Burke 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 77.4% of Burke 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. Burke County is designated as a Tier 1 County by the North Carolina Department of Commerce (which means that it is among the 40 most distressed counties in North Carolina), with a higher average unemployment rate, a lower median household income, a lower population growth percentage and a smaller tax base compared to the other counties in North Carolina.

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 access 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 our 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 Power line (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, income, population density, and current economic conditions.

Table 1.

Burke County Demographics		
Population Estimates, July 1 2021, (V2021)		87,611
White alone, percent		85.70%
Black or African American alone, percent	(a)	6.80%
American Indian and Alaska Native alone, percent	(a)	1.00%
Asian alone, percent	(a)	3.80%
Native Hawaiian and Other Pacific Islander alone, percent	(a)	0.80%
Two or More Races, percent		1.90%
Hispanic or Latino, percent	(b)	6.90%
White alone, not Hispanic or Latino, percent		80.80%
Median household income (in 2021 dollars), 2017-2021		$48,142
Persons in poverty, percent		18.40%
Population per square mile, 2020		173
NC Commerce Tier Ranking		1
NC Rural Center Classification		Rural
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.		

Established by the North Carolina Department of Commerce, NC'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. Burke County is in Tier 1.

The North Carolina Rural Center classifies Burke County as a "Rural" county, with a population density of 173 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 Burke County:

In October 2022, Western Piedmont Council of Governments (WPCOG) invited numerous stakeholders from 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:

Spectrum and AT&T are the county's predominant mobile/cellular providers. Fixed or wireline service is provided by Spectrum, AT&T and Compas (within Morganton City limits). Discount/low cost programs are available by applying to the ACP (Affordable Connectivity Program).

Digital literacy/skills opportunities:

STEM/STEAM training, coding courses, certifications, or training and technical certifications are offered by WPCC. Workforce development training is provided by the NC Works Career Center. NCSSM also conducts a lot of STEM training for students, and is in the process of developing outreach relationship with area schools.

The Burke County Library system provides access to digital literacy books and tutorials that teach digital literacy skills. These resources can be accessed at the Morganton, Valdese, and C.B. Hildebrand libraries. The NC Works Career Center in Morganton also provides access to computer and job skills training courses. In addition, other training workshops have been offered by the North Carolina School of Science and Math (NCSSM) for teachers living within a one-hour commute of Morganton.

Digital navigators:

Stakeholders mentioned that although there were no known digital navigators in the county, the library would be a good location to potentially provide one. Stakeholders also mentioned that the Dogwood Health trust and the Appalachian Regional Commission may be able to assist in creating digital navigators in Burke County.

Tech support:

Burke County Public Schools provides access to tech support at schools and via its website.

Public computer access points:

The Burke County Library system provides public computer access, as does the NC Works Career Center in Morganton. The senior centers also provide small computer labs.

Public Wi-Fi or public access points:

Free public Wi-Fi is available on Main Street in downtown Morganton, libraries, downtown Valdese, Rutherford College, and most Morganton city facilities. Some churches provide public Wi-Fi access, and the Burke County School system has a map of these and other locations on their website.

Refurbished/low-cost devices:

Stakeholders mentioned that a device refurbishment program for students exists in Davie County, and also mentioned "Ending the Digital Divide (E2DD), an organization that offers refurbishment at little or no cost.

K-12:

The Burke County School System provides one-to-one computer access (Chromebooks) and tablets. K-2nd grade students receive tablets; laptops are provided for students in 3rd Grade and beyond. Students are allowed to take their devices home. NCSSM provides students with laptops.

Other observations/opportunities:

- The Burke County Library system does not provide computers or hotspots to check out or rent, nor does Western Piedmont Community College (WPCC).

- Stakeholders stated that there may be an opportunity to expand computer access (using refurbished computers) into recreation centers across the county, possibly in partnership the North Carolina School of Science and Math.

- Stakeholders also stated that if there was enough room, locating a computer lab at the Department of Social Services (DSS) could be helpful to DSS clients. Stakeholders felt that by locating computers at DSS, both accessibility and other socioeconomic issues could be addressed.

- Stakeholders mentioned that there may be an opportunity to address accessibility issues for students by developing Wi-Fi buses, similar to what has been deployed by Caldwell and Catawba County Schools. In addition, stakeholders discussed the potential for replicating the "buddy system" used in Durham and Wilson that pairs younger people with older people to help older people learn how to use the internet and devices.

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 Burke County.

Table 2.

County	City	Location
Burke	Hildebran	C. B. Hildebrand Public Library, 201 S. Center St.
Burke	Morganton	Burke Public Library, 204 S. King St.
Burke	Morganton	City of Morganton, 101 S. King St.
Burke	Morganton	City of Morganton, 101 W. Meeting St.
Burke	Morganton	City of Morganton, 102 E. Union St.
Burke	Morganton	City of Morganton, 102 E. Union St.
Burke	Morganton	City of Morganton, 102 N. Green St.
Burke	Morganton	City of Morganton, 102 S. Sterling St.
Burke	Morganton	City of Morganton, 106 N. Green St.
Burke	Morganton	City of Morganton, 107 N. Sterling St.
Burke	Morganton	City of Morganton, 110 E. Meeting St.
Burke	Morganton	City of Morganton, 111 N. Green St.
Burke	Morganton	City of Morganton, 112-B W. Union St.
Burke	Morganton	City of Morganton, 120 N. King St.
Burke	Morganton	City of Morganton, 132 N. Sterling St.

Burke	Morganton	City of Morganton, 138 Queen St.
Burke	Morganton	City of Morganton, 160 S. Sterling St.
Burke	Morganton	City of Morganton, 179 Bouchelle St.
Burke	Morganton	City of Morganton, 204 Collett St.
Burke	Morganton	City of Morganton, 212 S. Green St.
Burke	Morganton	City of Morganton, 220 Collett St.
Burke	Morganton	City of Morganton, 300 Collett St.
Burke	Morganton	City of Morganton, 305 E. Union St.
Burke	Morganton	City of Morganton, 307 E. Union St.
Burke	Valdese	Valdese Public Library, 213 Saint Germain Ave. Southeast

Key Takeaways:

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

Stakeholders identified several 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 service 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 $2.3 million grant to deploy broadband services to approximately 719 households, businesses, agricultural operations, and community anchor institutions in Burke 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 Burke County.

Map 1.
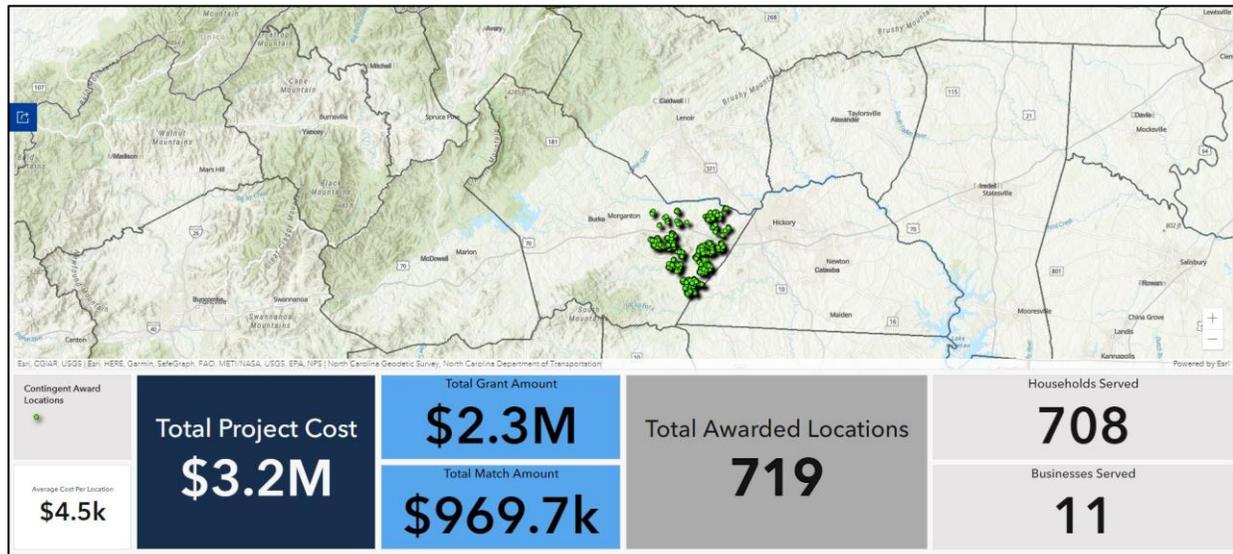
This close up image of eastern Burke County shows the areas covered by the GREAT grant.
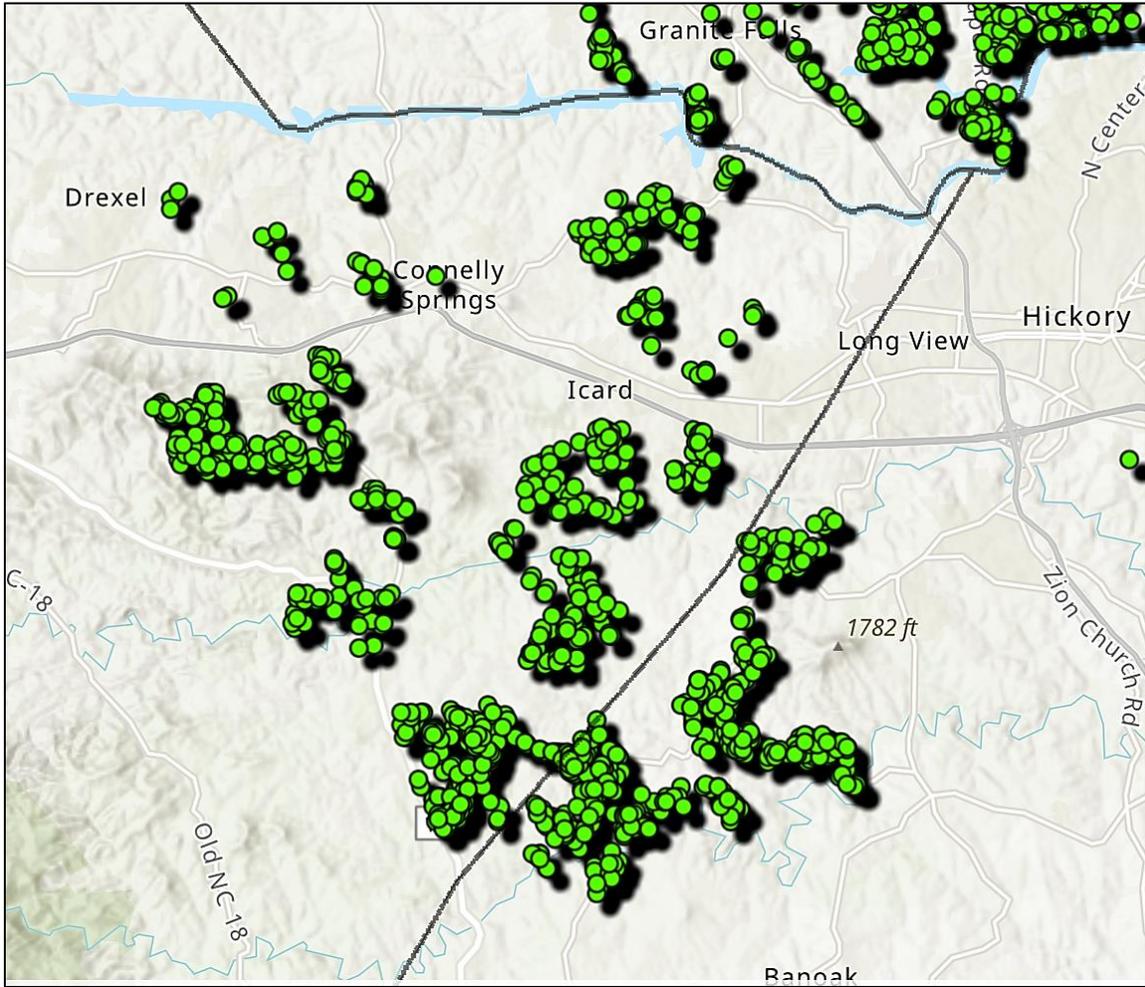
BROADBAND AVAILABILITY:
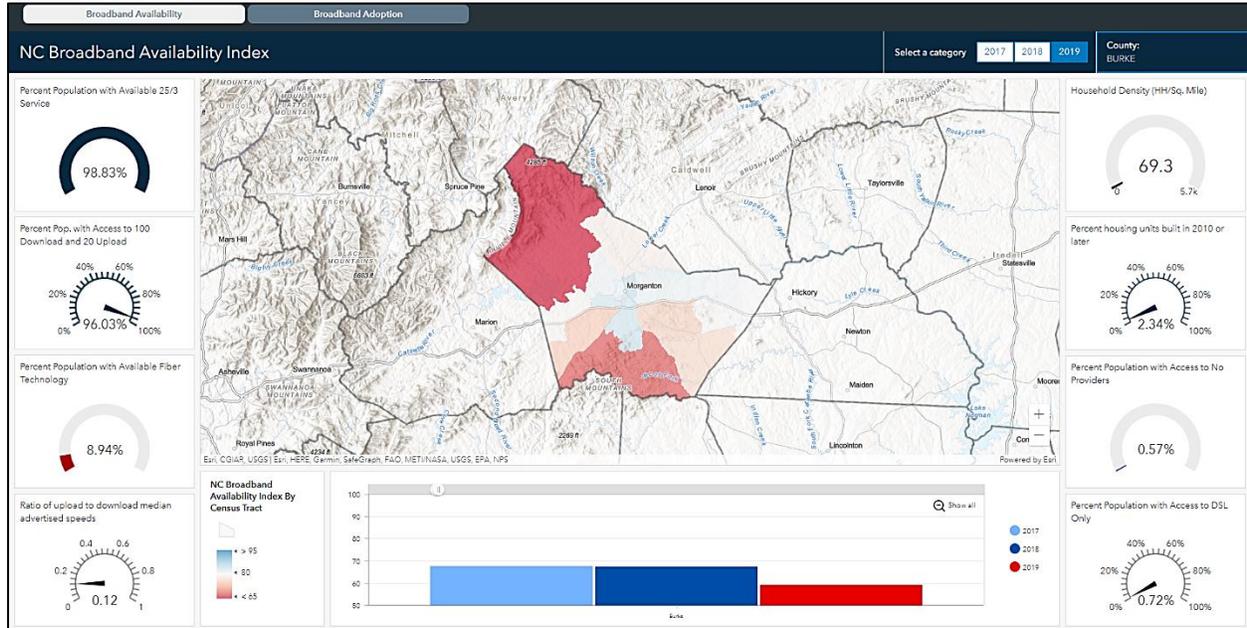
The current state of broadband availability in the county is shown in the above map, which has been developed by the North Carolina Department of Information Technology (NCDIT).

Overall, high percentages of the county's population have 25/3 service availability and nearly 100 percent of the county's population have 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).

Less than one percent 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 or near Morganton, and in the Salem, Sunnyside and Enola communities. Areas with the lowest broadband availability include the Jonas Ridge, Brown Mountain and Linville communities. Other areas with low broadband availability include the area south of Interstate 40 and west of South Mountains, and the South Mountains State Park vicinity.

Detailed data for each of these areas can be found in Appendix 1.

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 (ex. fixed wireless, etc.), 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*

BROADBAND ADOPTION POTENTIAL:
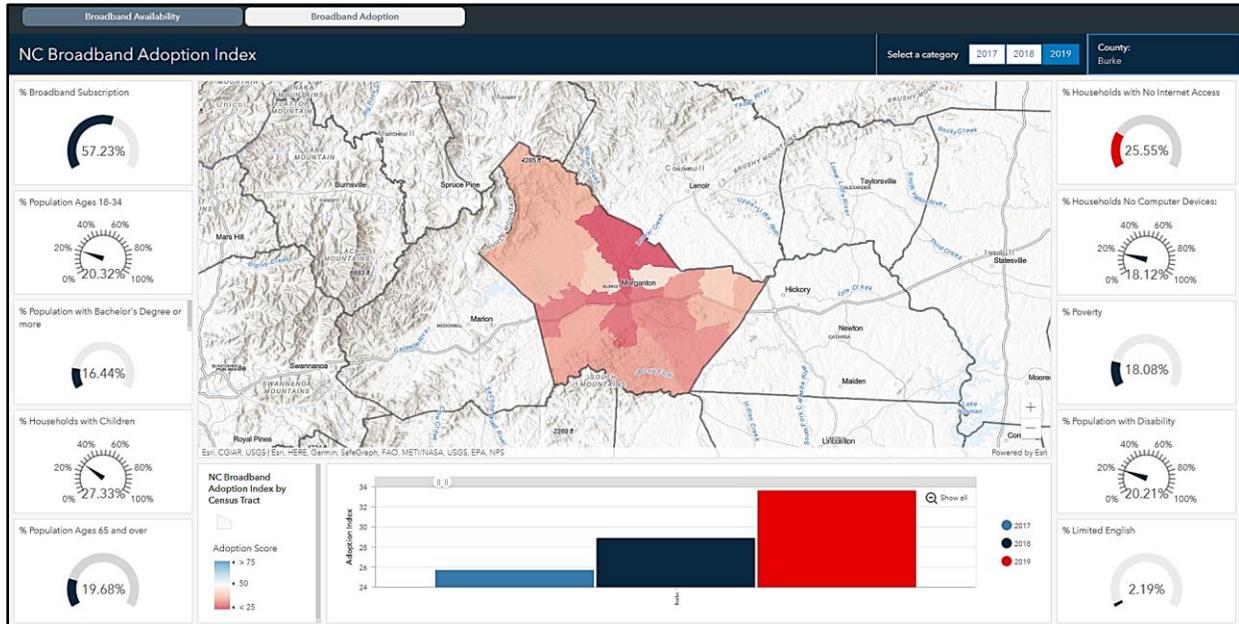
Broadband adoption potential in the county is shown in the above map, which has been developed by the North Carolina Department of Information Technology (NCDIT). Measures used to determine broadband adoption potential include: poverty, households with no internet access, households with no computer 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 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 lowest broadband adoption potential include the Census Tract that encompasses the Chesterfield community and a Census Tract in the City of Morganton. All of the remaining Tracts have scores that are below average. 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 <u>not</u> 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"
23020100	High	Low	High	High	High	High	Moderate	Moderate	Moderate	High	6
23020202	High	Low	Low	High	High	High	Moderate	High	High	High	6
23020203	High	Low	Low	Moderate	High	High	Low	Moderate	Moderate	Low	3
23020204	High	Low	Low	Low	High	High	Moderate	Low	Moderate	Moderate	3
23020301	High	Moderate	High	Moderate	High	High	Low	Low	High	High	6
23020303	High	Low	Low	Moderate	High	High	Low	Moderate	High	High	5
23020304	High	Low	Moderate	Moderate	Moderate	High	Low	Low	High	High	4
23020500	Low	Moderate	Moderate	High	High	Moderate	High	High	Moderate	Moderate	4
23020600	Moderate	High	Low	High	Moderate	High	High	Moderate	High	High	6
23020801	Moderate	Low	Moderate	Moderate	High	High	Low	Moderate	Moderate	Moderate	2
23020802	High	Moderate	High	Moderate	Moderate	Moderate	High	High	High	Moderate	5
23020901	Moderate	Low	High	Moderate	High	High	Low	Low	High	High	5
23020902	Moderate	Low	Low	Moderate	High	High	Moderate	Moderate	Moderate	Moderate	2
23021000	High	Low	Moderate	Moderate	High	Moderate	Low	High	High	High	5
23021100	Moderate	Low	Low	Moderate	High	Moderate	Low	Low	Moderate	Moderate	1
23021201	High	Low	Low	Moderate	High	High	Moderate	High	High	High	6
23021202	High	Low	Low	High	High	High	Moderate	Moderate	High	High	6
23021203	High	Low	Moderate	Moderate	High	Moderate	Moderate	Moderate	High	High	4
23021301	High	Moderate	Low	High	High	Moderate	Low	High	High	High	6
23021302	High	Low	Moderate	High	High	Moderate	Low	High	High	High	6
23021400	Moderate	High	Low	High	High	Moderate	High	Moderate	High	High	6

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

<u>Key Takeaways:</u>

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 consistently update and develop more detailed broadband maps.

- Reduce costs of future internet service expansions by developing a "dig once" approach, which will enable future broadband providers to more easily and cheaply install fiber by threading it through existing conduits.

Funding Recommendations:

- Position the county for grant funding opportunities by maintaining a strong working relationship with the North Carolina Department of Information Technology and other organizations that offer broadband/hotspot/device grant funding.

- Work 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.

- Encourage County GIS/IT planners to develop updated local broadband coverage maps as new data becomes available.

- Improve broadband adoption by actively promoting existing and new digital literacy courses and basic computer workshops offered through the community college, libraries, NC WORKS centers, schools, local nonprofit organizations and senior centers.

Availability and Accessibility Recommendations:

- Explore the potential for establishing public access computer centers in strategic areas of the county.

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

- Work to expand access to wireless hotspots and computers for students and other residents.

- Continue to support and explore the expansion of library-based computer courses as well as computer/device and hotspot check out programs.

- Expand public Wi-Fi access at County/municipal buildings, parks and parking lots where feasible.

- Work with satellite and fixed wireless providers to expand service options for residents in the most rural portions of the county.

- Increase broadband availability by leveraging local faith-based organizations, nonprofit organizations, 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.

- 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.

A. Swanson

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.

Federal
Communications
Commission

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 broadban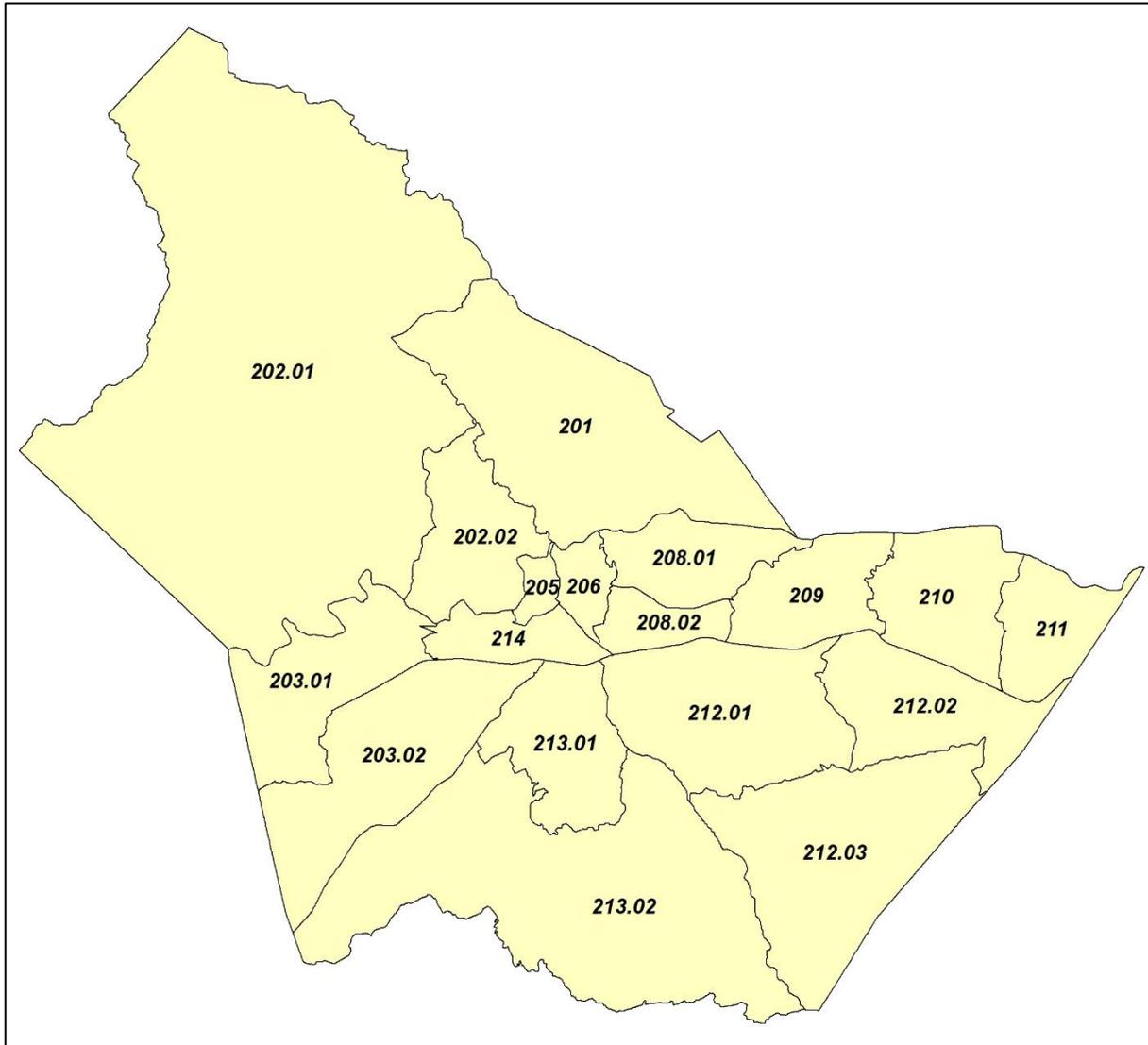d services necessary for the provision of healthcare. See https://www.fcc.gov/general/rural-health-care-program for more information.

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

S. Prisby

APPENDIX 1
BROADBAND AVAILABILITY BY CENSUS TRACT

Burke County 2010 Census Tract Map

Census Tract ID	**20201**
Availability Score	**60.65**
YEAR	2019
The "Broadband Availability and Quality" score is comprised of the following 8 variables:	
% Population with Access to 25/3	92.09
% Population with Access to 100/20	70.78
% Population with Access to Fiber	9.25
Ratio of upload to download median advertised speeds	0.12
Household Density	16.18
% housing units built in 2010 or later	0.35
% Population with Access to No Providers	4.03
% Population with Access to DSL Only	7.07

Census Tract ID	**20301**
Availability Score	**79.81**
YEAR	2019
The "Broadband Availability and Quality" score is comprised of the following 8 variables:	
% Population with Access to 25/3	99.50
% Population with Access to 100/20	99.50
% Population with Access to Fiber	0.86
Ratio of upload to download median advertised speeds	0.12
Household Density	103.62
% housing units built in 2010 or later	2.66
% Population with Access to No Providers	0.12
% Population with Access to DSL Only	0.24

Census Tract ID	20202
Availability Score	80.89
YEAR	2019
The "Broadband Availability and Quality" score is comprised of the following 8 variables:	
% Population with Access to 25/3	100.00
% Population with Access to 100/20	99.85
% Population with Access to Fiber	0.00
Ratio of upload to download median advertised speeds	0.20
Household Density	106.40
% housing units built in 2010 or later	1.80
% Population with Access to No Providers	0.00
% Population with Access to DSL Only	0.00

Census Tract ID	**201**
Availability Score	**79.15**
YEAR	2019
The "Broadband Availability and Quality" score is comprised of the following 8 variables:	
% Population with Access to 25/3	99.60
% Population with Access to 100/20	97.24
% Population with Access to Fiber	5.78
Ratio of upload to download median advertised speeds	0.12
Household Density	37.99
% housing units built in 2010 or later	2.03
% Population with Access to No Providers	0.38
% Population with Access to DSL Only	0.03

Census Tract ID	20801
Availability Score	81.49
YEAR	2019

The "Broadband Availability and Quality" score is comprised of the following 8 variables:

% Population with Access to 25/3	100.00
% Population with Access to 100/20	98.95
% Population with Access to Fiber	11.66
Ratio of upload to download median advertised speeds	0.12
Household Density	194.82
% housing units built in 2010 or later	2.24
% Population with Access to No Providers	0.00
% Population with Access to DSL Only	0.00

Census Tract ID	209
Availability Score	80.94
YEAR	2019

The "Broadband Availability and Quality" score is comprised of the following 8 variables:

% Population with Access to 25/3	100.00
% Population with Access to 100/20	99.77
% Population with Access to Fiber	5.43
Ratio of upload to download median advertised speeds	0.12
Household Density	206.34
% housing units built in 2010 or later	2.15
% Population with Access to No Providers	0.00
% Population with Access to DSL Only	0.00

Census Tract ID	210
Availability Score	80.72
YEAR	2019

The "Broadband Availability and Quality" score is comprised of the following 8 variables:

% Population with Access to 25/3	100.00
% Population with Access to 100/20	98.46
% Population with Access to Fiber	2.50
Ratio of upload to download median advertised speeds	0.12
Household Density	131.08
% housing units built in 2010 or later	5.46
% Population with Access to No Providers	0.00
% Population with Access to DSL Only	0.00

Census Tract ID	211
Availability Score	80.31
YEAR	2019
The "Broadband Availability and Quality" score is comprised of the following 8 variables:	
% Population with Access to 25/3	100.00
% Population with Access to 100/20	99.86
% Population with Access to Fiber	0.00
Ratio of upload to download median advertised speeds	0.12
Household Density	220.03
% housing units built in 2010 or later	1.21
% Population with Access to No Providers	0.00
% Population with Access to DSL Only	0.00

Census Tract ID	**20802**
Availability Score	**81.24**
YEAR	2019

The "Broadband Availability and Quality" score is comprised of the following 8 variables:

% Population with Access to 25/3	100.00
% Population with Access to 100/20	99.75
% Population with Access to Fiber	8.33
Ratio of upload to download median advertised speeds	0.12
Household Density	253.22
% housing units built in 2010 or later	1.68
% Population with Access to No Providers	0.00
% Population with Access to DSL Only	0.00

Census Tract ID	206
Availability Score	84.02
YEAR	2019

The "Broadband Availability and Quality" score is comprised of the following 8 variables:

% Population with Access to 25/3	100.00
% Population with Access to 100/20	100.00
% Population with Access to Fiber	30.19
Ratio of upload to download median advertised speeds	0.12
Household Density	525.84
% housing units built in 2010 or later	3.36
% Population with Access to No Providers	0.00
% Population with Access to DSL Only	0.00

Census Tract ID	**205**
Availability Score	**81.17**
YEAR	2019
The "Broadband Availability and Quality" score is comprised of the following 8 variables:	
% Population with Access to 25/3	100.00
% Population with Access to 100/20	100.00
% Population with Access to Fiber	6.10
Ratio of upload to download median advertised speeds	0.12
Household Density	505.59
% housing units built in 2010 or later	0.00
% Population with Access to No Providers	0.00
% Population with Access to DSL Only	0.00

Census Tract ID	214
Availability Score	82.76
YEAR	2019
The "Broadband Availability and Quality" score is comprised of the following 8 variables:	
% Population with Access to 25/3	100.00
% Population with Access to 100/20	99.96
% Population with Access to Fiber	22.83
Ratio of upload to download median advertised speeds	0.12
Household Density	246.88
% housing units built in 2010 or later	1.61
% Population with Access to No Providers	0.00
% Population with Access to DSL Only	0.00

Census Tract ID	**20302**
Availability Score	**76.00**
YEAR	2019
The "Broadband Availability and Quality" score is comprised of the following 8 variables:	
% Population with Access to 25/3	98.45
% Population with Access to 100/20	98.25
% Population with Access to Fiber	7.80
Ratio of upload to download median advertised speeds	0.12
Household Density	103.09
% housing units built in 2010 or later	2.74
% Population with Access to No Providers	1.39
% Population with Access to DSL Only	0.16

Census Tract ID	21301
Availability Score	83.42
YEAR	2019

The "Broadband Availability and Quality" score is comprised of the following 8 variables:

|	
% Population with Access to 25/3	100.00
% Population with Access to 100/20	100.00
% Population with Access to Fiber	27.51
Ratio of upload to download median advertised speeds	0.12
Household Density	116.87
% housing units built in 2010 or later	4.93
% Population with Access to No Providers	0.00
% Population with Access to DSL Only	0.00

Census Tract ID	21201
Availability Score	76.67
YEAR	2019
The "Broadband Availability and Quality" score is comprised of the following 8 variables:	
% Population with Access to 25/3	98.87
% Population with Access to 100/20	93.49
% Population with Access to Fiber	11.54
Ratio of upload to download median advertised speeds	0.12
Household Density	56.18
% housing units built in 2010 or later	1.35
% Population with Access to No Providers	1.13
% Population with Access to DSL Only	0.00

Census Tract ID	**21202**
Availability Score	**80.04**
YEAR	2019
The "Broadband Availability and Quality" score is comprised of the following 8 variables:	
% Population with Access to 25/3	100.00
% Population with Access to 100/20	99.69
% Population with Access to Fiber	0.00
Ratio of upload to download median advertised speeds	0.12
Household Density	87.87
% housing units built in 2010 or later	0.21
% Population with Access to No Providers	0.00
% Population with Access to DSL Only	0.00

Census Tract ID		**21203**
Availability Score		**77.28**
YEAR		2019
The "Broadband Availability and Quality" score is comprised of the following 8 variables:		
% Population with Access to 25/3		96.59
% Population with Access to 100/20		88.02
% Population with Access to Fiber		0.00
Ratio of upload to download median advertised speeds		0.12
Household Density		43.43
% housing units built in 2010 or later		4.60
% Population with Access to No Providers		0.18
% Population with Access to DSL Only		2.37

Census Tract ID	**21302**
Availability Score	**68.65**
YEAR	2019
The "Broadband Availability and Quality" score is comprised of the following 8 variables:	
% Population with Access to 25/3	93.69
% Population with Access to 100/20	84.19
% Population with Access to Fiber	3.65
Ratio of upload to download median advertised speeds	0.12
Household Density	20.72
% housing units built in 2010 or later	3.73
% Population with Access to No Providers	2.55
% Population with Access to DSL Only	2.69

APPENDIX 2

BROADBAND ADOPTION POTENTIAL
BY CENSUS TRACT

Burke County 2010 Census Tract Map
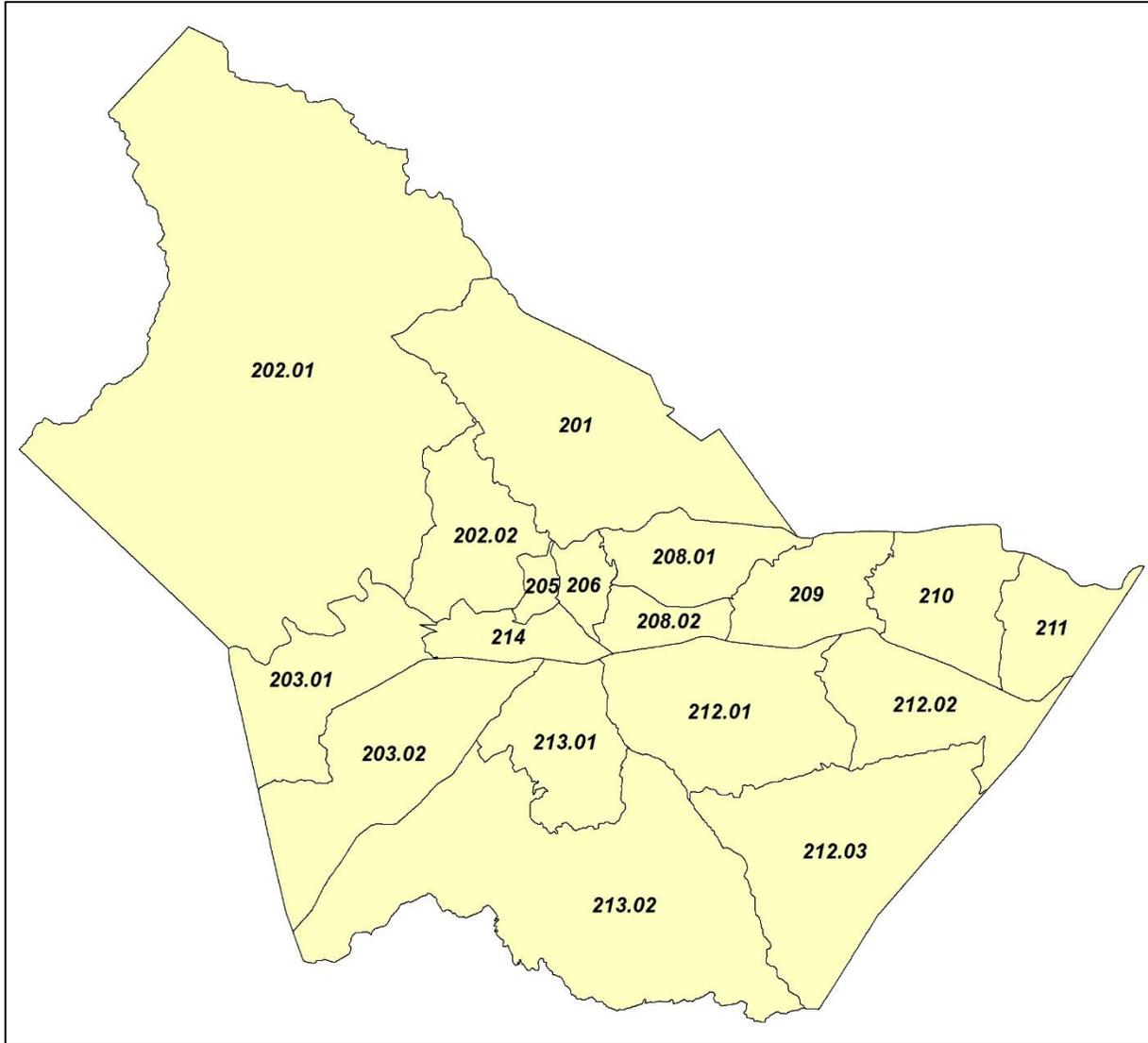
Census Tract ID	20201
Adoption Score	36.76
YEAR	2019

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

% Broadband Subscription	53.77
% Population Ages 18-34	21.06
% Population with Bachelor's degree or more	23.63
% Households with Children	20.38
% Population Ages 65 and over	19.98
% Households with No Internet Access	23.77
% Households No Computer Devices	16.95
% Poverty	13.67
% Population with Disability	23.77
% Limited English	0.00

Census Tract ID	20301
Adoption Score	29.87
YEAR	2019
The "Broadband Adoption Potential score" is comprised of the following 11 variables:	
% Broadband Subscription	53.83
% Population Ages 18-34	18.64
% Population with Bachelor's degree or more	9.77
% Households with Children	28.54
% Population Ages 65 and over	18.12
% Households with No Internet Access	29.66
% Households No Computer Devices	17.77
% Poverty	18.90
% Population with Disability	17.79
% Limited English	4.47

Census Tract ID	20202
Adoption Score	**40.45**
YEAR	2019
The "Broadband Adoption Potential score" is comprised of the following 11 variables:	
% Broadband Subscription	64.87
% Population Ages 18-34	19.68
% Population with Bachelor's degree or more	25.43
% Households with Children	32.88
% Population Ages 65 and over	23.54
% Households with No Internet Access	21.80
% Households No Computer Devices	16.94
% Poverty	8.79
% Population with Disability	19.22
% Limited English	0.41

Census Tract ID	201
Adoption Score	24.02
YEAR	2019

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

% Broadband Subscription	59.59
% Population Ages 18-34	15.33
% Population with Bachelor's degree or more	9.75
% Households with Children	29.97
% Population Ages 65 and over	18.39
% Households with No Internet Access	26.00
% Households No Computer Devices	21.01
% Poverty	28.85
% Population with Disability	27.40
% Limited English	2.64

Census Tract ID	20801
Adoption Score	44.69
YEAR	2019

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

% Broadband Subscription	70.83
% Population Ages 18-34	21.11
% Population with Bachelor's degree or more	18.35
% Households with Children	26.25
% Population Ages 65 and over	20.52
% Households with No Internet Access	18.73
% Households No Computer Devices	13.90
% Poverty	12.09
% Population with Disability	16.31
% Limited English	0.77

Census Tract ID	209
Adoption Score	33.17
YEAR	2019
The "Broadband Adoption Potential score" is comprised of the following 11 variables:	
% Broadband Subscription	61.54
% Population Ages 18-34	17.43
% Population with Bachelor's degree or more	18.31
% Households with Children	26.57
% Population Ages 65 and over	25.97
% Households with No Internet Access	24.60
% Households No Computer Devices	18.66
% Poverty	10.50
% Population with Disability	21.96
% Limited English	0.00

Census Tract ID	210
Adoption Score	40.82
YEAR	2019

The "Broadband Adoption Potential score" is comprised of the following 11 variables:	
% Broadband Subscription	58.29
% Population Ages 18-34	18.28
% Population with Bachelor's degree or more	12.84
% Households with Children	33.02
% Population Ages 65 and over	16.45
% Households with No Internet Access	22.51
% Households No Computer Devices	15.20
% Poverty	12.90
% Population with Disability	18.03
% Limited English	0.35

Census Tract ID	211
Adoption Score	36.25
YEAR	2019

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

% Broadband Subscription	63.39
% Population Ages 18-34	21.55
% Population with Bachelor's degree or more	14.31
% Households with Children	30.24
% Population Ages 65 and over	19.93
% Households with No Internet Access	24.52
% Households No Computer Devices	14.76
% Poverty	18.03
% Population with Disability	26.12
% Limited English	0.24

Census Tract ID	**20802**
Adoption Score	**28.69**
YEAR	2019

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

% Broadband Subscription	56.80
% Population Ages 18-34	21.62
% Population with Bachelor's degree or more	20.08
% Households with Children	25.97
% Population Ages 65 and over	25.92
% Households with No Internet Access	28.71
% Households No Computer Devices	19.82
% Poverty	14.64
% Population with Disability	16.92
% Limited English	5.54

Census Tract ID	**206**
Adoption Score	**20.01**
YEAR	2019

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

% Broadband Subscription	52.19
% Population Ages 18-34	15.79
% Population with Bachelor's degree or more	19.81
% Households with Children	25.08
% Population Ages 65 and over	19.40
% Households with No Internet Access	29.93
% Households No Computer Devices	20.00
% Poverty	31.47
% Population with Disability	16.83
% Limited English	12.79

Census Tract ID	205
Adoption Score	43.90
YEAR	2019
The "Broadband Adoption Potential score" is comprised of the following 11 variables:	
% Broadband Subscription	69.00
% Population Ages 18-34	18.42
% Population with Bachelor's degree or more	33.61
% Households with Children	29.64
% Population Ages 65 and over	21.61
% Households with No Internet Access	12.82
% Households No Computer Devices	10.45
% Poverty	11.00
% Population with Disability	18.10
% Limited English	5.64

Census Tract ID	214
Adoption Score	27.26
YEAR	2019
The "Broadband Adoption Potential score" is comprised of the following 11 variables:	
% Broadband Subscription	51.94
% Population Ages 18-34	22.69
% Population with Bachelor's degree or more	20.44
% Households with Children	29.10
% Population Ages 65 and over	18.27
% Households with No Internet Access	29.54
% Households No Computer Devices	20.03
% Poverty	25.59
% Population with Disability	21.32
% Limited English	6.21

Census Tract ID	20301
Adoption Score	29.87
YEAR	2019
The "Broadband Adoption Potential score" is comprised of the following 11 variables:	
% Broadband Subscription	53.83
% Population Ages 18-34	18.64
% Population with Bachelor's degree or more	9.77
% Households with Children	28.54
% Population Ages 65 and over	18.12
% Households with No Internet Access	29.66
% Households No Computer Devices	17.77
% Poverty	18.90
% Population with Disability	17.79
% Limited English	4.47

Census Tract ID	20302
Adoption Score	35.21
YEAR	2019

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

% Broadband Subscription	55.17
% Population Ages 18-34	17.59
% Population with Bachelor's degree or more	16.07
% Households with Children	25.31
% Population Ages 65 and over	20.44
% Households with No Internet Access	23.07
% Households No Computer Devices	16.37
% Poverty	15.52
% Population with Disability	16.39
% Limited English	1.24

Census Tract ID	21301
Adoption Score	28.10
YEAR	2019
The "Broadband Adoption Potential score" is comprised of the following 11 variables:	
% Broadband Subscription	53.28
% Population Ages 18-34	30.33
% Population with Bachelor's degree or more	8.15
% Households with Children	19.39
% Population Ages 65 and over	15.12
% Households with No Internet Access	26.37
% Households No Computer Devices	21.95
% Poverty	26.48
% Population with Disability	24.46
% Limited English	0.00

Census Tract ID	21201
Adoption Score	31.53
YEAR	2019

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

% Broadband Subscription	51.43
% Population Ages 18-34	18.21
% Population with Bachelor's degree or more	16.59
% Households with Children	23.30
% Population Ages 65 and over	21.72
% Households with No Internet Access	28.62
% Households No Computer Devices	21.62
% Poverty	25.21
% Population with Disability	17.27
% Limited English	0.00

Census Tract ID	**21202**
Adoption Score	**37.07**
YEAR	2019

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

% Broadband Subscription	50.62
% Population Ages 18-34	25.49
% Population with Bachelor's degree or more	14.83
% Households with Children	32.44
% Population Ages 65 and over	17.61
% Households with No Internet Access	32.62
% Households No Computer Devices	21.69
% Poverty	19.09
% Population with Disability	19.14
% Limited English	1.31

Census Tract ID	21203
Adoption Score	32.17
YEAR	2019

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

% Broadband Subscription	48.77
% Population Ages 18-34	18.83
% Population with Bachelor's degree or more	8.92
% Households with Children	34.36
% Population Ages 65 and over	14.80
% Households with No Internet Access	29.39
% Households No Computer Devices	22.76
% Poverty	18.39
% Population with Disability	20.97
% Limited English	0.00

Census Tract ID	**21302**
Adoption Score	**34.65**
YEAR	2019
The "Broadband Adoption Potential score" is comprised of the following 11 variables:	
% Broadband Subscription	54.63
% Population Ages 18-34	24.12
% Population with Bachelor's degree or more	8.31
% Households with Children	23.86
% Population Ages 65 and over	15.80
% Households with No Internet Access	27.66
% Households No Computer Devices	18.12
% Poverty	17.98
% Population with Disability	20.03
% Limited English	0.00