection). Finally, middle-mile ownership will allow the Tribe to continue to develop partnerships with local and regional groups.

3.2.10 Individuals in Rural Areas

For those living in rural Louisiana, the challenges and barriers to accessing and adopting broadband services intersect along geographic and socio-economic lines. The interests of internet service providers also play a part in where broadband infrastructure is provided, who it is provided by, and the cost of those services. These factors can limit accessibility and affordability of broadband internet and the attainment of basic digital literacy skills in rural Louisiana. Furthermore, these limitations affect access to educational and employment opportunities, particularly in the aftermath of the coronavirus pandemic, when many industries and educational institutions shifted more of their operations to online platforms.

Rural Louisiana faces significantly lower levels of broadband access compared to their urban and suburban counterparts. In Louisiana, 17.8% of the population living in parishes defined as ‘rural’ do not have a broadband internet connection and 9.7% of the rural population have no internet subscription (see Section 3.1.2, Figures 3.11 to 3.13). In contrast, 14% of parishes defined as urban do not have a broadband internet connection, and 7.5% have no internet connection.

Challenges and Barriers for Individuals in Rural Areas

Across all focus groups conducted, the majority of community members who identified as living in a ‘rural’ area stated that their main challenge to using broadband internet was the lack of access. While satellite services are shown to be widely available across the state according to the most recent FCC maps (“FCC National Broadband Map” 2023), focus group participants from rural Louisiana described those services as costly and unreliable.

Historically, low population densities in rural areas and the high cost of installing and operating broadband infrastructure present a non-viable proposition for service providers, disincentivizing large-scale private investment in rural internet infrastructure (USDA 2019). In many communities, options for broadband access are limited to only a few or even a single internet service provider (ISP) (see Section 3.1.1, Figure 3.8 under Competition among ISPs). ISPs use the same business models in urban areas as they do in rural areas, and these models require revenues to meet or exceed the cost of providing service. The decisions involved in providing service rely heavily on dynamics like population density. This density issue is especially prevalent in rural communities where residents are far more spread out between farms and smaller rural towns. It follows then that these are the places where service providers are lacking.

Low broadband penetration rates in rural Louisiana have real consequences. In rural Evangeline Parish, 15.7% of residents are considered underserved when it comes to broadband (ConnectLA 2023), and according to a data analysis of two million speed test results by highspeedinternet.com, Ville Platte, the largest city in Evangeline Parish, has an average speed of 7.8 Mbps, third lowest in the nation (Cooke 2020). During the coronavirus this led to major problems, particularly for rural students who could not attend virtual classrooms or work from home. Residents of Ville Platte resorted to using hotspots in McDonalds parking lots and City Hall. The mayor of Ville Platte was quoted as saying, “You couldn’t get things done because it just took too long, it crippled, and in some cases paralyzed, the city. It *was* a nightmare” (Paterson 2021).

Affordability is also a major digital equity issue in rural Louisiana. On average, annual household income in rural Louisiana is \$10,000 less than urban households (see Figure 3.16), and the poverty rate in Louisiana is higher than urban dwelling populations (United States Census Bureau 2021g). The United States Department of Agriculture Economic Research Service shows that nearly 1-in-4 individuals in a rural parish live below the poverty line, compared to less than 1-in-5 in urban and suburban parishes (Economic Research Service 2023). In 2022, Louisiana State University released the results of a survey which revealed approximately two-thirds (64%) of Louisianians surveyed noted that the cost of broadband internet is the reason they do not have it (Henderson 2022). The survey does not differentiate respondents between urban and rural, however, with higher rates of poverty and lower household incomes, affordability is a prevalent issue for Louisiana’s rural residents.

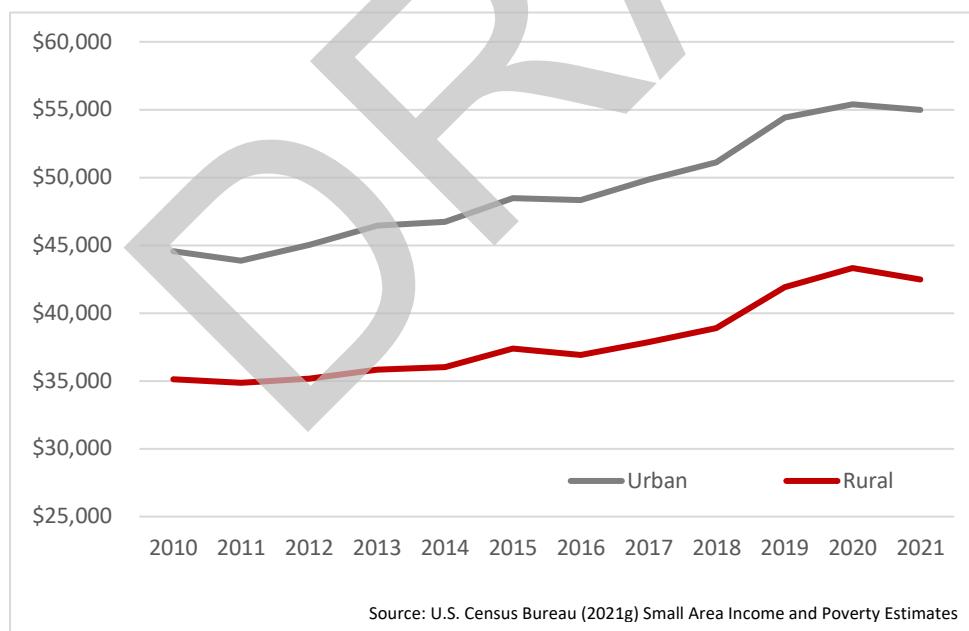


Figure 3.16. Louisiana household income in urban/metropolitan (gray) and rural/nonmetro areas (red) areas from 2010 to 2021.

Finally, rural residents who attended digital equity focus groups across Louisiana made it clear that digital literacy skills are a major barrier to not just digital equity, but economic, and educational equity as well. According to The Office of Broadband and Connectivity in Louisiana, an estimated 460,000 Louisiana adults aged 18 to 64 do not have basic computer skills (ConnectLA 2023). This means that 1 in 10 Louisianians struggle to participate in online commerce, banking, telehealth services, educational opportunities, and many other facets of life that require digital skills to participate. Again, a substantial portion of the problem is socioeconomic. A wide body of research finds that higher levels of income and education are positively linked to early technology adoption (Whitacre 2022).

With rural areas experiencing lower levels of income and higher levels of poverty, it follows that the acquisition of digital literacy skills in rural areas will be on average more limited than urban areas. These limitations were made much worse by the COVID-19 pandemic. Teachers who attended a focus group in Winnsboro, LA made it clear that the pandemic severely impacted their ability to teach when remote learning became a necessity. A teacher from Tensas Parish stated, “where we live they [the students] have no internet in their homes or nearby, so there is no way to practice computer use and learn other digital skills.” A report released by The Board of Elementary and Secondary education estimated that 1 in 4 children in Louisiana lacked access to reliable internet connections for remote learning and this challenge pervade rural Louisiana (Sentell 2020).

The challenges of cost, affordability, and digital literacy impact the adoption of broadband in rural Louisiana’s homes, businesses, and schools. With rural areas experiencing lower levels of broadband penetration, lower levels of income and higher rates of poverty, the digital divide affects the digital literacy, educational attainment, and economic opportunity of rural citizens in Louisiana. It is imperative therefore that all challenges and barriers discussed above are addressed in tandem to achieve true equity for Louisiana’s citizens when it comes to adopting and utilizing broadband internet in their lives.

Resources and Assets for Individuals in Rural Areas

The initial round of GUMBO grant applications went out in 2022. Over \$170 million was awarded to projects in 50 different Louisiana parishes, with over 80,000 locations to be served. The GUMBO grant program is designed to offset the costs private companies incur when deploying broadband internet infrastructure. This will incentivize companies to expand their internet services to underserved rural communities.

The United States Department of Agriculture’s Rural Development Broadband ReConnect Program furnishes loans and grants to provide funds for the costs of construction, improvement, or acquisition of facilities and equipment needed to provide broadband service in eligible rural areas. Those who may apply include:

- Corporations
- Limited Liability Companies and Limited Liability Partnerships
- Cooperatives or mutual organizations

- States or local governments, including any agency, subdivision, instrumentality or political subdivision thereof
- A territory or possession of the United States
- An Indian Tribe, as defined in Section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. §450b)

In addition, The Board of Regents implemented The Louisiana Statewide Digital Inclusion Pilot in five parishes to expand digital literacy across the state (a full discussion of the pilot is included in Section 2.3 under Libraries). The pilot includes two largely rural parishes and two other parishes with a significant portion of rural geography. This pilot is a one-year effort to reduce the percentage of Louisiana residents who lack digital skills and could potentially help identify additional strategies or provide support for new resources to serve rural areas.

Special Topic: Rural Louisiana hosts over 27,400 farms and 8 million acres of farmland, making the agricultural industry a vital part of Louisiana's economy. With emerging precision agriculture technologies like tractor guidance systems, variable rate technology, real time data collection and analysis, and drone and satellite imaging, Louisiana farms are poised to increase production and lower the costs of their agricultural activities. However, these technologies all rely on accessible and affordable broadband internet, which is still lacking for many of Louisiana's farmers. Addressing rural broadband issues will also mean addressing many of the challenges faced by Louisiana's agricultural community and industry. A full discussion of Louisiana agriculture and the role of broadband is provided in Section A5 of the Appendix.

4. Collaboration and Stakeholder Engagement

4.1 Coordination and Outreach Strategy

Throughout the planning process, our community participation and engagement strategy served our goal of meeting people where they are and actively listening to their feedback to ensure the plan accurately articulates the state of digital equity in Louisiana, the needs of Louisianians, and the outcomes that will help the state address digital equity deficiencies. To accomplish these goals, the Office of Broadband and the Kathleen Blanco Public Policy Center collaborated with the state's regional planning and development districts, colleges and universities, tribal organizations, and other regional partners to reach a diverse group of Louisianians from across the state.

Our engagement process used multiple strategies to create opportunities for people living in different areas and from a variety of backgrounds to provide input (Figure 4.1). Strategies included in-person stakeholder meetings which were recorded and live streamed, tribal consultations, a stand-alone online digital form, a paper form at meetings and left at libraries, in-person and virtual focus groups, and a comment form for the draft plan. These opportunities allowed Louisiana residents to participate in building an inclusive plan. The process incorporated input from people with lived experiences of digital barriers in their communities as well as subject matter experts. We detail the engagement strategies below.

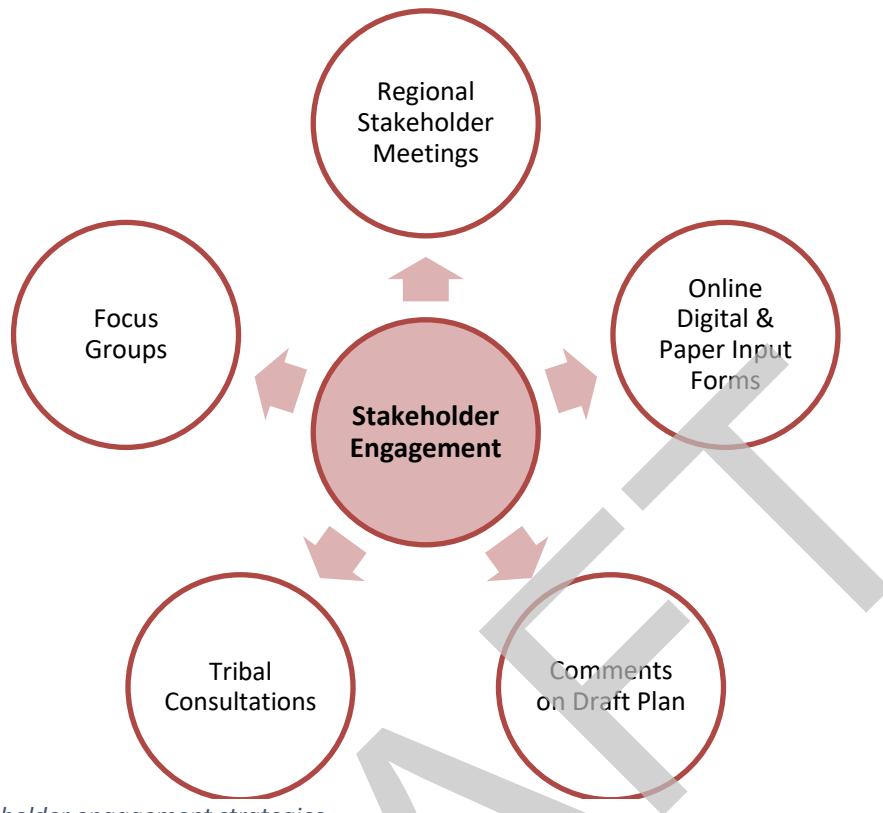


Figure 4.1. Stakeholder engagement strategies

4.2 Stakeholder Engagement

4.2.1 Tribal Consultations

Four official tribal consultations were held with Louisiana's federally recognized tribes. In addition to tribal leaders, staff from the Office of Broadband and Connectivity, the Blanco Center, and the U.S. Commerce Department's NTIA Tribal Division attended each meeting. Staff from U.S. Senator Bill Cassidy's office attended meetings with the Coushatta Nation, Jena Band Choctaw Nation, and Tunica Biloxi Tribe. Table 4-1 lists the meeting date and tribe.

Table 4-1. Tribal Consultation Meetings

Tribe (federal)	Meeting Date
Coushatta Nation	3/16/2023
Jena Band Choctaw Nation	3/17/2023
Tunica Biloxi Tribe	3/17/2023
Chitimacha Tribe of Louisiana	4/27/23

Notes were taken during each tribal consultation and integrated into the needs assessment (Section 3.2.9) and implementation section (Section 5). Tribal leaders received a draft copy of the section of the plan prior to the public comment period and had the opportunity to provide feedback.

4.2.2 Regional Stakeholder Meetings

Stakeholder meetings were scheduled in each of the state's eight planning and development districts (Figure 4.2, A). Collectively, 260 people across the state attended the meetings (Figure 4.2, C). Each event was staffed and supported by representatives from the Blanco Center, the regional planning and development district, the LOUIS Library Network, the Louisiana Office of Broadband and Connectivity (Connect LA), and select postsecondary institutions located in the region.

Prior to conducting stakeholder meetings, the Blanco Center and regional planning and development district staff met with select state partners for an in-depth discussion of the region's unique known broadband challenges and which outreach methods might work best within the region. Each regional planning group identified and invited stakeholders in their region, with special consideration and outreach to covered populations and other hard-to-reach populations in their region. One or two regional leaders from the planning group were selected to present digital equity background material and/or moderate the meeting. After identifying a moderator or moderator group, additional prep and logistical planning meetings were scheduled to review every aspect of the stakeholder event. The Blanco Center provided moderators with talking points, a slide deck customized for the region, and other collateral to use in the stakeholder meeting. After concluding those initial meetings, the team cultivated a unique outreach approach for each region and created the necessary outreach tools. Local and regional partners ensured that all meetings were conducted in a central location that was both accessible and inclusive. Multiple methods of outreach were used to invite stakeholders including television, social media, e-mail blasts, phone calls, flyers, and other strategies specific to individual partners.

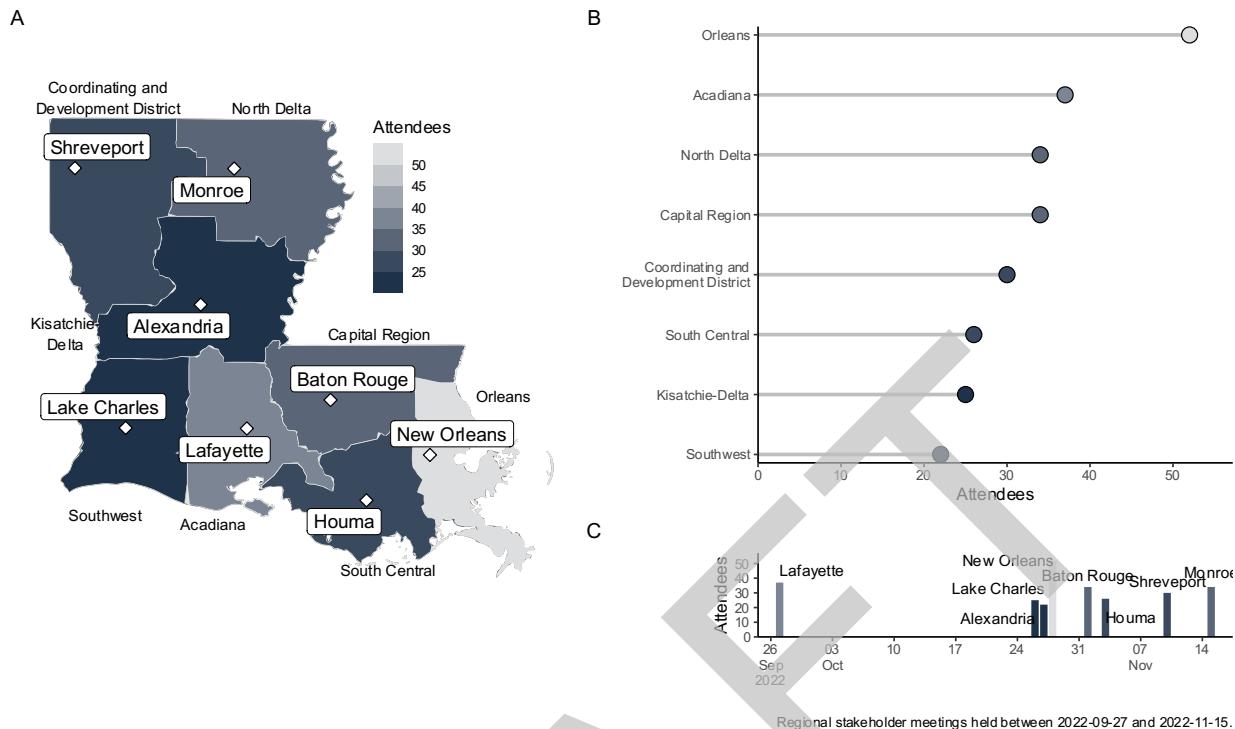


Figure 4.2. Number of attendees at regional stakeholder meetings. N = 260. A) Geographical representation of Louisiana regions. Labeled white diamonds show meeting locations. B) Regions ordered by number of meeting attendees. C) Meeting attendance over time.

Source: Sign-in sheets from stakeholder meetings

Stakeholder meetings were live-streamed and recorded to ensure that those unable to attend in person could still have access to the event either remotely or via recording after the fact. Each event agenda consisted of a 15-20 minute presentation about digital equity and the digital equity planning process, then followed by an hour for public input moderated by regional partners. Attendees provided input about their unique local and regional assets that address digital equity issues, local and regional resources that address digital equity, and barriers to achieving digital equity faced in the city, parish, region, or by specific populations in the region. The attendees were asked to help identify how to improve communication about digital equity in their community, strategies to address digital equity barriers, and existing digital equity plans in their community.

Individuals were invited from multiple different interest groups. During check-in for the stakeholder meeting, individuals had the opportunity to self-identify with a specific covered population or issue. Many participants chose to self-identify, but others did not pick a specific population at check-in (see Section A4 of the Appendix, Table A4-2). Participants represented community anchor institutions, local and parish governments, school systems, postsecondary institutions, non-profits, state agencies, businesses, and more (see Section A4 of the Appendix, Table A4-3). Similar to the sign-in sheet, many but not all attendees chose to include their affiliation.

In addition to live comments, stakeholders also had the opportunity to provide feedback during and after the stakeholder meetings through the use of a digital form (See more in Section 4.2.3). During the stakeholder meetings a QR code and weblink were provided for attendees. After the first meeting, staff brought a paper form and copies for attendees to share with friends. Paper forms could be sent back by postal mail or by snapping a picture of the completed form to text or email feedback. Librarians were enlisted to offer the paper form in their libraries. A link to the recorded meeting, a copy of the slide deck, and a link to the digital form were sent to all invitees after the meeting who were also encouraged to share the information and request input within their networks.

Staff collected notes and listened to stakeholders throughout the meeting. Meeting notes and transcripts were coded by Blanco Center staff. Key insights including unique ideas and ideas mentioned multiple times were drawn out to use in the needs assessment and implementation sections.

4.2.3 Online Digital and Paper Input Forms

As mentioned previously, Louisianians were able to provide input about digital equity – either via a Qualtrics online form or a hard-copy paper form. Information about this form was advertised at regional stakeholder meetings, in follow-up information about the meeting, at focus groups, and through multiple media channels. All who attended regional stakeholder meetings were asked to share the link with others. Librarians were offered paper copies of the form to distribute at the library.

Similar to the stakeholder meeting structure, the form asked about specific areas related to digital equity, including input about their unique local or regional assets that address digital equity issues, local and regional resources that address digital equity, and barriers to achieving digital equity faced in the city, parish, region or by specific populations in the region. Form respondents also provided recommendations for how to improve communication about digital equity in their community, strategies to address digital equity barriers, and identified existing digital equity plans in their community.

The form was available from September 30, 2022 (first regional engagement meeting) through March 30, 2023 (a few weeks after the last focus group meeting). We received 751 responses, 319 of which answered at least one of the seven core questions. The Kisatchie-Delta region had the highest engagement with the digital form (Figure 4.3) following their regional stakeholder meeting in Alexandria on 10/26/22. Rapides Parish in central Louisiana had the highest engagement for a single parish. Lower levels of engagement through the stakeholder form were seen in Acadiana (Region 4) and North-Delta (Region 8). The Acadiana meeting was the first meeting held (9/27/22) and the team was still determining the best ways to communicate the digital form to stakeholders. Additionally, in the iteration of the form used at the Acadiana meeting, respondents were not asked to write in their parish name. Instead, there was a long multiple-choice question, which may have deterred respondents from indicating a parish on the

form. North-Delta is a very rural region and outreach in the region was challenging despite strong partners in the regional planning and development district and Delta Community College, which livestreamed the regional meeting across multiple campuses to offer residents more options to engage in person. Three parishes had zero stakeholder representation in the digital form (Jackson, Madison, and Richland parishes), which are all in this region.

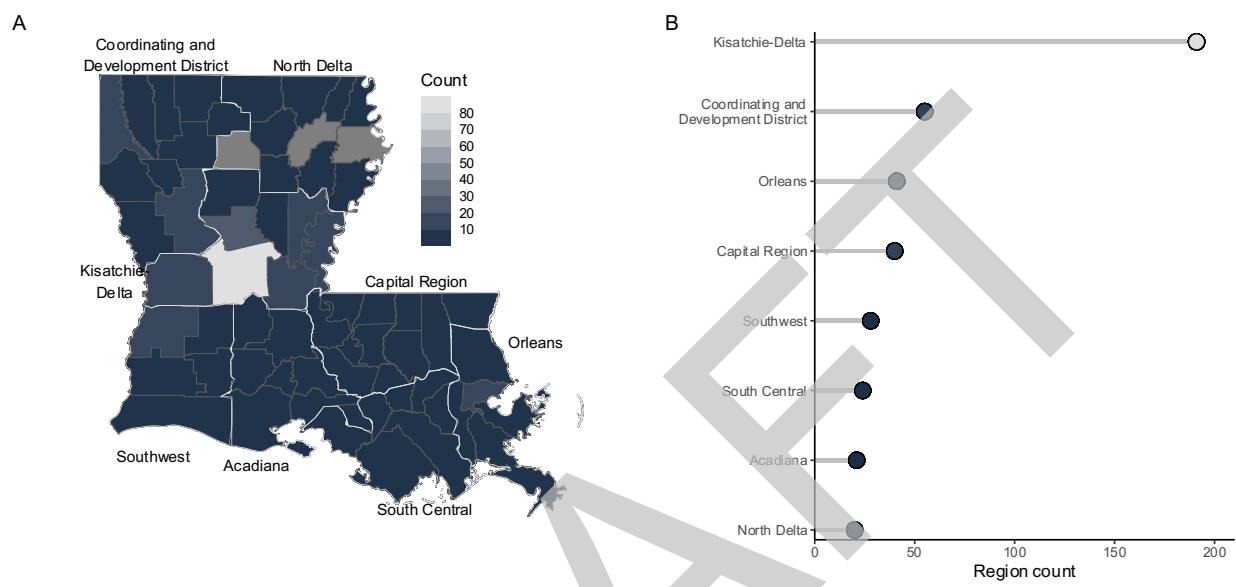
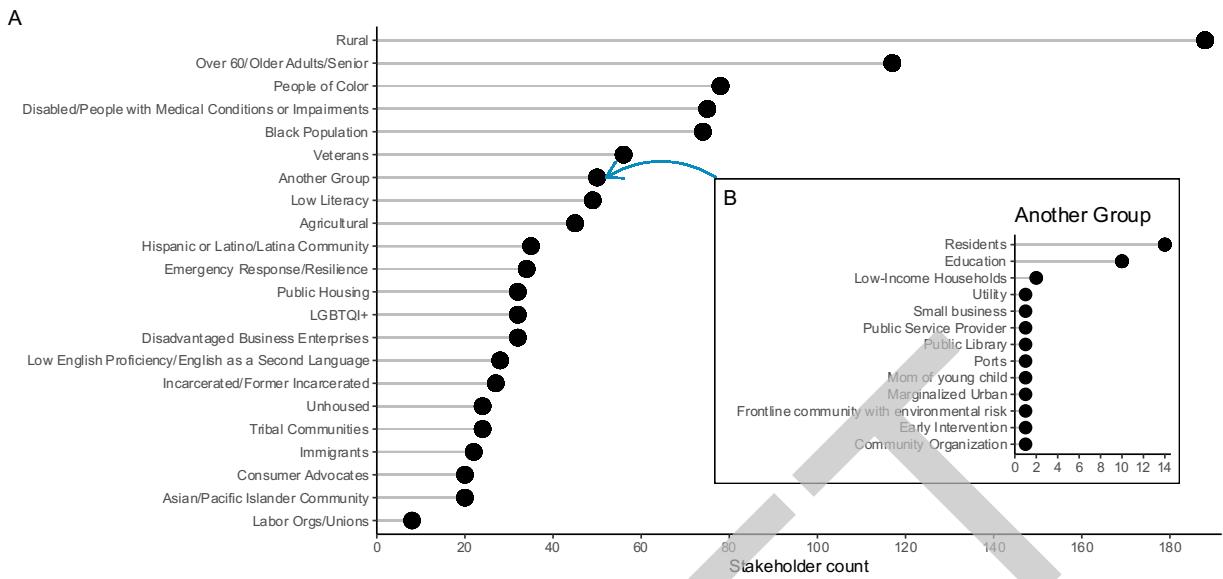


Figure 4.3. Number of times parishes were indicated on digital forms. N = 289. A) Geographical representation of Louisiana parishes. B) Regions ordered by total number of parish indications in digital form.

Several minor changes were made to the form to improve data collection. In early versions of the form, stakeholders entered parishes they represented in a multiple-choice checkbox. A revised version of the form asked for parish information in open-text format. Data from both questions were reconciled and additional parish information was added from responses provided in other questions (e.g., workplace or email addresses), to fill in missing information. Similarly, open-text responses for the question, “Please indicate what stakeholder group(s) and/or digital equity consideration(s) you represent or are providing input about (please check all that apply),” were processed to ensure respondents had not overlooked a subset of the population that was clearly relevant given the respondent’s organization and to group the response into similar categories (e.g., “higher ed”, “High education”, and “college students” were all summarized under “Higher Education”; and “Low income people” and “Low-income families” were summarized under “Low-Income Households”).



Source: Digital form, 2022-09-23 to 2023-03-24.

Figure 4.4. Stakeholder group representation as indicated on digital form. N = 309. A) Multiple choice selection in decreasing order. B) Inset shows open-text responses for 'Another Group' selections.

The use of the form and intermittent analysis throughout the stakeholder engagement process helped identify some stakeholder groups in need of additional touchpoints to gain feedback. For example, the form illustrated high engagement among rural and older populations (Figure 4.4). As a result of the early feedback from the digital form, we targeted focus groups at communities with low engagement rates. Figures 4.5 and 4.6 illustrate engagement spikes with each regional meeting.

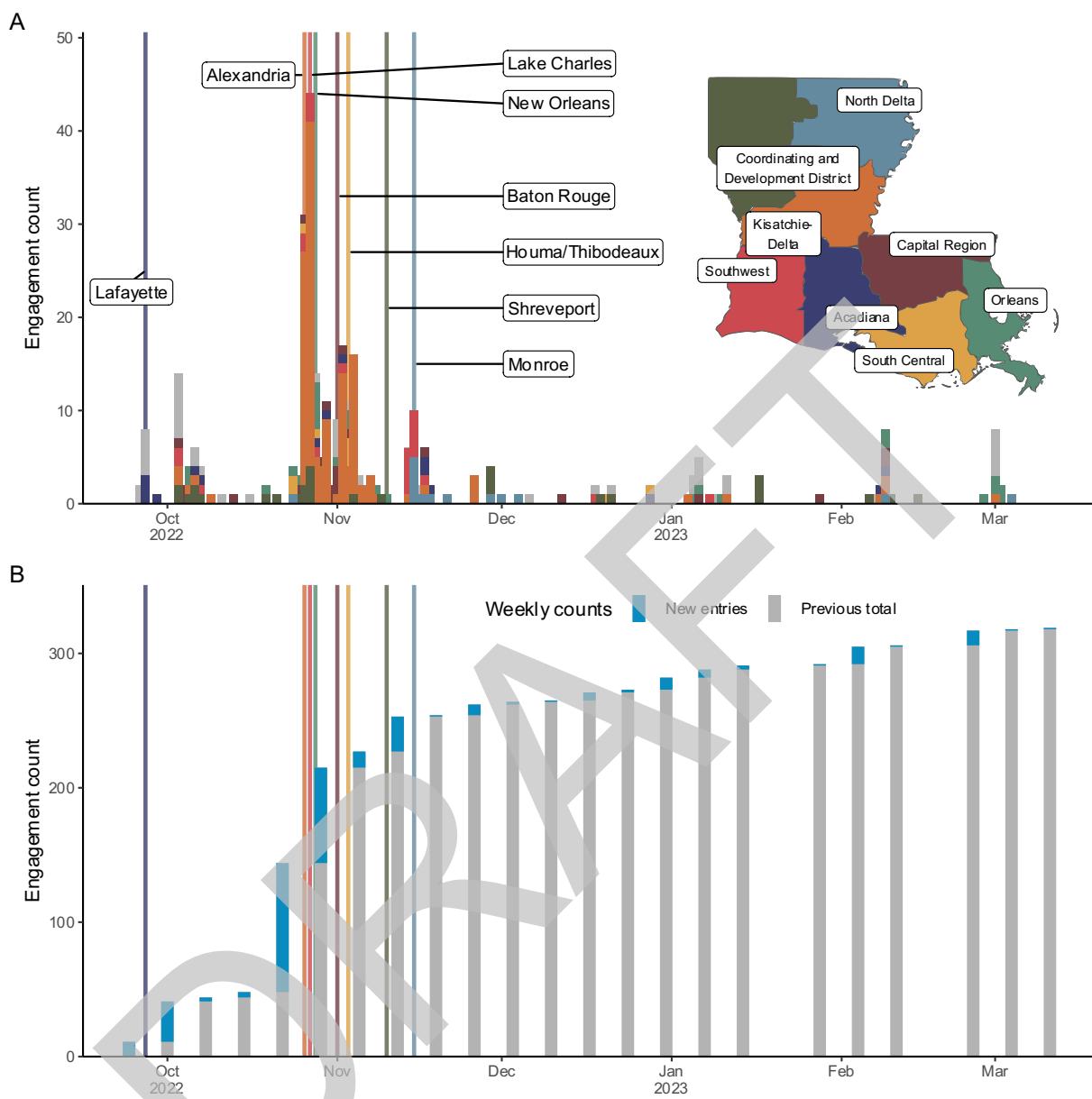


Figure 4.5. Engagement with digital form over time. Vertical lines represent regional stakeholder meetings colored by region (see map inset). (A) Daily engagement. Stacked bars represent new entries. Bars colored by region where parishes were indicated, grey bars are entries without parish indication. (B) Weekly engagement. Stacked bars represent weekly new engagement (blue) and total counts from each previous week (grey). N = 319.

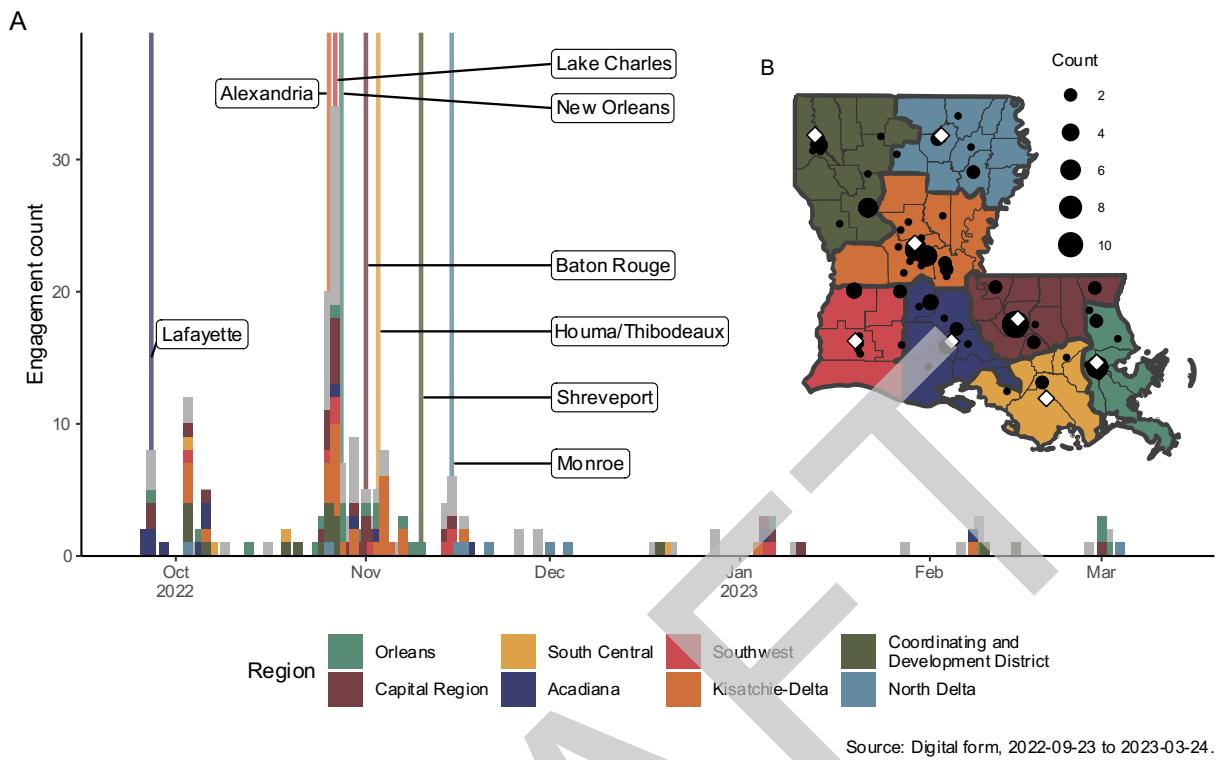


Figure 4.6. Engagement with digital form over time colored by Louisiana region, based on coordinate data. (A) Stacked bars colored by region were within Louisiana, grey bars from outside Louisiana. Vertical lines represent regional stakeholder meetings colored by region. N = 200. (B) Geographical representation of coordinates within Louisiana, size represents total occurrence. White diamonds show cities where regional stakeholder meetings were held. N = 131.

Form data were cleaned and analyzed to look for patterns in the data (See Section A1 of the Appendix under Collaboration and Stakeholder Engagement Form for full details). Content analysis of answers to the form was incorporated into the needs assessment and implementation sections of the plan.

4.2.4 Focus Groups

For a more in-depth understanding of covered populations within the state and as a follow-up to the regional stakeholder meetings, the Blanco Center conducted multiple focus groups across the following populations or groups. Staff held 29 focus group meetings which were attended by 224 people. Seven meetings were in-person focus groups and 22 were conducted virtually (Table 4-2). All attendees had the opportunity to provide feedback during the meeting or using the digital form. Paper forms were provided for the in-person meetings. Depending on the meeting, attendees were people with lived experience or those who work directly with the covered population. Notes were taken from all meetings and integrated into the needs assessment and implementation sections.

Table 4-2. Focus group meetings by covered population

Covered Population	Meeting Date	Attendance (#)	Location
Incarcerated/Formerly Incarcerated	1/25/2022	3	Virtual
Tribal (state)/Native American	12/1/2022	3	Virtual
Incarcerated/Formerly Incarcerated	12/2/2022	3	Virtual
Individuals with a Disability	12/6/2022	4	Virtual
Tribal (state)/Native American	12/15/2022	5	Virtual
Incarcerated/Formerly Incarcerated	1/6/2023	3	Virtual
Tribal (state)/Native American	1/9/2023	15	Baton Rouge
Healthcare	1/9/2023	17	Virtual
Agriculture	1/11/2023	15	Alexandria
Library	1/12/2023	11	Virtual
Labor Union/Workforce	1/13/2023	9	Virtual
Older Adults - Organizations	1/17/2023	7	Virtual
Agriculture	1/17/2023	7	Rayne
Older Adults - General	1/18/2023	9	Virtual
Agriculture	1/18/2023	13	Bossier City
Agriculture	1/19/2023	14	Winnsboro
Agriculture	1/23/2023	8	Hammond
Incarcerated/Formerly Incarcerated	1/23/2023	2	Virtual
Incarcerated/Formerly Incarcerated	1/25/2023	2	Virtual
Incarcerated/Formerly Incarcerated	2/1/2023	2	Virtual
Black communities	2/1/2023	9	Shreveport (Virtual)
Hispanic/Latino/a	2/20/2023	2	Virtual
Black communities	2/27/2023	14	virtual Baton Rouge
Black communities	2/27/2023	8	(Virtual)
Black communities	2/27/2023	8	Lafayette (Virtual) Lake Charles
Black communities	2/28/2023	4	(Virtual)
Black communities	2/28/2023	3	Alexandria (Virtual)
Black communities	2/28/2023	4	Monroe (Virtual)
Incarcerated/Formerly Incarcerated	3/16/2023	20	Lafayette

4.2.5 Public Comments on Draft Plan

TBD

4.2.6 Implementation

The Office of Broadband and Connectivity will continue to partner with the expanded set of stakeholders identified through this planning process to implement this Digital Equity Plan. Several recommended activities discussed below will formalize this type of collaboration and create the impetus for regular meetings and engagement. Other activities will require community anchor institutions, local government, K-12 schools, postsecondary institutions, the business community, or other organizations to take initiative to fully address the challenges laid out in this plan. However, the Office of Broadband and Connectivity will develop processes to maintain a high level of engagement and ensure that state-led initiatives are coordinated with ongoing efforts to move Louisiana toward digital equity.

5. Implementation

5.1: Implementation Strategy and Key Activities

Goal 1: Broadband Availability & Affordability

The goal of achieving digital equity is reliant upon Louisianans having access to broadband both geographically and financially. Louisiana will improve and expand digital infrastructure serving covered populations while also improving affordability for lower income residents.

Key Strategies

- A. The state should identify areas without broadband and maintain updated information on areas and the covered populations in those areas with unmet needs.
 - a. The state should track clearly defined metrics that combine population size, population density, and the demographic profile of served and unserved areas to ensure that future plans move the state toward a more equitable distribution of services.
- B. Ensure public broadband infrastructure dollars are spent equitably to improve access and affordability for covered populations.
 - a. For funds disbursed through grant programs, prioritize applications that promote competition, or use other targeted approaches to and reduce the long-term cost of broadband for covered populations.
- C. Coordinate future initiatives addressing affordability to ensure that they are targeted to fill gaps in federal and local supports and equitably improve access for covered populations.

- (a) As the state explores new assistance-based initiatives to help those with lower incomes, being mindful of existing local, state, and federal programs (such as the Affordable Connectivity Program or the hotspot loan programs enacted at various local libraries across the state) can help develop programs that work in conjunction with those that already exist.
- D. Conduct outreach to covered populations to provide details about service and programs that can make broadband more affordable.
- E. Develop a mechanism for long-term public oversight to promote broadband availability, reliability, and affordability for covered populations.

Key Activities (very specific actions to address need or accomplish objective/goal)

- A. Creation of a digital equity dashboard that tracks clearly defined access and affordability metrics (e.g., service availability, speeds, and prices) alongside data on covered populations in served and unserved areas to illustrate the progress toward reaching digital equity for Louisiana. The dashboard should include aggregated metrics to track general trends and maps to display information visually. By making this information available to the public, the state can information on broadband infrastructure improvements in different areas of the state.
- B. (1) Design future grant programs to prioritize access and affordability for covered populations.
 - (2) Evaluate how public broadband infrastructure dollars are spent and provide a scorecard for Louisiana's broadband investment that highlights covered populations.
 - (3) The Office of Broadband and Connectivity will continue to study opportunities for different types of infrastructure deployment that may benefit covered populations, including a middle mile approach, as recommended by Tribal governments, and ensure that public grant programs prioritize best practice approaches to achieve access and affordability for covered populations. If applicable, targeted grant programs could allow local governments, Tribal organizations, and LONI to test different modes of broadband deployment and construction.
 - (4) The Office of Broadband and Connectivity will produce a report on best practices in infrastructure deployment and results on from other states related to access and affordability for covered populations.
- C. Track and maintain public-facing information on existing local, state and federal assistance-based initiatives including the Affordable Connectivity Program and Lifeline. This information will include eligibility requirements, how to apply, and participation rates across covered populations.

- D. Expand outreach to covered populations through accessible online resources; community centers; libraries; health clinics; K-12 and postsecondary schools; Spanish language pamphlets; advertisements with newspapers, radio, or television; social media; and/or related in-person events.
- E. A digital equity advisory panel (e.g., BEL Commission or similar), supported by staff at the Office of Broadband and Connectivity and in collaboration with leaders of organizations supporting covered populations, will meet a minimum of twice annually to review the results metrics on the broadband dashboard and make recommendations for addressing deficiencies.

Goal 2: Device Availability and Affordability

Beyond availability and affordability of broadband service, residents require devices to fully take advantage of the opportunities that come with a broadband connection. Louisiana will support, promote, and create opportunities to ensure that residents have access to affordable smart devices.

Key Strategies

- A. Dedicate public funding to support access to devices, leveraging bulk purchasing power where possible to reduce costs.
- B. Encourage and promote private sector efforts to increase access to devices and/or lower costs of devices through computer refurbishing and recycling.
- C. Conduct outreach to covered populations to provide information about vendors who provide discounted, or low-cost refurbished devices.
- D. Develop a mechanism for long-term public oversight to promote availability and affordability of devices for covered populations.

Key Activities

- A. Provide funding to community anchor institutions such as libraries to purchase laptops, tablets, and hotspots. Providing devices to organizations like these can serve multiple residents per device. Moreover, prioritizing those community anchor institutions that offer digital skills classes or support digital navigators within the community will ensure that devices are available to support other goals of the digital equity plan.
- B. Identify and promote private sector organizations that recycle or refurbish devices and sell at reduced costs. Private sector efforts can be supported through grants or subsidies based on the sale of those devices. Promotion can be done using outreach to covered populations through accessible online resources; community centers; libraries; health

- clinics; K-12 and postsecondary schools; Spanish language pamphlets; advertisements with newspapers, radio, or television; social media; and/or related in-person events.
- C. (1) All public funding for devices will be tracked with reporting by covered population to ensure progress toward digital equity is being made. Promotion about opportunities to obtain discounted or low-cost devices will be done through outreach to covered populations through accessible online resources; community centers; libraries; health clinics; K-12 and postsecondary schools; Spanish language pamphlets; advertisements with newspapers, radio, or television; social media; and/or related in-person events.

(2) The state will sustain efforts to increase public awareness of support for connected devices through both the Affordable Connectivity Program (ACP) and Lifeline program including information on eligibility, how to apply, and reporting on enrollment by covered population.

- D. A digital equity advisory panel (e.g., BEL Commission or similar), supported by staff at the Office of Broadband and Connectivity and in collaboration with leaders of organizations supporting covered populations, will meet a minimum of twice annually to review opportunities across the state that promote availability and affordability of devices for covered populations and make recommendations for addressing deficiencies.

Goal 3: Online Accessibility and Inclusivity

Ensure that state resources and activities delivered or accessed online are designed to be accessible for all covered populations in Louisiana.

Key Strategies

- A. Align efforts across state government to ensure information provided online meets current accessibility standards.
- B. Ensure that state-run programs using online processes for applications or to manage services are designed for maximum accessibility and integrated as much as possible to simplify access to the public.
- C. Develop a long-term mechanism to continue improving accessibility and inclusivity as technology and unmet needs for covered populations change over time.

Key Activities

- A. (1) State agencies will audit website content to identify and implement updates that will improve accessibility and ensure the sites meet accessibility standards for covered populations.

- B. (1) Audit of state-run programs to ensure that online applications are available in language that can be understood broadly across covered populations, are easily accessible for learning or hearing-impaired individuals, translatable to ESL applicants, and function in a way that they can be used on a variety of devices (computers, tablet, or phones).
 - (2) Convene state agencies to present results on website accessibility and offer opportunities for collaboration across agencies at the bi-annual meeting of the digital equity advisory panel.
 - (3) Provide training and technical support for digital navigators at community anchor institutions such as public libraries who provide training to computer users across a variety of needs.
- C. (1) Creation of a subcommittee on accessibility which will report to the digital equity advisory panel. This subcommittee will develop a suite of digital inclusion opportunities in partnership with public libraries, postsecondary institutions, adult education programs, and community organizations to provide options that address new and changing accessibility and inclusive technology needs.
 - (2) Continued training for state employees to ensure websites, forms, and state business activities are accessible and meet the needs of covered populations

Goal 4: Digital Skills

To achieve digital equity, Louisiana must ensure that residents have both the basic and technically proficient digital skills to function in the digital world. Louisiana will increase and promote opportunities for covered populations to develop digital skills and monitor progress toward more equitable attainment of digital skills.

Key Strategies

- A. Establish a Statewide Framework for Digital Skills Attainment
 - a. Identify best practices and provide guidance on integrating digital skill development into K-12 and post-secondary education, workforce training, and other public training and programming.
- B. Monitor and promote ongoing activities related to digital skill development across the public sector to help residents identify and access digital skill training.
- C. Cultivate and promote efforts by the private sector and community-based organizations to provide digital skill training and technical support to covered populations.

- D. Develop and maintain technical support for residents to ensure that state-run programs using online processes can be accessed and used broadly.

Key Activities

- A. (1) Designate and fund the State Library of Louisiana as the organization to manage the statewide digital navigator program in public libraries
 - (2) Designate and fund the Louisiana Board of Regents as the organization to manage the statewide digital navigator program in postsecondary institutions
 - (3) Provide funding to local and parish governments, Tribal organizations, community anchor institutions, and/or non-profit organizations to develop and manage digital navigator programs for specific covered populations
 - (3) Fund a statewide subscription to NorthStar Digital Literacy to allow public libraries, workforce centers, postsecondary institutions, and others to use the program to assess and teach foundational digital skills.
 - (4) Create a subcommittee on a subcommittee on digital skills which will report to the digital equity advisory panel. This subcommittee will support a coordinated system of digital skills providers, including postsecondary, adult education, library systems, Tribal governments, and others, that link digital skills into workforce programs and adult education
- B. (1) Promotion of opportunities for digital skill development classes and activities will be done through outreach to covered populations through accessible online resources; community centers; libraries; health clinics; K-12 and postsecondary schools; Spanish language pamphlets, advertisements with newspaper/s, radio, or television social media; and/or related in-person events.
 - (2) Create a process for all public sector agencies to provide updates on digital skills related programming and activities
- C. (1) The digital equity advisory panel will convene a roundtable with diverse industry representatives to highlight best practices in digital skills training and technical support for covered populations.
 - (2) Showcase private sector digital skills training and technical support through reoccurring Office of Broadband and Connectivity communication and other outreach activities.

- D. Provide funding to a minimum of one library per each parish to offer opportunities for technical support. This funding could be braided with funding for digital navigators or digital skills classes.

Goal 5: Online Privacy and Cybersecurity

The state will promote best practices in the design and maintenance of information technology systems and support efforts to protect and educate the public on online privacy and cybersecurity.

Key strategies

- A. Expand the mission of Louisiana's Cybersecurity Commission to ensure the unique needs of covered populations are included in all planning activities and recommendations.
 - a. Louisiana's Cybersecurity Commission was created by Executive Order Number JBE 17-31 (amended by JBE 19-19 and JBE 22-9) with the task of coordinating cybersecurity efforts among state governmental agencies, local governments, tribal governments, private companies, academic institutions, and other entities in both the public and private sectors. Ensuring that these discussions consider the unique needs of covered populations will lead to more robust planning and better protect individuals in those groups.
- B. Promote state policies that are sensitive to online privacy and cybersecurity in consideration of unique needs of covered populations.
- C. Ensure that online privacy and cybersecurity educational resources for public sector employees are designed to accommodate the baseline knowledge and familiarity of individuals from all covered populations.
- D. Cultivate and promote efforts by the private sector and community-based organizations to provide online privacy and cybersecurity training to covered populations.

Key activities

- A. Expand the scope of Louisiana's Cybersecurity Commission to ensure the unique needs of covered populations are included in all planning activities and recommendations.
- B. The Office of Broadband and Connectivity will coordinate with the Information Security Team (INFOSEC) in the Office of Technology Services to ensure state online privacy and cybersecurity policies address unique needs of covered populations.
- C. The Office of Broadband and Connectivity will coordinate with State Civil Service to ensure educational trainings are designed to accommodate the baseline knowledge and familiarity of individuals from all covered populations.

- D. Partner with state and regional banking partners and community anchor institutions to deliver training on cybersecurity

5.2: Implementation Timeline

This digital equity plan lays out priorities and specific activities for Louisiana to make progress toward digital equity over the next five years. The timeline below identifies the expected duration the tasks that will launch this effort as well as the expected cadence for updates, meetings, or revisions as may be relevant for specific activities.

DRAFT

Broadband Availability & Affordability	Y1	Y2	Y3	Y4	Y5
The state should identify areas without broadband and maintain updated information on areas and the covered populations in those areas with unmet needs.		Creation of a digital equity dashboard	Annual dashboard updates		
Ensure public broadband infrastructure dollars are spent equitably to improve access and affordability for covered populations.		Grant programs that prioritize access and affordability for covered populations			
Coordinate future initiatives addressing affordability to ensure that they are targeted to fill gaps in federal and local supports and equitably improve access for covered populations.		Creation of scorecard w/ covered pop highlights	Annual scorecard updates		
Conduct outreach to covered populations to provide details about service and programs that can make broadband more affordable.		Study of deployment best practices	Updates as needed to information for public		
Develop a mechanism for long-term public oversight to promote broadband availability, reliability, and affordability for covered populations.		ACP, Lifeline programs info for public	Additional grant program for Tribal, local gov, LONI to test modes of deployment		
		Updates as needed to information for public			
		Expand outreach to covered populations through accessible online resources; community centers; libraries; health clinics; K-12 and postsecondary schools; Spanish language pamphlets; advertisements with newspapers, radio, or television; social media; and/or related in-person events.			
		Creation of Digital Equity Advisory Panel	Meetings of advisory panel		

Device Availability & Affordability	Y1	Y2	Y3	Y4	Y5
Dedicate public funding to support access to devices, leveraging bulk purchasing power where possible to reduce costs.		Provide funding for community anchor institutions to purchase laptops, tablets, and hotspots			
Encourage and promote private sector efforts to increase access to devices and/or lower costs of devices through computer refurbishing and recycling.		Identify private sector organizations that recycle or refurbish devices and sell at reduced costs		Promote to covered populations through multiple modes	
Conduct outreach to covered populations to provide information about vendors who provide discounted, or low-cost refurbished devices.	Track public funding for low-cost devices	Annual updates to inform the public			
		Public awareness campaign about ACP and Lifeline program			
		Outreach about opportunities to obtain discounted or low-cost devices to covered populations through multiple modes			
Develop a mechanism for long-term public oversight to promote availability and affordability of devices for covered populations.	Creation of Digital Equity Advisory Panel		Meetings of advisory panel to review opportunities that promote availability and affordability of devices and make recommendations for addressing gaps in options		

Online Accessibility & Inclusivity	Y1	Y2	Y3	Y4	Y5
Align efforts across state government to ensure information provided online meets current accessibility standards.	Audit of state agency website content to ID and implement updates to improve accessibility and ensure sites meet accessibility standards		Annual updates ensure sites continue to meet standards		
Ensure that state-run programs using online processes for applications or to manage services are designed for maximum accessibility and integrated as much as possible to simplify access to the public.	Audit of state online applications to ensure they are broadly understood, translatable, function on multiple types of devices Present results of website audit Training & tech support for digital navigators		Annual updates ensure sites continue to meet standards Bi-annual update on website accessibility to digital equity advisory panel Annual update to skills training and training for new digital navigators		
Develop a long-term mechanism to continue improving accessibility and inclusivity as technology and unmet needs for covered populations change over time.	Creation of accessibility subcommittee for digital equity advisory panel		Annual update digital equity advisory panel on changing accessibility and inclusive technology needs Training for state employees to ensure websites, forms, and state business activities are accessible and meet the needs of covered populations		

Digital Skills	Y1	Y2	Y3	Y4	Y5
Establish a Statewide Framework for Digital Skills Attainment.		Fund State Library of Louisiana to manage statewide digital navigator program in public libraries Fund Board of Regents to manage statewide digital navigator program in postsecondary programs Fund local gov/Tribal orgs/CAI/NGOs to manage digital navigator programs for specific covered populations Fund statewide subscription to NorthStar Digital Literacy			
	Subcommittee on digital skills	Annual subcommittee report to the digital equity advisory panel			
Monitor and promote ongoing activities related to digital skill development across the public sector to help residents identify and access digital skill training.		Promotion of opportunities for digital skill development classes and activities through multiple modes			
Cultivate and promote efforts by the private sector and community-based organizations to provide digital skill training and technical support to covered populations.	Roundtable with industry to discuss digital skills and tech support	Annual meeting to receive update on industry best practices			
Develop and maintain technical support for residents to ensure that state-run programs using online processes can be accessed and used broadly.		Showcase private sector digital skills training and tech support through communication and outreach activities			
		Funding for 1 library/parish (min) to offer opportunities for technical support for covered populations			

Online Privacy & Cybersecurity	Y1	Y2	Y3	Y4	Y5
Establish a Statewide Framework for Digital Skills Attainment.		Expand the scope of Louisiana's Cybersecurity Commission to ensure covered populations are included in all planning activities and recommendations			
Monitor and promote ongoing activities related to digital skill development across the public sector to help residents identify and access digital skill training.		Coordination with INFOSEC to ensure online privacy/cybersecurity policies address needs of covered populations			
Cultivate and promote efforts by the private sector and community-based organizations to provide digital skill training and technical support to covered populations.	Coordinate with State Civil Services so educational trainings accommodate baseline knowledge of covered populations	Annual review of trainings			
Develop and maintain technical support for residents to ensure that state-run programs using online processes can be accessed and used broadly.		Partner with state and regional banking partners and community anchor institutions to deliver training on cybersecurity			

6 Summary and Conclusion

Digital equity is a critical issue in today's world, particularly in Louisiana. This report has explored the state of digital equity in Louisiana and found that while Louisiana has made significant strides in recent years to close digital gaps present throughout its populations, it continues to face numerous challenges. Rural areas, low-income households, and communities of color have lower rates of digital access and proficiency than their urban, affluent, and white counterparts. This divide exacerbates existing social and economic disparities and hinders opportunities for individuals and communities. Access to technology and the internet is critical for education, employment, healthcare, and civic engagement, among other areas. Without it, individuals are at a disadvantage, and the state as a whole cannot reach its full potential.

Ongoing efforts have been made to bridge the digital divide but there is still much work to be done to ensure equitable access to technology and digital literacy skills for all Louisiana residents. Furthermore, the COVID-19 pandemic has highlighted the urgent need for digital equity. The shift to remote work, online learning, and telehealth services during the pandemic exposed the disparities in digital access, exacerbating existing inequalities. Louisiana should capitalize on the lessons learned from this crisis and use them as a catalyst for change. Investments in digital infrastructure, affordability, and digital literacy should be prioritized to ensure that all Louisiana residents can fully participate in the digital age, both during times of crisis and in everyday life.

One of the major achievements in Louisiana's journey towards digital equity is the recognition of broadband as essential infrastructure. The state government has taken steps to expand broadband infrastructure through initiatives such as the Granting Unserved Municipalities Broadband Opportunities (GUMBO) grant program, which aims to provide reliable high-speed internet access to unserved and underserved areas. Additionally, partnerships with private internet service providers (ISPs) have helped in extending connectivity to rural communities. These initiatives have improved internet access for many residents, enabling them to participate in online education, telehealth services, and other essential digital activities.

Recognizing the importance of digital access in education, Louisiana has implemented several initiatives to enhance digital equity in schools. For instance, the Louisiana Believes program has focused on improving digital literacy and integrating technology into the curriculum through the Educational Technology Plan, which serves as a guide to inform and influence school systems in crafting their own strategic technology plan. This plan also serves as a guide for school leaders in developing a framework for educational technology integration at the school level.

Likewise, numerous community organizations, libraries, nonprofits, and private entities in Louisiana have taken proactive steps to bridge the digital divide. These efforts include providing digital literacy training, offering discounted or free internet services, and distributing devices to

underserved populations. Collaborative partnerships have also emerged between government agencies, educational institutions, and community organizations to address digital equity comprehensively.

However, despite these efforts, significant disparities in digital access persist. Many rural communities still lack adequate broadband infrastructure, leaving residents without reliable internet connectivity. Moreover, low-income households often struggle to afford internet services and appropriate devices, disproportionately effecting rural areas, indigenous communities, and people of color, exacerbating the digital divide. Outreach to collect public input as well as far reaching research is summarized by this plan including identification of specific challenges and barriers as well as resources and programs for each covered population: aging individuals, incarcerated individuals, veterans, individuals with disabilities, individuals with a language barrier, Black individuals, Hispanic individuals, Asian individuals, Tribal members, and individuals living in rural areas.

To address these challenges in the short term, Louisiana should prioritize investments in expanding broadband infrastructure and increasing affordability programs to make internet services more accessible for disadvantaged communities. In the long term, it must be recognized that digital equity goes beyond access to technology; it also encompasses addressing socioeconomic disparities. Louisiana should continue efforts to reduce poverty rates, improve healthcare access, and provide job opportunities, as these factors significantly influence an individual's ability to access and utilize digital resources.

Another central aspect of digital equity is ensuring all Louisiana residents are supported in developing digital skills. Access to technology alone is not sufficient; digital skills are crucial to fully participate in the digital age. Louisiana needs to invest more in digital skills programs, particularly for communities of color, incarcerated individuals, veterans, low-income individuals, and rural communities. Enhancing computer skills and promoting digital education will empower individuals to make the most of available online resources and opportunities. To enhance digital equity, Louisiana should focus on scaling up digital skills programming and providing ongoing support to ensure long-term success. This could involve expanding partnerships with community organizations, leveraging the expertise of educational institutions, and collaborating with local businesses to create apprenticeship and mentorship opportunities. Additionally, addressing the digital divide requires targeted interventions for underserved populations, such as older adults, people with disabilities, and non-English speakers, who may face unique challenges in accessing and using digital technologies.

Addressing the digital divide is not only a matter of equity but also crucial for the socio-economic development, educational attainment, and overall well-being of Louisiana's residents. Expanding broadband infrastructure, improving affordability, and promoting digital literacy are key priorities for the state. To achieve these goals, Louisiana needs to take a comprehensive and inclusive approach that involves government, private sector, and community organizations. Such an approach should prioritize the needs of underserved communities and involve their

active participation and input. By working together, Louisiana can build a more just and equitable society that benefits all of its residents.

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Appendices

A1. Data Analysis and Methodology

U.S. Census Bureau data

This plan uses current, publicly available data from the U.S. Census Bureau to compare broadband access, affordability, and adoption across geographic locations and population groups. Table A1-1 contains a comprehensive list of census tables we used for this report. All data were cleaned, formatted, and visualized using R.

Table A1-1. U.S. Census Bureau tables used in this report.

Section	Table name	Table	Description	Survey
Access	Presence and types of internet subscriptions in household	B28002	U.S. states	2021: ACS 5-Year Estimates
Access	Presence of a computer and type of internet subscription in household	B28008	Geographic location (U.S., states, Louisiana parishes)	2021: ACS 5-Year Estimates
Access	Presence of a computer and type of internet subscription in household	B28008	U.S. & Louisiana	2017-2021: ACS 5-Year Estimates
Affordability	Household income in the last 12 months (in 2021 inflation-adjusted dollars) by presence and type of internet subscription in household	B28004	Income brackets	2021: ACS 5-Year Estimates
Adoption	Types of internet subscriptions by selected characteristics	S2802	Age & Races	2021: ACS 5-Year Estimates
Adoption	Age by presence of a computer and types of internet subscription in household	B28005	Age	2021: ACS 5-Year Estimates
Adoption	Presence of a computer and type of internet subscription in household	B28009A	Race: White Alone	2021: ACS 5-Year Estimates
Adoption	Presence of a computer and type of internet subscription in household	B28009B	Race: Black or African American Alone	2021: ACS 5-Year Estimates
Adoption	Presence of a computer and type of internet subscription in household	B28009C	Race: American Indian & Alaska Native Alone	2021: ACS 5-Year Estimates
Adoption	Presence of a computer and type of internet subscription in household	B28009D	Race: Asian Alone	2021: ACS 5-Year Estimates

Section	Table name	Table	Description	Survey
Adoption	Presence of a computer and type of internet subscription in household	B28009E	Race: Native Hawaiian & Other Pacific Islander Alone	2021: ACS 5-Year Estimates
Adoption	Presence of a computer and type of internet subscription in household	B28009I	Race: Hispanic or Latino	2021: ACS 5-Year Estimates
Adoption	Age and enrollment status by computer ownership and internet subscription status	B28012	Enrollment status	2021: ACS 5-Year Estimates

FCC Form 477 Filings and the National Broadband Map

In order to examine the availability of broadband infrastructure in Louisiana, we gathered data from the FCC, which requires ISPs to submit broadband deployment filings as part of its Broadband Data Collection (BDC) system. Prior to December 31, 2022, ISPs were required to submit a filing through Form 477, which required an ISP to indicate the census blocks where it deploys some level of service, with information on the type of connections available and the maximum advertised upload and download speeds offered. As of 2023, the FCC requires ISPs to file lists of service locations on the property level, available through the National Broadband Map, in an effort to improve data granularity and accuracy.

While the Form 477 dataset is useful for understanding the extent of internet infrastructure in Louisiana, the data is limited by a number of factors. First, ISPs were only required to report services at the census block level. If an ISP was able to provide service to at least one unit within a block then the entire block would be coded as having service, even if some or most homes within the block did not have a connection. This makes it difficult to determine the true physical availability of broadband. Inflated coverage data can lead to overestimation of connectivity, and, thus, an underestimation of efforts necessary to close the digital divide in Louisiana. Another limitation of Form 477 data is coverage. While the dataset spans a large portion of the state, over 20 % of census blocks are missing. The FCC state that water-only census blocks were removed from the dataset, however, these only account for 5.5 % of missing blocks and leave 14.5 % unexplained. The missing blocks represent over 86,400 Louisianians, or 1.9 % of the population.¹⁵

The FCC has taken steps to increase coverage granularity, and in 2023, the Commission initiated the collection of more fine-scaled data through the BDC system by requiring ISPs to file service offerings at the property unit level (*i.e.*, lists of locations or polygons of service areas; lists must include geographic coordinates and, where available, associated addresses). The new property-level dataset is currently available through the FCC's "National Broadband Map," which relies on a newly created "location fabric" dataset: a listing of "all locations in the United States and

¹⁵ 2020 Decennial Census, www.census.gov.

Territories where fixed broadband internet access service is or could be installed.”¹⁶ However, the location fabric does not yet provide a complete and accurate listing of serviceable properties and, thus, prevents an analysis beyond the binary determination of broadband service in a census block area at this time—the same limitation seen in the Form 477 data. However, the FCC is working to improve its location fabric through a challenging process in which the state of Louisiana is an active participant. As this dataset improves over time, a greater level of insight will be possible.

All data were cleaned, formatted, and visualized using R.

R packages used

We used R version 4.2.1 (R Core Team 2022a) and the following R packages: aws.s3 v. 0.3.21 (Leeper 2020), awtools v. 0.2.1 (Wehrwein 2023), blsAPI v. 0.2.2 (Silva 2023), colorspace v. 2.1.0 (Zeileis, Hornik, and Murrell 2009; Stauffer et al. 2009; Zeileis et al. 2020), extrafont v. 0.19 (Chang 2023), fbi v. 0.7.0 (Chen, Ng, and Bai 2023), fuzzyjoin v. 0.1.6 (Robinson 2020), gameofthrones v. 1.0.2 (Jimenez Rico 2023), ggdark v. 0.2.1 (Grantham 2019), ggeasy v. 0.1.3 (Carroll, Schep, and Sidi 2021), ggforce v. 0.4.1 (Pedersen 2022a), ggh4x v. 0.2.3 (van den Brand 2022), ggiraph v. 0.8.6 (Gohel and Skintzos 2023), ggnewscale v. 0.4.8 (Campitelli 2022), ggpublisher v. 0.6.0 (Kassambara 2023), ggrepel v. 0.9.3 (Slowikowski 2023), ggspatial v. 1.1.8 (Dunnington 2023), ggstream v. 0.1.0 (Sjoberg 2021), grid v. 4.2.1 (R Core Team 2022b), gt v. 0.8.0 (Iannone et al. 2022), here v. 1.0.1 (Müller 2020), janitor v. 2.2.0 (Firke 2023), kableExtra v. 1.3.4 (Zhu 2021), knitr v. 1.42 (Xie 2014, 2015, 2023), LaCroixColor v. 0.1.0 (Bjork 2023), magick v. 2.7.4 (Ooms 2023a), maps v. 3.4.1 (Richard A. Becker, Ray Brownrigg. Enhancements by Thomas P Minka, and Deckmyn. 2022), monochromeR v. 0.1.4 (Thompson 2022), nord v. 1.0.0 (Kaupp 2019), openxlsx v. 4.2.5.2 (Schauberger and Walker 2023), paletteer v. 1.5.0 (Hvitfeldt 2021), patchwork v. 1.1.2 (Pedersen 2022b), plotrix v. 3.8.2 (J 2006), plyr v. 1.8.8 (Wickham 2011), rcartocolor v. 2.0.0 (Nowosad 2018), RColorBrewer v. 1.1.3 (Neuwirth 2022), Redmonder v. 0.2.0 (Mac Dowell Innecco and Neuwirth 2017), rmarkdown v. 2.20 (Xie, Allaire, and Golemund 2018; Xie, Dervieux, and Riederer 2020; Allaire et al. 2023), scales v. 1.2.1 (Wickham and Seidel 2022), sf v. 1.0.9 (Pebesma 2018), svglite v. 2.1.1 (Wickham et al. 2023), tidycensus v. 1.3.2 (Walker and Herman 2023), tidygeocoder v. 1.0.5 (Cambon et al. 2021), tidyjson v. 0.3.2 (Stanley and Arendt 2023), tidytext v. 0.4.1 (Silge and Robinson 2016), tidyverse v. 2.0.0 (Wickham et al. 2019), tigris v. 2.0.1 (Walker 2023), viridis v. 0.6.2 (Garnier et al. 2021), wesanderson v. 0.3.6.9000 (Ram and Wickham 2018), wordcloud v. 2.6 (Fellows 2018), writexl v. 1.4.2 (Ooms 2023b).

Collaboration and Stakeholder Engagement Form

Digital form responses were exported from Qualtrics in .xlsx format. Exported data were cleaned and formatted for analysis in R (version 4.2.1) using the “tidyverse” package collection.

¹⁶ FCC, “What is the Location Fabric?” (<https://help.bdc.fcc.gov/hc/en-us/articles/5375384069659-What-is-the-Location-Fabric->). Accessed April 4, 2023.

Data cleaning included 1) reconciling and filling in parish data, and 2) summarizing open-text stakeholder group responses for “Another Group.”

In earlier versions of the form, stakeholders entered parishes they represented in multiple-choice checkbox format under Question 16, while newer iterations of the form asked for parish information in open-text format under Question 19. Open-text responses were separated by word (“tidytext” package), filler words (e.g., “parish”, “and”, “st.”) were removed, and parish words were matched with a list of Louisiana’s 64 parish names using a distance join (“fuzzyjoin” package) with the *Jaro* distance method which measures the dissimilarity between strings (see “stringdist” R documentation). Data from both questions were reconciled under Question 19, and additional parish information was added from other questions, such as e.g., work places or email addresses, wherever possible.

Open-text responses for Question 8 (“Please indicate what stakeholder group(s) and/or digital equity consideration(s) you represent, or are providing input about (please check all that apply”), were available upon selecting the option “Another Group”, and were manually processed. Some responses were options available as checkboxes and likely overlooked, in which case such responses were corrected. Other responses included varying spelling or text of similar groups (e.g., “higher ed”, “High education”, and “college students” were all summarized under “Higher Education”; or “Low income people” and “Low-income families” were summarized under “Low-Income Households” to list a few).

Data formatting

Cleaned data were formatted for analysis in R (version 4.2.1). Any responses with no data in any of Questions 1 through 7 were filtered out (N = 432 out of N = 751, N = 319 remaining for analysis). The filtered dataset was further filtered into subsets, depending on the interest point: 1) Where (a): parishes, 2) Where (b): coordinates, 3) Who: stakeholders, and 4) When: dates.

1. Where (a): parishes

The dataset was reduced to contain only those responses with data under Question 19 (“Which parish/parishes do you represent? Please add one or more parishes or indicate statewide.”) (N = 289). Some of these responses are multiple entries by the same IP-address (259 distinct IP-addresses) but this fact was not considered in further, exploratory analyses. Strings containing more than one parish were separated into individual rows and counted. Out of Louisiana’s 64 parishes, 61 were represented in this dataset. N = 420.

2. Where (b): coordinates

To plot locations from which stakeholders responded to our digital form on a map, we further filtered dataset to include only those responses for which coordinates were collected, and considered only one response per person (*i.e.*, distinct IP-addresses, N = 200). Location coordinates were collected by Qualtrics with a precision of four decimals, which results in a resolution of under 10 m at 30 degrees N latitude. For privacy reasons, coordinates were

rounded to two decimals, or a precision of just under 1,000 m. For a closeup insight into stakeholders in Louisiana, we filtered the dataset to only contain coordinates collected within state borders (N = 131).

3. Who: stakeholders

Only responses with data under Question 8 (“Please indicate what stakeholder group(s) and/or digital equity consideration(s) you represent, or are providing input about (please check all that apply)”) were included for this section (N = 309). We found 149 distinct stakeholder items, many of which were strings of multiple groups that had to be separated into individual rows to be counted. There were no responses with a duplicate combination of IP-address, and stakeholder. Every one of the 22 options was selected at least once. N = 1070.

The stakeholder item “Another Group” with associated open-text response field was examined further. Out of the 309 responses to Question 8, we found 36 responses with open-text data.

4. When: dates

To examine dates when participants started to fill out the digital form, we used the filtered dataset and counted the times each start date was recorded (N = 319). For insight into which parishes stakeholders selected over time, we used the dataset with multiple selected parishes per user split into individual rows and counted associated regions by date per IP address (N = 420). We used the “lubridate” package to aggregate weekly engagement counts.

R packages used

For this section, the analysis used R version 4.2.1 (R Core Team 2022a) and the following R packages: fuzzyjoin v. 0.1.6 (Robinson 2020), ggforce v. 0.4.1 (Pedersen 2022a), ggnewscale v. 0.4.8 (Campitelli 2022), ggrepel v. 0.9.3 (Slowikowski 2023), grid v. 4.2.1 (R Core Team 2022b), here v. 1.0.1 (Müller 2020), janitor v. 2.2.0 (Firke 2023), paletteer v. 1.5.0 (Hvitfeldt 2021), patchwork v. 1.1.2 (Pedersen 2022c), scales v. 1.2.1 (Wickham and Seidel 2022), sf v. 1.0.9 (Pebesma 2018), tidycensus v. 1.3.2 (Walker and Herman 2023), tidytext v. 0.4.1 (Silge and Robinson 2016), tidyverse v. 2.0.0 (Wickham et al. 2019), writexl v. 1.4.2 (Ooms 2023).

A2. Tables from Section 2.3: Alignment with Existing Efforts to Improve Outcomes

Table A2-1. Local strategic plans and their relevance to digital equity focus area

Plan	Plan Author/ Agency	Plan language	Alignment with existing state efforts	Digital Equity Focus Area
Consolidated Plan 2020- 2024	Alexandria Community Development	“Economic Development – Pursue broadband	Economic and workforce development goals,	-Applications & services that are accessible

	Department/ City of Alexandria	infrastructure and adoption”	plans, and outcomes/ Civic and Social Engagement	
2022 Annual Action Plan	LCG, Department of Community Development & Planning/ City of Lafayette Annual Plan	“The system strives to increase the opportunities for Louisiana's workforce to succeed through skills training programs.”	Economic and workforce development goals, plans, and outcomes	-Applications & services that are accessible. -Digital skills delivered in culturally competent context.
Envision Jefferson Parish 2040:	Jefferson Parish Planning Department	“Consider the broader transition from traditional businesses or institutions serving customers or clients in buildings, to online businesses approaches or near real-time service delivery from remote locations when adopting and administering regulations, programs, and procedures or enabling 5G or similar networks.”	Economic and workforce development goals, plans, and outcomes	-Applications & services that are accessible. -Digital skills delivered in culturally competent context. -Internet affordable & sufficient
Envision Jefferson Parish 2040:	Jefferson Parish Planning Department	“Libraries: The tax also funds construction, materials, and services that administrators continually upgrade to provide up-to-date digital resources for the parish's citizens.”	Educational Outcomes/Delivery of other essential services	-Internet affordable & sufficient. -Applications & services that are accessible.
Envision Jefferson Parish 2040:	Jefferson Parish Planning Department	“Provide access to the internet for individuals and families to participate in the increasingly digital world, whether	Civic and social Engagement/Delivery of other essential services	-Digital skills delivered in culturally competent context.

		through broadband or public facilities.”		-Internet affordable & sufficient
Envision Jefferson Parish 2040:	Jefferson Parish Planning Department	“Position public hospitals and clinics to provide high-quality of care and patient safety and facilitate technology advances such as 5G network to support new service delivery approaches such as near real-time remote healthcare to enhance patient care.”	Health Outcomes/Delivery of other essential services	-Internet affordable & sufficient -Digital skills delivered in culturally competent context. -Devices for all uses.
Envision Jefferson Parish 2040:	Jefferson Parish Planning Department	“Provide access to the internet for individuals and families to participate in the increasingly digital world, whether through broadband or public facilities.”	Civic and social Engagement/Delivery of other essential services	-Internet affordable & sufficient -Devices for all uses. -Applications & services that are accessible.
Envision Jefferson Parish 2040:	Jefferson Parish Planning Department	“Work with JEDCO and local economic development interests to implement the Churchill Technology and Business Park Master Plan.”	Economic and workforce development goals, plans, and outcomes	-Applications & services that are accessible.
Envision Jefferson Parish 2040:	Jefferson Parish Planning Department	“Maintain or update libraries with traditional and advanced resources for a wide range of information sources, including the internet, digital libraries, and remote access; follow trends related to computers and the	Educational Outcomes/Delivery of other essential services	-Digital skills delivered in culturally competent context. -Applications & services that are accessible.

		media for public information; develop and direct informational programs and systems for the public.”		-Devices for all uses.
Kenner 2030	City of Kenner	“Support efforts to provide high quality public education for Kenner residents.”	Educational outcomes	-Applications & services that are accessible.
Kenner 2030	City of Kenner	“Technology: \$75,000: For design and implementation of web-tool displaying quantitative indicators of progress in Kenner.”	Economic and workforce development goals, plans, and outcomes/ Delivery of other essential services	-Applications & services that are accessible. -Internet affordable & sufficient
Kenner 2030	City of Kenner	“Initiate a Facebook and Twitter presence for the City of Kenner to promote positive news, major developments, and the overall quality of life of Kenner.”	Civic and Social Engagement	
Kenner 2030	City of Kenner	“Update the City of Kenner's website to create a web-based tool that will allow residents to track quantitative indicators of the City's success in tackling problems and improving quality of life.”	Civic and social Engagement/Delivery of other essential services	-Applications & services that are accessible.
2021-2022 Annual Report	Department of Community Development & Planning/ Lafayette Consolidated Government	“Provide improvements to public infrastructure – including water, sewer, and fiber availability – to service multifamily or attached housing units.”	Civic and social Engagement/Delivery of other essential services	-Applications & services that are accessible.

2021-2022 Annual Report	Department of Community Development & Planning/ Lafayette Consolidated Government	"Expand LUS Fiber access to more customer locations in the city of Lafayette, including multifamily residential communities and office buildings, as it becomes financially feasible to do so."	Civic and social Engagement/Delivery of other essential services	-Applications & services that are accessible. -Internet affordable & sufficient
V.10, Ch 10: Community Facilities, services and infrastructure	New Orleans Community Facilities Plan	"Monitor the performance of the new library facilities as accessible centers of learning and community"	Educational Outcomes/Civic and social engagement	-Applications & services that are accessible. -Internet affordable & sufficient.
V.10, Ch 10: Community Facilities, services and infrastructure	New Orleans Community Facilities Plan	"Create computer labs at existing City facilities and other locations to facilitate access."	Civic and social Engagement/Delivery of other essential services	-Applications & services that are accessible. -Devices for all uses.
V.10, Ch 10: Community Facilities, services and infrastructure	New Orleans Community Facilities Plan	"Increase the share of electricity generated from renewable sources and promote the continued development of reliable and resilient energy transmission infrastructure."	Delivery of other essential services	-Applications & services that are accessible.
V.10, Ch 10: Community Facilities, services and infrastructure	New Orleans Community Facilities Plan	"Use modern management and monitoring tools to deliver more stable and predictable city services over upgraded and expanded telecommunications infrastructure."	Delivery of other essential services	-Applications & services that are accessible. -Devices for all uses.

V.2, Ch 10: Community Facilities, services and infrastructure	New Orleans Economic Plan	"Encourage smart city infrastructure, including Wi-Fi, internet fiber infrastructure, and other technological innovations that attract millennials and digital media businesses."	Civic and social Engagement/Delivery of other essential services	-Devices for all uses. -Internet affordable & sufficient
V.2, Ch 9: Enhancing Prosperity and Opportunity	New Orleans Economic Plan /Louisiana Technical College, Delgado Community College	"Expand sites and technical education programs for adult workforce training at Delgado Community college."	Economic and workforce development goals, plans, and outcomes/Educational Outcomes	-Devices for all uses. -Applications & services that are accessible. -Digital skills delivered in culturally competent context.
V.2, Ch 9: Enhancing Prosperity and Opportunity	New Orleans Economic Plan /Louisiana Technical College, Delgado Community College	"Increase the number of sites for adult education and satellite Job 1 Career Centers."	Economic and workforce development goals, plans, and outcomes/Educational Outcomes	-Digital skills delivered in culturally competent context. -Applications & services that are accessible.
Great Expectations: Shreveport-Caddo2030 Master Plan	Shreveport City Plan / Economic development	"Strengthen communication tools targeted at young adults."	Civic and Social Engagement	-Devices for all uses. -Applications & services that are accessible.

Table A2-2. Postsecondary institutions and adult basic education programs which implement NorthStar Digital Literacy in Louisiana

Institution	Assessments	Assessment Certificates	Computer Classes	NorthStar Online Learning account for learning and practice
Baton Rouge Community College	Yes	Yes	Yes	Yes

Bossier Parish Community College	Yes	Yes	Yes	Yes
Centenary College of Louisiana	Yes	Yes	No	Yes
Central Louisiana Technical Community College	Yes	Yes	Yes	Yes
Delgado Community College	Yes	Yes	Yes	Yes
Fletcher Technical Community College	Yes	No	Yes	Yes
Louisiana College	Yes	Yes	No	Yes
Louisiana Delta Community College	Yes	Yes	Yes	Yes
Louisiana State University at Alexandria	Yes	Yes	No	Yes
Louisiana State University at Eunice	Yes	Yes	Yes	Yes
Northshore Technical Community College	Yes	Yes	Yes	No
Northwest Louisiana Technical Community College	Yes	Yes	Yes	Yes
Nunez Community College	Yes	Yes	Yes	Yes
River Parishes Community College	Yes	Yes	Yes	Yes
South Louisiana Community College	Yes	Yes	Yes	Yes
Southern University and A&M College	Yes	Yes	No	Yes
Southern University Shreveport	Yes	Yes	Yes	Yes
Southern University Shreveport	Yes	Yes	Yes	Yes
SOWELA Technical Community College	Yes	Yes	Yes	Yes
University of Holy Cross	Yes	Yes	No	Yes
University of Louisiana at Lafayette	Yes	Yes	No	Yes
University of New Orleans	Yes	Yes	No	Yes
Adult Basic Education Programs				
Adult Education Program at Delgado Community College	Yes	Yes	Yes	Yes
Avoyelles Parish Adult Education	Yes	Yes	Yes	Yes
Baton Rouge Community College WorkReady U (WRU)	Yes	Yes	Yes	Yes
Bossier Parish Community College CTP	Yes	Yes	Yes	No
Catholic Charities Archdiocese of New Orleans English as a Second Language Program	Yes	Yes	Yes	Yes
Central Louisiana Technical Community College- Adult Ed	Yes	Yes	Yes	Yes
Fletcher Technical Community College – WRU – Adult Education	Yes	Yes	Yes	Yes

Hope House Adult Learning Center	Yes	Yes	No	No
Literacy Council of SWLA Adult Education Program	No	Yes	Yes	Yes
Literacy Council of SWLA Adult Education Program	No	Yes	Yes	Yes
Livingston Parish Adult Education/WRU	Yes	Yes	Yes	Yes
Louisiana Delta Community College Adult Education	Yes	Yes	Yes	Yes
Northshore Technical Community College WRU	Yes	Yes	Yes	Yes
Northwest Louisiana Technical Community College WRU	Yes	Yes	Yes	Yes
Nunez Adult Education	Yes	Yes	Yes	Yes
South Louisiana Community College WRU	Yes	Yes	Yes	Yes
Terrebonne Parish WRU Adult Education	Yes	Yes	Yes	Yes
Volunteer Instructors Teaching Adults (VITA)	Yes	Yes	Yes	Yes
YMCA of Greater New Orleans – Y Education Services (YES)	Yes	Yes	Yes	Yes

Table A2-3. Library websites and information about access to digital services

PARISH	LIBRARY	WEBSITE	PROGRAMS AND RESOURCES OFFERED
Acadia	Acadia parish library	acadia.lib.la.us	<ul style="list-style-type: none"> • Free public access to computers and wi-fi
Allen	Allen Parish Library	https://allen.lib.la.us/digital-library/	<ul style="list-style-type: none"> • Free public access to computers and wi-fi
Ascension	Ascension Parish Library	ascension.tlcdelivers.com	<ul style="list-style-type: none"> • Computer Education: EBR Computer Class Handouts • Free public access to computers and wi-fi
Assumption	Assumption Parish Library	https://assumptionlibrary.com/	<ul style="list-style-type: none"> • Free public access to computers and wi-fi
Avoyelles	Avoyelles Parish library	avoyelles.lib.la.us	<ul style="list-style-type: none"> • Free public access to computers and wi-fi • NorthStar Digital Literacy
Beauregard	Beauregard Parish Library	library.beau.org	<ul style="list-style-type: none"> • Free public access to computers and wi-fi
Bienville	Bienville Parish Library	https://www.bienvillelibrary.org/	<ul style="list-style-type: none"> • Beginning computer classes • Free public access to computers and wi-fi

Bossier	Bossier Parish Libraries	bossierlibrary.org	<ul style="list-style-type: none"> • Free online tutorials • NorthStar Digital Literacy • Free public access to computers and wi-fi
Caddo	Shreve Memorial Library	https://www.shreve-lib.org/	<ul style="list-style-type: none"> • Free public access to computers and wi-fi
Calcasieu	Calcasieu Parish Library	calcasieulibrary.org	<ul style="list-style-type: none"> • Wi-Fi, Checkout devices, and Public PCs
Caldwell	Caldwell Parish Library	https://www.caldwell-parish-library.info/	<ul style="list-style-type: none"> • Free public access to computers and wi-fi
Cameron	Cameron Parish Library	cameron.lib.la.us	<ul style="list-style-type: none"> • Free Computer Classes • Free public access to computers and wi-fi
Catahoula	Catahoula Parish Library	http://catahoulalibrary.org/	<ul style="list-style-type: none"> • Free public access to computers and wi-fi
Clairborne	Clairborne Parish Library	cplibrary.org	<ul style="list-style-type: none"> • Computer skills classes • Free public access to computers and wi-fi
Concordia	Concordia Parish Library	https://concordialibrary.org/	<ul style="list-style-type: none"> • Free public access to computers and wi-fi
DeSoto	DeSoto Parish Library	desotoparishlibrary.org	<ul style="list-style-type: none"> • Free Computer Classes • Free public access to computers and wi-fi
East Baton Rouge	East Baton Rouge Library	ebrpl.com	<ul style="list-style-type: none"> • EBR Literacy Blueprint • NorthStar Digital Literacy • Free public access to computers and wi-fi
East Carroll	East Carroll Parish Library	https://www.ecplib.org/	<ul style="list-style-type: none"> • Free public access to computers and wi-fi • NorthStar Digital Literacy
East Feliciana	Audubon Regional Library	audubonregional.net	<ul style="list-style-type: none"> • Niche Academy Tutorials • Free public access to computers and wi-fi
Evangeline	Evangeline Parish library	evangelinelibrary.org	<ul style="list-style-type: none"> • Free public access to computers and wi-fi
Franklin	Franklin Parish Library	franklinparishlibrary.org	<ul style="list-style-type: none"> • Free public access to computers and wi-fi
Grant	Grant Parish Library	grantparishlibrary.org	<ul style="list-style-type: none"> • Free public access to computers and wi-fi
Iberia	Iberia Parish Library	iberialibrary.org	<ul style="list-style-type: none"> • Learning Express Library • Free public access to computers and wi-fi
Iberville	Iberville Parish Library	myipl.org	<ul style="list-style-type: none"> • IPSB Instructional Technology • Free public access to computers and wi-fi

Jackson	Jackson Parish Library	https://www.jacksonparishlib.org/	<ul style="list-style-type: none"> • Niche Academy Tutorials • Free public access to computers and wi-fi
Jefferson	Jefferson Parish Library	jplibrary.net	<ul style="list-style-type: none"> • Digital Inclusion and Literacy • NorthStar Digital Literacy • Free public access to computers and wi-fi
Jefferson Davis	Jefferson Davis Parish Library	jdplibrary.org	<ul style="list-style-type: none"> • Learning Express Library • Free public access to computers and wi-fi
Jefferson Davis	Jennings-Carnegie Public Library	https://www.jenningscarnegielibrary.com/	<ul style="list-style-type: none"> • Free public access to computers and wi-fi
Lafayette	Lafayette public Library System	lafayettelibrary.org	<ul style="list-style-type: none"> • VITA: Tutor Training Workshops • Free public access to computers and wi-fi
Lafourche	Lafourche Parish Public Library	lafourche.org	<ul style="list-style-type: none"> • DigitalLearn.org • Free public access to computers and wi-fi
LaSalle	LaSalle Parish Library	https://www.lasalle.lib.la.us/	<ul style="list-style-type: none"> • Free public access to computers and wi-fi
Lincoln	Lincoln Parish Library	https://www.mypl.org/	<ul style="list-style-type: none"> • Free public access to computers and wi-fi
Livingston	Livingston Parish Library	mypl.info	<ul style="list-style-type: none"> • NorthStar Digital Literacy and Computer classes • Free public access to computers and wi-fi
Madison	Madison Parish library	madisonpubliclibrary.org	<ul style="list-style-type: none"> • Computer Training • Free public access to computers and wi-fi
Morehouse	Morehouse Parish Library	https://morehouseparishlibrary.com/	<ul style="list-style-type: none"> • Free public access to computers and wi-fi
Natchitoches	Natchitoches Parish Library	npl.tlcdelivers.com	<ul style="list-style-type: none"> • Adult digital Literacy Program • NorthStar Digital Literacy • Free public access to computers and wi-fi
Orleans	Orleans Parish Library	nolalibrary.org	<ul style="list-style-type: none"> • Free public access to computers and wi-fi
Ouachita	Ouachita Parish Public Library	https://oplib.org/	<ul style="list-style-type: none"> • Computer Classes • Free public access to computers and wi-fi

Plaquemines	Plaquemines Parish Public Library	plaqueminesppl.booksy.net	<ul style="list-style-type: none"> • Free public access to computers and wi-fi
Pointe Coupee	Pointe Coupee Parish Library	pointe-coupee.lib.la.us	<ul style="list-style-type: none"> • Computer Classes • Free public access to computers and wi-fi
Rapides	Rapides Parish Library	https://www.rpl.org/	<ul style="list-style-type: none"> • NorthStar Digital Literacy • Free public access to computers and wi-fi
Red River	Red River Library	https://redriverparish.polarislibrary.com/Search/default.aspx?ctx=3.103.3.0.0.1	<ul style="list-style-type: none"> • Free public access to computers and wi-fi
Richland	Richland Parish Library	https://richlandparishlibrary.org/	<ul style="list-style-type: none"> • Computer Classes • Free public access to computers and wi-fi
Sabine	Sabine Parish Library	sabineparishlibrary.org	<ul style="list-style-type: none"> • DigitalLearn.org • Free public access to computers and wi-fi
St. Bernard	St Bernard Parish Library	sbpl.tlcdelivers.com	<ul style="list-style-type: none"> • Learning Express Library • Free public access to computers and wi-fi
St. Helena	Audubon Regional Library	audubonregional.net	<ul style="list-style-type: none"> • Free public access to computers and wi-fi
St. James	St. James Parish Library	stjamesla.com	<ul style="list-style-type: none"> • Free public access to computers and wi-fi
St. John the Baptist	St. John the Baptist Library	stjohnlib.com	<ul style="list-style-type: none"> • DigitalLearn.org • Free public access to computers and wi-fi
St. Landry	Opelousas Public Library	https://opelousaspubliclibrary.org/	<ul style="list-style-type: none"> • Free public access to computers and wi-fi
St. Landry	Krotz Springs Municipal Library	https://krotzsprings.org/krotz-springs-municipal-public-library	<ul style="list-style-type: none"> • Free public access to computers and wi-fi
St. Landry	South St. Landry Community Library	https://www.southstlndrylibrary.com/	<ul style="list-style-type: none"> • Free public access to computers and wi-fi
St. Martin	St. Martin Parish Library	stmartinparishlibrary.org	<ul style="list-style-type: none"> • Free public access to computers and wi-fi
St. Mary	St. Mary Parish Library	stmaryparishlibrary.org	<ul style="list-style-type: none"> • Free public access to computers and wi-fi
St. Mary	Morgan City Public Library	http://morgancitylibrary.com/	<ul style="list-style-type: none"> • Free public access to computers and wi-fi • Laptop checkout

St. Tammany	Library St. Tammany	sttammanylibrary.org	<ul style="list-style-type: none"> • Free public access to computers and wi-fi
Tangipahoa	Tangipahoa Digital Library	tangilibrary.overdrive.com	<ul style="list-style-type: none"> • Partner in Literacy • Free public access to computers and wi-fi
Tensas	Tensas Parish Library	https://tensaslibrary.org/L	<ul style="list-style-type: none"> • Free public access to computers and wi-fi
Terrebonne	Terrebonne Parish Library	mytpl.org	<ul style="list-style-type: none"> • Free public access to computers and wi-fi
Union	Union Parish Library	https://unionparish.booksys.net/opac/upl/index.html#menuHome	<ul style="list-style-type: none"> • Free public access to computers and wi-fi
Vermilion	Vermilion Parish Library	vermilionparishlibrary.com	<ul style="list-style-type: none"> • Free public access to computers and wi-fi
Vernon	Vernon Parish Library	http://www1.youseemore.com/vernonparish/	<ul style="list-style-type: none"> • Free public access to computers and wi-fi
Washington	Washington Parish Library	washingtonparishlibrary.info	<ul style="list-style-type: none"> • Free public access to computers and wi-fi
Webster	Webster Parish Library	https://www.websterparishlibrary.org/	<ul style="list-style-type: none"> • Free public access to computers and wi-fi
West Baton Rouge	WBR Library	wbrpl.com	<ul style="list-style-type: none"> • Free public access to computers and wi-fi
West Carroll	West Carroll Parish library	wcpl.tlcdelivers.com	<ul style="list-style-type: none"> • Free public access to computers and wi-fi
West Feliciana	West Feliciana Parish Library	wfplibrary.org	<ul style="list-style-type: none"> • NorthStar Digital Literacy • Free public access to computers and wi-fi
Winn	Winn Parish Library	https://www.winnlibrary.org/	<ul style="list-style-type: none"> • Free public access to computers and Wi-fi

Table A2-4. State agency plans and their relevance to digital equity focus areas

Agency	Agency Organization	Agency Plan/Initiative Language	Digital Equity Focus Area
Department of Culture Recreation and Tourism	Lt. Governor's Office	"Support and promote an online volunteer management system to coordinate event-specific spontaneous, unaffiliated volunteers"	Civic and Social Engagement
Department of Culture Recreation and Tourism	State Library System	"Use the statewide electronic resources as the foundation for building a true virtual library; Strengthen information delivery services	Educational Outcomes/Delivery of other Essential Services

		throughout the state via greater cooperation and/or use of technology”	
Department of Culture Recreation and Tourism	State Library System	“Use the statewide electronic resources as the foundation for building a true virtual library; Strengthen information delivery services throughout the state via greater cooperation and/or use of technology.”	Educational outcomes/Delivery of other essential services
Department of Culture Recreation and Tourism	State Library System	“Continue to provide State Library employees with the technology, training, and tools needed to excel at their jobs; Upgrade existing State Library facilities as needed to increase functionality, convenience and attractiveness; Continue robust program of technology support for 340 public libraries by State Library IT staff.”	Economic and workforce development goals, plans, and outcomes/Delivery of Other Essential Services
Department of Culture Recreation and Tourism	State Library System	The library system notes that “outdated hardware and software is at the end of life and needs to be replaced,” and that “a lack of broadband access in Louisiana,” stand in the way of the agency’s goals.	Delivery of other essential services
Department of Health	Business Plan	“Increase access to crisis call services for individuals in suicidal crisis or emotional distress--maintaining a statewide, in-state answer rate of 90%.”	Health Outcomes
Department of Health	Business Plan	“Expand the behavioral health system's capacity to meet the needs of people with mental illness by expanding bed availability.”	Health Outcomes
Department of Health	Business Plan	“Services for technology with remote support were added to	Health Outcomes

		the OCDD waivers in June 2022"	
Department of Public Safety and Corrections	Louisiana Police	"Continue utilizing TrafficStat Program, along with data collected through LSP's computer-aided dispatch system, to compile annual collision experience data statewide to determine assignment of personnel"	Delivery of other essential services
Department of Public Safety and Corrections	Louisiana Police	"Increase use of modern technology to enhance criminal investigations and the detection of criminal activity"	Delivery of other essential services
Department of Public Safety and Corrections	Louisiana Police	"Continued development of statewide LWIN Radio System using 700/800 MHz technology for voice communication that can be utilized by emergency services agencies by June 30, 2028."	Economic and workforce development goals, plans, and outcomes/Delivery of other essential services
Department of Public Safety and Corrections	Louisiana Police	"Provide critical infrastructure access for voice, data and images during emergencies to first responders by incorporating additional system capacity utilizing tactical transportable equipment."	Economic and workforce development goals, plans, and outcomes/Delivery of other essential services
Department of Public Safety and Corrections	Louisiana Police	"Establish a fail-over backhaul system to increase reliability and support communication and to provide optical maintenance needs during state or national emergencies by utilizing satellite, and available state-owned and private fiber to link wireless sites."	Economic and workforce development goals, plans, and outcomes/Delivery of other essential services
Department of Public Safety and Corrections	Louisiana Police	"Create a robust and redundant system infrastructure available for use by authorized Federal, State,	Economic and workforce development goals, plans, and

		and Tribal agencies, as well as local entities that have eligibility in the Public Safety Radio Pool as described in Federal Communications Commission Rules and Regulations (47 CFR-Part 90), to provide wireless transmission of voice, data, and critical imagery and connection to the public switched telephone network and mobile telephones networks."	outcomes/Delivery of other essential services
Department of Public Safety and Corrections	Office of Management and Finance	"Identify and implement opportunities that will fully utilize electronic funds transfer capability."	Civic and social engagement/Delivery of other essential services
Department of Public Safety and Corrections	Office of Motor Vehicles	"Continue online verification of death certificates and implement verification of birth certificates with the Office of Public Health (OPH)."	Delivery of other essential services
Department of Public Safety and Corrections	Office of Motor Vehicles	"Establish employee training (web-based) on fraudulent document detection."	Economic and workforce development goals, plans, and outcomes/Educational Outcomes/Delivery of other essential services
Department of Public Safety and Corrections	Office of Motor Vehicles	"Establish internet-based inquiry and reporting of convictions and violations."	Civic and social engagement/Delivery of other essential services
Division of Administration	Office of Technology Services	"To provide a quality and comprehensive technology infrastructure."	Delivery of other essential services
Division of Administration	Office of Technology Services	"Protect the state's IT infrastructure network by ensuring all computers are provisioned using a secure base image and all data communications are filtered for malicious content"	Delivery of other essential services

		following protocols defined by the InfoSec team."	
Division of Administration	Office of Technology Services	"Ensure business systems are developed and supported in compliance with defined service level agreements"	Economic and workforce development goals, plans, outcomes/Delivery of other essential services
Louisiana Courts	Louisiana City and Parish Courts	"Use technology , such as websites, remote access to court records, and remote payment access, to make the court processes more convenient for the public"	Civic and social engagement/Delivery of other essential services
Louisiana Courts	Louisiana City and Parish Courts	"Direct litigants to low-cost legal service providers and websites that assist self-represented litigants; list resources and link on the court website"	Civic and social engagement/Delivery of other essential services
Louisiana Courts	Louisiana City and Parish Courts	"Provide court information on the court website and other public media. Develop or update a policy to provide access to public records. Provide statistics on court performance on the court website."	Civic and social engagement/Delivery of other essential services
Louisiana Courts	Louisiana Courts of Appeal	"Access to Duty Panel. The Courts of Appeal should ensure staff access to the panel of Judges on duty by adopting policies regarding facsimile machines, electronic mail, and mobile telephones."	Economic and workforce development goals, plans, outcomes/Delivery of other essential services
Louisiana Courts	Louisiana Courts of Appeal	"Timely Access to the Court. The Courts of Appeal should develop and implement court rules for alternate methods to affect prompt filings in time-sensitive cases in their multi-parish jurisdictions through the use of modern technology,	Civic and social engagement/Delivery of other essential services

		such as electronic mail filings or electronic filings."	
Louisiana Courts	Louisiana District Courts	"Improve Case Processing. - Support and advocate for e-filing in your court. -Use e-signatures where statutorily authorized. -Institute video court proceedings where authorized. -Use e-warrants and e-signatures where statutorily authorized. - Explore e-filing for your court. -Work with LSAC to explore additional case type data input."	Civic and social engagement/Delivery of other essential services
Louisiana Courts	Louisiana District Courts	"Provide Adequate Access to Justice. -Adopt mobile applications and other online resources. -Refer SRLs to LDJA tutorials and other web-based resources. -Develop an online resource center. -Work to implement recommendations from the LDJA Technology Committee, such as online calendaring, docket management, and case tracking systems. -Enable litigants to present photos, and other evidence from their smartphones during courtroom procedure. - Develop a video conferencing option for specified pretrial procedures. -Encourage the adoption of e-filing in your jurisdiction."	Civic and social engagement/Delivery of other essential services
Board of Regents		"Ladualenrollment.com portal launch / Mobile labs for community colleges & high schools / Regional STEM Centers / Regional Cybersecurity Education Grants"	Educational outcomes

Department of Children and Family Services		"Objective A.3.4: To ensure timely training compliance from State Office and Field Office staff related to various mandatory departmental trainings in the form of computer-based courses."	Educational outcomes/Health Outcomes/Delivery of other essential services
Department of Agriculture and Forestry		"PI Number 6: Calculation Methodology: Each wildfire location is measured using GPS technology and the exact acreage is reported."	Delivery of other essential services
Department of Agriculture and Forestry		"Enhance the ability of each office within the department to meet its goals through information systems management and use of technology."	Economic and workforce development goals, plans, outcomes/Delivery of other essential services
Department of Environmental Quality		"Using the LDEQ website to provide information, real time environmental data, public records, online submissions, bill payment, forms, and online reporting of environmental incidents and accidents. Utilize Facebook, YouTube, and Twitter to promote environmental awareness."	Civic and social engagement/Delivery of other essential services
Department of Insurance	Office of the Commissioner	"Public Affairs communicates the Department's message through... the Department's web site content and public e-mail system..."	Civic and social engagement/Delivery of other essential services
Department of Insurance	Office of Management and Finance	"Information Technology maintains the department's databases and systems, assists various divisions in developing on-line access to certain information and services for the public, insurance industry and department staff."	Civic and social engagement/Delivery of other essential services

Department of Insurance		"Make available via the internet, by mail, etc., and through training/educational seminars, information to assist minority and disadvantaged persons who wish to obtain employment in the insurance industry or related service companies."	Economic and Workforce Development goals, plans, outcomes/Civic and social engagement/Delivery of other essential services
Department of Insurance	Information Technology Division	"Through the Information Technology Division, to provide maintenance and support of the department's IT systems, databases, and internet access, and to improve consumer and industry service and information access via technology."	Civic and social engagement/Delivery of other essential services
Department of Insurance	Information Technology Division	"Work with IT division to increase access to department services and information via internet/website."	Delivery of other essential services
Ethics Administration Program		"Disseminate information to candidates, political committees, lobbyists, the general public, and the media on the availability, benefits, and legislative mandates regarding the electronic filing system."	Civic and social engagement/Delivery of other essential services
Ethics Administration Program		"Develop and conduct live and online training/seminars on the proper use of the web-based packages used in electronic filing."	Educational Outcomes/Civic and Social Engagement
Ethics Administration Program		"Annually increase the number of online presentations available and the number of governmental entities with Ethics Liaisons."	Educational Outcomes/Civic and Social Engagement

Governor's Office of Elderly Affairs		"Provide training in the computerization of the reporting and financial data."	Economic and Workforce development goals, plans, and outcomes/ Educational Outcomes/ Delivery of other essential services
Governor's Office of Elderly Affairs		"Senior Center Program: A community focal point on aging where older persons as individuals or in groups come together for services and activities that enhance their dignity, support their independence and encourage their involvement in and with the community."	Educational Outcomes/Civic and Social Engagement
Louisiana Department of Transportation and Development		"Seek technological advances that can reduce administrative expenses."	Economic and workforce development goals, plans, and outcomes/Delivery of other essential services
Louisiana Department of Transportation and Development		"Use ITS technologies to better manage congestion."	Economic and workforce development goals, plans, and outcomes/Delivery of other essential services
Louisiana Department of Transportation and Development			Economic and workforce development goals, plans, and outcomes/Delivery of other essential services
Louisiana Department of Education		"Create and nurture equitable access to high-quality, inclusive learning environments for parents and learners of all ages."	Educational Outcomes
Louisiana Department of Education		"Cultivate high-impact systems, structures, and partnerships to provide access and foster continuous learning including facilitating broadband Internet access in"	Educational Outcomes/Economic and workforce development goals, plans, and outcomes

		every students and educator's home in Louisiana."	
Louisiana Department of Education		"Provide high-quality teaching and learning environments by ensuring continued availability of effective digital technology for every student, teacher, educational leader, and classroom in Louisiana."	Educational Outcomes/Economic and workforce development goals, plans, and outcomes
Louisiana Department of Education		"Implement programs that facilitate technology fluency so all students are on track to a professional career, college degree, or workforce."	Educational Outcomes/Economic and workforce development goals, plans, and outcomes
Louisiana Department of Revenue	Office of Technology Services	"Partner with FAST Enterprises, Office of Technology Services (OTS) & Business Services to improve self-service options offered by the agency thus reducing the amount of calls and correspondence received."	Economic and workforce development goals, plans, and outcomes/Delivery of other essential services
Louisiana Economic Development		"Evaluate state economic competitiveness in key areas (e.g, research and innovation assets) to assess Louisiana's position and potential opportunities."	Economic and workforce development goals, plans, outcomes
Louisiana Economic Development		"Leverage electronic tools/databases to gather information on existing companies and identify areas for improvement to create a product development agenda."	Economic and workforce development goals, plans, outcomes
Louisiana State Civil Service		"Offer training courses utilizing various formats including web-based training (WBT), blended learning, distance learning, and instructor-led training held at various key locations across the state to ensure the	Educational outcomes/Civic and social engagement/Delivery of other essential services

		maximum opportunity for employees to complete minimum supervisory training requirements and develop managerial and professional skills."	
Louisiana Workforce Commission		"Encourage all entities that work with job seekers to utilize the HIRE (Helping Individuals Reach Employment) system to post resumes in search of academic and occupational paths."	Economic and workforce development goals, plans, outcomes/Delivery of other essential services
Louisiana Workforce Commission		"Implement enhanced technology measures to increase staff's time spent in the field."	Economic and workforce development goals, plans, outcomes/Delivery of other essential services
Louisiana Workforce Commission		"Provide technical assistance to staff statewide to assist them in effectively and efficiently serving consumers with disabilities."	Delivery of other essential services
Louisiana Workforce Commission		"Optimize electronic communication between employers and the agency."	Economic and workforce development goals, plans, and outcomes/Delivery of other essential services
Office of Attorney General		"The High Technology Crime Unit (HTCU) is a specialized unit with attorneys, investigators, and computer forensic experts all trained in the specific field of cyber-crime investigation and prosecution. This specialized unit concentrates on combating crimes involving digital technology. The HTCU includes the first state computer forensic center and provides forensic examinations of digital	Delivery of other essential services

		evidence to the department and other local, state, and federal government agencies. The Unit includes the Louisiana Internet Crimes Against Children Task Force (ICAC), which investigates crimes relating to child exploitation and abuse on the Internet. ICAC investigators conduct proactive online undercover operations and investigate child exploitation cases referred to the department from other agencies, as well as the National Center for Missing and Exploited Children. The HTCU also works cases involving online auction fraud, computer intrusion, death investigations, domestic violence, economic fraud including online fraud and counterfeiting, email threats, harassment and stalking, extortion, gaming, identity theft, narcotics, prostitution, software piracy, and telecommunications fraud. The unit also provides training to local law enforcement and gives public service lectures in regard to technology-based crimes throughout the State of Louisiana."	
Office of Juvenile Justice		"Strategy 1: Utilize technology to keep youth and their families connected."	Health Outcomes/Civic and social engagement/Delivery of other essential services
Office of Juvenile Justice		"Goals: To target all available resources to provide services to at-risk and delinquent youth."	Educational outcomes/Delivery of other essential services

Office of State Examiner		"Provide on-line testing for entry level Firefighter and entry level Police Officer."	Economic and workforce development goals, plans, and outcomes/Educational outcomes/Delivery of other essential services
Office of State Examiner		"Provide an interactive website for stakeholders to access updated information."	Civic and social engagement/Delivery of other essential services
Secretary of State		"Provide the technical tools and expertise for data collection, information management and decision support to aid the department in fulfilling its mission."	Economic and workforce development goals, plans, and outcomes
Secretary of State		"Develop and disseminate educational programs and materials designed to help educate the public about elections and the voting process."	Educational outcomes/Civic and social engagement
Secretary of State		"Increase staff knowledge of administrative services through continuing education opportunities from webinars, workshops, and conferences."	Educational outcomes/Delivery of other Essential Services
Secretary of State		"Increase public access to vital records through scanning and microfilming."	Delivery of other Essential Services

A3. Tables from Section 3

Current Digital Equity resources, programs, strategies, or plans	Type of Resource, Program, Strategy, or Plan	Organization	Funding Source (public or private)	Source (website, if available)	Covered Population
NorthStar curriculum for digital literacy	Program	LSUE, East Carroll Parish	Public	NorthStar website	All
GUMBO grants	Program	Connect LA	Public	Connect.la.gov	All
Laptops, mobile phones, hotspots available to	Resource	Delgado Community College	Public/ COVID-19 resources	Delgado Community college website	All

borrow for a semester.					
IMLS Grant for College students	Strategy	Orleans Parish	Public	imls.gov/grants	All
Caddo Citizen Broadband Committee	Program	Caddo Parish	Public	Caddo.org	All
Louisiana STEM Initiative	Program	Department of education	Public	louisianabelieves.com	All
Fiber Broadband Association	Program	Louisiana Connected	Public	fiberbroadband.org	All
Link and Learn Initiative	Program	Lafayette Parish School System and Love Our Schools	Public	loveourschoolsfoundation.org	All
Jefferson Parish Employee Diversity & Inclusion Advisory Board	Resource	Jefferson Parish Government	Public	jeffparish.net	All
Affordable connectivity Program	Program	Federal Communications Commission	Public	https://www.fcc.gov/affordable-connectivity-program	Low income
Lifeline	Program	Federal Communications Commission	Public	https://www.fcc.gov/general/lifeline-program-low-income-consumers	Low income
Affordable connectivity Program	Program	Federal Communications Commission	Public	xfinity.com	Low income
Louisiana Digital Library	Program	Louisiana Digital Consortium	Public	https://louisianadigitallibrary.org/	All
Niche Academy	Program		Public	nicheacademy.com	All
SBET Training		Louisiana Workforce Commission	Public	laworks.net	All
GIS Mapping: Identification of holes in service	Resource	North Delta Planning Commission	Public	northdelta.org	All
Free Data Cards	Resource	Workforce Board 83 (Monroe)	Public	wdb83.com	Rural
Access to computers and internet, One on one tutoring	Resource	LDCC Library	Public	Ladelta.edu/academics/library/tutoring-services	All
Prime Time Family Reading	Resource	Louisiana Humanities center	Public	primetimefammily.org	All

Healthcare hubs for Telehealth	Resource	Ochsner Digital Medicine	Public	www.ochsner.org/careconnect-360/ochsners-telehealth-network	All
Digital Literacy Classes	Resource	Rapides Parish Libraries	Public	www.rpl.org/index.php/mec-category/computer-class/	Spanish/Disabled
Laptop Giveaway	Resource	City of NOLA- IT department	Public	nola.gov	All
Free Wi-Fi access	Resource	Ouachita Parish Government Housing	Public	Ouachita broadband Initiative	All
Computer Lab	Resource	Ouachita Parish: Office of Workforce Development		Ouachita broadband Initiative	All
Fiber at Community centers	Resource	City of Alexandria	Public	alexandriava.gov/techting-citywide-fiber-to-home-project	All
Fiber optic Splicing Training	Resource	CLTCC	Public	CLTCC website	All
STEM Center: Region 6	Program	Northwestern State University	Public	NSULA website	All
Digital Literacy Courses	Resource	CLTCC Library	Public	CLTCC website	All
Devices/ Hotspots for Students	resource	Calcasieu Parish School District	Public	cpsb.org	All
Digital Literacy Training	Resource	St. Martin Parish	Public	saintmartinschools.org/departments/virtual-learning-program	Incarcerated
Cajun Broadband	Program	St. Martin Parish	Public	cajunbroadband.com	All
Digital Literacy Training	Resource	LSUE	Public	LSUE Website	All
Wi-Fi: community centers	Resource	City of Monroe	Public	Monroela.us	All
LA OCDD Regional Resource Centers		Louisiana Office for Citizens with Developmental Disabilities (OCDD)	Public	https://ldh.la.gov/page/136	
LA OCDD Regional Resource Centers	Resource	Louisiana Office for Citizens with Developmental Disabilities (OCDD)	Public	https://ldh.la.gov/page/145	Individuals with Disabilities

LA OCDD Flexible Family Funds		Louisiana Office for Citizens with Developmental Disabilities (OCDD)			
LA OCDD Regional Resource Centers LA OCDD Flexible Family Funds LA OCDD Individual and Family Support Benefit	Resource	Louisiana Office for Citizens with Developmental Disabilities (OCDD)	Public Public Public	https://ldh.la.gov/page/136	Individuals with Disabilities
	Resource	Louisiana Office for Citizens with Developmental Disabilities (OCDD) Louisiana Office for Citizens with Developmental Disabilities (OCDD) Louisiana Office for Citizens with Developmental Disabilities (OCDD)		https://ldh.la.gov/page/136	Individuals with Disabilities
Goodwill Opportunity Center	Plan		Public	https://www.goodwill.org/blog/advocate/support-a-digital-equity-agenda/	Incarcerated/Formerly Incarcerated Persons
National Digital Inclusion Alliance	Resource		Public	digitalinclusion.org	All
LUS fiber	Program		Public	LUS fiber website	All
HughesNet	Program		Public	hughesnet.com	All
Cox communications grant	Program		Public	cox.com	All
Louisiana Statewide Digital Inclusion Pilot	Program	LOUIS Libraries	Public	Louis Library website	All
The Broadband Initiative	Program		Public	https://ntia.gov/category/american-broadband-initiative	All
Ochsner Xavier Institute for Health Equity and Research	Program	Ochsner Health	Public	Ochsner health website	All
Ochsner Digital Medicine	Program	Ochsner Health	Public	Ochsner health website	All
Ochsner Anywhere Care	Program	Ochsner Health	Public	Ochsner health website	All
Healthy State by 2030	Program	Ochsner Health	Public	Ochsner health website	All
Digital Media and Software	Program	St. Bernard Parish	Public	https://static1.squarespace.com	All

incentive program				/static/5ebc91ef_d3c02628ba3f4985/t/60d3740f33d682233741f90/1624470544433/St.+Bernard+Digital+Media+%26+Software+Incentive.pdf	
LCG partnering	Plan	Lafayette Parish School System	Public	Submitted through Digital Equity Survey	All
Free Cellphones	Resource	Ouachita Parish Government	Public	Submitted through Digital Equity Survey	All
Hotspots to check out from library	Resource	Region 6 Libraries	Public	Submitted through Digital Equity Survey	All
App Creation training	Resource	New Vision Leadership of Acadiana	Public	Submitted through Digital Equity Survey	All
Digital Legal directory	Resource	East Carroll Parish Library	Public	Submitted through Digital Equity Survey	All
Camp Power	Program			Submitted through Digital Equity Survey	All
Digital citizenship Campaigns	Resource	SWLA Schools	Public	Submitted through Digital Equity Survey	All
Goodwill Opportunity Center	Program		Public	Submitted through Digital Equity Survey	Low income

A4. Tables from Section 4

Table A4-1. Attendance number at regional stakeholder meetings

Region Number	Planning & Development District	Parishes	Number of Attendees
1	New Orleans Regional Planning Commission	Jefferson Orleans Plaquemines	St. Bernard St. Tammany
2	Capital Region Planning Commission	Ascension East Baton Rouge East Feliciana Iberville	St. Helena Tangipahoa Washington West Baton Rouge

		Livingston Pointe Coupee	West Feliciana	
3	South Central Planning and Development Commission	Assumption Lafourche St. Charles St. James	St. John the Baptist St. Mary Terrebonne	26
4	Acadiana Planning Commission	Acadia Evangeline Iberia Lafayette	St. Landry St. Martin Vermilion	37
5	Southwest Regional Planning Commission	Allen Beauregard Calcasieu	Cameron Jefferson Davis	22
6	Kisatchie-Delta Regional Planning & Development District	Avoyelles Catahoula Concordia Grant	LaSalle Rapides Vernon Winn	25
7	Coordinating & Development District	Bienville Bossier Caddo Claiborne DeSoto	Lincoln Natchitoches Red River Sabine Webster	30
8	North Delta Planning & Development District	Caldwell East Carroll Franklin Jackson Madison Morehouse	Ouachita Richland Tensas Union West Carroll	34

Source: Sign-in sheets from stakeholder meetings

Table A4-2. Groups Attending Regional Stakeholder Meetings

Region Number	Planning & Development District	Groups Attending (not comprehensive)
1	New Orleans Regional Planning Commission	Libraries Older Adults Incarcerated/Formerly Incarcerated Individuals Individuals with a Language Barrier Older Adults Individuals of a Racial Minority Civil Rights Organization

		Individuals with Disabilities
2	Capital Region Planning Commission	Libraries Older Adults Rural Civil Rights Organization Individuals of a Racial Minority Veterans
3	South Central Planning and Development Commission	Libraries Older Adults Rural Individuals of a Racial Minority
4	Acadiana Planning Commission	Rural Individuals of a Racial Minority Individuals with Disabilities Libraries Older Adults Incarcerated/Formerly Incarcerated Individuals Individuals with a Language Barrier Workforce Civil Rights Organization
5	Southwest Regional Planning Commission	Libraries Older Adults Individuals of a Racial Minority Veterans
6	Kisatchie-Delta Regional Planning & Development District	Libraries Older Adults Rural
7	Coordinating & Development District	Libraries Rural Older Adults Civil Rights Organization
8	North Delta Planning & Development District	Libraries Rural

Older Adults

Source: Sign-in sheets from stakeholder meetings

Table A4-3. Organizations represented at stakeholder meetings

Acadiana Planning Commission	GNO Inc.
Ashé Cultural Arts Center	Goodwill of SE Louisiana
AT&T	Governor's Advisory Council on Disability Affairs
Athos Communications	Grambling State University
Beauregard Parish	Grant Parish Chamber of Commerce
Beauregard Parish Library	Housing NOLA
Big Brothers Big Sisters of SW Louisiana	Iberville Parish Library
Blue Cross Blue Shield of Louisiana	IMCAL
Bossier Parish Community College	InfoLink USA
Bossier Parish Library System	Jackson Parish Hospital
Boys & Girls Club of Shreveport	Jeff Davis Library
Boys and Girls Club of Acadiana	Jefferson Parish Library
C.H. Fenstermaker & Associates	Jefferson Parish School System
Caddo Parish Broadband Committee	Kisatchie-Delta Regional Planning & Development District
Caddo Parish School System	Lafayette Consolidated Government
Cajun Broadband	Lafourche Library
Calcasieu Parish Police Jury	LCTCS
Calcasieu Parish Public Library	Livingston Parish Library
Calcasieu Parish Schools	LOUIS Library System
Capital Area Corporate Recycling Council	Louisiana Board of Regents
Capital Region Planning Commission	Louisiana Community and Technical College System
Catahoula Parish Libraries	Louisiana Delta Community College
CENLA Area Agency on Aging	Louisiana Department of Health- Early Steps
Central Louisiana Community Foundation	Louisiana Department of Public Safety and Corrections
Central Louisiana Regional Port	Louisiana Office of Planning and Budget
Central Louisiana Technical Community College	Louisiana State University at Alexandria
Central Louisiana Technical Community College	Louisiana State University at Eunice
CGI Federal	Louisiana State University at Shreveport
City of Covington	Louisiana State University at Shreveport-Library
City of New Orleans	Louisiana Universities Marine Consortium (LUMCON)
City of West Monroe	Louisiana Workforce Commission

Computer Sales and Services LA
Coordinating & Development District

Delgado Community College

Delta Community College
East Carroll Parish Library
Evangeline Parish School System
First Federal Bank of Louisiana
Fletcher Technical Community College
Foundation for Louisiana

Loyola University New Orleans
LUS Fiber
Metropolitan Planning Commission,
Shreveport / Caddo Parish
NAACP
New Orleans Business Alliance
New Orleans Library
New Orleans Regional Planning Commission
North Delta Planning & Development District
North Shore Community College

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Nunez Community College
Ochsner Health System
Office of Public Health/Louisiana Department
of Public Health
Office of U.S. Congresswoman Julia Letlow
Office of U.S. Senator Bill Cassidy
Orleans Parish
Ouachita Parish Policy Jury
Pugh Family Foundation
Rapides Parish Library
Reach 4 Communications
Region 6 STEM Center
Saint Martin Economic Development
Association
Schumacher Family Foundation
Senior Pastoral Alliance
Shreveport Parish Government
Shreveport Parish Library
South Central Planning and Development
Commission
South Louisiana Community College
Southern University
Southern University Agricultural Center
Southern University Agricultural Research &
Extension Center
Southern University Library
Southern University New Orleans
SOWELA Technical Community College
St. James Parish Hospital

St. John Parish Library
St. Tammany Parish Library

State of Louisiana
Stratfly Grey
Terrebonne Adult Education
Terrebonne Parish Council
Terrebonne Parish Library
Town of Vinton
United Way of Central Louisiana
United Way of Northeast Louisiana
University of Louisiana at Lafayette

University of Louisiana at Monroe
University of New Orleans
Vermilion Parish School District
Vernon Parish Libraries
Washington Parish Library

Webster Parish School Board
West Calcasieu Cameron Hospital
West Monroe Chamber of Commerce
Workforce Development Board #40

Workforce Development Board #81
Workforce Development Board #83
Xavier University of Louisiana- New Orleans

Source: Sign-in sheets for stakeholder meetings

A5. Agriculture and Broadband

The LSU AgSummary estimates that agriculture generated \$10.9 billion of gross farm value and associated value-added activities to the state economy in 2020 (LSU AgCenter 2020). According to the U.S. Bureau of Economic Analysis, Louisiana agriculture represents 1 percent of the state's total GDP adding over \$2.8 billion of value added in 2022 (U.S. Bureau of Economic Analysis 2022). Louisiana has approximately 8 million acres of farmland distributed between 27,400 farms (USDA 2022). The top agricultural commodities as sown in the figure below are soybeans, sugarcane, corn, and rice. Additional information on land use acreage for crops, timber, livestock, poultry, and other specialty products is in the figure below. The top agricultural exports in Louisiana are plant products, rice, soybeans, cotton, and livestock products, with the most valuable crops being soybeans, followed by cotton and sugar cane. In addition, Louisiana is among the top ten states in production of sugar cane, sweet potatoes, rice, cotton, and pecans. As for "specialty" products, the state ranks number one in the nation for production of crawfish, shrimp, alligators, and oysters (America's Heartland 2023). This is the tip of the iceberg in terms of agricultural output, with Louisianians engaged in a wide variety production, from timber and blueberries to livestock and poultry.

To compete in domestic and global markets, farmers in Louisiana are continuously under pressure to utilize emerging agricultural knowledge, techniques, and equipment. Many of these technologies, either directly or indirectly, will require broadband internet to function effectively. (LoPicallo 2021) From computers to tractors to drones, farming equipment that can access the internet allows farmers to react immediately to changes in their fields or livestock. This use of technology in farming falls under the umbrella term "precision agriculture."(USDA 2019).

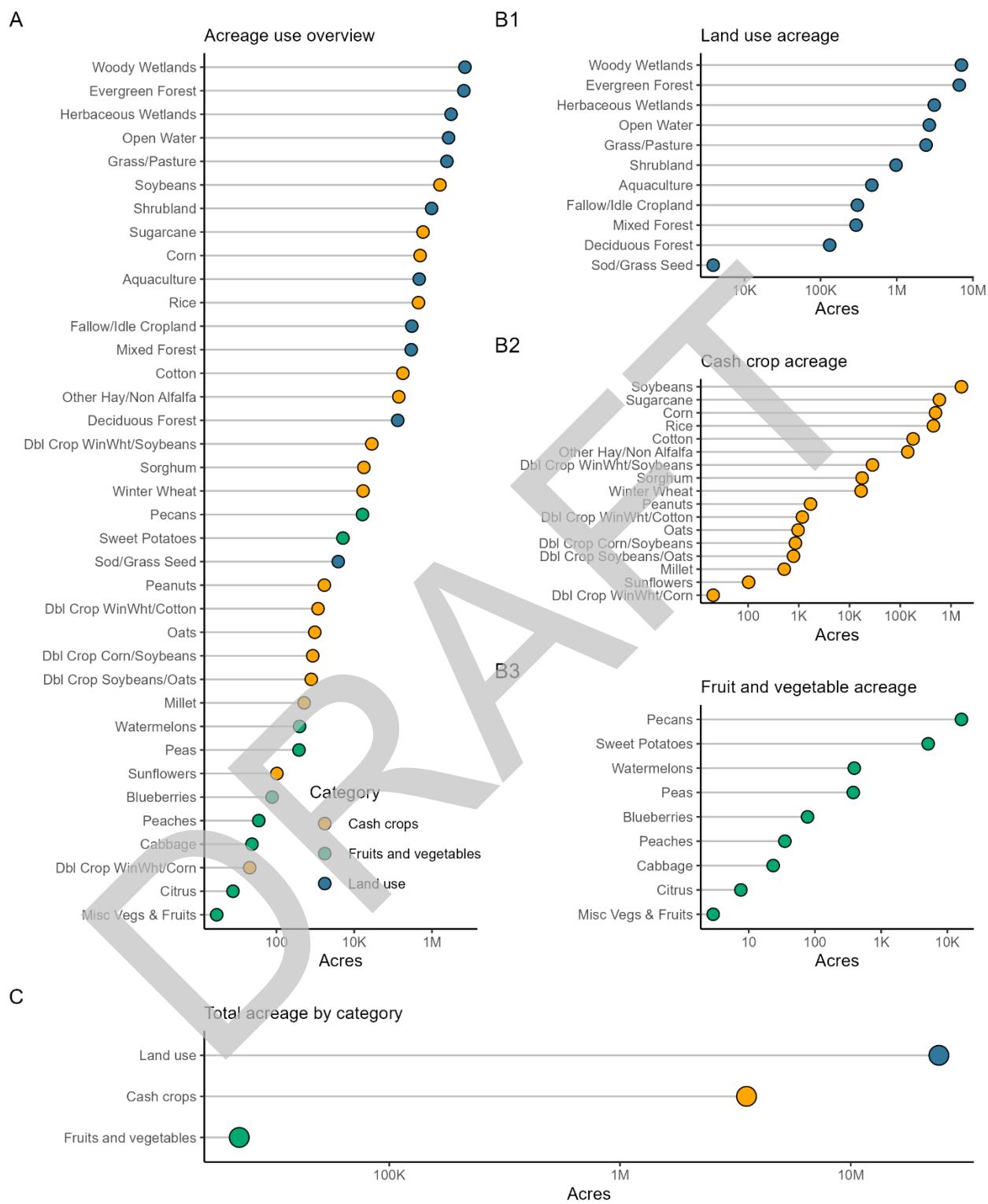
Emerging in the 1990's, precision agriculture was initially used as a term to describe the use of GPS and GIS to monitor and collect field data (LoPicallo 2021). As technology has improved, precision agriculture has evolved to cover a much wider range of farm and field related operations. Precision Agriculture technologies are varied but are generally grouped into three categories:

- monitoring and sensing applications (i.e. crop and soil sensors that monitor crop growth and nutrient composition of the soil).
- variable rate technology (i.e. ability to apply fertilizer, seeds, and water to different parts of the field in different quantities) .
- farm operation applications (i.e. data management systems that allow farmers to organize and analyze information about their farms)

These technologies have the potential to vastly reduce the cost of inputs like water, fertilizer, herbicides, and pesticides through more precise application of those inputs. Operations like drone surveillance, GPS guided tractors, and a variety of hardware and software equipment used to collect, store, and analyze data all contribute to the cost efficiency and operational capacity of the farm (Seidemann 2021). Studies have shown that precision agriculture techniques reduce pesticide applications by 8%-10%, improve nitrogen use efficiency by 51%-

97%, increase yields by 10% and improve farm profitability for various commodity crops (LSU AgCenter 2020).

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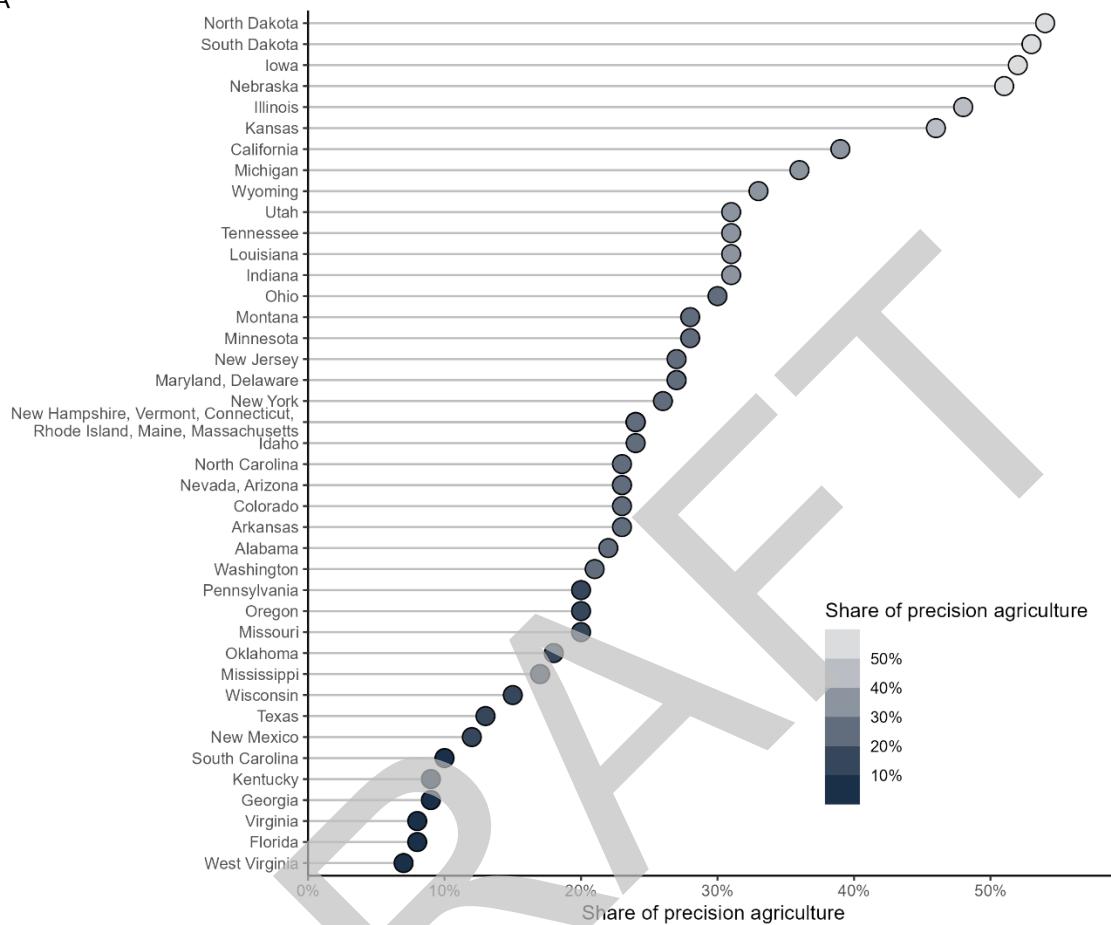


Source: National Agricultural Statistics Service 2022.

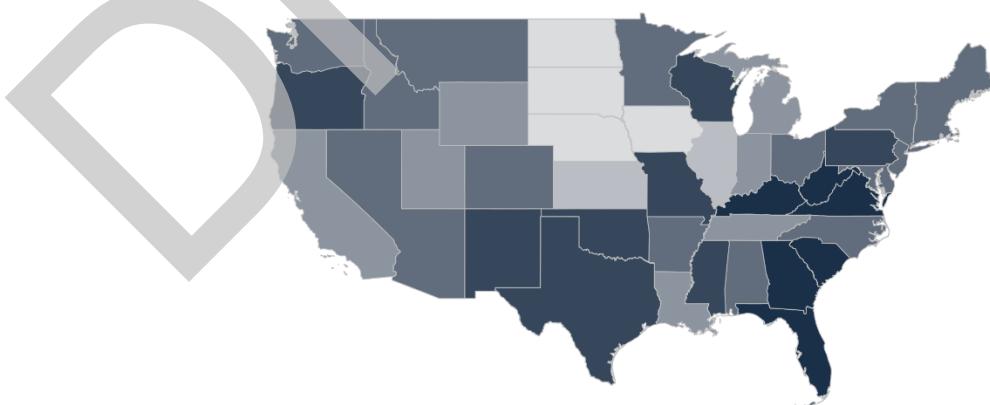
Figure A5.1. Acreage for agricultural use in Louisiana in 2020. A) Acreage use overview, ranked by allotted acreage. N = 37. B) Acreage for different agricultural categories, ranked: B1) Land use (N = 11). B2) Cash crop (N = 17). B3) Fruit and vegetables (N = 9). C) Total acreage by agricultural category. Note that all x-axes are in logarithmic scale.

(National Agricultural Statistics Service 2022)

A



B



Note: several states are combined (AZ and NV; MD and DE; NH, CT, ME, MA, RI, and VT). Source: USDA 2021.

Figure A5.2. Share of precision agriculture use to manage crops or livestock in the United States in 2021. Ordered list (A) and geographical representation (B).

(USDA 2021)

As the chart above indicates, only four states in the U.S. have more than half of their farms using precision agriculture. In Louisiana the number is 31%. To utilize precision agriculture to its fullest potential, farmers, students, researchers, and agriculture related organizations first need access to reliable, affordable, and fast broadband for their homes, learning centers, and farms. Without broadband, the economic potential for the agricultural community will fall behind other states and other countries.

Challenges and Barriers

The main challenge preventing the adoption of broadband internet was identified as “a lack of access” in all five agriculture focus groups conducted in Louisiana. The 57 focus group attendees, including farmers, 4-H leaders, extension agents, educators and other community members associated with the agriculture industry, expressed their struggles with the lack of broadband internet access available to them. In a USDA report on farm computer usage and ownership, 15% of farms in Louisiana were found to be lacking internet access (USDA 2021). In “A Case for Rural Broadband,” the USDA states that “access to satellite broadband is much greater than terrestrial broadband in rural areas. However, satellite broadband may not be fully sufficient for Next Generation Precision Agriculture technologies” (USDA 2019). The challenges with current satellite technology relate to unreliability in severe weather conditions and diminishing speeds when more service users are splitting bandwidth.(Wack and Hisle 2023).

Affordability was another major barrier identified in all five focus groups. Members of the agricultural community expressed frustration with the lack of options for providers of broadband services at their homes and places of work. They voiced the concern that with the lack of competition and the low population density of rural areas adjacent to farms, providers available “have no incentive to offer fiber or fixed wireless services at more competitive costs.” For internet service providers who have not yet extended their services into rural areas, the cost of installing infrastructure often outweighs the benefit of reaching areas in which there is a smaller number of potential customers (See Section 3.2.10)

For many farmers, satellite internet service is the only available internet in their area that delivers broadband internet speeds. However, satellite service comes at a higher cost, particularly at higher bandwidths, than services offered in urban areas through fiber optic lines (Wack and Hisle 2023). In Rayne, LA one focus group attendee stated that he was paying “over \$180 for satellite internet service” three times the price of a fiber optic connection in urban Louisiana.

Digital literacy skills were another major factor discussed in every agriculture focus group as a barrier to adopting broadband. (American Library Association 2011) As of 2023, an estimated 460,000 Louisiana adults aged 18 to 64 do not have basic computer skills (ConnectLA 2023). This extends to community members in all sectors of the Louisiana economy including agriculture.

Integrating technology into agriculture requires knowledge of hardware and software systems for operation. Digital skills are equally necessary for education, research and development in

agricultural science. Examples of farm management, machinery operation and general knowledge that require digital skills include operation of precision agriculture tools, geographic information systems, plant breeding/variety development, biotechnology, variety testing, fertilization management, soil and water management programs, weed control systems, insect control systems, and disease investigations. All of these agricultural tools, systems, and areas of study require broadband internet, hardware and software equipment and the ability to operate that equipment.

As of 2021, 25% of farms in Louisiana do not own a desktop computer or laptop (USDA 2021), higher than the state average of 23% (U.S. Census Bureau 2022).

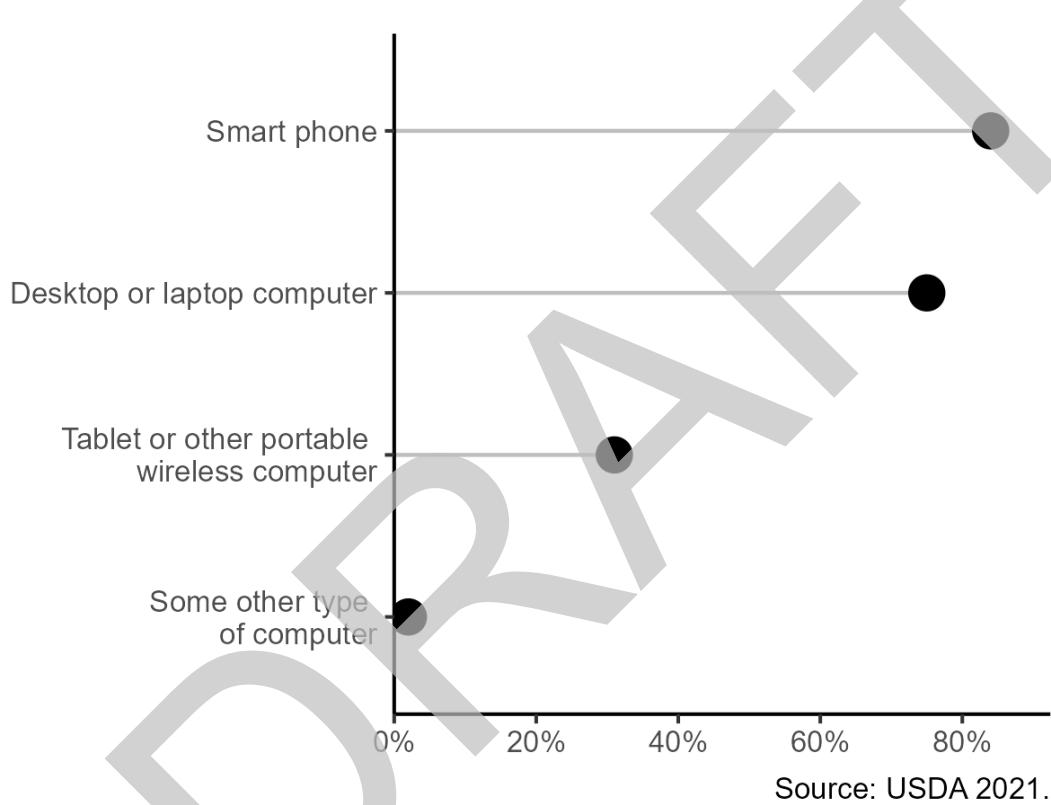


Figure A5.3. Share of computer ownership by device type at Louisiana farms.

(USDA 2021)

Both educators and 4-H leaders from across the state expressed the concern that without access to a household computer or broadband, the younger generation of farmers, agricultural engineers, scientists, and researchers would be left behind. A 4-H leader from Hammond, Louisiana stated that without broadband 4-H members did not have the ability to interact with information and learning platforms that 4-H provides online and said she was very worried about "youth keeping up with other states to ensure the productivity and longevity of [agriculture] culture in the area."

For those who are currently involved in agricultural industries the need for digital literacy skills is pressing. “Producers face challenges in their ability to master new technologies, with the potential to yield higher productivity and greater profitability needed to sustain and grow the nation’s agricultural sector, meet the dietary needs of a growing global population, and maintain national competitiveness in international markets” (Ginn 2022). For those that do not have the opportunity to gain digital skills, the gap in digital literacy, education opportunity, and economic opportunity will continue to widen.

Resources and Assets

The United States Department of Agriculture offers the Rural Development Broadband ReConnect Program which furnishes loans and grants to provide funds for the costs of construction, improvement, or acquisition of facilities and equipment needed to provide broadband service in eligible rural areas. Those who may apply include:

- Corporations
- Limited Liability Companies and Limited Liability Partnerships
- Cooperatives or mutual organizations
- States or local governments, including any agency, subdivision, instrumentality of political subdivision thereof
- A territory or possession of the United States
- An Indian Tribe, as defined in Section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. §450b)

As of 2022, Louisiana’s 4-H foundation includes 3,367 youth and adults leading service projects across the state. They are a vital resource for outreach in the agricultural community, serving over 32,655 Louisiana individuals. The 4-H foundation also offers youth opportunities to develop skills and interests in STEM through hands-on demonstrations, problem solving, personal in-depth projects and career exploration.

The LSU AgCenter and Southern University AgCenter are community leaders in outreach to Louisiana’s agricultural community. These extension service faculty and staff work with research and teaching faculty to assist parish county agents in delivering the latest research-based information to Louisiana citizens in both rural and metropolitan settings. Educational opportunities for professional and consumer clientele include field days, variety trials, workshops, practical extension publications, news releases and personal advice. In addition, the LSU AgCenter offers the LSU Digital Agriculture program to enhance, develop, educate and deliver expertise that anticipates and responds to society’s changing needs for food and fiber, the landscape, environmental stewardship, and education of students.

Southern University AgCenter’s Center for Rural and Small Business Development (CRSBD) hosts an E-Learning Mobile Rural Training and Development Center that is used to in outreach to underserved communities. CRSBD uses the mobile unit to bring technical assistance to underprivileged communities including financial literacy and support for entrepreneurs. The unit is

equipped with ten computer workstations and can travel to any community or location to perform onsite computer or educational training.

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