Catawba County
Digital Access Plan
2023

Introduction:

Broadband access is essential for any county's economic development – it plays a major role in job creation. Businesses, education, healthcare, emergency services and other public services are all becoming increasingly technologically dependent. Yet areas of the county remain disconnected from the economic and social opportunities that broadband access provides. High-speed, reliable, and affordable broadband access is critical to economic competitiveness and improving the quality of life of all county residents.

While the 2017-2021 American Community Survey from the U.S. Census estimates that 84.6% of Catawba County households have a broadband subscription, the Census' method for counting household internet access can be confusing, because the Census considers all households in a Census Block to have internet access if only one household in a Census Block has service. This plan seeks to help create a pathway that will result in expanded access to reliable, affordable high-speed internet access for all county residents and businesses.

> **One of the most important barriers to achieving digital inclusion is poverty.**

Whether due to availability, affordability or digital literacy levels, households in the county that do not have consistent and easily accessible internet service are at a distinct disadvantage in today's economy. One of the most important barriers to achieving digital inclusion is poverty. Catawba County is designated as a Tier 2 County by the North Carolina Department of Commerce, which means that it is in the middle of North Carolina's 100 counties in terms of its average unemployment rate, median household income, population growth and tax base.

Poverty rates vary significantly within individual Census tracts throughout the county. Poverty rates in individual Census tracts are shown in greater detail in Appendix 2.

PLAN MISSION:

This plan's mission is to help create a pathway that will result in expanded access to reliable, affordable high-speed internet for all county residents and businesses.

PLAN VISION:

The plan's long-term vision is for all county residents to have full access to quality broadband, along with the knowledge and skills that are needed to participate fully in the community.

DEFINITIONS:

Broadband Adoption - Daily access to the internet at speeds, quality, and capacity necessary to accomplish common tasks; with digital skills necessary to participate online; and on a personal device and secure convenient network.

Digital Navigators - Trusted guides who assist community members in internet adoption and the use of computing devices.

Digital Literacy - The ability to use digital tools to find, evaluate, create, and communicate information, requiring both cognitive and technical skills.

Digital Divide - The gap between those who have access to technology, the internet and digital literacy training and those who do not.

Digital Inclusion - All activities that individuals and communities, including those most disadvantaged, carry out to access, and use Information and Communication Technologies.

Internet Speed - The rate of data transmission for connection to the Internet. These are typically referenced with Mbps, or Megabits per second. It measures how many bits (units of digital information) can be transferred each second. You will normally see speeds ranging from 10–1,000 Mbps advertised for home internet plans.

High-Speed Internet - Broadband connectivity at speeds of greater than 100 Mbps upload and 100 Mbps download.

Broadband Connectivity - According to the Federal Communications Commission (FCC), broadband connectivity commonly refers to high-speed Internet access that is always on and faster than the traditional dial-up access and typically at speeds higher than 25 Mbps download and 3 Mbps upload. These technologies include:

> **Digital Subscriber Line (DSL)** - A wireline transmission technology that transmits data faster over traditional copper telephone lines already installed to homes and businesses.

> **Cable Modem Service** - Cable modem service enables cable operators to provide broadband using the same coaxial cables that deliver pictures and sound to your TV.

> **Fiber** - Fiber optic technology converts electrical signals carrying data to light and sends the light through transparent glass fibers about the diameter of a human hair. Fiber transmits data at speeds far exceeding current DSL or cable modem speeds, typically by tens or even hundreds of Mbps.

> **Fixed Wireless** - Fixed wireless broadband connects a home or business to the Internet using a radio link between equipment at the customer's location and the service provider's facility.

> **Satellite** - A form of wireless broadband connecting the customer's home or business with satellites orbiting the earth.

> **Broadband over Powerline (BPL)** - Uses existing low- and medium-voltage electrical power distribution networks to deliver Internet connectivity equivalent to DSL or Cable Modem speeds.

Sources: www.digitalinclusion.org, www.literacy.ala.org, www.broadbandnow.com, and www.fcc.org.

DEMOGRAPHICS:

Table 1 provides a snapshot of the county's demographics and can be used to gain a better understanding of the county's population, population density, income, and current economic conditions.

Table 1.

Catawba County Demographics		
Population Estimates, July 1 2021, (V2021)		161,723
White alone, percent		83.20%
Black or African American alone, percent	(a)	9.00%
American Indian and Alaska Native alone, percent	(a)	0.60%
Asian alone, percent	(a)	4.80%
Native Hawaiian and Other Pacific Islander alone, percent	(a)	0.20%
Two or More Races, percent		2.20%
Hispanic or Latino, percent	(b)	10.50%
White alone, not Hispanic or Latino, percent		74.00%
Median household income (in 2021 dollars), 2017-2021		$57,840
Persons in poverty, percent		11.60%
Population per square mile, 2020		400.2
NC Commerce Tier Ranking		2
NC Rural Center Classification		Urban
Fact Notes		
(a) Includes persons reporting only one race		
(b) Hispanics may be of any race, so also are included in applicable race categories		
Source: US Census Quick Facts, 2022.		

North Carolina's County Development Tiers system ranks all 100 counties within the state based on economic well-being and relative economic distress.

This Tier system is incorporated into various state programs to encourage economic activity in the less prosperous areas of the state.

The 40 most distressed counties are designated as Tier 1, the next 40 as Tier 2 and the 20 least distressed as Tier 3. Catawba County is in Tier 2.

The North Carolina Rural Center classifies Catawba County as an "Urban" county, with a population density of 400 persons per square mile. Urban counties have a population density of more than 250 persons per square mile.

BROADBAND ACCESS – The Current State of Digital Inclusion in Catawba County:

In October 2022, Western Piedmont Council of Governments (WPCOG) invited numerous stakeholders from Catawba County and across the region to attend a half-day workshop to assess the current state of digital inclusion in their counties. Stakeholders from local governments, school systems, community colleges, libraries, economic development organizations and community nonprofits provided their input in the following assessment, which identifies current and potential future digital inclusion opportunities.

📖 *Service providers:*

Verizon, AT&T Mobility and T-Mobile are the county's predominant mobile/cellular providers. Internet service is provided by Charter, Brightspeed, and AT&T. Discount/low-cost programs are available by applying to the ACP (Affordable Connectivity Program).

📖 *Digital literacy/skills opportunities:*

The **Catawba County Library** provides a range of digital literacy/skills opportunities for patrons with a library card, including:

- Digital literacy materials and free group/individual classes

- Free digital literacy and skills development courses through gcfglobal.org

- Computer, resume and job search training through a partnership with the NC Works Career Center

- Interplay Learning certifications in industries such as plumbing, electrician, solar installation and more. These programs are self-led and participants can earn certificates of completion through Interplay.

The **Hickory Public Library** also offers free digital literacy and skills development courses through gcfglobal.org for patrons with a library card.

CVCC's K-64 initiative offers programs that strive to connect "every student with the technology he or she needs to optimize learning inside and outside the classroom" and ensure "access to relevant educational services and training opportunities to help adults develop nimble skill sets and assure career longevity." CVCC also offers **STEM/STEAM training and courses** in computer programming.

The **Catawba County Council on Aging** offers a computer lab and computer training for seniors.

Goodwill offers free learning courses through gcflearnfree.org on computer and email skills, social media, Google docs, workplace skills, digital photography, Microsoft Office programs, Internet browsers and other topics. Goodwill also offers courses through goodwillwnc.org in office technology and computer coaching.

Courses:

Catawba Valley Community College's (CVCC) Continuing Education program provides classes on computer software such as Microsoft Office and also offers other basic computer courses. The **Catawba County Library** provides classes on technology, STEAM and tech tools, and offers one-on-one sessions by appointment.

Digital Navigators:

The **Catawba County Council on Aging and CVCC** offer digital navigation services, and the **Catawba County Library** has a social work student that assists library patrons.

Tech support:

Catawba County Public Schools provides access to tech support using a tiered system set up through each school's media coordinator and then district engineers as needed.

Public computer access points:

The **Catawba County Library and the City of Hickory Library** provide computers for public use for patrons with a library card. Computers are available at all seven (7) Catawba County Library locations. The NC Works Career Center also provides computer access. Both **Centro Latino** and the **Catawba County Agency on Aging** offer computer access, and **CVCC's K-64** program provides laptops for students.

For patrons with a current library card, the **City of Hickory Library** offers *"The Learning Lab,"* which provides access to "tools and technology that support creativity, exploration, connection, and accessibility through hands-on learning." The lab also offers 3D printing, fiber arts, robotics and other technologies.

Public Wi-Fi or public access points:

Stakeholders identified public Wi-Fi access locations at the **City of Newton Parks**, the majority of downtowns, libraries, and some private businesses.

Computer/devices checkout:

The **Catawba County Library** provides laptops and hotspots for checkout. Laptops and hotspots are available at all seven (7) library locations. If clients are checking out devices for educational purposes, they can keep the devices for 30 days. The library offers 30 Chromebooks and 50 tablets for checkout.

Refurbished computers/devices:

Stakeholders mentioned that **TechSoup**, a national device refurbishment program for nonprofit organizations, could be a useful resource to help improve accessibility.

_K-12:_

The **Catawba County School System** provides computers (Chromebooks) for students in grades K-12. Students are allowed to take their computers home. In addition, school media coordinators work with parents to provide wireless hotspots to students that live in areas that lack sufficient internet access or whose families are unable to afford an internet subscription.

Other observations/opportunities:

Stakeholders mentioned that **Centro Latino**, area **soup kitchens**, the **Salvation Army** and area food shelters could benefit significantly from additional aid to provide or enhance accessibility to their clients.

Public Wi-Fi Locations:

The NC Department of Information Technology (NCDIT) maintains a listing of free public Wi-Fi locations. Table 2 below provides a summary of those locations in Catawba County.

Table 2.

City	Location	Provider
Claremont	Claremont Branch Library, 3288 E. Main St.	
Conover	City Park at Gazebo	RiverStreet Networks
Conover	Conover Branch Library, 403 Conover Station Southeast	
Conover	Downtown, First Avenue	RiverStreet Networks
Conover	Splash Pad	RiverStreet Networks
Hickory	Centro Latino, 2259 12th Ave. NE	
Hickory	Hickory Soup Kitchen, 110 Second St. Place SE	
Hickory	Southwest Branch Library, 2944 S. N.C. 127 Highway	
Hickory	St. Stephens Branch Library, 3225 Springs Road	
Maiden	Maiden Branch Library, 11 S. A Ave.	
Newton	Catawba Library Main, 115 W. C St.	
Terrell	Sherrills Ford-Terrell Branch, 9154 Sherrills Ford Road	

Key Takeaways:

Local governments, libraries, schools, the senior center, nonprofits and NC WORKS each play vital roles in providing publicly-accessible broadband to county citizens.

Stakeholders identified some potential opportunities (see *Other observations/opportunities* above) that could improve computer/device and broadband accessibility to county citizens.

✅ Entities in the county that offer free access to computers, free Wi-Fi access and free digital literacy/computer training should work aggressively to address any incomplete community knowledge about their programs by providing up-to-date information to citizens on a continuing basis.

On-Going Efforts to Address Availability and Accessibility:

The North Carolina Department of Information Technology's (NCDIT's) Broadband Infrastructure Office provides grant funding to private providers of broadband services to deploy broadband services in underserved areas of the state. In August 2022, NCDIT's Growing Rural Economies with Access to Technology (GREAT) Grant program announced that Connect Holding had been awarded a $4 million grant to deploy broadband services to approximately 1,869 households, businesses, agricultural operations, and community anchor institutions in Catawba County.

As a condition of the grant award, Connect Holding agreed to provide high-speed service, defined as a minimum of 100 Megabits per second (Mbps) download and 20 Mbps upload, scalable to 100 Mbps download and 100 Mbps upload on or before December 31, 2026.

Map 1 below shows where this new service will be deployed in Catawba County.

Map 1.
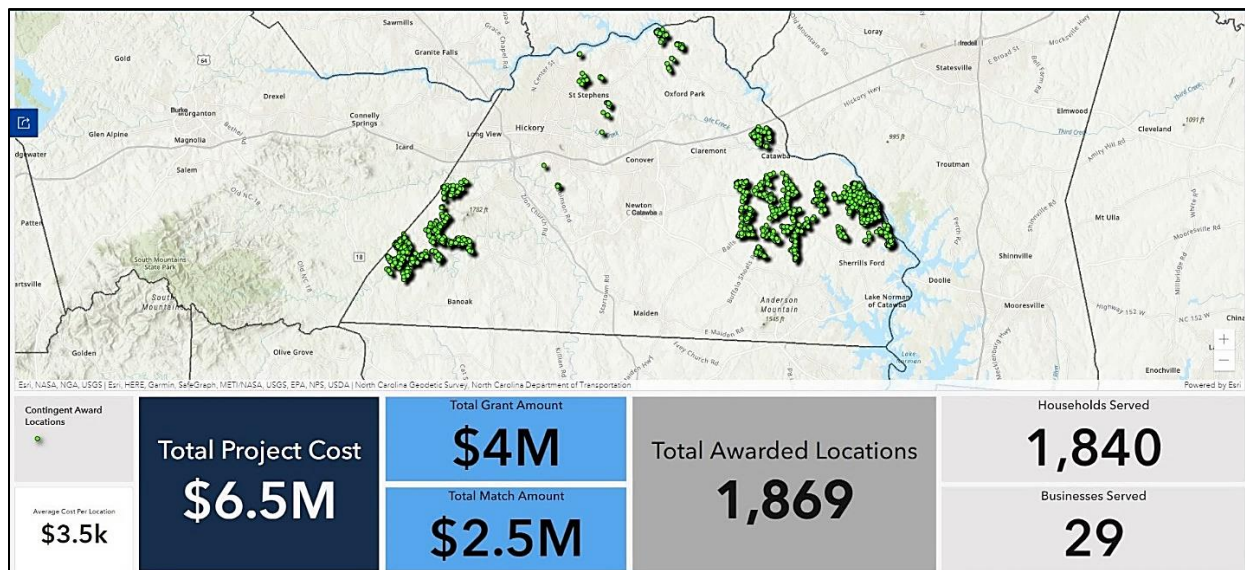
These close-up images show the areas of the county that will be covered by the GREAT grants.
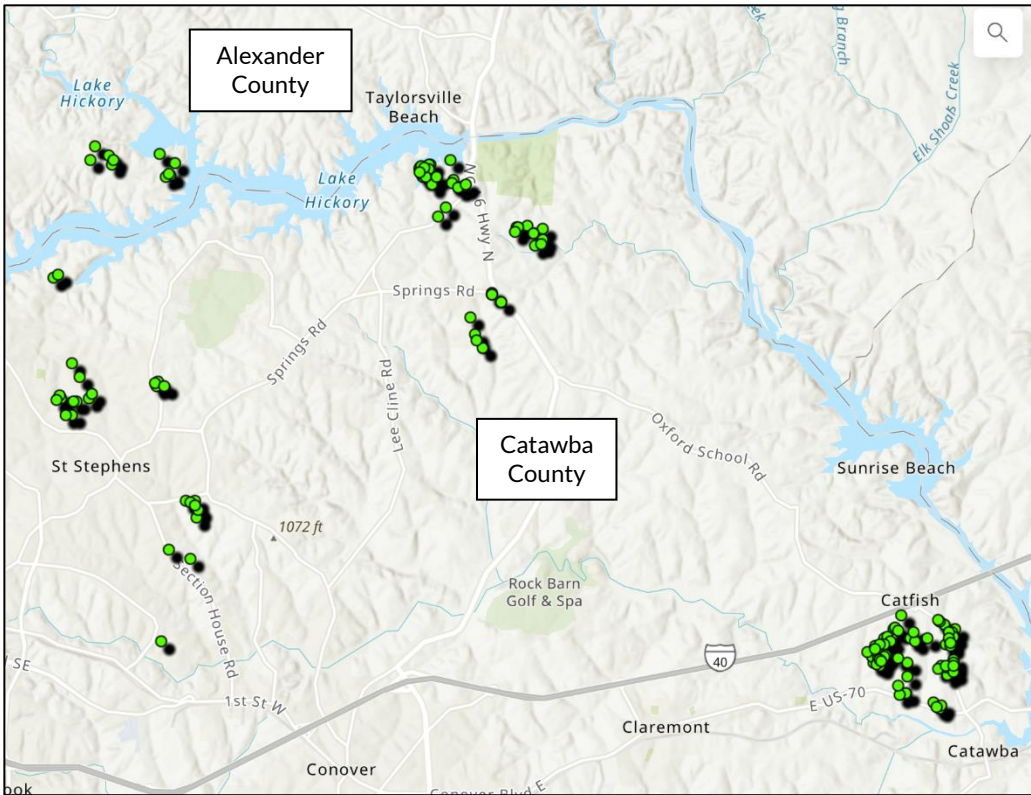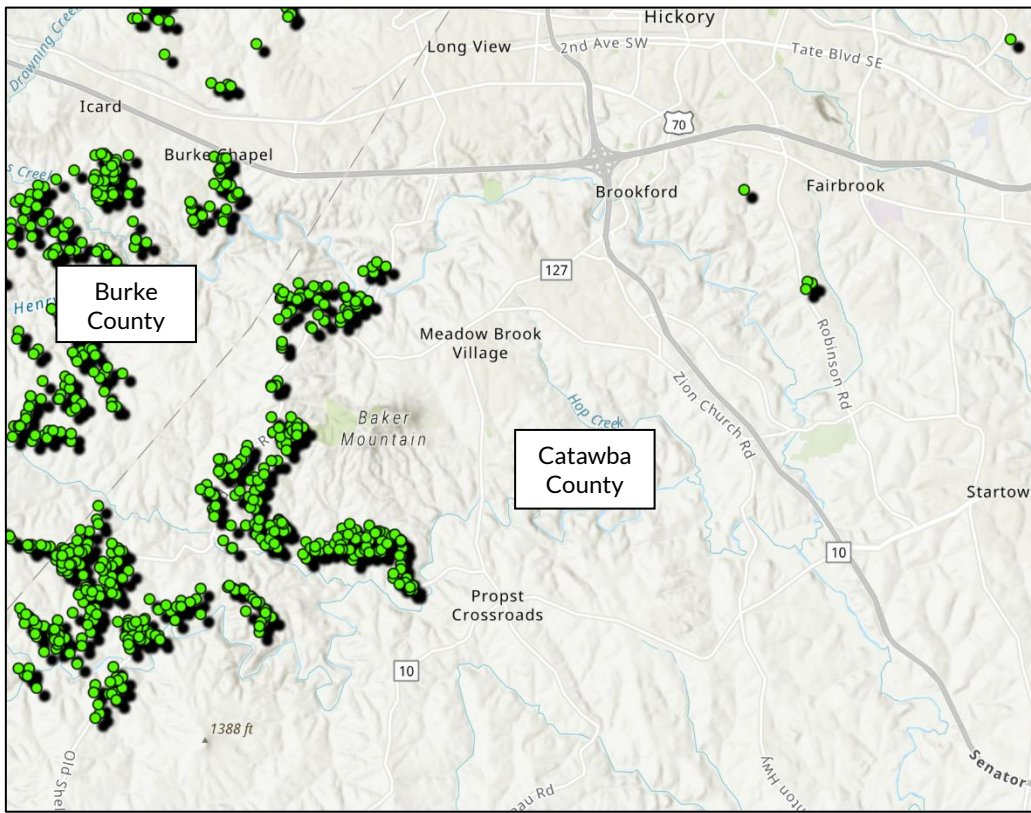
This close-up image shows the areas of the county that will be covered by the GREAT grants.
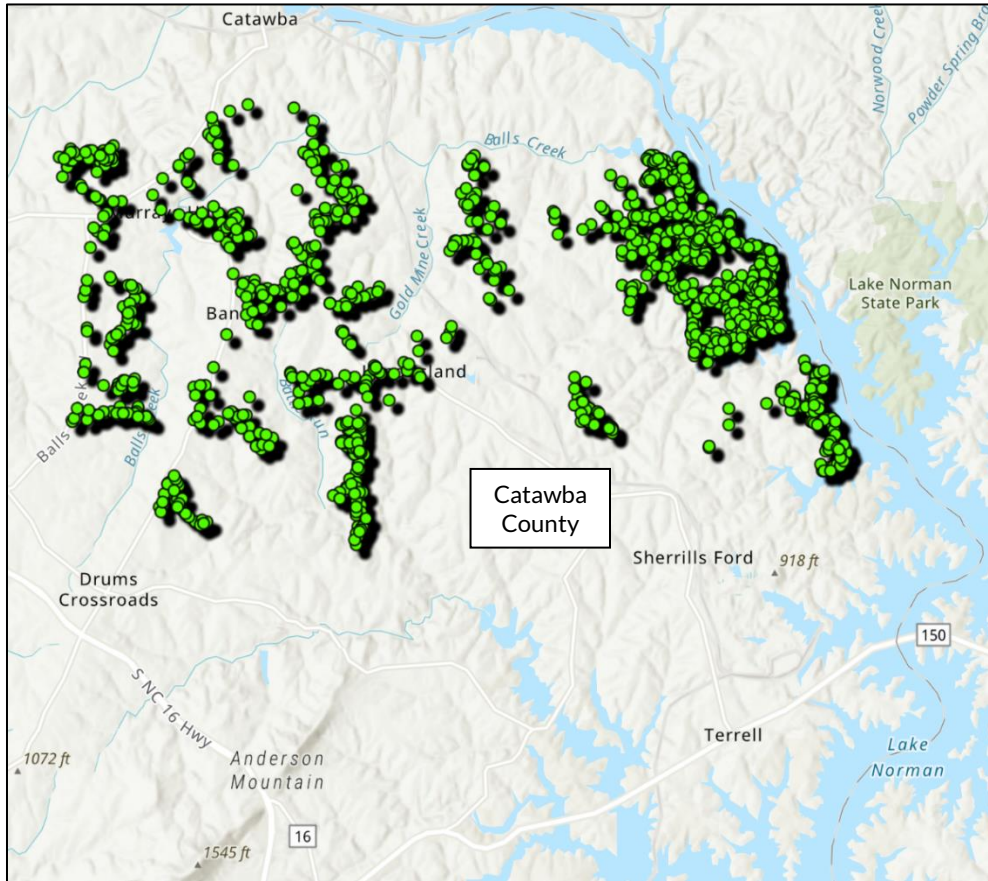
K-64 Broadband Taskforce:

Convened in 2021, the Catawba County Broadband Task Force (a part of the K-64 initiative) works to help align the efforts of various organizations involved in advocating for broadband access solutions. The goal of the Task Force is to help determine the nature of broadband challenges in the county, and collectively advocate for increased local broadband access.

The Task Force has taken on a highly visible and active role in promoting countywide participation in the North Carolina Broadband Survey developed by the NC Division of Broadband and Digital Equity, and remains committed to addressing issues related to digital literacy and accessibility in Catawba County.

The Task Force is comprised of representatives from K-64, Catawba County Economic Development Corporation, Catawba County, Catawba County Schools, Catawba Valley Community College, City Conover, City of Hickory, City of Maiden, City of Newton, Hickory Public Schools, Newton-Conover City Schools, The Chamber of Catawba County, and Western Piedmont

Council of Governments. The K-64 initiative was established in 2017, and is "dedicated to fostering collaboration between education, government, and business to develop, attract, and retain a future-ready talent pool to meet growing workforce demands."

BROADBAND AVAILABILITY:
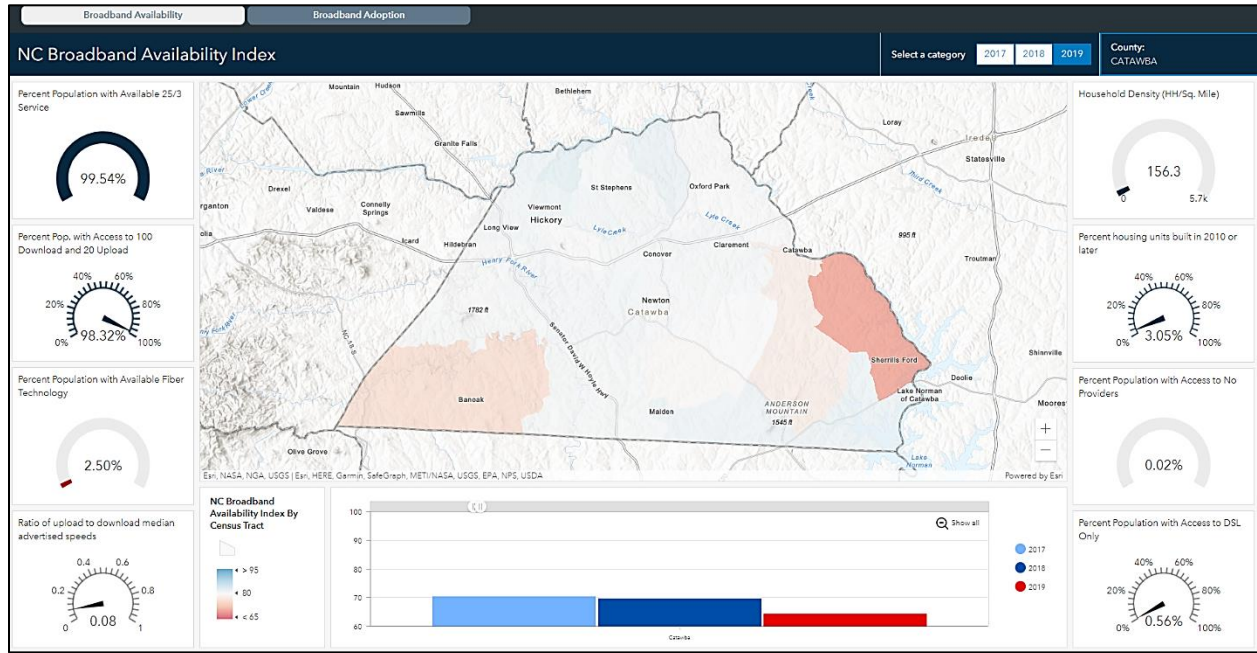
The current state of broadband availability in the county is shown in the above map, which has been developed by the North Carolina Department of Information Technology (NCDIT).

> **It is very important to note that the availability figures shown in the map above are somewhat skewed because the FCC's definition of "adequate" broadband service often does not reflect the modern needs of internet users. 25/3 speeds are not adequate for distance learning, remote work, or telemedicine activities.**
>
> **In addition, the U.S. Census' method for counting household internet availability can be confusing, because the Census considers all households in a Census Block to have internet access at speeds that are greater than 25/3 if only one household in a Census Block has access at speeds that are greater than 25/3 service.**

According to NCDIT, almost 100% of the county's population has 25/3 service availability, and a high percentage of the population has access to 100 download and 20 upload speeds. The Federal Communications Commission (FCC) defines basic broadband as transmission speeds of at least 25 Mbps (megabits per second) – or 25 million bits per second – downstream (from the internet to the user's computer) and 3 Mbps upstream (from the user's computer to the internet).

According to NCDIT, only a tiny fraction (0.02%) of the county's total population has no access to broadband providers. However, broadband availability in the county varies significantly depending on location. Areas of the county (Census tracts) that are shaded in light blue have

higher broadband availability. Areas that are shaded in dark and light red have lower broadband availability. Areas that are unshaded have average broadband availability.

Areas of higher broadband availability are located in the northern, southern and southeastern areas of the county. The area with the lowest broadband availability is in the eastern portion of the county, in the vicinity of the Sherrills Ford community. Other locations with low broadband availability include the area around the Banoak community and the area encompassing the Town of Catawba extending south to Drums Crossroads and Olivers Crossroads. See the map above and Appendix 2 for more information.

Key Takeaways

Expanding broadband access to every home in the county is important (and is a central goal of this plan), but it is also important to ensure that broadband speeds are fast enough to **support current and future activity levels**. Technological needs will change in the future, so **securing access to the fastest possible speeds** should also be prioritized.

In order to better understand the current state of broadband availability in the county, planners should work to **create the most accurate local broadband maps** possible, using the most recent data. This approach will require planners to monitor new data releases from the Federal Communications Commission (FCC), and amend maps as needed.

Using these maps, planners can **focus first on areas of the county that have inadequate broadband service** – and meet with internet service providers to discuss potential service options given the area's operating constraints (ex. low population density, rugged terrain, etc.).

> **Fixed wireless involves the wireless transmission of data from a local antenna to a permanent location like a home or business. The service is similar to what is delivered via DSL or cable modem, but the transmission is wireless.**
>
> *--NCDIT*
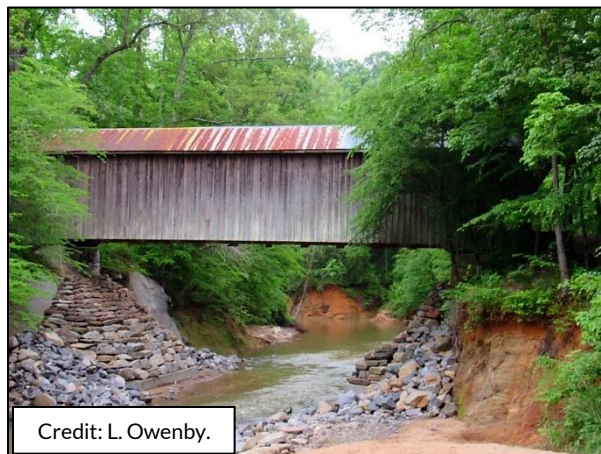
Credit: L. Owenby.

BROADBAND ADOPTION POTENTIAL:
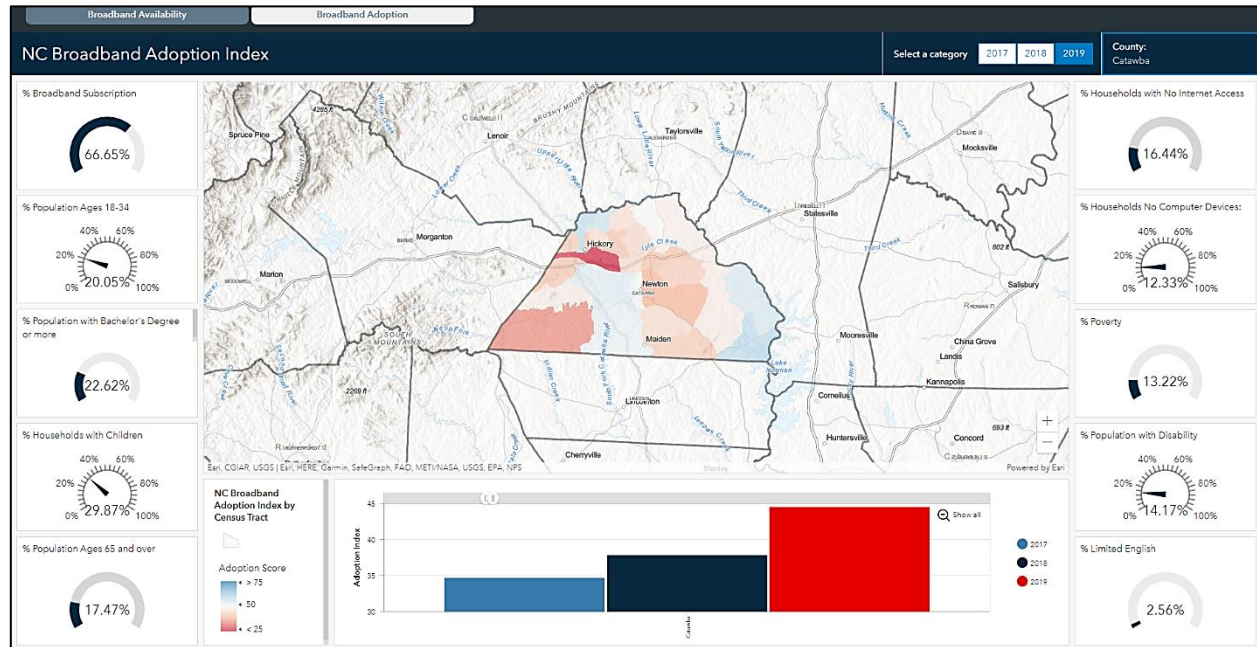
Broadband adoption potential in the county is shown in the above map, which has been developed by the North Carolina Department of Information Technology (NCDIT). Measures used to determine broadband adoption potential include: poverty, households with no internet access, households with no computer devices, households with a broadband subscription, households with children, limited English population, persons with a disability, persons over age 65, teleworkers, and the population with a Bachelor's Degree or higher. All of these measures are shown at the Census Tract level. Census tracts that are shaded in blue/light blue rank highest, tracts in red/light red rank lower, and areas that are unshaded rank in the middle on the index.

According to NCDIT, the Census tracts with the highest broadband adoption include the Tract along NC Highway 150 in the southeast. Other high adoption potential tracts include the area north and west of Hickory, the area encompassing the Sherrills Ford community, and the area along US 321 south of Interstate 40. According to NCDIT, the Census tracts with the lowest broadband adoption potential include the tracts to the southeast and southwest of Hickory, followed by the Tract that encompasses the Banoak community. Several other tracts in the central and northern sections of the county also have lower broadband adoption potential scores. See the map above and Appendix 2 for more information.

NCDIT found that "homes that do not have a computing device of any kind are…more likely to not subscribe to the internet. [Similarly,] those with lower incomes, those that speak limited English, and [those that] have any type of disability [are also more likely to not subscribe to the internet]. On the other hand, research points to younger age cohorts, more educated, children at home and teleworkers as significant drivers of broadband adoption." Notably, the adoption potential index *does not include internet subscription costs or digital literacy/skills.*

While poverty plays a key role in hindering adoption potential, another major factor that contributes to lower adoption potential is the lack of technical skills and knowledge needed to use

computers and the internet. The ability to improve adoption rates will depend on the actions of many entities, including county schools, libraries, community colleges, senior centers and other local community groups. All of these entities are involved to various degrees in providing instruction and digital literacy training, and are uniquely positioned to ensure that citizens are aware of broadband accessibility options and the opportunities that are available to learn the skills that are needed to fully participate in the digital economy.

Table 3.

Census Tract	Pct. Rural	Pct. Minorities	Pct. Veterans	Pct. Poverty	Pct. Disabled	Pct. Hslds. Age 60+	Pct. Hslds. Lim. Engl.	Pct. Hslds. Cell Phone Access Only	Pct. Hslds. No Internet	Pct. Hslds. No Computer	Total "High"
10101	High	Low	Moderate	Low	Moderate	High	Low	High	Moderate	Moderate	3
10102	Moderate	Moderate	Moderate	Low	Moderate	High	Moderate	Moderate	High	Moderate	2
10201	High	Low	High	Low	Moderate	Moderate	High	Moderate	Moderate	Moderate	3
10203	High	Moderate	Low	Moderate	Moderate	High	High	Moderate	Moderate	High	4
10204	Moderate	Moderate	Moderate	Moderate	Moderate	Low	High	High	Moderate	Moderate	2
10301	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	High	Moderate	High	Moderate	2
10302	Moderate	Low	Moderate	Low	Low	Low	High	Moderate	Low	Low	1
10303	Moderate	Moderate	Low	Moderate	Moderate	Moderate	High	Moderate	Moderate	Moderate	1
10304	Moderate	Moderate	High	High	Moderate	Low	High	High	High	Moderate	5
10402	Moderate	Moderate	Low	Moderate	Moderate	Low	High	Moderate	High	High	3
10403	Low	Moderate	Low	High	High	Moderate	High	High	Moderate	High	5
10404	Low	Moderate	High	Low	High	Moderate	Moderate	Low	Moderate	Moderate	2
10501	Moderate	Moderate	High	Low	Low	High	Low	Moderate	Moderate	Moderate	2
10502	Moderate	Low	Moderate	Low	Low	High	Low	Moderate	Moderate	Low	1
10600	Low	Moderate	High	Moderate	High	Moderate	Moderate	High	Moderate	Moderate	3
10700	Low	High	Moderate	High	High	Low	High	High	High	High	7
10900	Low	High	Moderate	High	High	Moderate	Moderate	High	High	High	6
11000	Moderate	High	High	High	High	Low	High	High	High	High	8
11101	Moderate	Moderate	Moderate	Moderate	Moderate	High	High	Low	Moderate	Moderate	2
11102	Moderate	Moderate	Low	High	Moderate	Low	High	Moderate	Moderate	Moderate	2
11200	Moderate	Moderate	Low	Low	Moderate	High	Moderate	High	Moderate	Moderate	2
11300	Moderate	Moderate	Low	Moderate	Moderate	Moderate	Moderate	Moderate	High	High	2
11401	High	Moderate	Low	High	Moderate	Moderate	Moderate	Moderate	High	High	4
11402	High	Low	High	High	High	High	Moderate	Moderate	High	High	7
11501	High	Low	Moderate	Moderate	High	High	Low	Low	Moderate	Low	3
11503	High	Low	Moderate	Low	Moderate	High	Moderate	Low	Moderate	Low	2
11505	Moderate	Low	Moderate	Low	Low	High	Low	Low	Moderate	Moderate	1
11506	High	Low	High	Moderate	Moderate	High	Moderate	Low	Low	Moderate	3
11601	High	Moderate	Low	High	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	3
11602	High	Low	High	High	High	Moderate	Moderate	Moderate	High	Moderate	5
11701	Moderate	Moderate	Low	Low	Low	High	High	Moderate	Moderate	Moderate	2
11702	High	Moderate	Moderate	Low	Moderate	Moderate	Moderate	Moderate	High	Moderate	2
11801	High	Low	Moderate	Low	Low	Moderate	Moderate	Low	Moderate	Moderate	1
11802	High	Low	High	Moderate	High	High	Low	High	High	High	7

Source: U.S. Census via Purdue University Center for Regional Development.

Key Takeaways:

Using this map and Table 3 as a guide, the county can work with schools, libraries, community colleges, senior centers and other local community groups to identify areas with lower adoption potential rates and prioritize outreach/education/digital literacy efforts to citizens living in those areas.

Information from this map and Table 3 can be used to align existing adoption efforts that are currently being undertaken by separate groups and identify areas that are not currently receiving outreach (missed opportunities).

Information from this map and Table 3 can be used to support existing adoption efforts through improved efficiency.

PLAN RECOMMENDATIONS:

Policy Recommendations:

- Work with state and federal legislators to encourage the Federal Communications Commission (FCC) to improve broadband map data collection and update broadband maps on an annual basis.

- Reduce costs of future internet service expansions by developing a "dig once" approach, which will enable future broadband providers to more cost effectively install fiber.

Funding Recommendations:

- Create a strong working relationship with State and Federal offices and internet service providers to maximize future grant funding opportunities.

- Increase broadband funding opportunities by working with Western Piedmont Council of Governments to monitor grant opportunities and apply for grant funding as needed.

Outreach, Awareness and Adoption Recommendations:

- Develop (and regularly update) a listing of community-based organizations, churches and private businesses that offer free, reliable, publicly accessible Wi-Fi access. When completed, distribute a hard copy map with locations to residents, and develop a county GIS map that is accessible to the public.

- Increase broadband system coverage awareness through the sharing of updated broadband information across entities, including the Broadband Task Force, local governments and Western Piedmont Council of Governments.

- Improve broadband adoption by continuing to actively promote existing and new digital literacy courses and basic computer workshops offered through the Broadband Task Force, community college, libraries, NCWORKS centers, schools, local nonprofit organizations and senior centers.

Availability and Accessibility Recommendations:

- Expand broadband availability and accessibility by strategically enhancing public Wi-Fi access at County buildings, parks and parking lots where feasible, and exploring the potential for establishing public access computer centers in strategic areas of the county.

- Improve accessibility by actively promoting established programs (from internet service providers, the Emergency Broadband Benefits Program, Affordable Connectivity Program, Broadband Task Force, etc.) that offer stipends, scholarships or subsidies to residents.

- Improve the ability for children to access online educational opportunities by working to expand access to wireless hotspots for students and other residents.

- Increase the ability of libraries to serve un and –under-served populations by supporting the continued development of the library-based computer/device and wireless hotspot checkout program.

- Increase broadband availability by leveraging local faith-based organizations, nonprofit senior centers and grassroots organizations to support broadband access and adoption.

- Expand access by promoting organizations that sell refurbished computers at a discount.

- Develop (and regularly update) a GIS map that shows where Wi-Fi hotspots are ineffective and where cell phone service is inadequate.

- Expand availability to low-income citizens by establishing public-private partnerships/sponsorships/scholarships with local companies that will assist residents/students with the costs of internet subscriptions and devices.

Credit: L. Owenby.

FUNDING OPPORTUNITIES:

To support these recommendations, the county will need access to funding. The following organizations may offer grants and other tools that support broadband deployment.

Please note that this is not a comprehensive list, as new grants from new agencies/programs may become available in the future, and some agencies may cease offering certain grant programs. In addition, many of the agencies listed below only offer grants at specific times of the year.

1. **USDA** – grant and loan funding has been offered through the Rural Development Broadband ReConnect Program. See https://www.usda.gov/reconnect for more information.

2. **FCC Connect America Funds (CAF)** – funds have been made available to some rural areas and could be available directly to the internet service provider. See https://www.fcc.gov/general/connect-america-fund-caf for more information.

3. **Appalachian Regional Commission (ARC)** – The ARC has made funds available for rural broadband access projects. See https://www.arc.gov/acp/ and the Appalachian Regional Initiative for Stronger Economies (ARISE) website https://www.arc.gov/ARISE/ for more information.

4. **The GoldenLEAF Foundation** –GoldenLEAF has made funds available for economic development programs that include broadband telecommunications. www.goldenleaf.org.

5. **State of North Carolina** – the NC Broadband Infrastructure Office, as authorized under S.L. 2018-5, has provided grants to private providers of broadband services to facilitate the deployment of broadband service to underserved areas of the State.

The **Completing Access to Broadband (CAB) Program** provides an opportunity for individual NC counties to partner with NCDIT to fund broadband deployment projects in unserved areas of each county. The CAB Program complements the **GREAT Grant program** to provide solutions to areas not served by the GREAT Grant. Per legislation, the projects applied for and not funded under the GREAT Grant can be considered for funding under the CAB Program. Interested stakeholders should send any programmatic questions to CABprogram@nc.gov.

The **Pole Replacement Program** is designed to quickly facilitate the deployment of broadband service to households, businesses, agricultural operations and community anchor institutions in areas unserved with broadband. The program is scheduled to be launched in 2023.

The **Broadband Stop Gap Solutions Program** provides funding for areas unserved or underserved with broadband following investment from the GREAT Grant Program and the CAB Program. This program may provide grants to internet service providers, local government entities and nonprofits for the provision and installation of broadband infrastructure to unserved and underserved households. Requirements for the Broadband Stop Gap Program are currently under development. The program was scheduled to be launched in late 2022 following the GREAT Grant and CAB Grant programs.

6. **Public/Private Philanthropic Partnerships** - Building a philanthropic model of corporate and public funding to address highest needs among different barriers to adoption may lead to additional deployment and reduce digital inclusivity barriers.

7. **Tech Soup** provides a tech marketplace for nonprofits to purchase refurbished computers/devices/other equipment and provides e-learning opportunities. See https://www.techsoup.org/ for more information.

8. **FCC E-Rate - Schools & Libraries USF Program**. The schools and libraries universal service support program, commonly known as the E-rate program, is designed to help schools and libraries to obtain affordable broadband. See https://www.fcc.gov/general/e-rate-schools-libraries-usf-program for more information.

9. **FCC Rural Healthcare Program** - The FCC's Rural Healthcare Program is designed to provide funding to eligible healthcare providers for telecommunications and broadband services necessary for the provision of healthcare. See https://www.fcc.gov/general/rural-health-care-program for more information.

10. **Everyone On** – provides access to free digital literacy training and low-cost computers and devices. See https://www.everyoneon.org/.

APPENDIX 1

BROADBAND AVAILABILITY BY CENSUS TRACT

Catawba County Census 2010 Tract Map
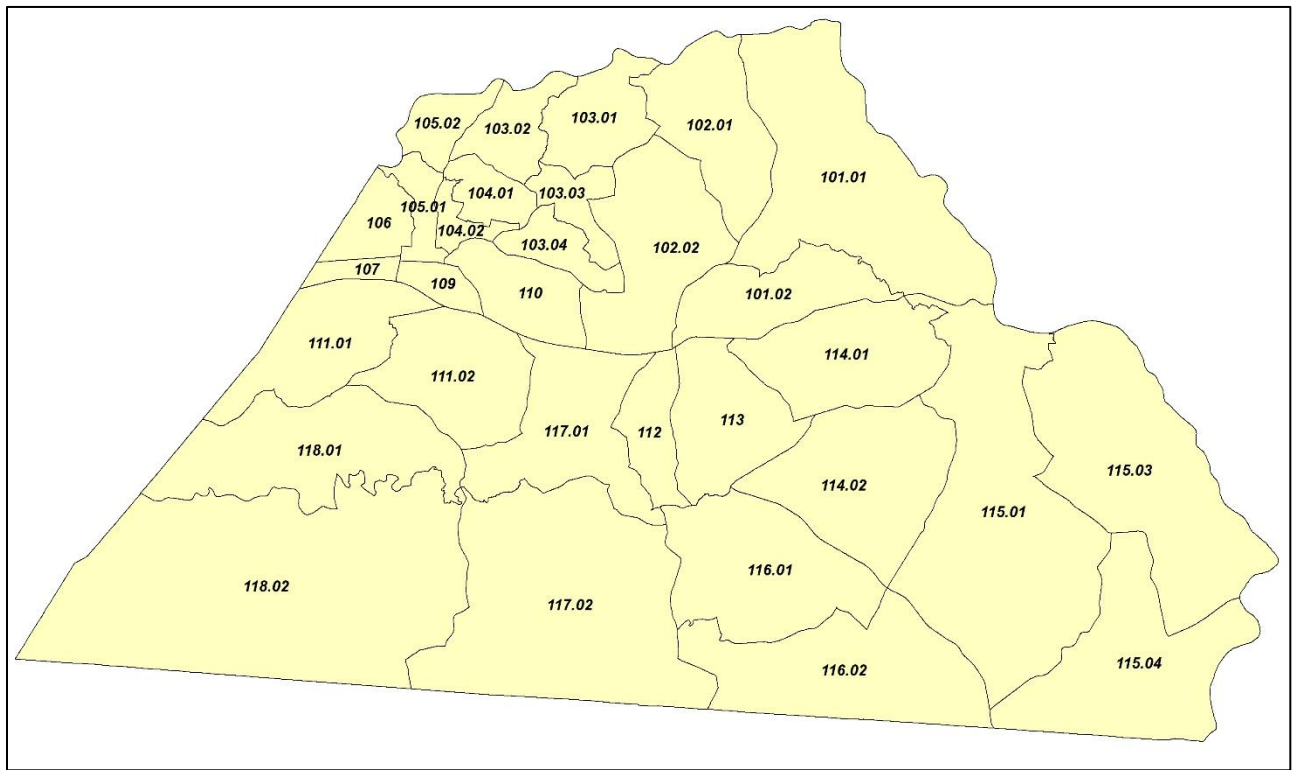
Census Tract ID	11101
Availability Score	80.34
YEAR	2019
The "Broadband Availability and Quality" score is comprised of the following 8 variables:	
% Population with Access to 25/3	100
% Population with Access to 100/20	99.7
% Population with Access to Fiber	0
Ratio of upload to download median advertised speeds	0.12
Household Density	134.86
% housing units built in 2010 or later	2.79
% Population with Access to No Providers	0
% Population with Access to DSL Only	0

Census Tract ID	107
Availability Score	80.88
YEAR	2019
The "Broadband Availability and Quality" score is comprised of the following 8 variables:	
% Population with Access to 25/3	100
% Population with Access to 100/20	100
% Population with Access to Fiber	0
Ratio of upload to download median advertised speeds	0.12
Household Density	795.89
% housing units built in 2010 or later	0
% Population with Access to No Providers	0
% Population with Access to DSL Only	0

Census Tract ID	109
Availability Score	80.88
YEAR	2019
The "Broadband Availability and Quality" score is comprised of the following 8 variables:	
% Population with Access to 25/3	100
% Population with Access to 100/20	100
% Population with Access to Fiber	0
Ratio of upload to download median advertised speeds	0.12
Household Density	718.05
% housing units built in 2010 or later	0.93
% Population with Access to No Providers	0
% Population with Access to DSL Only	0

Census Tract ID	106
Availability Score	80.8
YEAR	2019
The "Broadband Availability and Quality" score is comprised of the following 8 variables:	
% Population with Access to 25/3	100
% Population with Access to 100/20	100
% Population with Access to Fiber	0
Ratio of upload to download median advertised speeds	0.12
Household Density	694.4
% housing units built in 2010 or later	0.44
% Population with Access to No Providers	0
% Population with Access to DSL Only	0

Census Tract ID	10501
Availability Score	81.02
YEAR	2019
The "Broadband Availability and Quality" score is comprised of the following 8 variables:	
% Population with Access to 25/3	100
% Population with Access to 100/20	100
% Population with Access to Fiber	0
Ratio of upload to download median advertised speeds	0.12
Household Density	642.43
% housing units built in 2010 or later	3.27
% Population with Access to No Providers	0
% Population with Access to DSL Only	0

Census Tract ID	10502
Availability Score	81.23
YEAR	2019
The "Broadband Availability and Quality" score is comprised of the following 8 variables:	
% Population with Access to 25/3	100
% Population with Access to 100/20	100
% Population with Access to Fiber	0
Ratio of upload to download median advertised speeds	0.12
Household Density	490.2
% housing units built in 2010 or later	7.3
% Population with Access to No Providers	0
% Population with Access to DSL Only	0

Census Tract ID	10302
Availability Score	**82.29**
YEAR	2019
The "Broadband Availability and Quality" score is comprised of the following 8 variables:	
% Population with Access to 25/3	100
% Population with Access to 100/20	99.19
% Population with Access to Fiber	14.62
Ratio of upload to download median advertised speeds	0.12
Household Density	553.37
% housing units built in 2010 or later	2.74
% Population with Access to No Providers	0
% Population with Access to DSL Only	0

Census Tract ID	10301
Availability Score	**80.45**
YEAR	2019
The "Broadband Availability and Quality" score is comprised of the following 8 variables:	
% Population with Access to 25/3	100
% Population with Access to 100/20	99.19
% Population with Access to Fiber	0
Ratio of upload to download median advertised speeds	0.12
Household Density	276.19
% housing units built in 2010 or later	2.72
% Population with Access to No Providers	0
% Population with Access to DSL Only	0

Census Tract ID	10201
Availability Score	**81.61**
YEAR	2019
The "Broadband Availability and Quality" score is comprised of the following 8 variables:	
% Population with Access to 25/3	100
% Population with Access to 100/20	99.84
% Population with Access to Fiber	12.13
Ratio of upload to download median advertised speeds	0.12
Household Density	170.79
% housing units built in 2010 or later	2.31
% Population with Access to No Providers	0
% Population with Access to DSL Only	0

Census Tract ID	10101
Availability Score	80.11
YEAR	2019
The "Broadband Availability and Quality" score is comprised of the following 8 variables:	
% Population with Access to 25/3	99.91
% Population with Access to 100/20	98.84
% Population with Access to Fiber	0
Ratio of upload to download median advertised speeds	0.12
Household Density	87.56
% housing units built in 2010 or later	2.34
% Population with Access to No Providers	0
% Population with Access to DSL Only	0.09

Census Tract ID	11501
Availability Score	78.56
YEAR	2019
The "Broadband Availability and Quality" score is comprised of the following 8 variables:	
% Population with Access to 25/3	99.36
% Population with Access to 100/20	93.56
% Population with Access to Fiber	4.73
Ratio of upload to download median advertised speeds	0.08
Household Density	56.57
% housing units built in 2010 or later	0.92
% Population with Access to No Providers	0.24
% Population with Access to DSL Only	0.4

Census Tract ID	11503
Availability Score	71.22
YEAR	2019
The "Broadband Availability and Quality" score is comprised of the following 8 variables:	
% Population with Access to 25/3	88.24
% Population with Access to 100/20	84.16
% Population with Access to Fiber	0
Ratio of upload to download median advertised speeds	0.04
Household Density	60.25
% housing units built in 2010 or later	6.81
% Population with Access to No Providers	0
% Population with Access to DSL Only	15.84

Census Tract ID	11504
Availability Score	81.31
YEAR	2019
The "Broadband Availability and Quality" score is comprised of the following 8 variables:	
% Population with Access to 25/3	99.95
% Population with Access to 100/20	99.95
% Population with Access to Fiber	12.3
Ratio of upload to download median advertised speeds	0.04
Household Density	188.81
% housing units built in 2010 or later	7.62
% Population with Access to No Providers	0.05
% Population with Access to DSL Only	0

Census Tract ID	11602
Availability Score	81.37
YEAR	2019
The "Broadband Availability and Quality" score is comprised of the following 8 variables:	
% Population with Access to 25/3	100
% Population with Access to 100/20	99.69
% Population with Access to Fiber	9.67
Ratio of upload to download median advertised speeds	0.12
Household Density	111.63
% housing units built in 2010 or later	3.35
% Population with Access to No Providers	0
% Population with Access to DSL Only	0

Census Tract ID	11702
Availability Score	80.55
YEAR	2019
The "Broadband Availability and Quality" score is comprised of the following 8 variables:	
% Population with Access to 25/3	99.59
% Population with Access to 100/20	95.78
% Population with Access to Fiber	11.69
Ratio of upload to download median advertised speeds	0.12
Household Density	76.4
% housing units built in 2010 or later	2.77
% Population with Access to No Providers	0.07
% Population with Access to DSL Only	0.62

Census Tract ID	11802
Availability Score	76.82
YEAR	2019
The "Broadband Availability and Quality" score is comprised of the following 8 variables:	
% Population with Access to 25/3	96.85
% Population with Access to 100/20	85.8
% Population with Access to Fiber	0
Ratio of upload to download median advertised speeds	0.12
Household Density	46.01
% housing units built in 2010 or later	4.27
% Population with Access to No Providers	0.13
% Population with Access to DSL Only	3.42

Census Tract ID	11801
Availability Score	80.37
YEAR	2019
The "Broadband Availability and Quality" score is comprised of the following 8 variables:	
% Population with Access to 25/3	100
% Population with Access to 100/20	99.23
% Population with Access to Fiber	0
Ratio of upload to download median advertised speeds	0.12
Household Density	136.06
% housing units built in 2010 or later	3.6
% Population with Access to No Providers	0
% Population with Access to DSL Only	0

Census Tract ID	11102
Availability Score	80.63
YEAR	2019
The "Broadband Availability and Quality" score is comprised of the following 8 variables:	
% Population with Access to 25/3	99.97
% Population with Access to 100/20	99.72
% Population with Access to Fiber	0
Ratio of upload to download median advertised speeds	0.12
Household Density	247.01
% housing units built in 2010 or later	5.4
% Population with Access to No Providers	0.03
% Population with Access to DSL Only	0

Census Tract ID	11701
Availability Score	80.68
YEAR	2019
The "Broadband Availability and Quality" score is comprised of the following 8 variables:	
% Population with Access to 25/3	100
% Population with Access to 100/20	100
% Population with Access to Fiber	0
Ratio of upload to download median advertised speeds	0.12
Household Density	123.18
% housing units built in 2010 or later	6.03
% Population with Access to No Providers	0
% Population with Access to DSL Only	0

Census Tract ID	113
Availability Score	80.42
YEAR	2019
The "Broadband Availability and Quality" score is comprised of the following 8 variables:	
% Population with Access to 25/3	100
% Population with Access to 100/20	100
% Population with Access to Fiber	0
Ratio of upload to download median advertised speeds	0.12
Household Density	249.36
% housing units built in 2010 or later	1.85
% Population with Access to No Providers	0
% Population with Access to DSL Only	0

Census Tract ID	11601
Availability Score	79.73
YEAR	2019
The "Broadband Availability and Quality" score is comprised of the following 8 variables:	
% Population with Access to 25/3	99.98
% Population with Access to 100/20	95.82
% Population with Access to Fiber	0
Ratio of upload to download median advertised speeds	0.12
Household Density	93.66
% housing units built in 2010 or later	2.14
% Population with Access to No Providers	0.02
% Population with Access to DSL Only	0

Census Tract ID	11402
Availability Score	80.08
YEAR	2019
The "Broadband Availability and Quality" score is comprised of the following 8 variables:	
% Population with Access to 25/3	99.98
% Population with Access to 100/20	99.71
% Population with Access to Fiber	0
Ratio of upload to download median advertised speeds	0.12
Household Density	93.75
% housing units built in 2010 or later	0.67
% Population with Access to No Providers	0
% Population with Access to DSL Only	0.02

Census Tract ID	11401
Availability Score	80.58
YEAR	2019
The "Broadband Availability and Quality" score is comprised of the following 8 variables:	
% Population with Access to 25/3	100
% Population with Access to 100/20	99.48
% Population with Access to Fiber	0
Ratio of upload to download median advertised speeds	0.12
Household Density	107.4
% housing units built in 2010 or later	5.78
% Population with Access to No Providers	0
% Population with Access to DSL Only	0

Census Tract ID	10102
Availability Score	80.66
YEAR	2019
The "Broadband Availability and Quality" score is comprised of the following 8 variables:	
% Population with Access to 25/3	100
% Population with Access to 100/20	99.43
% Population with Access to Fiber	0
Ratio of upload to download median advertised speeds	0.12
Household Density	182.24
% housing units built in 2010 or later	5.76
% Population with Access to No Providers	0
% Population with Access to DSL Only	0

Census Tract ID	10202
Availability Score	80.59
YEAR	2019
The "Broadband Availability and Quality" score is comprised of the following 8 variables:	
% Population with Access to 25/3	100
% Population with Access to 100/20	99.77
% Population with Access to Fiber	1.16
Ratio of upload to download median advertised speeds	0.12
Household Density	214.18
% housing units built in 2010 or later	3.07
% Population with Access to No Providers	0
% Population with Access to DSL Only	0

Census Tract ID	10303
Availability Score	80.77
YEAR	2019
The "Broadband Availability and Quality" score is comprised of the following 8 variables:	
% Population with Access to 25/3	100
% Population with Access to 100/20	100
% Population with Access to Fiber	0
Ratio of upload to download median advertised speeds	0.12
Household Density	503.83
% housing units built in 2010 or later	2.37
% Population with Access to No Providers	0
% Population with Access to DSL Only	0

Census Tract ID	103
Availability Score	80.66
YEAR	2019
The "Broadband Availability and Quality" score is comprised of the following 8 variables:	
% Population with Access to 25/3	100
% Population with Access to 100/20	99.67
% Population with Access to Fiber	0
Ratio of upload to download median advertised speeds	0.12
Household Density	462.41
% housing units built in 2010 or later	2.13
% Population with Access to No Providers	0
% Population with Access to DSL Only	0

Census Tract ID	110
Availability Score	80.06
YEAR	2019
The "Broadband Availability and Quality" score is comprised of the following 8 variables:	
% Population with Access to 25/3	100
% Population with Access to 100/20	99.65
% Population with Access to Fiber	0
Ratio of upload to download median advertised speeds	0.12
Household Density	128.77
% housing units built in 2010 or later	0
% Population with Access to No Providers	0
% Population with Access to DSL Only	0

Census Tract ID	10402
Availability Score	81.28
YEAR	2019
The "Broadband Availability and Quality" score is comprised of the following 8 variables:	
% Population with Access to 25/3	100
% Population with Access to 100/20	100
% Population with Access to Fiber	0
Ratio of upload to download median advertised speeds	0.12
Household Density	1136.07
% housing units built in 2010 or later	0
% Population with Access to No Providers	0
% Population with Access to DSL Only	0

Census Tract ID	10401
Availability Score	81.34
YEAR	2019
The "Broadband Availability and Quality" score is comprised of the following 8 variables:	
% Population with Access to 25/3	100
% Population with Access to 100/20	100
% Population with Access to Fiber	0
Ratio of upload to download median advertised speeds	0.12
Household Density	1008.14
% housing units built in 2010 or later	2.25
% Population with Access to No Providers	0
% Population with Access to DSL Only	0

Census Tract ID	112
Availability Score	80.84
YEAR	2019
The "Broadband Availability and Quality" score is comprised of the following 8 variables:	
% Population with Access to 25/3	100
% Population with Access to 100/20	100
% Population with Access to Fiber	2.04
Ratio of upload to download median advertised speeds	0.12
Household Density	483.72
% housing units built in 2010 or later	1.18
% Population with Access to No Providers	0
% Population with Access to DSL Only	0

APPENDIX 2

BROADBAND ADOPTION POTENTIAL
BY CENSUS TRACT

Catawba County 2010 Census Tract Map
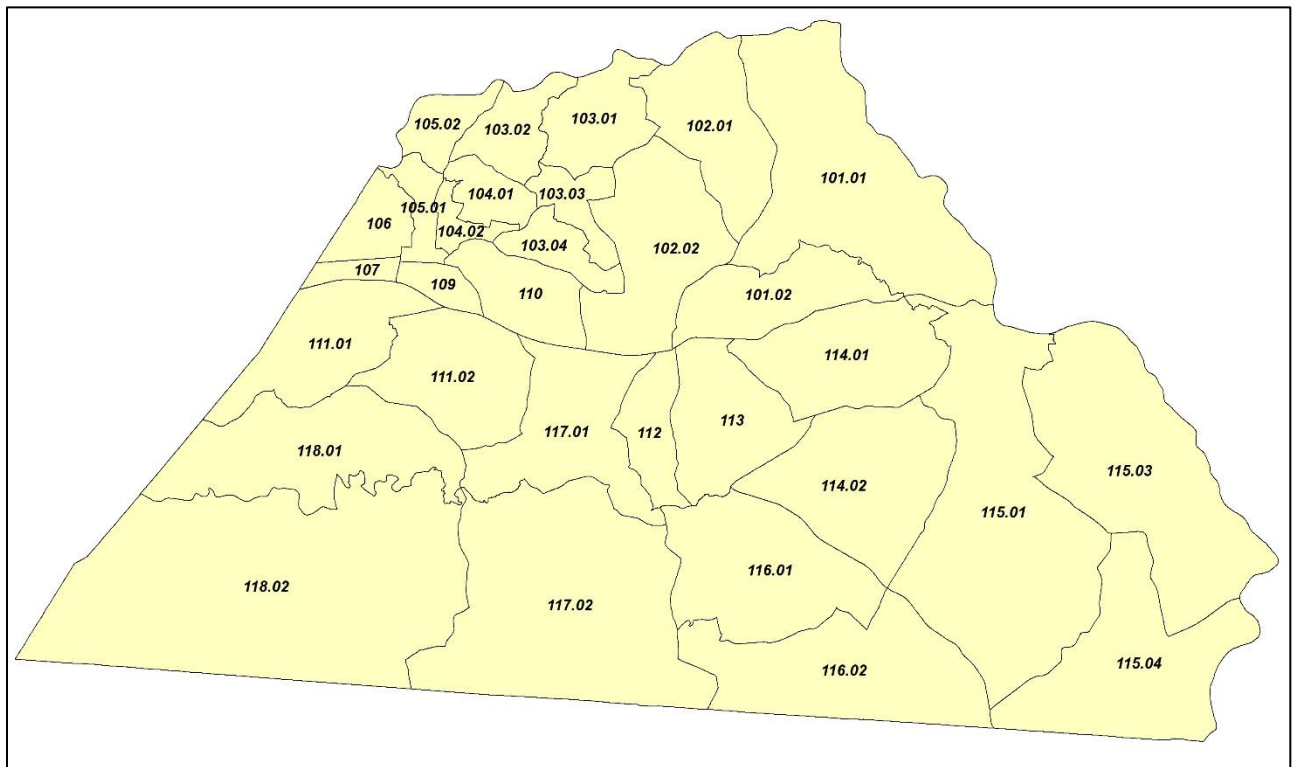
Census Tract ID	11802
Adoption Score	34.34
YEAR	2019
The "Broadband Adoption Potential score" is comprised of the following 11 variables:	
% Broadband Subscription	58.41
% Population Ages 18-34	12.92
% Population with Bachelor's degree or more	8.41
% Households with Children	31.51
% Population Ages 65 and over	18.89
% Households with No Internet Access	20.75
% Households No Computer Devices	15.8
% Poverty	17.86
% Population with Disability	20.6
% Limited English	0

Census Tract ID	11801
Adoption Score	47.99
YEAR	2019
The "Broadband Adoption Potential score" is comprised of the following 11 variables:	
% Broadband Subscription	73.27
% Population Ages 18-34	18.38
% Population with Bachelor's degree or more	19.15
% Households with Children	20.83
% Population Ages 65 and over	21.30
% Households with No Internet Access	15.76
% Households No Computer Devices	8.09
% Poverty	8.12
% Population with Disability	10.50
% Limited English	0.74

Census Tract ID	**37035011601**
Adoption Score	**44.80**
YEAR	2019

The "Broadband Adoption Potential score" is comprised of the following 11 variables:

% Broadband Subscription	58.55
% Population Ages 18-34	19.04
% Population with Bachelor's degree or more	12.13
% Households with Children	33.38
% Population Ages 65 and over	14.66
% Households with No Internet Access	16.14
% Households No Computer Devices	11.21
% Poverty	17.40
% Population with Disability	11.96
% Limited English	4.68

Census Tract ID	11101
Adoption Score	41.33
YEAR	2019
The "Broadband Adoption Potential score" is comprised of the following 11 variables:	
% Broadband Subscription	63.46
% Population Ages 18-34	23.17
% Population with Bachelor's degree or more	22.6
% Households with Children	29.99
% Population Ages 65 and over	19.97
% Households with No Internet Access	16.04
% Households No Computer Devices	10.15
% Poverty	11.63
% Population with Disability	16.53
% Limited English	5.7

Census Tract ID	110
Adoption Score	19.01
YEAR	2019
The "Broadband Adoption Potential score" is comprised of the following 11 variables:	
% Broadband Subscription	49.34
% Population Ages 18-34	15.61
% Population with Bachelor's degree or more	4.95
% Households with Children	36.89
% Population Ages 65 and over	18.64
% Households with No Internet Access	27.54
% Households No Computer Devices	22.99
% Poverty	35.02
% Population with Disability	17.09
% Limited English	11.5

Census Tract ID	10502
Adoption Score	58.2
YEAR	2019
The "Broadband Adoption Potential score" is comprised of the following 11 variables:	
% Broadband Subscription	84.96
% Population Ages 18-34	15.6
% Population with Bachelor's degree or more	55.08
% Households with Children	31.11
% Population Ages 65 and over	21.62
% Households with No Internet Access	10.44
% Households No Computer Devices	5.41
% Poverty	13.08
% Population with Disability	10.05
% Limited English	0

Census Tract ID	106
Adoption Score	42.37
YEAR	2019
The "Broadband Adoption Potential score" is comprised of the following 11 variables:	
% Broadband Subscription	63.05
% Population Ages 18-34	21.11
% Population with Bachelor's degree or more	36.41
% Households with Children	31.45
% Population Ages 65 and over	18.67
% Households with No Internet Access	21.34
% Households No Computer Devices	16.98
% Poverty	18
% Population with Disability	15.74
% Limited English	3.51

Census Tract ID	10501
Adoption Score	59.37
YEAR	2019
The "Broadband Adoption Potential score" is comprised of the following 11 variables:	
% Broadband Subscription	78.88
% Population Ages 18-34	18.43
% Population with Bachelor's degree or more	56.22
% Households with Children	26.97
% Population Ages 65 and over	21.55
% Households with No Internet Access	10.75
% Households No Computer Devices	4.39
% Poverty	3.25
% Population with Disability	8.6
% Limited English	0.57

Census Tract ID	11102
Adoption Score	53.56
YEAR	2019
The "Broadband Adoption Potential score" is comprised of the following 11 variables:	
% Broadband Subscription	73.59
% Population Ages 18-34	24.95
% Population with Bachelor's degree or more	25.57
% Households with Children	33.74
% Population Ages 65 and over	12.27
% Households with No Internet Access	11.47
% Households No Computer Devices	7.98
% Poverty	17.45
% Population with Disability	13.44
% Limited English	1.77

Census Tract ID	10402
Adoption Score	40.86
YEAR	2019
The "Broadband Adoption Potential score" is comprised of the following 11 variables:	
% Broadband Subscription	57.97
% Population Ages 18-34	42.98
% Population with Bachelor's degree or more	17.73
% Households with Children	18.86
% Population Ages 65 and over	15.32
% Households with No Internet Access	20.5
% Households No Computer Devices	17.37
% Poverty	23.38
% Population with Disability	15.17
% Limited English	2

Census Tract ID	10401
Adoption Score	45.47
YEAR	2019
The "Broadband Adoption Potential score" is comprised of the following 11 variables:	
% Broadband Subscription	73.93
% Population Ages 18-34	28.52
% Population with Bachelor's degree or more	23.58
% Households with Children	26.07
% Population Ages 65 and over	21.22
% Households with No Internet Access	12.39
% Households No Computer Devices	12.43
% Poverty	14.45
% Population with Disability	14.1
% Limited English	4.81

Census Tract ID	10302
Adoption Score	56.52
YEAR	2019
The "Broadband Adoption Potential score" is comprised of the following 11 variables:	
% Broadband Subscription	77.42
% Population Ages 18-34	19
% Population with Bachelor's degree or more	45.75
% Households with Children	27.72
% Population Ages 65 and over	15.67
% Households with No Internet Access	8.7
% Households No Computer Devices	8.66
% Poverty	8.66
% Population with Disability	9.73
% Limited English	1.74

Census Tract ID	11701
Adoption Score	54.23
YEAR	2019
The "Broadband Adoption Potential score" is comprised of the following 11 variables:	
% Broadband Subscription	76.37
% Population Ages 18-34	14.9
% Population with Bachelor's degree or more	31.07
% Households with Children	33.53
% Population Ages 65 and over	18.43
% Households with No Internet Access	9.31
% Households No Computer Devices	7.22
% Poverty	6.75
% Population with Disability	11.4
% Limited English	3.46

Census Tract ID	11702
Adoption Score	52.38
YEAR	2019
The "Broadband Adoption Potential score" is comprised of the following 11 variables:	
% Broadband Subscription	68.19
% Population Ages 18-34	17.52
% Population with Bachelor's degree or more	16.99
% Households with Children	28.64
% Population Ages 65 and over	15.96
% Households with No Internet Access	11.34
% Households No Computer Devices	7.41
% Poverty	7.08
% Population with Disability	10.8
% Limited English	2.98

Census Tract ID	10304
Adoption Score	41.34
YEAR	2019
The "Broadband Adoption Potential score" is comprised of the following 11 variables:	
% Broadband Subscription	61.17
% Population Ages 18-34	20.79
% Population with Bachelor's degree or more	13.83
% Households with Children	38.28
% Population Ages 65 and over	13.87
% Households with No Internet Access	20.37
% Households No Computer Devices	15.89
% Poverty	21.33
% Population with Disability	11.99
% Limited English	4.91

Census Tract ID	10303
Adoption Score	40.82
YEAR	2019
The "Broadband Adoption Potential score" is comprised of the following 11 variables:	
% Broadband Subscription	66.02
% Population Ages 18-34	18.52
% Population with Bachelor's degree or more	17.18
% Households with Children	36.08
% Population Ages 65 and over	17.93
% Households with No Internet Access	20.53
% Households No Computer Devices	13.33
% Poverty	13.59
% Population with Disability	14.37
% Limited English	4.85

Census Tract ID	10202
Adoption Score	44.62
YEAR	2019
The "Broadband Adoption Potential score" is comprised of the following 11 variables:	
% Broadband Subscription	71.83
% Population Ages 18-34	20.27
% Population with Bachelor's degree or more	13.95
% Households with Children	34.29
% Population Ages 65 and over	15.9
% Households with No Internet Access	12.9
% Households No Computer Devices	13.65
% Poverty	13.93
% Population with Disability	15.93
% Limited English	3.5

Census Tract ID	10201
Adoption Score	50.26
YEAR	2019
The "Broadband Adoption Potential score" is comprised of the following 11 variables:	
% Broadband Subscription	73.12
% Population Ages 18-34	22.34
% Population with Bachelor's degree or more	11.71
% Households with Children	39.1
% Population Ages 65 and over	15.46
% Households with No Internet Access	13.57
% Households No Computer Devices	10.6
% Poverty	11.93
% Population with Disability	15.32
% Limited English	2.97

Census Tract ID	10101
Adoption Score	48.26
YEAR	2019
The "Broadband Adoption Potential score" is comprised of the following 11 variables:	
% Broadband Subscription	70.28
% Population Ages 18-34	14.69
% Population with Bachelor's degree or more	22.09
% Households with Children	25.89
% Population Ages 65 and over	20.93
% Households with No Internet Access	13.66
% Households No Computer Devices	8.11
% Poverty	7.49
% Population with Disability	14.79
% Limited English	2.23

Census Tract ID	109
Adoption Score	15.62
YEAR	2019
The "Broadband Adoption Potential score" is comprised of the following 11 variables:	
% Broadband Subscription	36.74
% Population Ages 18-34	15.84
% Population with Bachelor's degree or more	9.15
% Households with Children	20.99
% Population Ages 65 and over	17.21
% Households with No Internet Access	38.6
% Households No Computer Devices	25.55
% Poverty	33.05
% Population with Disability	22.01
% Limited English	2.83

Census Tract ID	107
Adoption Score	27.06
YEAR	2019
The "Broadband Adoption Potential score" is comprised of the following 11 variables:	
% Broadband Subscription	51.46
% Population Ages 18-34	25.36
% Population with Bachelor's degree or more	10.67
% Households with Children	25.73
% Population Ages 65 and over	13.48
% Households with No Internet Access	26.62
% Households No Computer Devices	20.59
% Poverty	24.47
% Population with Disability	19.36
% Limited English	6.92

Census Tract ID	10102
Adoption Score	41.09
YEAR	2019
The "Broadband Adoption Potential score" is comprised of the following 11 variables:	
% Broadband Subscription	69.73
% Population Ages 18-34	16.1
% Population with Bachelor's degree or more	28.25
% Households with Children	25.13
% Population Ages 65 and over	23.73
% Households with No Internet Access	16.12
% Households No Computer Devices	13.49
% Poverty	11.31
% Population with Disability	17.23
% Limited English	2.15

Census Tract ID	11401
Adoption Score	42.57
YEAR	2019
The "Broadband Adoption Potential score" is comprised of the following 11 variables:	
% Broadband Subscription	59.41
% Population Ages 18-34	18.43
% Population with Bachelor's degree or more	9.86
% Households with Children	32.07
% Population Ages 65 and over	15.35
% Households with No Internet Access	25.05
% Households No Computer Devices	15.18
% Poverty	10.56
% Population with Disability	8.75
% Limited English	2.08

Census Tract ID	11501
Adoption Score	47.79
YEAR	2019
The "Broadband Adoption Potential score" is comprised of the following 11 variables:	
% Broadband Subscription	63.13
% Population Ages 18-34	18.24
% Population with Bachelor's degree or more	20.55
% Households with Children	30.65
% Population Ages 65 and over	17.88
% Households with No Internet Access	14.58
% Households No Computer Devices	11.93
% Poverty	5.84
% Population with Disability	18.2
% Limited English	0

Census Tract ID	11503
Adoption Score	54.92
YEAR	2019
The "Broadband Adoption Potential score" is comprised of the following 11 variables:	
% Broadband Subscription	67.35
% Population Ages 18-34	14.72
% Population with Bachelor's degree or more	35.28
% Households with Children	28.75
% Population Ages 65 and over	20.79
% Households with No Internet Access	13.14
% Households No Computer Devices	8.83
% Poverty	7.33
% Population with Disability	11.76
% Limited English	0.82

Census Tract ID	11504
Adoption Score	58.86
YEAR	2019
The "Broadband Adoption Potential score" is comprised of the following 11 variables:	
% Broadband Subscription	79.36
% Population Ages 18-34	14.12
% Population with Bachelor's degree or more	33.87
% Households with Children	24.71
% Population Ages 65 and over	16.48
% Households with No Internet Access	10.45
% Households No Computer Devices	6.3
% Poverty	6.19
% Population with Disability	11.05
% Limited English	0

Census Tract ID	11602
Adoption Score	41.93
YEAR	2019
The "Broadband Adoption Potential score" is comprised of the following 11 variables:	
% Broadband Subscription	64.7
% Population Ages 18-34	16.12
% Population with Bachelor's degree or more	13.63
% Households with Children	31.74
% Population Ages 65 and over	17.11
% Households with No Internet Access	16.43
% Households No Computer Devices	12.08
% Poverty	11.17
% Population with Disability	17.13
% Limited English	1.59

Census Tract ID	11402
Adoption Score	38.4
YEAR	2019
The "Broadband Adoption Potential score" is comprised of the following 11 variables:	
% Broadband Subscription	59.96
% Population Ages 18-34	24.12
% Population with Bachelor's degree or more	16.11
% Households with Children	24.65
% Population Ages 65 and over	24.76
% Households with No Internet Access	20.55
% Households No Computer Devices	17.59
% Poverty	19.67
% Population with Disability	14.37
% Limited English	0

Census Tract ID	113
Adoption Score	38.16
YEAR	2019
The "Broadband Adoption Potential score" is comprised of the following 11 variables:	
% Broadband Subscription	52.53
% Population Ages 18-34	19.64
% Population with Bachelor's degree or more	13.63
% Households with Children	34.18
% Population Ages 65 and over	11.71
% Households with No Internet Access	19.19
% Households No Computer Devices	16.52
% Poverty	17.2
% Population with Disability	16.8
% Limited English	3.2

Census Tract ID	112
Adoption Score	50.96
YEAR	2019
The "Broadband Adoption Potential score" is comprised of the following 11 variables:	
% Broadband Subscription	64.58
% Population Ages 18-34	25.11
% Population with Bachelor's degree or more	21.21
% Households with Children	34.27
% Population Ages 65 and over	15.94
% Households with No Internet Access	18.76
% Households No Computer Devices	14.06
% Poverty	6.99
% Population with Disability	13.28
% Limited English	2.56

Census Tract ID	10301
Adoption Score	45.18
YEAR	2019
The "Broadband Adoption Potential score" is comprised of the following 11 variables:	
% Broadband Subscription	63.31
% Population Ages 18-34	18.17
% Population with Bachelor's degree or more	27.82
% Households with Children	31.21
% Population Ages 65 and over	16.88
% Households with No Internet Access	22.69
% Households No Computer Devices	16.1
% Poverty	11.29
% Population with Disability	13.72
% Limited English	1.94