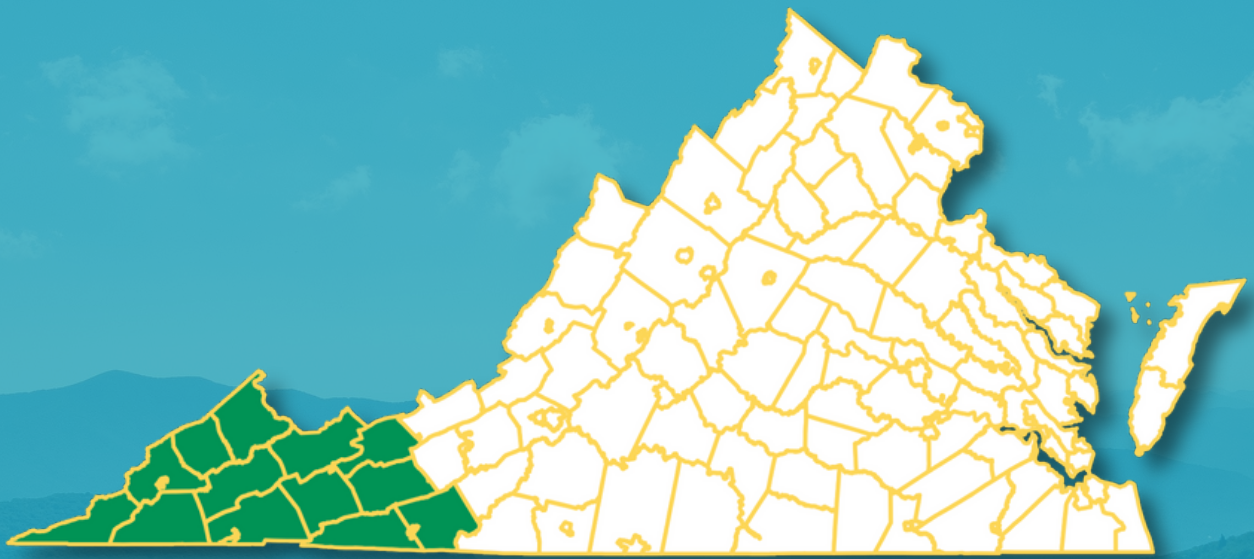# Regional Digital Opportunity Plan
Southwest Virginia

Bland · Bristol · Buchanan · Carroll · Dickenson · Galax · Grayson · Lee Norton · Russell · Scott · Smyth · Tazewell · Washington · Wise · Wythe

Prepared By:

People Incorporated of Virginia
Appalachian Community Action and Development Agency
Clinch Valley Community Action Agency
Mountain Community Action Program
Rooftop of Virginia Community Action Program

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ORIGIN OF PROJECT

In 2022, Appalachian Community Action and Development Agency, Inc. (APPCAA), Clinch Valley Community Action Agency (CVCAA), Mountain Community Action Program, Inc. (MCAP), People Incorporated of Virginia, Inc. (PINC), and Rooftop of Virginia Community Action Program, Inc. (Rooftop) formed a Regional Community Action Coalition and began an extensive community input and data collection effort in order to create a Regional Digital Opportunity Plan as part of a statewide effort overseen by the Virginia Department of Housing and Community Development (DHCD). This goal of the project was to identify the barriers to effective and meaningful use of broadband for selected populations, identify key factors in the service area that define unique service challenges, and develop a preliminary plan to address them for implementation by both public and private sectors.

The region includes 13 counties and 3 cities spanning nearly 6,000 square miles and home to over 350,000 Virginians. Counties in the region include Bland, Buchanan, Carroll, Dickenson, Grayson, Lee, Russell, Scott, Smyth, Tazewell, Washington, Wise, and Wythe. The cities are Bristol, Galax, and Norton.

The map below shows the region. It is color-coded to show the areas served by the five different Community Action Agencies participating in the planning process.
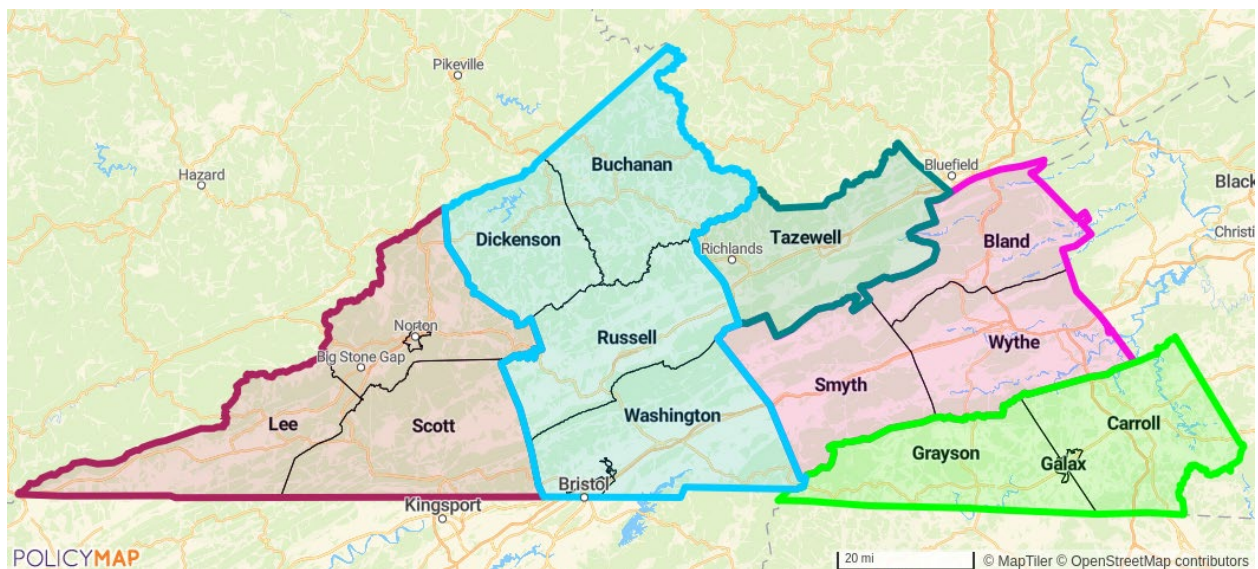
FRAMEWORK OF ASSESSMENT

The National Digital Equity Alliance states the "Digital Divide is the issue, Digital Equity is the goal, and Digital Inclusion is the work." The framework for this report supports this belief by first defining the specific obstacles creating the digital divide, developing a plan to achieve digital equity, and recommending implementation methods with inclusivity as a guiding principle.

A comprehensive assessment process, including evaluation of existing data, facilitation of focus groups and community listening sessions, coordination of key informant interviews, cataloguing existing resources, and distribution of a statewide digital survey provided a broad data set from which to draw conclusions and recommendations. Participants in this process included schools and educational services, municipal

representatives from departments such as management, library services, social services, corrections, and economic development, employment services, Community Action Agency program participants, non-profit staff, government programs, community members, internet service providers, regional thought leaders and subject matter experts. The resulting plan identifies both the barriers to digital equity and an implementation plan to eliminate them. These efforts focused on the region at large and the Target Populations identified by the Digital Equity Act of 2021, including:

DIGITAL DIVIDE IS THE ISSUE, DIGITAL EQUITY IS THE GOAL, AND DIGITAL INCLUSION IS THE WORK.

- Individuals living in households below 150% of the federal poverty level;
- Aging individuals;
- Incarcerated individuals, other than individuals who are incarcerated in a Federal correctional facility;
- Veterans;
- Individuals with disabilities;
- Individuals with a language barrier, including individuals who—
  o Are English learners; and
  o Have low levels of literacy
- Individuals who are members of a racial or ethnic minority group; and
- Individuals who primarily reside in a rural area

Barriers exist throughout the region, along with inequities mirroring those found in society at large. Those digital-equity-barriers magnify social inequalities which further highlight the disproportionate impact on those with low incomes, persons with disabilities, the incarcerated, aging individuals, veterans, those with language barriers, members of racial or ethnic minority groups, and those who live in rural locations. Many of the recommendations included can be implemented across the entire region with modifications reflecting local conditions. Population-specific challenges faced by across the region are also included.

Despite the large and diverse area included in this assessment there are overarching commonalities in the obstacles faced. Proposed solutions provide realistic goals that address the needs of communities within the coalition service area, and for those subsets that have distinctly unique concerns. Consequently, funding to implement regional Digital Opportunity Plan activities will have the highest impact where it is attuned to the shifting dynamics within the region. Funding will need to be extremely flexible and responsive to the particular obstacles of numerous target populations across the region to best overcome the barriers to digital equity faced by those living and working there.

The planning team assessed our region on the activities needed to ensure digital inclusion as identified by the Digital Equity Act of 2021 which include:

- **Broadband Availability & Affordability:** Is high-quality broadband available at a price residents are willing to pay?
- **Online Accessibility & Inclusivity:** Are websites accessible, readable, and functional for the general public, those with disabilities, and those with language barriers?
- **Digital Literacy:** Do individuals know enough about using a computer and the internet to take full advantage of it?

- **Online Privacy & Cybersecurity:** Are individuals able to protect themselves on the internet from identity theft, online predators, and other threats?
- **Device Availability & Affordability:** Can individuals get access to a computer or afford to buy one?

FINDINGS

Despite the large geography and variety of attendees, the barriers to digital equity are similar for all target populations in the Southwest Virginia region. The primary difference is the significance of the barrier and the solution to it. Overall, the priority for addressing the barriers to digital equity in the region are:

1. Broadband/Internet Access
2. Digital Literacy
3. Device Access and Affordability
4. Broadband Affordability
5. Privacy and Cybersecurity
6. Online Accessibility

BROADBAND ACCESS

- Families need sufficient internet access (both quality and quantity) to fulfill requirements for both school and employment.
    - Households in the region need continued expansion of broadband infrastructure in order to provide basic access to the internet.
    - Households need access to more viable options than broadband to secure internet access in a more timely and cost-efficient manner. Waiting two or more years for a company to lay fiber to a single house miles away from existing lines does not seem like a desirable solution.
- Households need high-quality internet for individuals to be able to work from home as many positions require a specific upload/download speed be available before a person can be hired.
- "Centralized locations" such as a library or other venue for computer/internet access or to take a class are insufficient to meet the needs of residents in rural areas who still need to travel 20 minutes or more to reach those areas.
- Homeless shelters need internet access for residents.
- Towns need to be able to connect residences to existing broadband infrastructure that is currently only available for businesses.[1]

DIGITAL LITERACY

- Individuals need an opportunity to learn about technology in a way that alleviates their fears and embarrassment.
- Individuals need unbiased, reliable assistance to identify the technology they need and/or the internet options available to them.
- Individuals don't know how to take advantage of personal growth opportunities available to them online such as books, music, and free classes.
- Individuals don't know how to use online services such as banking and health charts, which are increasingly becoming a necessary part of life.
- Individuals believe they have more knowledge of how to use a computer than they really do, which makes it difficult to determine the digital literacy needs in the community.

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[1] This specific problem was identified in the Trammell community in Dickenson County. Broadband lines were run through the community in 2016. As a result, All Points Broadband claims to provide service to the area. However, they will only allow local businesses to access the internet. Residents must rely on satellite services.

- Parents need more technology skills to assist their children with school and stay current with school communications.
- Individuals need to learn more about how to use a computer and the internet to participate in telehealth appointments.
- Individuals need a trusted, reliable resource they can contact for assistance with their computer.

DEVICE ACCESS

- Individuals need access to the internet and a computer in order to apply for jobs.
- Individuals need high-quality internet and a computer at home to be able to work from home or operate a business.
- Individuals need a device other than their smartphone to access the internet.

BROADBAND AFFORDABILITY

- Families need assistance applying for the ACP internet subsidy program as it is too complicated to navigate. Many families are not even aware of the program.
- Families need choices of internet providers to improve cost and quality.

PRIVACY AND CYBER-SECURITY

- Children need to be protected from cyber-bullies and online predators.
- Individuals need to be sure their personal information is safe when they are online.
- Older adults need to be protected from online scams.

ONLINE ACCESSIBILITY

- Residents need to be able to complete more forms online in order to be more efficient with their time.
- Government websites need to be monitored to ensure all links and webpages are current and active.
- Individuals with disabilities need websites to be reviewed for accessibility, specifically related to font size and readability.

ACTION STEPS

In order to develop the established vision for Digital Opportunity within the region, the following goals have been established.

1. DEVELOP A COHESIVE, COORDINATED REGIONAL APPROACH TO PROMOTING DIGITAL OPPORTUNITIES.

The first step in coordinating a regional approach to addressing the digital inequities in the region is to identify an organization to serve as the coordinating entity and lead agency for Digital Opportunity effort. The Southwest Virginia Region recommends using the Continuum of Care for Homeless Services as a format. The lead agency is organization will be chosen through a competitive application process according to guidelines established by the Virginia Department of Housing and Community Development. The contract will last for two years, the length of time between plan renewals. Eligible entities include:

- local governments;
- planning districts;
- institutions of higher learning, including but not limited to four-year colleges and universities, community colleges, education and training providers, and educational service agencies;
- labor organizations; and
- community-based 501c3 organizations.

2. ESTABLISH A DIGITAL NAVIGATOR PROGRAM TO PROVIDE COMPREHENSIVE TECHNICAL SUPPORT AND TRAINING TO MEET THE SPECIFIC INDIVIDUAL NEEDS OF THE LOCAL POPULATION.

The most vulnerable populations within Southwest Virginia will need dedicated support to navigate the digital world that is being opened to them. In order to access existing resources and be aware of new opportunities as they come available, residents need a Digital Navigator to guide them. This position will be instrumental in coordinating the various services and educational activities that will be part of the Digital Opportunities Plan.

In order to properly accommodate the needs of the diverse population within the 6,000 square miles of the region, multiple Digital Navigators will need to be deployed to throughout the region to work with local residents. A small service territory will make it easier to provide one-on-one assistance for clients. They should be embedded with an existing organization with established relationships among the high-priority target populations, especially low-income households. This will create the best chance of success.

3. PROMOTE DIGITAL OPPORTUNITIES IN A WAY THAT CREATES THE GREATEST IMMEDIATE IMPACT.

There are several VATI projects underway in Southwest Virginia that will bring broadband service to residents over the next two years. In the meantime, many residents already have physical access to a broadband connection and have other barriers to equity that much be overcome such as digital literacy, device access, cybersecurity/privacy, and affordability. The plan outlines a path to addressing these issues over the short and long-term. Priorities include:

- Computer classes to accommodate all levels of knowledge from the most basic to more advanced classes that address specific uses and needs.
- Develop a list of available computer resource centers in the community for referral.
- Expand number of computers available for Workforce Agencies to loan or give to clients
- Digital Literacy/Cybersecurity training program after which participants may purchase their computer for a small fee.
- Allow residential addresses to connect to existing broadband lines currently restricted to businesses only.
- Accommodate immediate needs for internet and devices by expanding availability of Wi-Fi hotspots and computer centers through upgrades to existing sites to improve safety and comfort; expanding hours; increasing capacity with more computers or higher-grade internet service; and/or increase the number of locations.
- Implement a regional marketing campaign to teach teenagers about the dangers of social media.
- Educate parents about the dangers of social media and how to address these issues with their children.
- Implement a marketing campaign to educate individuals about the need to protect their privacy online and how to avoid scams.
- E-mail blasts or other news distribution detailing popular scams currently occurring.

4. ADDRESS THE LONG-TERM NEEDS OF THE COMMUNITY.

Internet access and affordability will, for the most part, require significant financial investments in order to make a large impact. As a result, these issues are lower on the regional priority list despite the urgency of obtaining internet access.

Short and medium-term solutions to the problems of access and affordability include:

- Satellite installation for most remote households in lieu of waiting for broadband access
- Conduct outreach about ACP and other resources available to assist with affordability of internet access
- Subsidize installation of internet access for individuals who can otherwise afford it identified as high priority including parents with children in school, individuals engaged in workforce programs, individuals enrolled in education programs
- Install mesh wireless internet systems in apartment buildings to provide internet access to residents free of charge or at a low cost

DEFINING DIGITAL EQUITY

Virginia Department of Housing and Community Development as originated by the National Digital Inclusion Alliance:

"Digital Opportunity is a condition in which all individuals and communities have the information technology capacity needed for full participation in our society, democracy, and economy. Digital opportunity is necessary for civic and cultural participation, employment, lifelong learning, and access to essential services."

While recognizing that this is a suitable definition of Digital Opportunity overall, the stakeholders in Southwest Virginia understand that there are more distinct needs within the region that must be considered. Needs and desires to access the internet vary widely and the definition of Digital Opportunity needs to reflect this. They have, therefore, identified a definition that is more fluid rather than "one-size-fits-all."

> *Individuals and households within Southwest Virginia have the access, devices, and knowledge they desire to safely access online resources including employment, education, and essential services.*

DIGITAL EQUITY IN SOUTHWEST VIRGINIA

While acknowledging that many residents may be reluctant to embrace the opportunities to engage in the online world, stakeholders strongly advocated for the benefits that would accrue to the region should the area develop the Digital Opportunities common in the more urbanized regions of the state. This is seen as a way to alleviate many of the other barriers to equity the plague the rural, impoverished region.

Specifically, within the Southwest Virginia Region, Digital Opportunity is expected to:

- Generate increased earnings potential among local residents as they improve their job skills.
- Create new employment opportunities as residents secure internet access of sufficient quality for them to become eligible to take advantage of remote work positions.
- Offset the imbalance caused by a lack of public transportation by allowing residents to do more online including work, attend school, make some purchases, attend medical appointments, and communicate with social service workers.
- Lessen the burden of the childcare crisis by providing opportunities for residents to work, attend school, and engage in other activities from home without needing to secure childcare.

These results must be achieved while maintaining a safe, secure online environment for children and adults that does not open them up to the risk of identity theft, scams, or other online predators.

The attached Asset Inventory provides a more detailed assessment of the resources already in place to address barriers to Digital Equity. Highlights include:

- Every school district provides a laptop loan program for students.
- The Workforce Development Board, through one or more agencies, provides a variety of digital literacy classes ranging from basic computer skills to more advanced courses tailored to specific workplace needs.
- The local libraries have taken on a lead role in the community to provide digital literacy programs. Although not specifically targeted, these classes generally serve seniors. Many of the libraries also offer opportunities to address maintenance and technical concerns and device-specific issues. Libraries are also key wi-fi access locations and important device access centers.

The map below shows the public Wi-Fi hotspots available in Southwest Virginia. The data is provided by Commonwealth Connect.
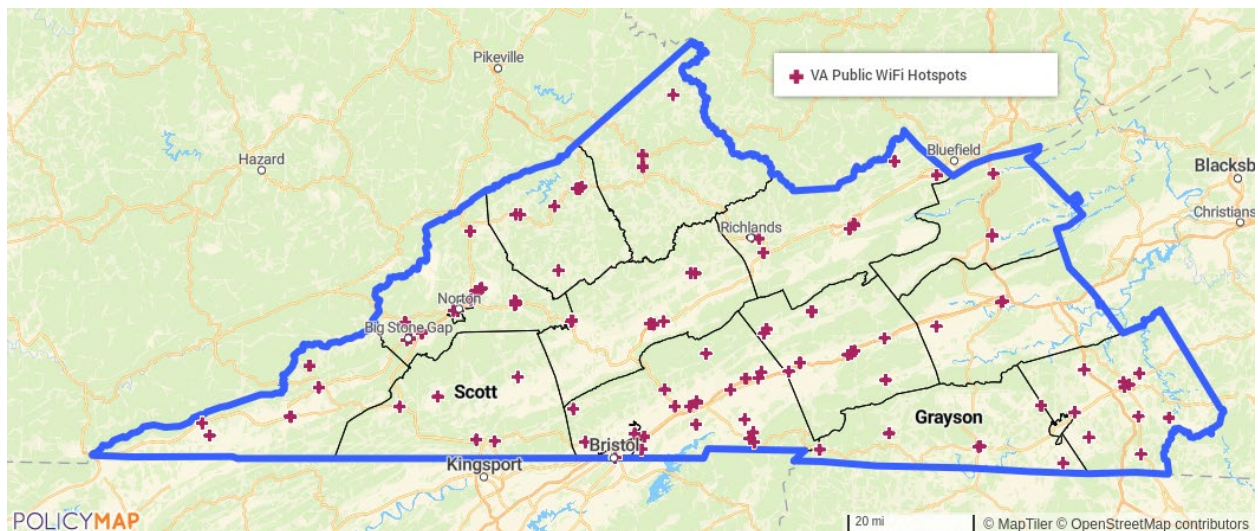
In addition to the locally provided assets, the Affordable Connectivity Program has been instrumental in providing affordable access to many households in Southwest Virginia. However, there is still much that needs to be done for local residents to fully benefit from it. Data from Education Superhighway shows a 36% adoption rate in Southwest Virginia.[2] Among respondents to the Digital Opportunity Plan Survey, 53% reported not being aware of either ACP or the Lifeline program. Only 16% had applied for ACP and 7% for the Lifeline program.

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[2] This calculation is based on data provided in the ACP Enrollment Dashboard for locations in Southwest Virginia. Adoption rates in the region vary widely from 8% to 68%. https://www.educationsuperhighway.org/no-home-left-offline/acp-data/#dashboard

REGIONAL DEMOGRAPHICS

The data on the table below is from the U.S. Census Bureau's Digital Equity Act Population Viewer.[3] The Census Bureau partnered with National Telecommunications and Information Administration to calculate the population qualified for Digital Equity Act services based on the targeted populations identified in the legislation. Because the majority of the region is rural, the covered population in each county is 100% except for Scott County, which is a suburb of Kingsport, Tennessee.

County	Rural/Urban	Total Population (2019)	Covered Population	% of Population that is Covered
Bland County	Rural	6,280	6,280	100
Buchanan County	Rural	21,004	21,004	100
Carroll County	Rural	29,791	29,791	100
Dickenson County	Rural	14,318	14,318	100
Grayson County	Rural	15,550	15,550	100
Lee County	Rural	23,423	23,423	100
Russell County	Rural	26,586	26,586	100
Scott County	Not rural	21,566	20,500	95.1
Smyth County	Rural	30,104	30,104	100
Tazewell County	Rural	40,595	40,595	100
Washington County	Rural	53,740	53,740	100
Wise County	Rural	37,383	37,383	100
Wythe County	Rural	28,684	28,684	100
Bristol city	Rural	16,762	16,762	100
Galax city	Rural	63,47	6,347	100
Norton city	Rural	3,981	3,981	100

A more detailed overview of the covered populations by county is available in the Appendix. It shows that the most prominent covered populations in the region are those with incomes at or below 150% of poverty (29.7%); population with language barriers (29.7%); aging individuals (29.0%); and individuals with disabilities (24.4%).

BARRIERS TO DIGITAL EQUITY

The barriers to digital equity are similar for all target populations in the Southwest Virginia region. The primary difference is the significance of the barrier and the solution to it. Overall, the priority for addressing the barriers to digital equity in the region are:

1. Broadband/Internet Access
2. Digital Literacy
3. Device Access and Affordability
4. Broadband Affordability
5. Privacy and Cybersecurity
6. Online Accessibility

INDIVIDUALS WHO PRIMARILY RESIDE IN A RURAL AREA

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[3] https://www.census.gov/programs-surveys/community-resilience-estimates/partnerships/ntia/digital-equity.html

Data from the U.S. Census Bureau's Digital Equity Act Population Viewer shows that 98.97% of the population in the Southwest Virginia Region resides in a rural area. This is, unquestionably, the most significant target population when considering barriers to digital equity and it is the cohesive element driving the barriers. A small portion of Scott County, which is classified as suburban due to its proximity to Kingsport, Tennessee, is the only non-rural area.

Percent of Population: 99.0%	**BARRIERS TO DIGITAL EQUITY:** 1. Access: The mountainous terrain and low-density development have made infrastructure deployment in the area slow and difficult. 2. Digital Literacy: The distances to central locations such as libraries and community colleges coupled with few public transportation options and many households having only one (or fewer) cars means it is difficult for residents to access learning opportunities. **SOLUTIONS TO DIGITAL EQUITY:** 1. Use of non-broadband options such as low orbit satellite and fixed wireless to provide connections to remote locations quickly. 2. Ongoing infrastructure development. 3. Digital Navigator who can provide one-on-one technical assistance over the phone or in-person to directly reach individuals in remote areas. 4. Creation of addition public Wi-Fi locations with sufficient lighting and seating to make it easier for residents in the most remote parts of the county to access them.

COVERED HOUSEHOLDS (150% OF POVERTY OR LESS)

As is common in Appalachia, poverty is a significant concern in the region. Data from the U.S. Census Bureau's Digital Equity Act Population Viewer shows that 29.7% of the households in the Southwest Virginia Region have incomes within the targeted range of 150% of poverty or less. This has the second greatest impact on access to digital equity.

Percent of Households: 29.7%	**BARRIERS TO DIGITAL EQUITY:** 1. Affordability of Internet Services: For people in poverty, internet service is often, at best, a luxury. Many survive with cell phone service, which they do consider a priority. 2. Access to Devices: As with internet service, many who want to access the internet do so with their cell phone, which is inadequate for activities such as job searching, homework, and accessing benefits. 3. Digital Literacy: When struggling with the demands of life in poverty, learning to use a computer is low on a person's priority list. Without easy access to the internet or a computer, additional training becomes nearly impossible. **SOLUTIONS TO DIGITAL EQUITY:** 1. Expansion of outreach efforts and assistance in enrolling households in the Affordable Connectivity Program and/or other subsidy programs as they become available. 2. Broad-ranging implementation of internet access services such as mesh wireless services in apartment properties to provide free service to tenants, increased access at libraries, Wi-Fi enabled public transportation

	buses, or more public Wi-Fi locations/services to reach the broadest number of people at once rather than implementing costly short-term subsidy programs.
	3. Device donation, repair, and redistribution programs specifically targeted to those most in need and pre-qualified through programs such as TANF, Workforce programs, Free/Reduced Lunch, Medicaid, or other services.
	4. Digital Navigator services to help clients identify the resources available to them and "navigate" through the enrollment process.
	5. Digital Literacy courses available in a variety of settings and for all levels of knowledge, including online, to help individuals grow their skills in order to engage in the online world.

POPULATION WITH LANGUAGE BARRIERS

In identifying the percentage of the population with language barriers, the U.S. Census Bureau's Digital Equity Act Population Viewer considers both those who speak English less than "very well" and those who have low levels of literacy.[4] There is some overlap in these two populations. In Southwest Virginia, only 0.6% of the population is identified as speaking English less than "very well." The primary concern is low levels of literacy. Given the connection between literacy and poverty, it is not surprising that these populations represent a similar portion of the region, each at 29.7%.

Percent of Population:	**BARRIERS TO DIGITAL EQUITY:**
29.7%	1. Digital Literacy: For those with basic language literacy issues, learning digital literacy will require a dedicated, slow approach. Given the small portion of local residents who speak a language other than English (2,261 total in the region), accommodating this need is not considered a priority. However, to address the intertwined issues of literacy, digital skills, and poverty, specific classes for those with low literacy skills will need to be developed.
	SOLUTIONS TO DIGITAL EQUITY:
	1. Digital Navigator services to help clients identify the resources available to them and provide services one-on-one both in person and over the phone.
	2. Digital Literacy courses available in a variety of settings and for all levels of knowledge beginning with the most basic. Ideal settings include Adult Education/GED programs which are already working with this population as well as libraries, churches, and other locations where they will feel comfortable.

AGING INDIVIDUALS (60+)

Aging Individuals comprise the third largest group among the target populations in Southwest Virginia according to the U.S. Census accounting for 29.0% of the population. Despite this, focus groups with both the general population and stakeholders indicate this this should not be a priority for targeting services as a large portion of the population, particularly in the more rural areas of the region, are not interested in embracing

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[4] The estimate of those with Language Barriers is derived from 2015-2019 ACS 5-Year file (for speaks English less than "very well") and 2017 Program for the International Assessment of Adult Competencies (PIAAC) Household file and 2012/2014/2017 PIAAC State and County Small Area Estimates of Adult Skills on Literacy and Numeracy (for low literacy) from the National Center for Education Statistics.

internet service. For the most part, their barriers are the same as the population at large. The biggest difference is in how they would need to be approached.

Percent of Population:	BARRIERS TO DIGITAL EQUITY:
29.0%	1. Digital Literacy: For many older adults in Southwest Virginia, life online is more of a nuisance than an opportunity. They would prefer to find solutions to the increasing lack of customer service centers and brick-and-mortar stores than embrace online banking and Amazon. Given the lack of digital skills in the communities overall, it is even more difficult for them to learn. This is especially true for those on the older end of the age scale. 2. Cybersecurity and Privacy: While the problem is not limited to older adults, many people who were interviewed did express a concern about the impact increased access to the internet might have with regards to scams and identity theft on the aging population. This issue is closely tied to Digital Literacy and can be addressed in many of the same ways. **SOLUTIONS TO DIGITAL EQUITY:** 3. Digital Navigator services to help clients identify the resources available to them and provide services one-on-one both in person and over the phone. 4. Digital Literacy courses available in a variety of settings and for all levels of knowledge to help individuals grow their skills in order to engage in the online world. Ideal settings include libraries, senior centers, and churches as well as one-on-one in the person's home. 5. Library of videos about how to identify scams, protect your information online, and other cybersecurity/privacy issues that can be viewed as needed. 6. E-mail alerts about active scams sent from trusted sources such as the library, law enforcement agencies, or a Digital Navigator.

INDIVIDUALS WITH DISABILITIES

The fourth largest population group in the region is those with disabilities, accounting for nearly a quarter of local residents. Although the type of disabilities varies widely, there is a consensus among the stakeholders interviewed that those with vision and hearing difficulties do often have specific barriers. The table below shows the percent of the local population with these types of disabilities. As the table shows, in most locations, it is a relatively small percentage. Within the region, 23.5% have some type of disability, 7.6% have a hearing difficulty, 5.6% have a vision difficulty, and 8.6% have a cognitive difficulty according to the U.S. Census Bureau's 2021 American Community Survey Five-Year Estimates.

Percent of Civilian Noninstitutionalized Population with a Disability				
	Percent of Total Population	Percent of Disabled Population – Hearing Difficulty	Percent of Disabled Population – Vision Difficulty	Percent of Disabled Population – Cognitive Difficulty
Bland	18.6%	8.2%	3.7%	5.6%
Buchanan	31.9%	10.4%	8.7%	12.9%
Carroll	16.7%	4.7%	1.8%	7.3%
Dickenson	33.7%	10.7%	10.9%	13.3%
Grayson	19.6%	7.1%	4.4%	7.0%
Lee	27.9%	12.3%	10.0%	10.4%
Russell	28.8%	9.8%	9.1%	12.3%

Scott	28.2%	9.6%	7.1%	9.9%
Smyth	22.6%	6.6%	4.9%	9.1%
Tazewell	20.4%	6.3%	3.5%	6.8%
Washington	21.8%	7.3%	5.0%	8.8%
Wise	26.8%	8.7%	6.3%	10.3%
Wythe	19.4%	4.9%	3.1%	6.1%
Bristol	20.9%	5.4%	3.9%	8.7%
Galax	13.3%	2.8%	3.8%	4.3%
Norton	24.9%	7.0%	6.5%	10.3%
Source: US Census ACS 5-Year Estimates Subject Tables, 2021				

Percent of Population:	**BARRIERS TO DIGITAL EQUITY:**
23.5%[5]	1. Online Accessibility: The only barrier unique or augmented for those with disabilities is online accessibilities. Stakeholders did agree that this is a problem. However, given the significance of the other barriers and the size of the disabled population with vision and hearing problems, it is not considered as high of a priority.
	SOLUTIONS TO DIGITAL EQUITY:
	1. Improvements to the online accessibility of local websites in keeping with ADA standards and the Web Accessibility Initiative.

INDIVIDUALS WHO ARE INCARCERATED

Virginia operates eight prisons and four jails within the Southwest Virginia region. Data from the U.S. Census Bureau's Digital Equity Act Population Viewer shows that 2.0% of the population is incarcerated in non-federal facilities, although this data is from 2019 and fluctuates frequently. While they do have unique needs due to their restricted setting, serving this population is not a priority at this time for the region.

Percent of Population:	**BARRIERS TO DIGITAL EQUITY:**
2.0%	1. Broadband and Device Access: Virginia's prison system offers limited access to internet and computer devices. 2. Digital Literacy: Incarcerated individuals generally lack necessary digital literacy skills, which will be critical to their employability upon their release. The lack of access to a computer and the internet makes it difficult to gain these skills.
	SOLUTIONS TO DIGITAL EQUITY:
	1. Access to computers and the internet is a barrier best addressed by the Virginia Department of Corrections. 2. Digital Literacy training can be provided by re-entry organizations such as VACares if adequate computers and internet access are made available.

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[5] This number from the 2021 ACS Five-Year Estimates of the U.S. Census is a slight variation from the U.S. Census Bureau's Digital Equity Act Population Viewer, which shows 24.4% of the population with a disability based on 2019 data.

OTHER PRIMARY TARGET POPULATIONS

The other target populations in the region represent a minimal portion of the whole and do not have barriers different than those already discussed. Therefore, there is no need to create any specific programs or services targeted to them.

	Southwest Region
% of Population who are Veterans	6.3%
% of Population speaking English as a Second Language	0.6%
% of Population who Identify as Minorities	6.4%

ADDITIONAL TARGET POPULATIONS FOR SOUTHWEST VIRGINIA

In addition to the target populations identified in the Digital Equity Act of 2021, the Southwest Virginia Region has two other specific target populations that need to be prioritized. Although they also fall within the other categories, primarily individuals in rural areas and, often, households at or below 150% of poverty, students and parents have specific, high-priority needs.

STUDENTS

The following table shows internet and computer access data for students three and over enrolled in school within Southwest Virginia according to the U.S. Census Bureau's ACS Five-Year Estimates for 2021. The first column shows the percent of the total population enrolled in school. It ranges from a low of 16.2% in Russell and Scott counties to a high of 22.9% in the City of Galax. Students in the City of Norton are the most likely to have a computer and/or internet access while those in Buchanan County are the least likely. Because these are five-year estimates spanning a period that pre-dates the Covid-19 pandemic when most students were provided with computers or other digital devices and more households registered for internet service, these percentages might be slightly understated.

Student Population without a Computer and/or Internet Subscription				
	Enrolled in school:	**Pre-K to 4th Grade**	**5th to 8th Grade**	**9th to 12th Grade**	**Undergraduate or Higher**
Bland	17.4%	20.9%	0.0%	25.7%	0.0%
Buchanan	15.9%	0.0%	1.0%	10.5%	0.0%
Carroll	17.4%	2.9%	2.7%	16.8%	9.3%
Dickenson	16.7%	22.8%	12.1%	12.7%	30.3%
Grayson	17.2%	6.2%	2.4%	7.8%	7.8%
Lee	19.0%	34.2%	39.2%	17.2%	31.3%
Russell	16.2%	19.3%	9.9%	10.5%	13.0%
Scott	16.2%	7.1%	3.6%	5.9%	8.7%
Smyth	19.0%	8.4%	7.3%	11.7%	10.6%
Tazewell	20.1%	6.9%	5.4%	4.3%	12.5%
Washington	18.1%	5.9%	7.4%	6.4%	1.3%
Wise	20.3%	18.7%	15.0%	13.4%	23.2%
Wythe	21.0%	5.0%	7.6%	11.0%	4.7%
Bristol	18.0%	12.8%	10.6%	19.2%	11.8%
Galax	22.9%	5.1%	22.8%	9.7%	0.0%
Norton	21.2%	50.3%	47.0%	15.9%	27.2%
Source: US Census ACS 5-Year Estimates Subject Tables, 2021					

With school work increasingly being done online, students who are victims of the digital divide are falling further behind. They have difficulty completing school assignments without regular access to email and online tools. Students need convenient access to the internet and a reliable device.

Roughly one-in-five teens are almost constantly on YouTube; only 2% say the same for Facebook

% of U.S. teens who say they visit or use each of the following sites or apps ...

	Almost constantly	Several times a day	About once a day	Several times a week	Less often	Do not use	NET Daily
YouTube	19	41	17	12	6	5	77
TikTok	16	32	9	5	4	33	58
Snapchat	15	29	7	3	5	41	51
Instagram	10	27	12	7	5	38	50
Facebook	2	8	8	6	8	67	19
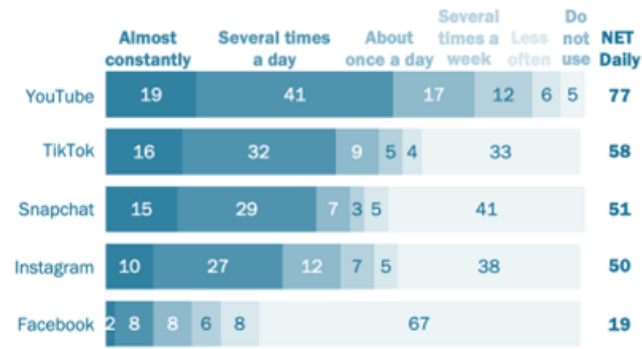
Note: Teens refer to those ages 13 to 17. Those who did not give an answer are not shown. Figures may not add up to the NET values due to rounding.
Source: Survey conducted April 14-May 4, 2022.
"Teens, Social Media and Technology 2022"

PEW RESEARCH CENTER

There is growing concern about the dangers of children and teens being online, which creates another barrier to digital equity. A 2022 survey from Pew Research Center found that teens are almost always online using a variety of platforms.[6]

While the impact of this is still being studied, there is mounting evidence that both digital devices and social media negatively impact students. For instance, one recent study correlated eight hours or more of screen time per day with increased risk of depression in teens. "Excessive time on social media has been linked to "fear of missing out," cyberbullying, emotional insecurity, and body-image problems. The time devoted to social media also inhibits in-person socializing, exercise and sleep, all of which are crucial for adolescents' emotional well-being."[7] Students will need resources to help navigate this barrier if internet expansion is to have more of a positive impact than negative.

Even teenagers admit the negative impact of social media with the Pew survey finding that nearly half of teens have been bullied or harassed online.

With this in mind, all attempts to increase internet and device access for students must also be concerned with protecting students from the dangers that lurk on the internet. Although Virginia Standards of Learning require digital literacy training for students, the extent and quality of that training varies. More standardization and resources would help improve outcomes.

Nearly half of teens have ever experienced cyberbullying, with offensive name-calling being the type most commonly reported

% of U.S. teens who say they have ever experienced ___ when online or on their cellphone

At least one type of cyberbullying listed below	46
Offensive name-calling	32
Spreading of false rumors about them	22
Receiving explicit images they didn't ask for	17
Constantly being asked where they are, what they're doing, or who they're with by someone other than a parent	15
Physical threats	10
Having explicit images of them shared without their consent	7

Note: Teens are those ages 13 to 17. Those who did not give an answer are not shown.
Source: Survey conducted April 14-May 4, 2022.
"Teens and Cyberbullying 2022"

PEW RESEARCH CENTER

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[6] Gelles-Wetnick, Risa. "Teens and social media: Key findings from Pew Research Center surveys," Pew Research Center, April 24, 2023. https://www.pewresearch.org/short-reads/2023/04/24/teens-and-social-media-key-findings-from-pew-research-center-surveys/
[7] Wilcox, W. Bradford, and Riley Peterson. "It's Time to Treat Big Tech Like Big Tobacco," American Enterprise Institute, January 20, 2023. https://www.aei.org/op-eds/its-time-to-treat-big-tech-like-big-tobacco/

Percent of Population:	BARRIERS TO DIGITAL EQUITY:
18.0%	1. Broadband Access: As is the case with the rest of the region, broadband access for students is limited due to availability and/or affordability. The low percentage of students in counties like Buchanan and Grayson with computers and internet are primarily due to access as there is little internet service available in the area. 2. Device Access: Access to devices is primarily addressed for older students in public schools but remains a barrier for those in undergraduate and graduate programs. 3. Cybersecurity and Privacy: While privacy is a growing concern for students who need to learn basic information about protecting their identity online, this wide-ranging topic encompasses the much larger concern of social media use and its impact on teens. This was one of the most-mentioned topics in focus groups. **SOLUTIONS TO DIGITAL EQUITY:** 1. While infrastructure expansion continues, the best option for addressing access options for students is to create more public Wi-Fi centers with longer hours at libraries and other community centers. 2. Homework hours before and after school where students can remain and complete their homework with assistance while using school-based internet is also an option for those who have transportation available. 3. Prioritizing subsidies for internet service to families receiving Free and/or Reduced Lunch will assist with those who face affordability barriers. Creating an automatic approval for these families for programs such as the ACP will also increase the likelihood that they will be used. 4. Providing assistance to families with school-aged children in accessing non-broadband resources such as Starlink while broadband infrastructure continues to be put in place will also increase access in a targeted manner to this high-priority population. This assistance can be in the form of a subsidy for installation or a Digital Navigator to help select the right option and assist with the enrollment process. 5. Provide devices for students enrolled in college who meet specified income guidelines. This can be done through the previously mentioned donate, repair, distribute program or through a low-cost purchase program facilitated by the institution of higher learning. 6. Digital Citizenship training for students beginning at an early age so they learn how to protect themselves online and how to respectfully engage with others. 7. Firewalls on school devices and networks to limit access to social media.

PARENTS

Like children, parents have most of the same barriers as the rest of the population in the region, but they need to be addressed as a high priority concern and in a slightly different way. Their needs are interwoven with those of the students but should be considered in addition to those of students.

A report by Pew Research Center identified the following as concerns parents have about their children being online.

Parents more likely to be concerned about their teen seeing explicit content on social media than these sites leading to anxiety, depression or lower self-esteem

% of U.S. parents of teens ages 13 to 17 who say they are ___ worried that their teen's use of social media could lead to their teen ...

	Extremely/very	Somewhat	A little/not at all
Being exposed to explicit content	46	25	28
Wasting too much time on these sites	42	28	30
Being distracted from completing homework	38	23	38
Sharing too much about their personal life	34	26	40
Feeling pressured to act a certain way	32	27	40
Being harassed or bullied by others	29	25	45
Experiencing problems with anxiety or depression	28	25	47
Experiencing lower self-esteem	27	27	46

Note: Those who did not give an answer are not shown.
Source: Survey conducted April 14-May 4, 2022.

PEW RESEARCH CENTER

Parents are going to need resources to address these barriers as internet and computer access expands.[8]

Percent of Households: 38.4%	**BARRIERS TO DIGITAL EQUITY:** 1. Device Access: While students are typically provided with access to devices, the same is not true for parents. For those with young children who are not provided with devices, it is difficult to keep up with communications from the school. 2. Digital Literacy: Many parents do not have the digital skills they need to manage the online systems the schools use to communicate with them and/or to help their children with their homework. 3. Cybersecurity and Privacy: Parents are concerned about the cybersecurity and privacy implications of students gaining increased access to the internet as well as the impact of social media. **SOLUTIONS TO DIGITAL EQUITY:** 1. Provide devices for even younger students enrolled in schools so that parents can use them to access online student management systems. 2. Provide opportunities for parents to learn how to use the school student management system through Parent Teacher Organization programs or in other casual environments. 3. Offer digital literacy classes for parents that are specifically tailored to the information they will need to assist their students such as browsing the internet and using Google products.

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[8] Gelles-Wetnick, Risa. "Explicit content, time-wasting are key social media worries for parents of U.S. teens," Pew Research Center, December 15, 2022. https://www.pewresearch.org/short-reads/2022/12/15/explicit-content-time-wasting-are-key-social-media-worries-for-parents-of-u-s-teens/

	4. Provide education and resources to parents to help them understand the online dangers their children face and learn how to monitor their child's activities.

SURVEY DISTRIBUTION EFFORTS

Each Community Action Agency partner in the region distributed the Digital Equity survey to clients (via e-mail, postcard, and in person), stakeholders, and members of the community in each of the counties within the region placing specific emphasis on the targeted populations. Paper copies were made available to clients and at community events and gatherings of covered populations such as food pantry distributions, which were the most successful efforts. STRONG Accountable Care Community included it in their newsletter. A link was also distributed via the local newspapers including Powell Valley News, Coalfield Progress and Scott County Star.

Although the data reported by SIR shows only 57% of the respondents identified themselves as rural residents, the region itself is 99% rural indicating that this characteristic is vastly unreported. The two largest populations represented by the survey are those who are low-income (39%) and aging (32%). These are also the largest portions of the population in the region, although they are represented here in higher portions than in the population at large. Responses were received from all jurisdictions within the region.

Although there were paper copies of the survey available, the majority of responses came from those who could complete it online as that was the population easiest to reach with messaging and the population who had easiest access to the survey. People Incorporated made extensive efforts to market the survey via social media, which had a marked increase in the responses.

- **All Social Media Posts**
  - Twitter
    - June 15: Survey – 100 impressions
    - June 27: Retweet from Richmond.com about broadband funding – 32 impressions
    - June 28: Survey – 73 impressions
    - June 28: VaDHCD digital divide funding retweet – 80 impressions
    - July 11: Digital Opportunity funding – 33 impressions
    - July 14: Survey – 28 impressions
  - Instagram
    - June 29: Survey reel – 48 accounts reached
  - LinkedIn
    - June 12: Survey – 191 impressions
- **People Inc. Digital Newsletter**
  - June 27 – Partner email focused on survey (50 Total Clicks)
  - June 27 – Client email focused on survey (139 Total Clicks)
  - July 3 - "Have you taken the digital equity survey?" (3 link clicks)

FOCUS GROUP OUTCOMES

The Community Action Agency partners hosted a series of focus groups from May through early July 2023 to seek feedback from individuals in the region. These meetings were advertised via e-mail, social media, flyers, and direct invitation over the phone and in person. In addition to clients and general members of the public, which were targeted through general marketing and outreach efforts, we also directly contacted strategic partners including the local school systems, community colleges, county administrators and members of the boards of

supervisors, adult education providers, public libraries, the planning district, workforce development offices and local housing authorities.

Outreach efforts included:

- **Paid Social Media Ads:**
  - May 8 – May 16: Boosted Facebook post advertising Washington County public forum – ad run in Abingdon, Carroll County, Wise County, Lee County, and Dickenson County
    - Reach: 8,584
    - Link Clicks: 159
- **All Social Media Posts**
  - Twitter
    - May 6: Washington County forum – 64 impressions
    - May 7: community forums – 97 impressions
    - May 16: Community forums – 83 impressions
    - May 21: Community forums – 54 impressions
    - June 1: Community forums – 168 impressions
  - Facebook
    - April 30: Community forums – 10,159 impressions
    - May 6: Washington County forum – 17,287 impressions
  - LinkedIn
    - May 17: City of Galax, Tazewell, Scott, Wise, Carroll, Grayson, or Lee Counties forums – 109 impressions
- **People Inc. Digital Newsletter**
  - May 1 - "Help us bridge the digital divide" (1 link click)
  - June 1 - "People Inc. hosts forums on bridging the digital divide across Virginia" (10 link clicks)
- **Press Releases**
  - Southwest Virginia – 3 unique press releases out week of May 8
    - "Broadband needs forum is scheduled in Trammel," Dickenson Star, May 11
    - "People Inc. forums aim to bridge digital divide," The Southwest Virginia Sun, May 11

There was little interest in the subject of digital equity during the initial meetings other than to discuss the long-delayed broadband infrastructure developments. Attendance was limited with many meetings cancelled due to a lack of registrants. However, ongoing discussions with stakeholders in the community on the subject and careful guidance of the conversations at the focus groups allowed partners to identify consistent themes among the concerns. A full list of meetings and outreach efforts is included in the Appendix. The following table shows the community meetings that were held throughout the region.

Date	Location	Target Audience	Attendance
5/11/2023	Washington County Library Abingdon, VA	General Population	1
5/11/2023	Virginia Highlands Small Business Incubator Abingdon, VA	Stakeholder	3
5/12/2023	King's Mountain Permanent Supportive Housing Bristol, VA	Covered Population	7
5/13/2023	11378 Dante Mountain Rd Trammel, VA	Covered Population	23

Date	Location	Type	Count
5/15/2023	Lee County Public Library Pennington Gap, VA	Stakeholders and Target Populations	3
5/16/2023	1379 Tazewell Ave, North Tazewell, VA	Stakeholder	1
5/16/2023	Big Stone Gap Public Library Big Stone Gap, VA	Covered Population	0
5/16/2023	Clinch Valley Community Action Tazewell, VA	Covered Population	0
5/16/2023	Wytheville Community College Wytheville, VA	Stakeholder	4
5/16/2023	Wise County Public Library Big Stone Gap, VA	Stakeholder	0
5/16/2023	Wise County Public Library Big Stone Gap, VA	Stakeholders and Target Populations	3
5/18/2023	Rooftop of Virginia Galax, VA	Covered Population	3
5/19/2023	Carroll County Public Library Gate City, VA	Covered Population	0
5/22/2023	Gate City, VA	Covered Population	3
5/22/2023	Gate City, VA	Stakeholder	2
5/23/2023	Grayson County Public Library	Covered Population	3
5/30/2023	Clinch Valley Community Action Tazewell, VA	Stakeholder	1
6/1/2023	Online	Stakeholder	6
6/1/2023	Bristol Redevelopment and Housing Authority Bristol, VA	Covered Population	16
6/13/2023	1st Baptist Church Appalachia, VA	Target population	30
6/19/2023	Midway Food Pantry Gate City, VA	Target population	50
6/20/2023	Friendship Missionary Baptist Church Jonesville, VA	Target population	100
6/20/2023	Wytheville Library Wytheville, BA	Covered Population	3
6/22/2023	Bland Library	Covered Population	8
7/5/2023	Mountain CAP Marion, VA	Covered Population	0

IDENTIFIED NEEDS TO PROMOTE DIGITAL EQUITY

The discussions illuminated various concerns within the region that are preventing digital equity. Despite the large geography and variety of attendees, there were key themes identified during the course of the meetings. These needs were considered when developing the priorities for the implementation plan.

ACCESS AND AFFORDABILITY

- Families need sufficient internet access (both quality and quantity) to fulfill requirements for both school and employment.
    - Households in the region need continued expansion of broadband infrastructure in order to provide basic access to the internet.

- o Households need access to more viable options than broadband to secure internet access in a more timely and cost-efficient manner. Waiting two or more years for a company to lay fiber to a single house miles away from existing lines does not seem like a desirable solution.
- Households need high-quality internet for individuals to be able to work from home as many positions require a specific upload/download speed be available before a person can be hired.
- "Centralized locations" such as a library or other venue for computer/internet access or to take a class are insufficient to meet the needs of residents in rural areas who still need to travel 20 minutes or more to reach those areas.
- Homeless shelters need internet access for residents.
- Families need assistance applying for the ACP internet subsidy program as it is too complicated to navigate. Many families are not even aware of the program.
- Families need choices of internet providers to improve cost and quality.
- Towns need to be able to connect residences to existing broadband infrastructure that is currently only available for businesses.[9]

DEVICE ACCESS

- Individuals need access to the internet and a computer in order to apply for jobs.
- Individuals need high-quality internet and a computer at home to be able to work from home or operate a business.
- Individuals need a device other than their smartphone to access the internet.

DIGITAL LITERACY

- Individuals need an opportunity to learn about technology in a way that alleviates their fears and embarrassment.
- Individuals need unbiased, reliable assistance to identify the technology they need and/or the internet options available to them.
- Individuals don't know how to take advantage of personal growth opportunities available to them online such as books, music, and free classes.
- Individuals don't know how to use online services such as banking and health charts, which are increasingly becoming a necessary part of life.
- Individuals believe they have more knowledge of how to use a computer than they really do, which makes it difficult to determine the digital literacy needs in the community.
- Parents need more technology skills to assist their children with school and stay current with school communications.
- Individuals need to learn more about how to use a computer and the internet to participate in telehealth appointments.
- Individuals need a trusted, reliable resource they can contact for assistance with their computer.

PRIVACY AND CYBER-SECURITY

- Children need to be protected from cyber-bullies and online predators.
- Individuals need to be sure their personal information is safe when they are online.
- Older adults need to be protected from online scams.

ONLINE ACCESSIBILITY

- Residents need to be able to complete more forms online in order to be more efficient with their time.
- Government websites need to be monitored to ensure all links and webpages are current and active.

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[9] This specific problem was identified in the Trammell community in Dickenson County. Broadband lines were run through the community in 2016. As a result, All Points Broadband claims to provide service to the area. However, they will only allow local businesses to access the internet. Residents must rely on satellite services.

- Individuals with disabilities need websites to be reviewed for accessibility, specifically related to font size and readability.

INTERVIEWS WITH KEY INFORMANTS

The information gleaned from focus groups and the SIR survey was used by key informants in the region during a work group session held on July 14, 2023. At this meeting, 13 individuals representing the entire region, met to discuss the findings and develop an implementation plan. In addition to the Community Action Agency partners, participants included:

- Virginia Department of Adult Rehabilitative Services
- Smyth County Public Library
- People Incorporated of Virginia Workforce Development Services
- Regional Adult & Career Education
- Mount Rogers Regional Adult Education Program
- Virginia Highlands Community College
- Highlands Community Services Board
- Washington County Public Library
- Galax Department of Social Services

Details on how the Region will coordinate the implementation of its plan with workforce agencies, labor organizations, and institutions of higher of learning can be found in Section 5, Implementation.

BARRIERS TO DIGITAL OPPORTUNITY

Southwest Virginia is encumbered by many barriers to digital opportunities as is common in Appalachia, where, generally speaking, poverty and unemployment are high, and education levels are low. The mountainous terrain further adds to the expense of installing the broadband infrastructure. A lack of internet access and limited disposable income leads many households to being without computers of any kind.

These barriers lead many people in the area rely on cell phones for access to the internet because they lack a more appropriate device and/or lack internet access. Some also rely on their phone because they have insufficient digital literacy skills to use a computer. Stakeholders report that this is insufficient because they cannot use a phone to complete an employment application or do their homework. Responses from SIR survey show that 85% of respondents rely on their cell phone only for internet access.

Understanding the insufficiency of a mobile phone and cellular plan for meeting needs in the digital worlds, The Center for Regional Development at Purdue University developed a Digital Distress[10] calculation based on data from the American Community Survey that considers the percent of homes with no internet access, those using cellular data only, those with mobile phones only, and those with no computing devices. They then calculate a score and identify the county as low, moderate, or high distress. Areas of digital distress (the darker areas) are those with a higher share of homes having either mobile devices only, cellular data only, or no internet access.

The map shows the results by Census Tract. Not surprisingly, the areas along Interstate 81 are the least distressed with the well-developed population centers in Bristol and Abingdon among the lowest scores.
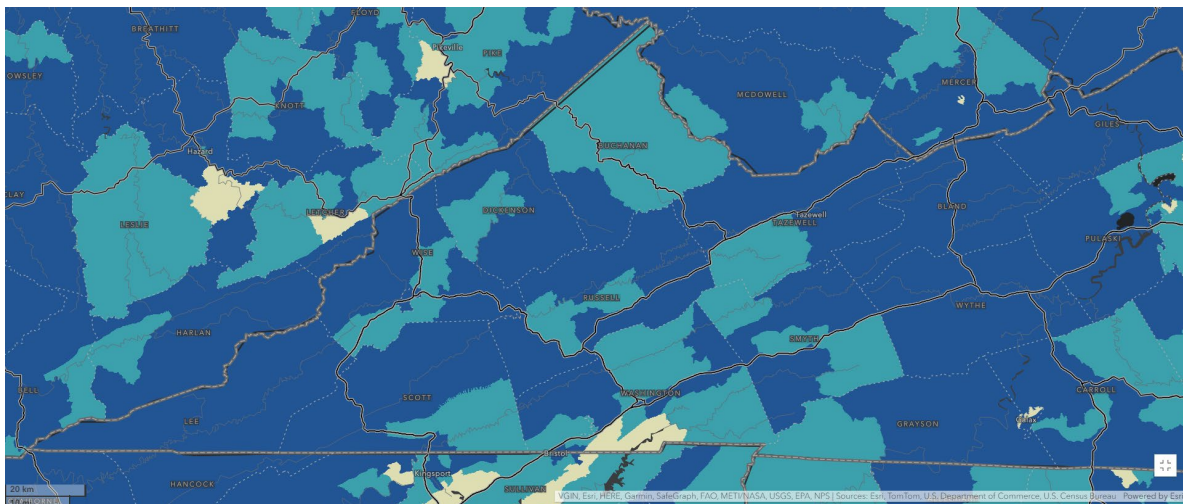
The Center for Regional Development also developed the Digital Divide Index to compare barriers to digital opportunities based on infrastructure and socioeconomic characteristics. This provides an unbiased view of

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[10] Gallardo, Robert, and Benjamin St. German. "Digital Distress: What is?" April 18, 2022, https://pcrd.purdue.edu/digital-distress-what-is-it/

the factors influencing what they characterize as Digital Distress.[11] The Digital Divide Score is further assessed by an Infrastructure and Socioeconomic Score. This helps identify where the greatest barrier to Digital Equity lies. If the infrastructure score is higher, that would indicate a need to prioritize that area to increase access while a higher Socioeconomic Score would drive attention towards affordability, device access, and digital literacy. The table is sorted from highest to lowest Digital Divide Score.

	Digital Divide Score	Population with no access to 100/20 (Mbps)	Internet Income Ratio	Infrastructure Score	Socioeconomic Score
Buchanan	48.19	77.70%	6.92	39.05	45.08
Dickenson	45.66	95.60%	4.46	40.02	40.21
Russell	44.71	82.10%	4.95	44.79	34.71
Scott	43.73	89.00%	7.11	42.38	35.14
Lee	42.47	72.60%	2.94	36.95	37.63
Bland	38.32	99.10%	1.23	49.67	20.38
Wise	37.61	89.40%	3.93	33.24	32.89
Grayson	36.87	89.30%	3.61	36.53	28.97
Carroll	36.30	88.80%	4.31	38.13	26.72
Smyth	34.82	70.70%	4.09	32.17	29.29
Norton	32.80	67.20%	2.16	25.37	31.70
Tazewell	32.42	76.60%	5.07	29.31	27.80
Wythe	32.20	97.90%	3.44	35.26	22.50
Galax	30.84	71.10%	9.34	26.32	27.76
Washington	29.58	62.70%	4.42	27.13	25.05
Bristol	28.65	18.80%	4.01	23.52	26.55

Source: Digital Divide Index. *Purdue Center for Regional Development*. Retrieved from Digital Divide Index http://pcrd.purdue.edu/ddi

The data presented in the table is based on a national index comparing the jurisdictions in Southwest Virginia to every jurisdiction in the country. A statewide index is included in the Appendix. Of the 133 jurisdictions in Virginia, the Southwest Region's jurisdictions are all in the top half having the highest DDI scores in the state. Five are in the top ten. When distributing money within the region, the Digital Equity Index should be one factor used to prioritize allocations.[12]

As shown on the map below, the entire region has a high Infrastructure Score except for the Bristol and Abingdon areas. However, a more detailed perusal of the source data identifies Russell, Scott, and Bland counties as the highest priority for internet access expansion. With regards to Socioeconomic needs, Dickenson and Buchanan rank the highest while Bland and Wythe have relatively low scores. Overall, the following counties have scores that are above average for the high category meaning they have some of the highest needs in the country: Buchanan, Dickenson, Russell, Scott, Lee, Bland, Wise, and Grayson.[13]

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11 Gallardo, R. (2023). Digital Divide Index. *Purdue Center for Regional Development*. Retrieved from Digital Divide Index (DDI): http://pcrd.purdue.edu/ddi
The digital divide index (DDI) consists of three scores ranging from 0 (lowest divide) to 100 (highest divide) and includes ten variables grouped in two categories: infrastructure/adoption and socioeconomic. For purposes of analysis, the overall DDI score was utilized.
[12] Counties were divided into three roughly equal groups based on the DDI score: low (1,031 counties), moderate (1,031 counties), and high (1,063 counties). The average DDI for those in the high category is 36.5. All the counties listed have a DDI score over 36.5.
[13] Counties were divided into three roughly equal groups based on the DDI score: low (1,031 counties), moderate (1,031 counties), and high (1,063 counties). The average DDI for those in the high category is 36.5. All the counties listed have a DDI score over 36.5.

INFRASTRUCTURE SCORE[14]

Digital Distress

- High
- Moderate
- Low

The map below shows the infrastructure results for Southwest Virginia. The colors are divided into Low, Moderate, and High categories based on an index that ranges from 0 to 100 where 100 indicates the highest divide. The map clearly shows that Southwest Virginia faces a high infrastructure burden comparable to the rest of the country and the Commonwealth. Only the City of Bristol and the Town of Abingdon are in the moderate category.
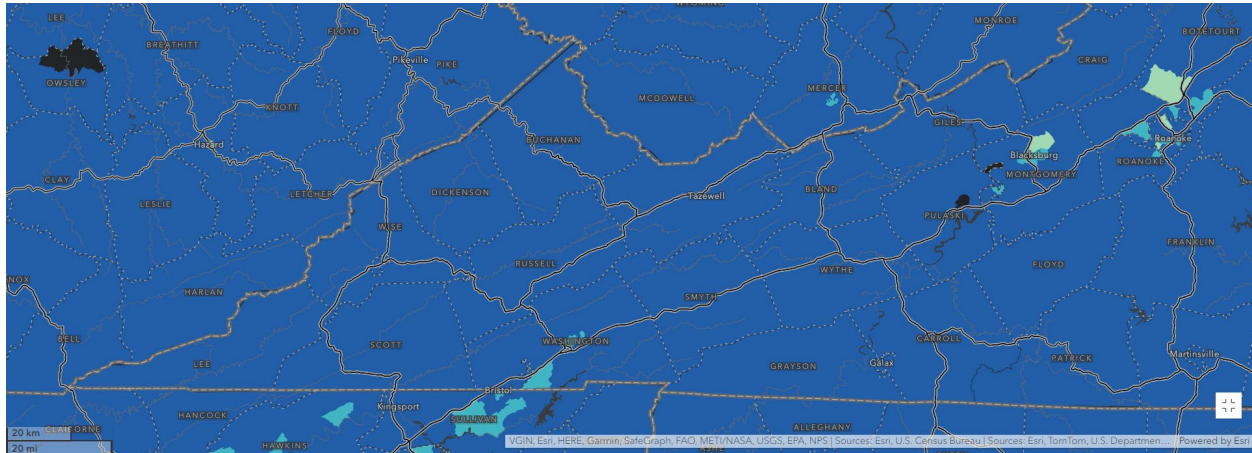
Socioeconomic Score[15]

Digital Distress

- High
- Moderate
- Low
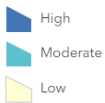
With regards to the socioeconomic score, there are a few more pockets of moderate areas within the Southwest Virginia region. A comparison to places slightly further east of Virginia's panhandle near Roanoke shows a stark contrast with regards to the socioeconomic risks of the region.

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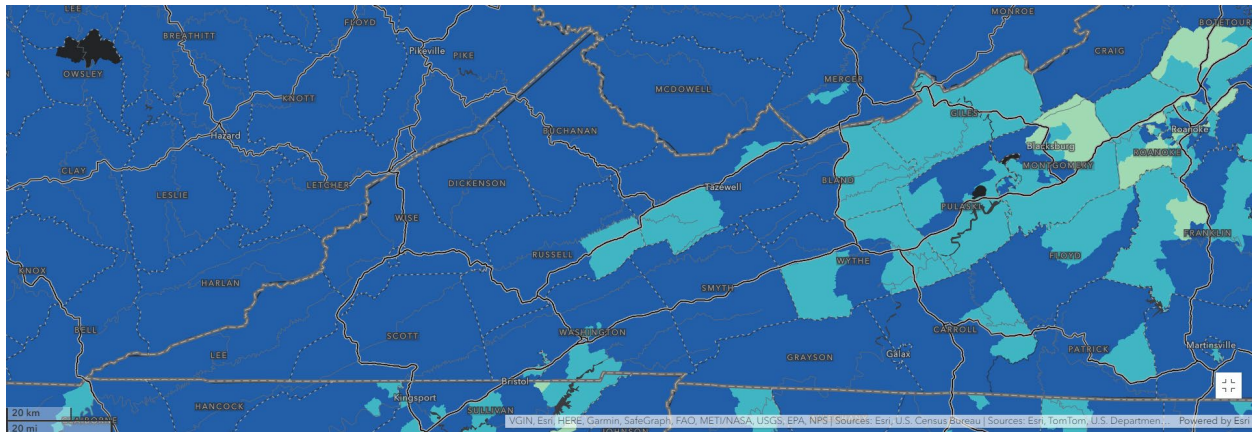
[14] The Infrastructure Score groups five variables related to broadband infrastructure and adoption: (1) percentage of total 2021 population not using the internet at 100/20 as of 2021 based on Ookla Speedtest® open dataset; (2) percent of homes without a computing device (desktops, laptops, smartphones, tablets, etc.); (3) percent of homes with no internet access (have no internet subscription, including cellular data plans or dial-up); weighted (by speed tests) (4) download and (5) upload speeds in Megabits per second (Mbps).

[15] The socioeconomic score indirectly measures the potential for adoption of technology or potential of reinforcing existing inequities by factoring five data variables that are known to reflect the likelihood of adoption of technology: (1) percent population ages 65 and over; (2) percent population 25 and over with less than high school; (3) individual poverty rate; (4) percent of noninstitutionalized civilian population with a disability: and (5) internet income ratio measure (IIR).

The priority in the region is to serve those in rural areas as they constitute the majority of residents in Southwest Virginia. The second priority is for those with incomes at or below 150% of poverty. The barriers and needs within the region are based on the limitations of income and geography more than any other characteristic.

There is a limited population of persons of color or non-English speakers within the region. Therefore, creating programs specifically for these populations is not considered the first priority.
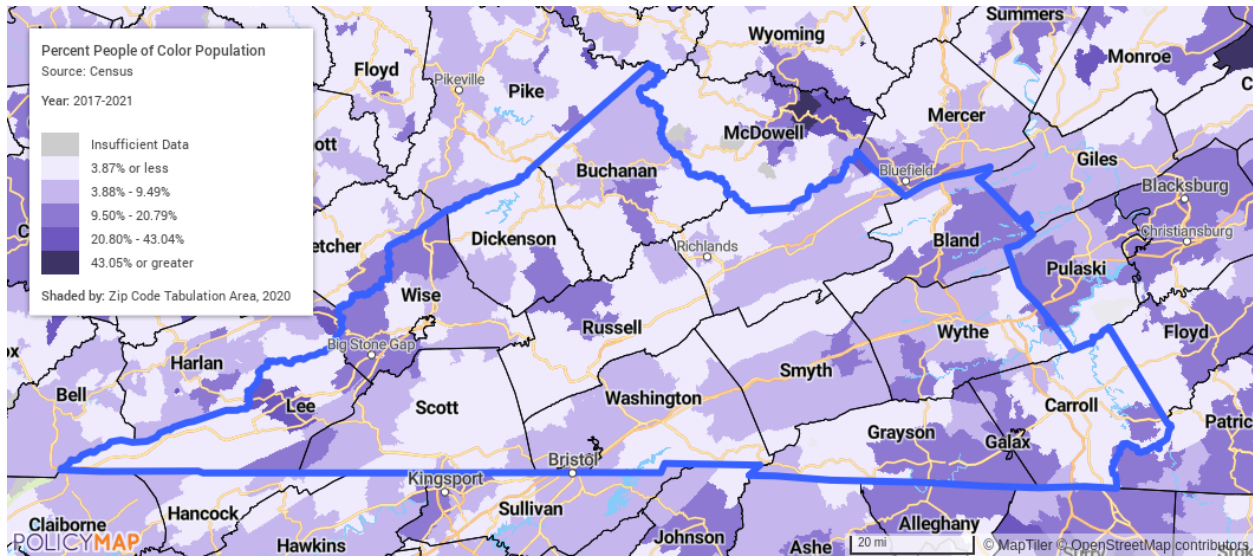
Aging individuals, those 60 and over, are the one unique population in the region in that, based on focus group input, have less interest in increasing their use of computers and/or the internet. While programs were created with the entire population in mind, the consensus was that it is unnecessary to create programs specifically targeted for older adults at this time. Instead, the priority should be on assisting the rural and low-income populations at large who are eager to embrace technology which may include older adults. However, there are increasing needs for older adults to use the internet such as accessing essential services that may make it necessary to reach this population in the medium-term and the issue should be considered carefully by each locality and re-evaluated at each update to the plan.

The region does have a large and diverse population of older adults. As with many rural areas, it is rapidly aging. Providing more opportunities for access to technology and training may also provide an opportunity to stem the loss of the younger generation to more urban areas outside the region.

Percent Population 65+
Source: Census
Year: 2017-2021

Insufficient Data
8.15% or less
8.16% - 13.27%
13.28% - 18.68%
18.69% - 25.05%
25.06% or greater

Shaded by: Zip Code Tabulation Area, 2020
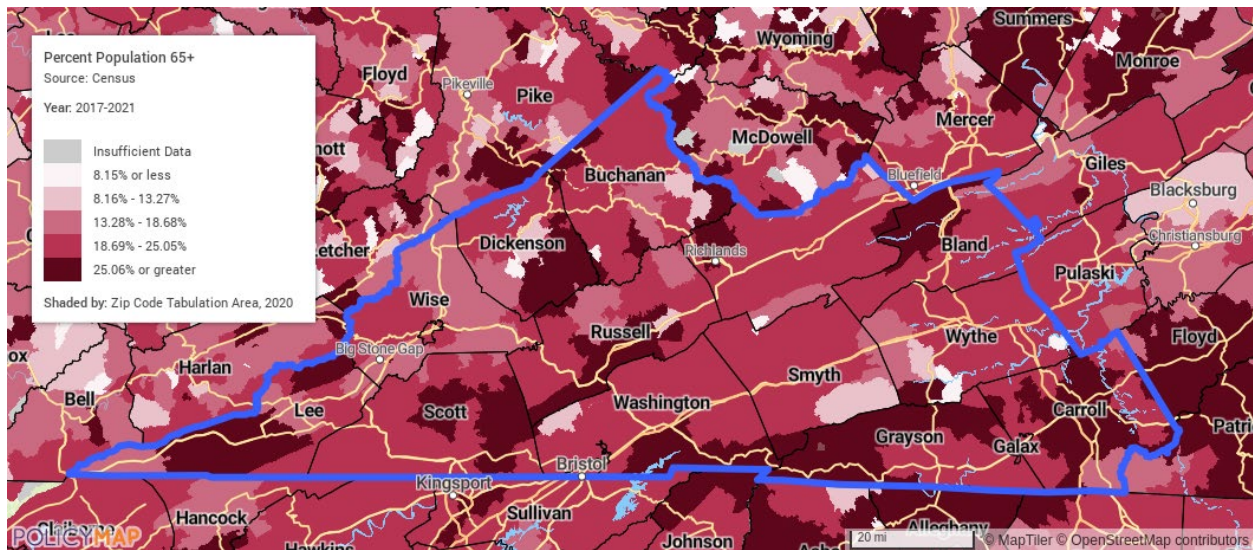
IMPLEMENTATION STRATEGY

The first step in the implementation of the regional plan is to identify an organization to serve as the coordinating entity and lead agency for Digital Opportunity efforts in the Region. The Southwest Virginia Region recommends using the Continuum of Care for Homeless Services as a format. The lead agency organization will be chosen through a competitive application process according to guidelines established by the Virginia Department of Housing and Community Development. The contract will last for two years, the length of time between plan renewals. Eligible entities include:

- local governments;
- planning districts;
- institutions of higher learning, including but not limited to four-year colleges and universities, community colleges, education and training providers, and educational service agencies;
- labor organizations; and
- community-based 501c3 organizations.

The lead agency will receive funding for coordinating activities including, but not limited to:

- establishing a consortium of organizations that meet on a regular basis to discuss Digital Opportunity barriers and opportunities in the region and guide the implementation of the plan;
  - o The agency will be responsible for recruiting members representing all areas of the region as well as the following:
    - local governments;
    - planning districts;
    - institutions of higher learning, including but not limited to four-year colleges and universities, community colleges, education and training providers, and educational service agencies;
    - labor organizations;
    - community-based 501c3 organizations; and
    - all organizations providing programs and resources to reduce barriers to Digital Equity.
- directing the bi-annual update of the Digital Opportunity plan; and

- serving as a resource for best practices and technical assistance to other organizations working to address Digital Opportunities in the Community.

As a matter of best practice, future Digital Equity plans will coordinate with local Consolidated Plans to occur on the same schedule and coordinate resources whenever possible. This will help meet the requirements established in 81 FR 90997 in December 2016 requiring that Consolidated Plans for jurisdictions "address the need for broadband access for low- and moderate-income residents in the communities they serve."[16]

COORDINATION WITH KEY PARTNERS AND STAKEHOLDERS

As outlined above, the key partners and stakeholders will be integrated into the Digital Opportunity Plan implementation process through the organized consortium as the lead agency, members, or grantees. Through this organization, all efforts in the region will be coordinated with constant reference made to the plan and an ongoing review of progress.

- The Consortium will be responsible for ensuring activities related to the Digital Opportunity plan are carried out among all parts of the region and reach all targeted populations;
- recommending new programs for funding and coordinating submission of applications to DHCD to ensure that services and funding are distributed throughout the region and to areas and populations of greatest need;

Details about the partners and stakeholders consulted during the planning process are included in Collaboration and Stakeholder Engagement Section.

PRIORITIES FOR IMPLEMENTATION

ASSESSED IMPORTANCE OF BARRIERS

Over the next two years, priorities for the region are focused on:

1. Broadband Access
2. Digital Literacy
3. Device Access and Affordability
4. Broadband Affordability
5. Privacy and Cybersecurity
6. Online Accessibility

While many of these issues are seen as interconnected and, as a result, difficult to prioritize, there is some consensus that there is a need to first address Digital Literacy for those who currently have, or could have, access to broadband and a device.

Privacy and Cybersecurity is tightly intertwined with Digital Literacy and is a key element of securing Device Access. However, it is also its own concern, particularly with regards to social media and its impact on children/teens.

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[16] https://www.federalregister.gov/documents/2016/12/16/2016-30421/modernizing-huds-consolidated-planning-process-to-narrow-the-digital-divide-and-increase-resilience

Discussions about Digital Opportunity assume the need for expanded infrastructure to increase physical access to high-quality broadband services. This is expected to be a long-term project. Currently, the region is engaged in a VATI project that will cover the geography identified on the map below:
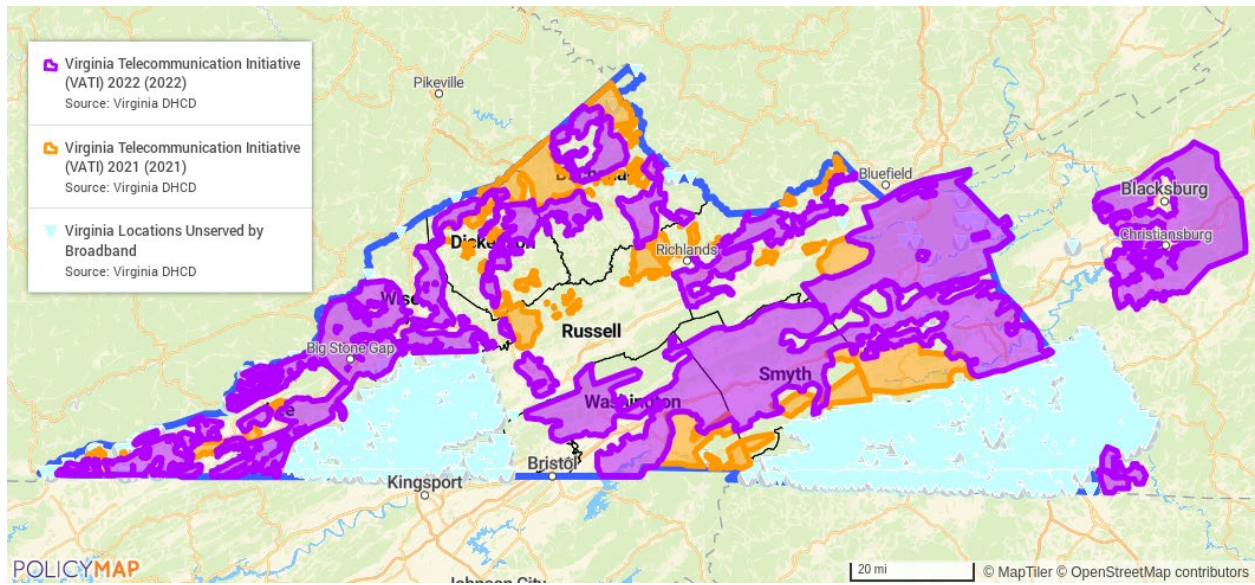
For many focus group participants, broadband access was their singular focus. The map shows the unserved addresses in the region. Given the development patterns and mountainous terrain, many homes will have difficulty gaining access to broadband fiber, which is why residents advocated for alternative forms of internet access such as satellite.

With infrastructure efforts in process that will reach fruition by the time is ready for revision, broadband access has been removed from the proposed activities. In two years, the planning process should reconsider the status of unserved households as well as advances in technology to create a new plan to reach 95% accessibility coverage.

The issue of affordability has been addressed separately as it applies to both current and future internet users. However, it has also been moved lower on the priority list for two reasons. The first is the existence of the Affordable Connectivity Program. The second is the high cost of implementing a subsidy program in the region, regardless of how narrowly it is focused.

It is because of this that installation of internet services in affordable housing rental communities is the preferable solution for expanding access and affordability in the short term. This method allows for expansion of access for the targeted low-income population with a sustainable method for maintaining the service after the initial investment. The map shows the locations of apartments that might be eligible for such a program. The data is provided by Education Superhighway.
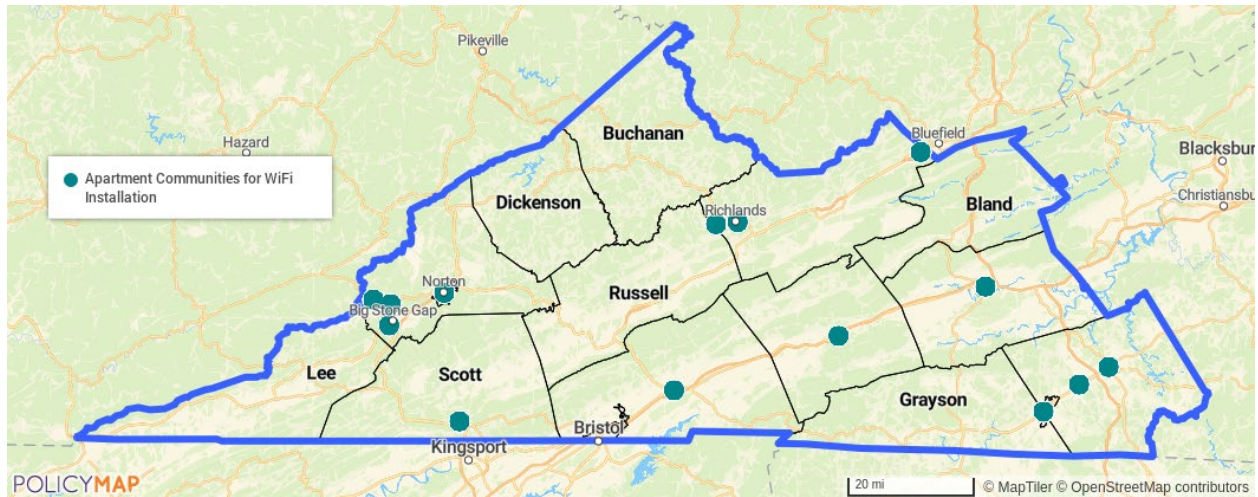
CORE ACTIVITIES

In considering the Core Activities to be undertaken to address Digital Opportunities in the region, the plan identifies a Digital Navigator as the first step to coordinating efforts. This is followed by activities in each of the four program areas identified as barriers to equity:[17]

1. Digital Literacy
2. Device Access and Affordability
3. Privacy and Cybersecurity
4. Broadband Affordability

Within these program areas, recommendations are divided into three tiers:

Tier 1: Most urgent priorities that can be implemented within the first year.

Tier 2: High-priority items that will require more planning, development of partnerships, and solicitation of resources. These activities may take two years or more to begin implementing.

Tier 3: These are lower priority items that are still necessary for the community to meet Digital Equity goals. These activities will require long-term planning and significant funding.

DIGITAL NAVIGATOR

In addition to the need for a lead agency discussed in Section 5.1, the approach to addressing Digital Equity in Southwest Virginia relies upon a system of Digital Navigators. In order to properly accommodate the needs of the diverse population within the 6,000 square miles of the region, multiple Digital Navigators will need to be deployed. This position will be instrumental in coordinating the various services and educational activities that will be part of the Digital Opportunities Plan.

Ideally, the Digital Navigators in the region can be assigned to territories based on the boundaries of Planning Districts, Workforce Development Boards, Community Action Agencies, or other defined areas. A small service territory will make it easier to provide one-on-one assistance for clients. They should be embedded with an

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[17] Online Accessibility is addressed in 5.4.1.2 and is, therefore, excluded from additional comment.

existing organization with established relationships among the high-priority target populations, especially low-income households. This will create the best chance of success.

CORE ACTIVITIES	MEASURABLE GOALS	RESPONSIBLE PARTIES

Digital Navigator
 	
• Provide one-on-one technical assistance to clients related to:
  • Selection of technology and internet services
  • Instruction on how to use individual devices
  • Selection of necessary software
• Coordinate training programs in the community.
• Provide technical assistance over the phone.
• Coordinate a marketing campaign related to privacy and cyber-security issues.
• Maintain a list of available resources in the community and make referrals as necessary.
• Assist in enrollment for Affordable Connectivity Program or other programs available to assist with increasing affordability
	• # of hours of services
	• # of clients served
	• # of clients connected to the internet
	• # of clients who obtain a device
		Eligible Parties include:
		
		• Lead Agency
		• Community Action Agencies
		• Workforce Agencies
		• Libraries
		• Other regional non-profits

Based on community feedback related to the organizations most likely to be trusted to provide reliable information related to privacy and cyber-security, it is not recommended that government organizations or internet service providers be responsible for providing Digital Navigator services.

ADDRESSING DIGITAL LITERACY

As mentioned previously, digital literacy is closely entwined with cybersecurity and privacy concerns. Proposed activities are also linked to device accessibility. The activities are presented in tiers based on priorities and the estimated timeline for implementation.

OBJECTIVE: IMPROVE DIGITAL LITERACY FOR THE REGION'S POPULATION WITH A PRIORITY ON BASIC COMPUTER SKILLS FOLLOWED BY COMPUTER USE FOR ESSENTIAL SERVICES, WORKFORCE NEEDS, AND EDUCATION.		
TIER 1		
CORE ACTIVITIES	MEASURABLE GOALS	RESPONSIBLE PARTIES
One-on-one technical assistance to be provided in a variety of locations to make services most convenient for the client including, but not limited to, the client's home,	• # of clients assisted • # of problems solved	Digital Navigator

homeless shelters, senior centers, and libraries.		
Computer training for parents to help them be able to use necessary software for schools and assist their children with homework.	• # of parents trained • Increased engagement of parents in school as identified through increase in emails opened and use of online learning systems	Public Schools
Computer classes to accommodate all levels of knowledge from the most basic to more advanced classes that address specific uses and needs. Classes should be available in a variety of settings that would be most comfortable for the target audience. Settings may include local libraries, community centers, senior centers, public schools, churches, workforce centers, or institutions of higher learning.	• # of classes • # of participants • # of students who pass test • # who complete program	• Libraries • Workforce Agencies • Adult Education programs • Digital Navigator
Online classes available for those who have basic computer skills and need additional training to make better use of the internet for workforce, health, or social engagement purposes. Ideally, these classes will build on themselves to lead clients on a path towards a pre-defined goal. This method is already used by clients participating in workforce programs in the New River Mount Rogers Workforce Development District but needs to be expanded across the region and to a larger audience.	• # who participate • # of hours of classes • # who complete program • # of students who pass tests	• Workforce Agencies • Adult Education programs • Libraries
TIER 2		
CORE ACTIVITIES	**MEASURABLE GOALS**	**RESPONSIBLE PARTIES**
Digital Literacy classes specifically designed to prepare older workers for the workforce. With many industry changes, older workers fund they need to be reskilled to remain employed. Offering digital literacy classes specifically targeted for this population and their needs will	• # of classes • # of participants • # of students who pass test • # who complete program	• Workforce Agencies • Adult Education programs

make participants more comfortable and allow for the presentation of more directed content.		
Advanced computer classes available for a small fee. More advanced computer classes that will increase employability and/or earning power will increase workforce opportunities. These classes can be offered for a small fee to low-income individuals look to improve their financial status or on a sliding scale for fees based on income.	• # of classes • # of participants • # of students who pass test • # who complete program	• Workforce Agencies • Adult Education programs

TIER 3		
CORE ACTIVITIES	**MEASURABLE GOALS**	**RESPONSIBLE PARTIES**
Classes in local and regional jails to teach digital skills.	• # of classes • # of participants • # of students who pass test • # who complete program	• Workforce Agencies • Adult Education programs • Re-entry programs such as VA Cares
Artificial Intelligence education programs.	• # of classes • # of participants • # of students who pass test • # who complete program	• Community Colleges • Public Schools • Adult Education

INCREASING ACCESS TO DEVICES SUITABLE FOR USING THE INTERNET

Focus group participants consistently reported that the lack of an actual computer or tablet was a significant barrier for individuals as it is not adequate for those needing to do tasks such as completing an employment application, participating in an online class, completing homework, filling out online forms, or engaging in many online essential services.

A large percentage of local residents who rely on cellular data only for accessing the internet ranges from a low of 6.6% in the Buchanan County (where cell phone service is limited) to a high of 17.9% in Bland County. Bland County also has the highest portion of households without a computer device at 24.1%.[18]

The general consensus among partners is that it is necessary to get devices directly into the hands of the individuals who need them. There is also a strong preference for programs that provide devices outright rather than loan them as loan programs are difficult to manage and there are some associated security issues with people sharing the use of a computer.

However, there is also understanding that providing devices to the large number of people in need is cost prohibitive so making more computers publicly accessible is a necessary step. This is especially useful for

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[18] Purdue University, Center for Regional Development, Digital Distress Data,
https://experience.arcgis.com/experience/4af5d52dffe84b7895ea0864395305a3

individuals who are just learning how to use a computer. Therefore, device access programs should initially be developed on a small scale and targeted to those with a specific need.

OBJECTIVE: INCREASE ACCESS TO TABLETS OR COMPUTERS FOR INDIVIDUALS WHO NEED A MORE ADEQUATE DIGITAL DEVICE TO USE THE INTERNET FOR HEALTHCARE, WORKFORCE, OR ESSENTIAL SERVICE USES.		
TIER 1		
CORE ACTIVITIES	MEASURABLE GOALS	RESPONSIBLE PARTIES
Develop a list of available computer resource centers in the community for referral.	# of referrals made	Digital Navigator
Expand number of computers available for Workforce Agencies to loan or give to clients.	# of clients served	Workforce Agencies
Develop Digital Literacy/Cybersecurity training program after which participants may purchase their computer for a small fee.	• # of classes • # of participants • # of students who pass test • # who complete program • # who purchase a computer	• Workforce Agencies • Adult Education programs • Digital Navigator • Libraries
Develop partnerships with national device refurbishment and distribution programs. https://planitroi.com/ https://www.techsoup.org/refurbished-computers https://www.pcsforpeople.org/ https://digitunity.org/get-involved/receive-equipment/ https://www.sagese.com/good-together	• # of computers distributed • # of households served	• Lead Agency • Digital Navigator • Community Anchor Institutions • Adult Education Programs • Workforce Agencies
Expand number of computers available for public use at public libraries and other public/community centers.	• # of computers purchased • # of clients served • # of hours used	• Libraries • Local Governments
Create more public access computer centers with non-traditional hours in remote hours of the region. Identify locations such as churches, fire halls, social service organizations, community meeting halls, and small businesses willing to host one or more computer terminals for free, general public access. Provide funding for necessary constructions costs to provide space, computer hardware, and upgrade internet system as necessary.	• # of computers purchased • # of clients served • # of hours used	• Nonprofits • Small businesses • Churches • Community anchor institutions

TIER 2		
CORE ACTIVITIES	**MEASURABLE GOALS**	**RESPONSIBLE PARTIES**
Develop the VA Star program in partnership with the local schools to teach students to repair donated computers and redistribute them to pre-qualified clients in need.[19] The program is currently available in Lee and Wise counties and the City of Norton.[20]	• # of students engaged in training classes • # of computers repaired • # of recipients	• Public Schools • Human Services providers of Digital Equity Consortium • Departments of Social Services

TIER 3		
CORE ACTIVITIES	**MEASURABLE GOALS**	**RESPONSIBLE PARTIES**
Expand Safelink program to provide tablets or laptops to eligible individuals depending on need.	# of recipients	Department of Social Services or Community Action Agencies

INCREASE INTERNET ACCESS

Internet access is the starting point for many residents in the Southwest Virginia region. However, it is a lower priority for the initial Digital Opportunity Plan because there are infrastructure projects underway to address this issue and there are people who have access at this time with more timely, cost-effective, easier-to-meet needs.

OBJECTIVE: INCREASE ACCESS TO AFFORDABLE, HIGH-QUALITY BROADBAND SERVICE		
TIER 1		
CORE ACTIVITIES	**MEASURABLE GOALS**	**RESPONSIBLE PARTIES**
Conduct outreach about ACP and other resources available to assist with affordability of internet access	• # of people reached • # of people enrolled in ACP	• Digital Navigator • Digital Equity Consortium
Install mesh wireless internet systems in apartment buildings to provide internet access to residents free of charge or at a low cost.	• # of units served • Cost savings compared to individual per-unit subsidies	• Local governments • DHCD • VHDA • Apartment owners
Subsidize installation of internet access for individuals identified as high priority including parents with children in school, individuals engaged in workforce programs, individuals enrolled in education programs.	• # of individuals/households served • # of households able to sustain internet connection after 6 months, 1 year	• Digital Navigator

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[19] In the Statewide Recommendations section, the VA STAR program is recommended as a program to develop in every school district. In addition, a comparable program for community colleges is recommended. These would have a large impact in the local region, but require a significant investment of time, funds, and technical skills in developing the curriculum that make them difficult to implement at the regional level. https://vastar.org/

[20] https://www.vastar.org/participating-districts/

Create more opportunities to access free public Wi-Fi in community centers and public gathering space.	• # of locations served • # of individuals accessing internet per month	• Local governments • Locations where internet is currently provided • Public transit agencies • Internet service providers
• Create seating and add lighting to public Wi-Fi hotspots to make it safer and more convenient to access existing Wi-Fi hotspots. • Install internet on public transportation buses. Although this might be one of the most low-impact solutions offered because of relatively low ridership, it has the benefit of impacting the targeted populations of low-income, rural, and aging populations. It also helps overcome an oft-cited immediate barrier, which is individuals running out of data on their cellphones.[21]		

TIER 2		
CORE ACTIVITIES	**MEASURABLE GOALS**	**RESPONSIBLE PARTIES**
Develop subsidies for individuals identified as high priority including parents with children in school, individuals engaged in workforce programs, individuals enrolled in education programs.	• # of individuals/households served • # of households able to sustain internet connection after 6 months, 1 year	• Digital Navigator • Community Action Agencies • Department of Social Services • Workforce Agencies • Institutions of higher learning

TIER 3		
CORE ACTIVITIES	**MEASURABLE GOALS**	**RESPONSIBLE PARTIES**
Increase access to non-broadband internet options include low-orbit satellite and fixed satellite.	# of new households connected	• Local governments • Internet Service Providers
Expand infrastructure to fill gaps in service.	# of new households connected	• Local governments • Internet Service Providers
Increase competition among providers to decrease costs and increase quality.	• % decrease in price • Increase in internet speed • Decrease in wait time for installation • Decrease in wait time for service calls	• Local governments • Internet Service Providers

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[21] https://www.kajeet.com/industries/transportation

As mentioned previously, many of these issues can be resolved through Digital Literacy training or in the same manner used to address Digital Literacy. However, there are a number of parents in the region who expressed growing concern about the impact of social media on their children and increased access to the internet in general.

Members of focus groups frequently reported having their information stolen online. They also shared stories of older relatives who fell prey to online scams. The potential for this increasing caused concerns about expanded use of the internet, particularly by older adults.

OBJECTIVE: DECREASE THE NEGATIVE IMPACT OF THE INTERNET RESULTING FROM CYBERSECURITY ISSUES AND SOCIAL MEDIA		
TIER 1		
CORE ACTIVITIES	**MEASURABLE GOALS**	**RESPONSIBLE PARTIES**
Implement a marketing campaign to teach teenagers about the dangers of social media.	• # of students who participate • # of resources provided	Public schools
Educate parents about the dangers of social media and how to address these issues with their children.	• # of parents who participate • # of resources provided	Public schools
Implement a marketing campaign to educate individuals about the need to protect their privacy online and how to avoid scams.	• # of resources provided • # of people reached	Digital Navigator
E-mail blasts or other news distribution detailing popular scams currently occurring.	• # of emails sent	• Digital Navigators • Law Enforcement • Libraries
"Open house" technical assistance days at libraries, senior centers, or other venues during which individuals can have their devices scanned for viruses and/or receive free or reduced cost antivirus software.	• # of individuals served • # of services provided	• Digital Navigators • Libraries • Senior Centers • Lead Agency • Local computer repair businesses
TIER 2		
CORE ACTIVITIES	**MEASURABLE GOALS**	**RESPONSIBLE PARTIES**
Provide free or low-cost antivirus software through a bulk purchase, donation, or Tech Soup	• # of computers protected • Amount of money saved	• Digital Navigator • Digital Equity Lead Agency
Expand existing education programs for students in school about all aspects of online privacy, cybersecurity, and social media protections.	• # of students who participate • # of resources provided • # of hours of education • Results of tests/evaluations following completion	• Public Schools

Develop online education videos where people can learn on their own	• # of videos created • # of times watched	• Digital Navigator • Libraries • Public Schools • Law Enforcement Agencies
TIER 3		
CORE ACTIVITIES	**MEASURABLE GOALS**	**RESPONSIBLE PARTIES**
Develop a certification program to train individuals to serve as a local workforce or volunteers to assist in addressing privacy and cybersecurity issues.	• # of classes • # of participants • # of students who pass test • # who complete program	• Community Colleges • Public Schools • Adult Education • Workforce Agencies

ONLINE ACCESSIBILITY

While partners and stakeholders agree that there are issues related to Online Accessibility, there was also consensus that little could be done to address the issue on a regional basis. It is also a low priority with regards to funding efforts. Recommendations that may be implemented by local governments, non-profits, schools, and other providers of public services include:

- Use language that is written at a lower grade level.
- Use a design that can be read on a phone or tablet.
- Provide information boxes that will pop-up to guide users through a process.
- Create a website that is in keeping with ADA requirements, particularly for standards to accommodate those who are deaf, blind, or have difficulty seeing.
- Ensure that websites can be adequately translated by Google translate if it is not available in multiple languages.
- Conduct regular website accessibility audits and make changes accordingly.
- Increase options for contacting people and completing paperwork online while still leaving the option for phone and mail service.

TIMELINE

The timeline for implementation of the plan will begin once the Lead Agency has been selected. After that, activities will occur based on the following timeline:

PLAN MONTH	ACTIVITY
1-3	Hire Digital Navigator(s), assign territory, roles, and responsibilities
2-5	Solicit proposals for digital literacy and cyber security/privacy activities
6-8	Award funds and begin implementation of digital literacy and cyber security/privacy activities
4-8	Solicit proposals for digital access and broadband access activities
8-11	Award funds and begin implementation of digital access and broadband access activities
12-14	Begin six-month review of digital literacy and cyber security/privacy activities
16-18	Begin six-month review of digital access and broadband access activities
18-20	Begin annual review of digital literacy and cyber security/privacy activities

20-22	Conduct update to Digital Opportunity Plan
24-26	Begin annual review of digital access and broadband access activities

MECHANISMS FOR PLAN UPDATE

The designated lead agency described in Section 5.1 will have primary responsibility for updating the plan on a bi-annual basis. However, this, and all other work regarding the plan's implementation and monitoring of progress will be done with the coordination of the established consortium of key partners and stakeholders.

The plan will be evaluated on at least a semi-annual basis to determine:

- if efforts are being made in all regions and for target populations;
- what changes might need to be made to improve the reach of activities,
- what programs and services need to be abandoned, expanded, or improved; and
- what new programs should be added next to address the most pressing barriers to Digital Opportunity.

STATEWIDE ACTIVITIES

Many of the barriers and solutions to digital opportunities in the region require decisions and actions to be made at the state level. To that point, the regional planning team recommends the following:

INTERNET ACCESS AND AFFORDABILITY

- Because the most rural regions of the state will be the most expensive to serve, broadband infrastructure allocations should be based on need as defined by the percentage of with access to the internet and the percentage of high-risk target populations (prioritizing areas with high poverty rates) rather than financial metrics. Understanding that rural areas have less money to invest and are a larger financial risk for Internet Service Providers, these areas should not be required to provide matching funds for VATI or BEAD allocations.
- Provide funding from state or federal resources for installation of non-broadband internet access such as satellite to provide more immediate access to internet for residents in the most remote areas of the commonwealth.
- Work with the Virginia Housing Alliance to provide funding for affordable housing developers to install mesh Wi-Fi networks to provide access to residents of existing and future properties. Prioritize funding for developments in Persistent Poverty Counties and Title I school districts.
- Work with community colleges and prison to develop a workforce trained to install the necessary broadband infrastructure.[22]
- Create a statewide referral system or work with Everyone On[23] to maintain accurate information related to options for low-cost internet access, devices, and digital literacy training.[24]

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[22] https://connect.la.gov/news/blog-post/summer-success-series-caddo-vocational-program/
The state of Louisiana has developed a model program to train inmates at correctional centers to install broadband fiber. Through a partnership with a local community college, inmates at Caddo Correctional Center are able to become certified Premises Cabling Technicians and Fiber Optic Technicians in a month-long program to prepare them for sustainable employment upon release.
[23] https://www.everyoneon.org/find-offers
[24] The state of Wisconsin recently announced the creation of an online system to provide these services. (https://content.govdelivery.com/accounts/WIGOV/bulletins/36760f5). It has the added benefit of providing residents with information about other available resources in the state. It can be found online at https://apps.psc.wi.gov/InternetDiscountFinder

DEVICE ACCESS AND AFFORDABILITY

- Expand the VA STAR program to at least one school in every district across the state as interest and capacity allow.
- Work with Virginia community colleges to develop a training program for computer repair that can also be used as a redistribution source and dual enrollment program for high school students.
- Provide supplemental funding for VPI and Head Start programs to provide tablets to families to increase parent engagement.

DIGITAL LITERACY

- Increase the availability of internet and computers in state prisons and coordinate with local non-profit, workforce, and/or education partners to provide digital literacy training to inmates.

ONLINE ACCESSIBILITY

- Update state websites for website accessibility standards. Conduct bi-annual audits.
- Provide technical assistance and resources for local government agencies to update their website to meet accessibility standards.

KEY POINTS

DIGITAL OPPORTUNITY DEFINITION AND VISION

Needs and desires to access the internet vary widely and the definition of Digital Opportunity needs to reflect this. They have, therefore, identified a definition that is more fluid rather than "one-size-fits-all." In Southwest Virginia, Digital Opportunity is defined as:

Individuals and households within Southwest Virginia have the access, devices, and knowledge they desire to safely access online resources including employment, education, and essential services.

TARGET POPULATION

The Census Bureau partnered with National Telecommunications and Information Administration to calculate the population qualified for Digital Equity Act services based on the targeted populations identified in the legislation. Because the majority of the region is rural, the covered population in each county is 100% except for Scott County, which is a suburb of Kingsport, Tennessee. Overall, 99.7% of the region's population is considered "covered." Beyond those living in a rural area, the most prominent covered populations in the region are those with incomes at or below 150% of poverty (29.7%); population with language barriers (29.7%); aging individuals (29.0%); and individuals with disabilities (24.4%).

In addition to the target populations identified in the Digital Equity Act of 2021, the region identified students and parents as being a specific subset of the region that are in need of specific, prioritized resources and solutions. In addition to the barriers faced by individuals in rural areas and low-income households, students and parents also have a high concern related to privacy, cybersecurity, and social media. There is also a specific need to address digital literacy skills for parents so they can assist their children with school work and communicate with the school.

DIGITAL OPPORTUNITY RESOURCES

The region lacks an abundance of resources to address Digital Opportunity barriers. Among those that are available, highlights include:

- Every school district provides a laptop loan program for students.
- The Workforce Development Board, through one or more agencies, provides a variety of digital literacy classes ranging from basic computer skills to more advanced courses tailored to specific workplace needs.
- The local libraries have taken on a lead role in the community to provide digital literacy programs. Although not specifically targeted, these classes generally serve seniors. Many of the libraries also offer opportunities to address maintenance and technical concerns and device-specific issues. Libraries are also key wi-fi access locations and important device access centers.

The Affordable Connectivity Program, the primary means available to increase affordability, has not been successful in the region. Data from Education Superhighway shows a 36% adoption rate in Southwest Virginia. Among respondents to the Digital Opportunity Plan Survey, 53% reported not being aware of either ACP or the Lifeline program. Only 16% had applied for ACP and 7% for the Lifeline program.

DIGITAL OPPORTUNITY BARRIERS

The barriers to digital equity are similar for all target populations in the Southwest Virginia region. The primary difference is the significance of the barrier and the solution to it. Overall, the priority for addressing the barriers to digital equity in the region are:

1. Broadband/Internet Access
2. Digital Literacy
3. Device Access and Affordability
4. Broadband Affordability
5. Privacy and Cybersecurity
6. Online Accessibility

MOVING FORWARD

Implementation should occur in a multi-stage process beginning with the selection of a lead agency that will coordinate work between stakeholders, monitor progress in meeting plan goals, and assume responsibility for maintaining and updating the plan bi-annually.

The second stage should be implementation of a Digital Navigator program within the region. It is the single solution to the most common barriers for residents. The Navigator can work one-on-one with residents to help them meet their specific needs whether that be accessing the Affordable Connectivity Plan, identifying the type of device they need, learning how to use their specific device, or referring them to resources available in the community.

Finally, resources should be directed to meet the needs of target populations as prioritized, based on the significance of the barrier, and the ability of the solution to create Digital Opportunities in the short-term.

IMPACT ON DIGITAL OPPORTUNITY IN THE REGION

GOALS

In order to develop the established vision for Digital Opportunity within the region, the following goals have been established.

1. Develop a cohesive, coordinated regional approach to promoting digital opportunities.
2. Provide comprehensive technical support and training to meet the specific individual needs of the local population.
3. Promote Digital Opportunities in a way that creates the greatest immediate impact.
4. Address the long-term needs of the community.

FUTURE IMPACT

In Southwest Virginia, Digital Opportunity is expected to:

- Generate increased earnings potential among local residents as they improve their job skills.
- Create new employment opportunities as residents secure internet access of sufficient quality for them to become eligible to take advantage of remote work positions.

- Offset the imbalance caused by a lack of public transportation by allowing residents to do more online including work, attend school, make some purchases, attend medical appointments, and communicate with social service workers.
- Lessen the burden of the childcare crisis by providing opportunities for residents to work, attend school, and engage in other activities from home without needing to secure childcare.

These results must be achieved while maintaining a safe, secure online environment for children and adults that does not open them up to the risk of identity theft, scams, or other online predators.

APPENDICES

A. SUPPORTING DATA

B. VIRGINIA DIGITAL DIVIDE INDEX SCORES

C. COMMUNITY ENGAGEMENT TRACKER

D. LIST OF ORGANIZATIONS

E. ASSET INVENTORY

	Digital Divide Score	Average Download Speed (Mbps)	Average Upload Speed (Mbps)	Population with no access to 100/20 (Mbps)	Internet Income Ratio	Infrastructure Score	Socioeconomic Score	No internet access	No computer device	Less than HS degree	Poverty Rate	Age 65+	Disability Rate
Bland	38.32	35.1	3.9	99.10%	1.23	49.67	20.38	35.60%	21.90%	11.10%	11.80%	23.20%	18.60%
Bristol	28.65	126.6	73.8	18.80%	4.01	23.52	26.55	20.30%	14.70%	13.20%	17.70%	22.10%	20.90%
Buchanan	48.19	126.2	51.6	77.70%	6.92	39.05	45.08	26.40%	20.30%	26.30%	25.20%	22.10%	31.90%
Carroll	36.3	70.7	7.4	88.80%	4.31	38.13	26.72	21.50%	18%	18.40%	15.20%	24.40%	16.70%
Dickenson	45.66	68.9	36.6	95.60%	4.46	40.02	40.21	23.80%	18.60%	20.00%	21.20%	22.50%	33.70%
Galax	30.84	193.6	17.5	71.10%	9.34	26.32	27.76	14.70%	11.70%	21.30%	21.90%	18%	13.30%
Grayson	36.87	81.8	9.2	89.30%	3.61	36.53	28.97	21.60%	15.90%	17.30%	17.60%	24.70%	19.60%
Lee	42.47	139	100.1	72.60%	2.94	36.95	37.63	28.10%	18.40%	20.20%	26.20%	21.70%	27.90%
Norton	32.8	150.6	28.4	67.20%	2.16	25.37	31.7	14.30%	11%	11.30%	28.30%	21.20%	24.90%
Russell	44.71	92.5	59.5	82.10%	4.95	44.79	34.71	34.10%	21.70%	18.20%	18.50%	21.70%	28.80%
Scott	43.73	58.4	37.8	89%	7.11	42.38	35.14	26.80%	21.10%	18%	15.40%	23.90%	28.20%
Smyth	34.82	120.6	18.6	70.70%	4.09	32.17	29.29	19.30%	15.90%	15.80%	18.90%	21.70%	22.60%
Tazewell	32.42	155.8	33.3	76.60%	5.07	29.31	27.8	16.50%	13.50%	15.20%	17.60%	22.40%	20.40%
Washington	29.58	142.3	47.3	62.70%	4.42	27.13	25.05	17.50%	12.50%	12.10%	12.70%	23.20%	21.80%
Wise	37.61	105.4	17.4	89.40%	3.93	33.24	32.89	18.60%	13.80%	21.80%	19.70%	18.10%	26.80%
Wythe	32.2	58.9	14.7	97.90%	3.44	35.26	22.5	19.10%	13.80%	11.10%	15.20%	21.20%	19.40%

Source: Digital Divide Index 2021, https://storymaps.arcgis.com/stories/8ad45c48ba5c43d8ad36240ff0ea0dc7

	Virginia	Bland	Buchanan	Carroll	Dickenson	Grayson	Lee	Russell	Scott	Smyth	Tazewell	Washington	Wise	Wythe	Bristol	Galax	Norton
TYPES OF COMPUTER																	
One or more types of devices:	93.4%	78.1%	79.7%	81.8%	81.4%	84.1%	81.6%	78.3%	78.9%	84.1%	86.5%	87.5%	86.2%	86.2%	85.3%	88.3%	89.0%
Desktop or laptop	81.2%	49.5%	57.8%	61.0%	60.3%	59.0%	55.4%	54.5%	60.5%	65.3%	62.1%	69.8%	62.2%	63.5%	67.0%	67.0%	69.2%
Desktop or laptop only	3.6%	3.8%	6.8%	4.9%	8.2%	8.4%	5.6%	3.7%	6.8%	6.3%	4.7%	5.0%	4.8%	6.3%	6.6%	6.3%	8.8%
Smartphone	87.1%	71.5%	65.0%	71.9%	66.8%	70.5%	69.2%	69.4%	64.6%	72.1%	76.2%	78.0%	74.5%	76.2%	76.7%	76.8%	79.2%
Smartphone only	7.5%	18.6%	12.8%	13.0%	13.2%	18.5%	15.5%	16.4%	11.8%	10.6%	14.8%	10.6%	13.1%	17.7%	13.9%	11.4%	12.8%
Tablet/other portable wireless computer	65.7%	40.8%	46.3%	49.1%	42.8%	43.9%	45.0%	45.4%	46.7%	50.9%	53.6%	55.6%	52.4%	47.2%	46.1%	55.8%	56.4%
Tablet/other portable wireless computer only	0.8%	0.8%	2.7%	1.8%	2.2%	2.3%	2.8%	1.6%	1.9%	1.6%	2.4%	2.0%	3.8%	1.1%	0.6%	4.3%	0.0%
Other computer	2.8%	0.8%	0.9%	1.9%	1.8%	0.6%	1.1%	1.2%	1.8%	1.3%	1.7%	1.0%	1.3%	0.9%	1.5%	0.3%	0.6%
Other computer only	0.0%	0.2%	0.0%	0.0%	0.1%	0.0%	0.1%	0.0%	0.2%	0.1%	0.0%	0.1%	0.2%	0.0%	0.0%	0.0%	0.0%
No computer	6.6%	21.9%	20.3%	18.2%	18.6%	15.9%	18.4%	21.7%	21.1%	15.9%	13.5%	12.5%	13.8%	13.8%	14.7%	11.7%	11.0%
TYPE OF INTERNET SUBSCRIPTIONS																	
With an Internet subscription:	87.8%	63.4%	70.6%	75.7%	72.7%	75.7%	56.7%	64.7%	69.3%	77.6%	80.9%	80.2%	68.7%	78.2%	76.6%	81.7%	66.9%
Dial-up only	0.2%	0.6%	0.0%	0.3%	0.0%	0.3%	0.1%	0.8%	0.7%	0.3%	0.1%	0.7%	0.6%	0.4%	0.2%	0.0%	1.7%
Broadband of any type	87.6%	62.8%	70.6%	75.4%	72.7%	75.4%	56.6%	63.9%	68.6%	77.3%	80.8%	79.5%	68.1%	77.8%	76.4%	81.7%	65.3%
Cellular data plan	80.3%	52.3%	56.1%	64.4%	54.3%	60.1%	43.4%	53.9%	54.6%	60.5%	68.9%	69.2%	53.6%	65.7%	68.2%	73.4%	53.8%
Cellular data plan only	11.0%	16.5%	6.0%	16.3%	10.2%	16.1%	14.5%	12.2%	8.2%	9.4%	13.4%	9.7%	10.3%	14.8%	7.1%	15.9%	16.0%
Broadband (cable, fiber optic or DSL)	72.6%	35.3%	53.6%	47.5%	48.6%	44.9%	37.0%	44.8%	57.7%	61.9%	62.4%	66.7%	54.7%	53.6%	68.2%	59.4%	49.2%
Satellite Internet service	6.0%	10.4%	16.0%	10.6%	19.1%	16.5%	7.0%	9.6%	3.9%	8.8%	7.4%	5.0%	4.2%	12.8%	3.0%	6.9%	3.4%
Without an Internet subscription	12.2%	36.6%	29.4%	24.3%	27.3%	24.3%	43.3%	35.3%	30.7%	22.4%	19.1%	19.8%	31.3%	21.8%	23.4%	18.3%	33.1%
HOUSEHOLD INCOME IN THE PAST 12 MONTHS (IN 2021 INFLATION-ADJUSTED DOLLARS)																	
Less than $20,000:																	
With dial-up Internet subscription alone	0.3%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.2%	0.0%	0.6%	0.4%	1.0%	0.0%	0.0%	3.8%
With a broadband Internet subscription	63.8%	36.9%	54.7%	54.2%	60.1%	61.8%	40.9%	39.8%	42.5%	55.3%	66.2%	57.3%	40.3%	60.1%	57.9%	64.5%	46.2%
Without an Internet subscription	35.9%	63.1%	45.3%	45.8%	39.9%	38.1%	59.1%	60.2%	57.5%	44.5%	33.8%	42.1%	59.3%	38.9%	42.1%	35.5%	50.0%
$20,000 to $74,999:																	
With dial-up Internet subscription alone	0.3%	1.2%	0.0%	0.4%	0.0%	0.5%	0.2%	1.5%	1.1%	0.4%	0.2%	0.6%	0.9%	0.2%	0.4%	0.0%	1.0%
With a broadband Internet subscription	82.8%	71.5%	69.8%	75.4%	72.3%	73.6%	54.1%	63.7%	68.6%	80.1%	80.3%	78.4%	72.3%	77.0%	76.6%	81.3%	70.1%
Without an Internet subscription	16.9%	27.3%	30.2%	24.1%	27.7%	25.9%	45.7%	34.8%	30.2%	19.4%	19.4%	21.0%	26.8%	22.8%	23.0%	18.7%	28.9%
$75,000 or more:																	
With dial-up Internet subscription alone	0.1%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.4%	0.3%	0.0%	0.8%	0.0%	0.3%	0.0%	0.0%	0.0%
With a broadband Internet subscription	95.7%	61.2%	93.6%	91.0%	91.4%	90.1%	81.0%	88.9%	92.1%	90.7%	93.5%	90.8%	86.8%	88.7%	90.6%	96.2%	82.3%
Without an Internet subscription	4.2%	38.8%	6.4%	8.9%	8.6%	9.9%	19.0%	11.1%	7.5%	9.0%	6.5%	8.4%	13.2%	11.0%	9.4%	3.8%	17.7%

Source: U.S. Census Bureau ACS Five-Year Estimates, 2017-2021

County	Bland	Buchanan	Carroll	Dickenson	Grayson	Lee	Russell	Scott	Smyth	Tazewell	Washington	Wise	Wythe	Bristol	Galax	Norton
Rural/Urban	Rural	Rural	Rural	Rural	Rural	Rural	Rural	Not rural	Rural	Rural	Rural	Rural	Rural	Rural	Rural	Rural
Total Population (2019)	6280	21004	29791	14318	15550	23423	26586	21566	30104	40595	53740	37383	28684	16762	6347	3981
% of Population that is Covered	100	100	100	100	100	100	100	95.1	100	100	100	100	100	100	100	100
% with incomes <150% of Poverty	18.4	40.5	24.6	39	32.4	38.3	31.4	28	30	27.8	23.7	34.6	24.6	35.3	42.6	38.1
% of Population Aged 60+	29.7	29.1	32.1	28.7	32.1	27	29	31.4	29.1	28.8	29.9	25.4	28.2	27	30.5	23.4
% of Population Incarcerated	13.5	2.2	0	2	5.8	0	0.6	2.7	0.9	2.5	1.3	5.3	0	0.9	0	0
% of Population who are Veterans	5.7	3.7	6.3	6.3	6.2	5.9	4.7	6.8	7	5.8	6.5	5.7	7.8	7.2	8.2	5.8
% of Population with Disabilities	21.7	27.2	17.7	28.9	20.5	26.5	26.2	28.6	25.5	22.5	21.7	27.2	20.2	23	28.8	22.3
% of Population w/ Language Barriers	16.4	24.7	17.1	22.5	19.3	23.6	19.4	17.4	18	17.3	15.6	21.2	15.1	16.5	25.1	13.3
% of Population speaking English as a Second Language	0	0.4	1.3	0.1	1.6	0.9	0.2	0.5	0.5	0.2	0.5	0.4	0.6	0.5	4.9	0
% of Population with Low Literacy Skills	17.7	32.8	23	30.9	25.4	31.1	25.2	24.9	23.1	24.5	20.1	28.6	22.2	22.4	32	22.5
% of Population who are Minorities	6.1	5.1	5.5	2.4	10.3	7.1	3.3	3.4	5.9	6.1	4.7	8.5	6.2	11.8	20.9	11.4
% of Population who are Rural	100	100	100	100	100	100	100	82	100	100	100	100	100	100	100	100

Source: U.S. Census Bureau Digital Equity Population Viewer

The Digital Divide Index was developed by the Center for Regional Development at Purdue University[25] to provide a quick overview of the factors impacting the Digital Divide in the U.S. The Digital Divide Index or DDI ranges in value from 0 to 100, where 100 indicates the highest digital divide. It is composed of two scores, also ranging from 0 to 100: the infrastructure/adoption (INFA) score and the socioeconomic (SE) score. It is based on z-scores normalized to 0-100 for each geography. For the analysis presented here, the geography is the Commonwealth of Virginia. The numbers presented in the main body of the report were indexed nationally and, therefore, differ from these.

The data on the table is sorted by Socioeconomic Index as the Infrastructure Index will be greatly impacted by the VATI project currently underway. This analysis is for 2021 and does not take that into account. The Socioeconomic Index Score indirectly measures the potential for technology adopting using considers the following factors, known have an impact:

1. percent population ages 65 and over;
2. percent population 25 and over with less than high school;
3. individual poverty rate;
4. percent of noninstitutionalized civilian population with a disability: and
5. digital inequality or internet income ratio measure (IIR).

The Infrastructure Index considers the following variables related to broadband infrastructure and adoption:

1. percentage of total 2021 population not using the internet at 100/20 as of 2021 based on Ookla Speedtest® open dataset;
2. percent of homes without a computing device (desktops, laptops, smartphones, tablets, etc.);
3. percent of homes with no internet access (have no internet subscription, including cellular data plans or dial-up); weighted (by speed tests)
4. download and speeds in Megabits per second (Mbps)
5. (5) upload speeds in Megabits per second (Mbps)

VIRGINIA DIGITAL DIVIDE INDEX BY CENSUS TRACT

The map on the following page shows the Census Tracts in the Southwest Virginia Area and highlights those that have a high Total DDI Score or a Socioeconomic or Infrastructure Score (over 50). As the map shows, this covers a large portion of the region.

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[25] Gallardo, R. (2023). Digital Divide Index. PURDUE CENTER FOR REGIONAL DEVELOPMENT. Retrieved from Digital Divide Index (DDI): http://pcrd.purdue.edu/ddi
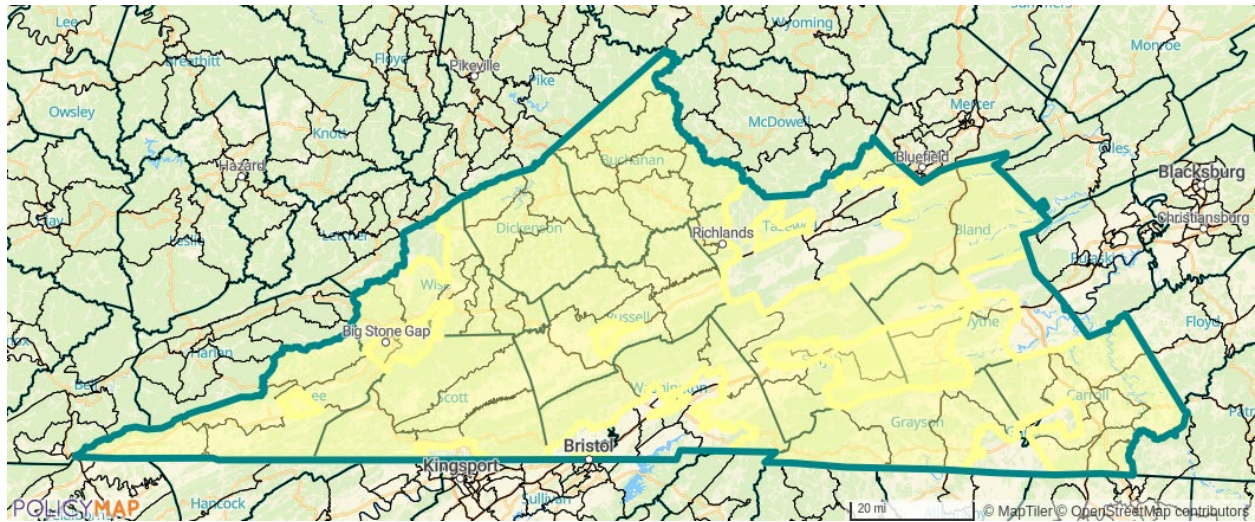
Census Tract	County/City	Socioeconomic Index	Infrastructure Index	Digital Divide Index
51021040100	Bland	31.12	73.96	55.98
51021040200	Bland	42.64	61.56	57.62
51520020100	Bristol	55.80	36.61	54.24
51520020201	Bristol	58.57	50.36	62.77
51520020202	Bristol	33.04	36.05	38.83
51520020300	Bristol	54.54	40.96	55.52
51520020400	Bristol	25.50	25.25	28.55
51027010100	Buchanan	66.74	38.42	62.40
51027010200	Buchanan	97.46	54.92	90.87
51027010300	Buchanan	51.93	66.45	66.18
51027010400	Buchanan	60.50	33.20	55.71
51027010500	Buchanan	58.04	73.81	73.83
51027010600	Buchanan	53.98	50.77	59.92
51027010700	Buchanan	65.70	74.73	79.37
51035080100	Carroll	36.78	62.72	54.28
51035080200	Carroll	45.50	47.52	52.70
51035080300	Carroll	52.59	65.27	66.05
51035080401	Carroll	46.88	36.32	48.17
51035080402	Carroll	40.67	55.61	53.42
51035080501	Carroll	35.36	51.85	48.05
51035080502	Carroll	45.58	58.10	57.89
51035080601	Carroll	45.70	51.34	54.69
51035080603	Carroll	56.25	37.56	55.00
51035080604	Carroll	41.79	59.50	56.05
51051040100	Dickenson	91.48	51.33	85.14
51051040200	Dickenson	66.82	61.77	73.81
51051040300	Dickenson	57.76	46.29	60.26
51051040400	Dickenson	53.90	70.43	69.42
51640070101	Galax	44.00	39.06	47.58
51640070102	Galax	44.49	35.37	46.11
51077060101	Grayson	49.08	46.58	54.62
51077060102	Grayson	41.48	43.89	48.26
51077060201	Grayson	50.66	46.59	55.68

51077060202	**Grayson**	**48.89**	**59.02**	**60.55**
51077060300	**Grayson**	**41.26**	**64.66**	**58.21**
51105950100	**Lee**	**63.21**	**54.36**	**67.81**
51105950200	**Lee**	**45.64**	**50.60**	**54.28**
51105950301	**Lee**	**82.63**	**42.36**	**74.89**
51105950302	Lee	40.43	45.91	48.54
51105950400	**Lee**	**47.79**	**53.34**	**57.04**
51105950500	**Lee**	**60.62**	**52.63**	**65.24**
51105950600	**Lee**	**48.14**	**56.75**	**58.94**
51720960100	Norton	46.84	36.18	48.07
51167030100	**Russell**	**62.37**	**72.51**	**76.08**
51167030201	**Russell**	**70.61**	**66.44**	**78.61**
51167030202	**Russell**	**51.89**	**48.67**	**57.51**
51167030300	**Russell**	**60.77**	**61.19**	**69.51**
51167030402	**Russell**	**34.05**	**57.49**	**49.92**
51167030403	Russell	38.13	48.20	48.12
51167030404	**Russell**	**53.23**	**52.65**	**60.33**
51167030500	**Russell**	**41.69**	**78.21**	**65.08**
51167030600	**Russell**	**52.43**	**76.03**	**71.17**
51169030100	**Scott**	**56.06**	**53.13**	**62.45**
51169030200	**Scott**	**56.90**	**69.13**	**70.80**
51169030300	**Scott**	**65.61**	**62.80**	**73.51**
51169030400	**Scott**	**50.27**	**63.60**	**63.69**
51169030500	**Scott**	**48.55**	**61.62**	**61.58**
51169030600	Scott	41.58	44.50	48.62
51173030100	**Smyth**	**47.67**	**48.57**	**54.65**
51173030200	**Smyth**	**62.42**	**48.83**	**64.59**
51173030301	Smyth	42.20	36.85	45.31
51173030302	Smyth	40.59	39.29	45.42
51173030400	Smyth	40.96	47.75	49.78
51173030500	Smyth	37.94	40.58	44.29
51173030600	**Smyth**	**44.04**	**53.62**	**54.69**
51173030701	**Smyth**	**49.55**	**39.06**	**51.27**
51173030702	**Smyth**	**41.92**	**54.27**	**53.60**
51185020100	**Tazewell**	**52.67**	**57.66**	**62.40**
51185020200	**Tazewell**	**46.21**	**41.01**	**50.00**
51185020301	Tazewell	40.71	35.56	43.69
51185020302	**Tazewell**	**54.89**	**47.63**	**59.00**
51185020400	Tazewell	46.08	39.06	48.96
51185020500	**Tazewell**	**56.84**	**55.05**	**63.90**
51185020600	Tazewell	32.37	39.87	40.24
51185020700	Tazewell	42.11	38.07	45.84
51185020800	Tazewell	32.01	33.09	36.70
51185020900	**Tazewell**	**62.09**	**50.95**	**65.40**
51185021000	**Tazewell**	**52.96**	**35.38**	**51.76**
51185021101	Tazewell	38.57	37.50	43.21
51185021102	Tazewell	37.24	31.59	39.45
51191010101	Washington	41.58	45.07	48.90
51191010102	Washington	36.02	23.40	34.65
51191010200	Washington	40.40	29.02	40.30
51191010301	**Washington**	**43.45**	**58.39**	**56.62**
51191010302	**Washington**	**38.10**	**55.53**	**51.67**
51191010401	Washington	32.19	26.65	33.69
51191010402	Washington	42.23	40.63	47.17
51191010501	Washington	31.30	19.21	29.47
51191010502	**Washington**	**47.62**	**40.83**	**50.85**
51191010601	Washington	46.90	29.77	44.99
51191010602	Washington	38.64	39.10	44.04
51191010700	**Washington**	**46.45**	**61.58**	**60.16**

51191010800	**Washington**	**38.90**	**53.20**	**51.06**
51191010900	Washington	45.37	39.84	48.88
51191011000	Washington	32.33	29.75	35.29
51195930700	**Wise**	**58.00**	**46.84**	**60.68**
51195930800	Wise	42.40	43.60	48.72
51195930900	**Wise**	**44.55**	**55.48**	**55.93**
51195931000	**Wise**	**64.53**	**50.12**	**66.62**
51195931100	**Wise**	**57.11**	**61.97**	**67.45**
51195931200	Wise	43.16	43.19	49.03
51195931300	Wise	44.06	35.90	46.09
51195931400	**Wise**	**49.29**	**37.45**	**50.32**
51195931500	**Wise**	**60.95**	**47.91**	**63.16**
51195931600	**Wise**	**61.19**	**50.06**	**64.37**
51195931700	**Wise**	**63.14**	**48.25**	**64.79**
51197050101	**Wythe**	**54.47**	**61.01**	**65.23**
51197050102	Wythe	25.16	48.53	39.65
51197050201	Wythe	38.58	46.51	47.60
51197050202	**Wythe**	**46.97**	**45.65**	**52.76**
51197050301	Wythe	29.59	37.68	37.32
51197050302	Wythe	33.02	48.07	44.66
51197050401	**Wythe**	**41.30**	**62.41**	**57.14**
51197050402	Wythe	31.42	46.62	42.89

VIRGINIA DIGITAL DIVIDE INDEX BY COUNTY

The following table ranks all jurisdictions within the Commonwealth. It is sorted by Digital Divide Index. Five of the jurisdictions in the Southwest region are in the highest ten DDI scores in the state. All of the jurisdictions fall within the top half of the jurisdictions scores.

Digital Divide Scores in the Commonwealth of Virginia				
State Rank	County/City	Socioeconomic Index	Infrastructure Index	Digital Divide Index
1	**Buchanan**	**100.00**	**67.27**	**100.00**
2	Lunenburg	57.32	100.00	92.26
3	**Dickenson**	**85.80**	**68.71**	**92.05**
4	Emporia city	96.30	57.05	91.90
5	**Russell**	**74.58**	**77.56**	**90.15**
6	**Scott**	**77.08**	**73.09**	**89.16**
7	Halifax	60.66	86.10	86.42
8	**Lee**	**79.80**	**63.74**	**85.52**
9	Greensville	80.08	60.45	83.82
10	Brunswick	75.69	64.01	83.13
11	Charlotte	62.34	78.30	83.02
12	Mecklenburg	62.15	76.76	82.03
13	Nottoway	53.47	81.48	79.36
14	Lancaster	62.17	71.90	79.28
15	Floyd	76.37	51.83	76.63
16	**Wise**	**71.22**	**56.81**	**76.28**
17	Amelia	64.06	61.56	74.57
18	Henry	60.21	65.38	74.36
19	Highland	58.78	66.82	74.30
20	Bath	62.05	63.06	74.18
21	**Grayson**	**61.55**	**62.72**	**73.67**
22	**Bland**	**39.93**	**85.95**	**73.55**
23	Franklin city	67.33	56.19	73.53
24	Patrick	54.94	69.21	73.28
25	**Carroll**	**57.84**	**65.52**	**72.98**
26	Pittsylvania	57.77	64.75	72.49

27	Middlesex	55.91	66.22	72.19
28	Buckingham	51.29	71.14	72.13
29	Page	54.16	67.81	72.01
30	Northumberland	71.16	49.30	71.98
31	Charles City	59.67	60.58	71.30
32	Northampton	66.88	52.26	71.01
33	Richmond	58.98	60.84	71.01
34	Danville city	60.22	58.70	70.56
35	Prince Edward	49.87	69.91	70.56
36	**Smyth**	**62.37**	**55.30**	**69.96**
37	Accomack	56.76	58.79	68.48
38	Surry	58.73	56.40	68.34
39	Westmoreland	64.18	48.53	67.22
40	**Galax city**	**66.18**	**44.73**	**66.30**
41	Petersburg city	61.60	48.67	65.71
42	**Tazewell**	**60.01**	**49.99**	**65.48**
43	**Norton city**	**64.92**	**43.32**	**64.72**
44	Buena Vista city	57.07	51.51	64.53
45	Pulaski	50.35	56.94	63.47
46	**Wythe**	**46.58**	**60.32**	**63.06**
47	Essex	50.81	55.61	63.00
48	Sussex	46.81	59.63	62.82
49	Alleghany	58.46	45.62	62.04
50	King and Queen	39.02	66.10	61.68
51	Mathews	50.01	53.82	61.49
52	Franklin	42.95	59.27	60.23
53	Shenandoah	44.38	56.51	59.54
54	Martinsville city	54.76	44.99	59.40
55	**Washington**	**52.58**	**46.59**	**58.96**
56	Hopewell city	57.79	39.98	58.42
57	**Bristol city**	**55.99**	**41.44**	**58.13**
58	Southampton	43.82	54.27	57.92
59	Nelson	52.54	41.06	55.79
60	Rockbridge	48.26	44.50	55.11
61	Amherst	41.37	49.89	53.92
62	Radford city	45.26	45.34	53.73
63	Louisa	45.59	41.43	51.71
64	Dinwiddie	37.38	49.62	51.30
65	Campbell	32.39	54.78	51.16
66	Craig	42.96	43.11	51.04
67	Covington city	53.02	32.10	50.99
68	Madison	40.21	45.77	50.86
69	Cumberland	36.34	47.98	49.73
70	Gloucester	40.00	40.33	47.63
71	Appomattox	37.70	42.83	47.63
72	Giles	37.30	42.32	47.10
73	Isle of Wight	31.16	48.84	47.01
74	Rockingham	31.19	47.05	46.02
75	Augusta	33.51	43.16	45.24
76	Colonial Heights city	33.65	42.97	45.22
77	Bedford	31.05	45.38	44.98
78	Roanoke city	37.30	37.65	44.44
79	Rappahannock	32.02	42.51	43.95
80	Goochland	40.72	32.75	43.77
81	Waynesboro city	44.09	27.64	42.94
82	Orange	39.49	30.95	41.98
83	Norfolk city	33.35	37.54	41.94
84	Portsmouth city	40.53	28.13	41.02
85	Suffolk city	29.18	40.31	40.94
86	Caroline	31.21	37.97	40.87
87	Greene	30.35	38.41	40.59

88	Frederick	30.43	38.28	40.56
89	Clarke	31.25	37.36	40.55
90	Roanoke	28.19	40.27	40.31
91	Winchester city	36.16	29.93	39.35
92	Warren	34.32	31.59	39.16
93	Botetourt	26.84	39.13	38.83
94	Montgomery	31.60	33.77	38.72
95	New Kent	28.24	36.99	38.47
96	Staunton city	34.09	28.79	37.42
97	James City	32.89	29.68	37.18
98	Lynchburg city	32.69	28.94	36.64
99	Richmond city	36.70	23.56	36.06
100	Prince George	27.38	30.52	34.26
101	Lexington city	33.10	23.97	34.06
102	Harrisonburg city	37.53	18.21	33.53
103	Hampton city	34.81	21.03	33.45
104	King William	16.72	39.00	32.51
105	Culpeper	25.63	29.31	32.50
106	Williamsburg city	24.32	29.58	31.84
107	Hanover	19.05	33.47	30.80
108	Albemarle	20.81	30.29	30.08
109	Fauquier	17.55	32.90	29.55
110	Fluvanna	20.32	28.57	28.79
111	Powhatan	22.67	25.35	28.42
112	Newport News city	28.26	17.86	27.60
113	King George	23.05	22.89	27.25
114	Henrico	29.49	15.60	27.08
115	Salem city	22.17	22.20	26.31
116	Manassas Park city	36.65	4.79	25.35
117	Poquoson city	29.22	12.56	25.18
118	Charlottesville city	25.18	15.61	24.43
119	Fairfax city	32.84	2.89	21.92
120	Alexandria city	14.55	22.64	21.86
121	Fredericksburg city	22.11	14.30	21.78
122	York	21.07	14.28	21.13
123	Spotsylvania	23.34	11.78	21.11
124	Chesapeake city	20.67	14.48	21.00
125	Virginia Beach city	20.57	14.17	20.76
126	Chesterfield	22.01	11.38	20.06
127	Manassas city	18.16	6.35	14.82
128	Stafford	16.21	6.71	13.82
129	Arlington	13.50	7.16	12.41
130	Fairfax	16.66	3.49	12.27
131	Prince William	12.58	3.11	9.53
132	Loudoun	5.17	4.31	5.64
133	Falls Church city	0.00	0.00	0.00

Organization Name	Type of organization	Engagement Purpose	Notes	Link to the organization's website (if available)
		List of Organizations with which you have collaborated in developing the regional plan		
American Red Cross	Community Anchor Institution	Plan Development	Attended focus group	N/A
Appalachian Independence Center	Organization that Represents Covered Populations	Plan Development	Attended focus group	https://www.aicadvocates.org/
Bland County Department of Social Services	County or Municipal Government	Data Collection	Sent Asset survey and invited to Stakholder mtg.	www.virginia.gov
Bland County Library	County or Municipal Government	Data Collection	Sent Asset survey and invited to Stakholder mtg.	www.bland.org
Bland County Public Schools	Local Education Agency	Data Collection	Sent Asset survey and invited to Stakholder mtg.	www.bland.k12.va.us
Bland Ministry Center	Nonprofit Organization (501c3)	Data Collection	Sent Asset survey and invited to Stakholder mtg.	www.blandministrycenter.org
Blue Ridge Jobs Corps Center	Workforce Development Organization	Data Collection	Sent Asset survey and invited to Stakholder mtg.	www.jobcorps.org
Bristol Faith in Action	Nonprofit Organization (501c3)	Data Collection	Invited to focus group	https://www.bristolfia.org/
Bristol Redevelopment and Housing Authority	Public Housing Authority	Plan Development	Hosted focus group	https://www.brha.com/
City of Bristol	County or Municipal Government	Plan Development	Attended focus group	https://www.bristolva.org/127/Community-Development-and-Plan
City of Norton City Council	County or Municipal Government	Community Outreach	members were invited	https://www.nortonva.gov/
City of Norton Redevelopment and Housing Authority	Public Housing Authority	Community Outreach	Director was invited	https://nortonrha.org/
City of Norton's City Manager	County or Municipal Government	Community Outreach	City manager was invited	https://www.nortonva.gov/directory.aspx?EID=38
Coalfield Progress	Other	Community Outreach	Sent press release regarding survey	https://www.thecoalfieldprogress.com/
Crossroads Medical Mission	Health or Telehealth Organization (Direct Service and Policy focus)	Data Collection	Invited to focus group	https://www.crossroadsmedicalmission.org/
Cumberland Mountain Community Services	Organization that Represents Covered Populations	Plan Development	Representative attended work group meeting	https://www.cmcsb.com/
DARS	Organization that Represents Covered Populations	Plan Development	Representative attended work group meeting	https://dars.virginia.gov
Dickenson Star	Other	Community Outreach	Sent press release regarding survey	https://dickensonstar.com/
District Three Governmental Cooperative	Organization that Represents Covered Populations	Data Collection	Sent Asset survey and invited to Stakholder mtg.	https://district-three.org
Family Crisis	Nonprofit Organization (501c3)	Community Outreach	Community Education and Advocacy Coordinator was invited	https://www.family-crisis.org/
Galax Department of Social Services	County or Municipal Government	Plan Development	Participated in strategy/plan development work group	https://www.dcfoffices.org/office/galax-city-department-of-social-s
Highlands Community Services	Organization that Represents Covered Populations	Plan Development	Attended focus group	https://highlandscsb.org/
Hope House of Scott County	Organization that Represents Covered Populations	Plan Development	Attended focus group	https://www.facebook.com/HopeHouseOfScottCountyInc/
Lee County Administration	County or Municipal Government	Community Outreach	County administrator was invited	http://www.leecova.org/CoAdmin.html
Lee County Board of Supervisors	County or Municipal Government	Community Outreach	members were invited	http://www.leecova.org/BoardOfSupervisors.html
Lee County Public Schools	Local Education Agency	Community Outreach	IT individual for the school district was invited	https://sites.google.com/leecoschools.com/lcps
Lonesome Pine Regional Library	Community Anchor Institution	Plan Development	Provided input about available resources	https://www.lprlibrary.org/
Mount Rogers Community Services Board	Health or Telehealth Organization (Direct Service and Policy focus)	Plan Development	Provided input about available resources	https://www.mountrogers.org/
Mount Rogers Health District	Health or Telehealth Organization (Direct Service and Policy focus)	Data Collection	Invited to focus group	https://www.vdh.virginia.gov/mount-rogers/
Mount Rogers Regional Adult Education Program	Local Education Agency	Plan Development	Attended focus group	https://mountrogersregionaladulteducat.godaddysites.com/
Mountain Empire Community College	Institutions of Higher Education (if not listed above)	Community Outreach	Information Technologies director was invited	https://www.mecc.edu/ccit/
New River/Mount Rogers Workforce Development Board	Workforce Development Organization	Plan Development	Representative attended work group meeting	https://vcwnrmr.com
New River/Mount Rogers Workforce Development Board	Workforce Development Organization	Plan Development	Representative attended work group meeting	https://vcwnrmr.com
Powell Valley News	Other	Community Outreach	Sent press release regarding survey	https://powellvalleynews.net/
Regional Adult and Career Education	Local Education Agency	Plan Development	Attended focus group	https://Myrace1.org
Russell County Public Library	Community Anchor Institution	Data Collection	Invited to focus group	https://russell.lib.va.us/
Scott County Administration	County or Municipal Government	Community Outreach	County administrator was invited	https://www.scottcountyva.com/Directory.aspx?did=10
Scott County Board of Supervisors	County or Municipal Government	Community Outreach	members were invited	https://www.scottcountyva.com/242/Board-of-Supervisors
Scott County Public Schools	Local Education Agency	Community Outreach	IT individual for the school district was invited	https://www.scottschools.com/
Scott County Star	Other	Community Outreach	Sent press release regarding survey	https://www.virginiastar.net/
Smyth County Department of Social Service	County or Municipal Government	Data Collection	Sent Asset survey and invited to Stakholder mtg.	www.virginia.gov
Smyth County Public Library	County or Municipal Government	Data Collection	Sent Asset survey and invited to Stakholder mtg.	www.scplva.net
Smyth County Public Schools	Local Education Agency	Data Collection	Sent Asset survey and invited to Stakholder mtg.	www.scsb.org
Southwest Regional Adult Education	Local Education Agency	Data Collection		https://adulted.russell.k12.va.us/
Southwest Virginia Community College	Institutions of Higher Education (if not listed above)	Data Collection	Representative attended work group meeting	https://sw.edu
Southwest Virginia Workforce Development Board	Workforce Development Organization	Plan Development	Provided input about available resources	https://www.vcwsouthwest.com
Southwest Virginia Legal Aid Society	Nonprofit Organization (501c3)	Plan Development	Attended focus group	https://svlas.org/
STRONG Accoutable Care Community	Health or Telehealth Organization (Direct Service and Policy focus)	Data Collection	Assisted with survey distribution to network of community provide	https://www.strongacc.org/
Tazewell County Public Library	Community Anchor Institution	Data Collection		https://tcplweb.org
Tazewell County Public Schools	Local Education Agency	Data Collection		https://www.tcpsva.org
The Southwest Virginia Sun	Other	Community Outreach	Sent press release regarding survey	https://swvasun.com/
United Way of Bristol	Nonprofit Organization (501c3)	Data Collection	Invited to focus group	https://unitedwaybristol.org/
United Way of Southwest Virginia	Nonprofit Organization (501c3)	Data Collection	Provided input about available resources	https://www.unitedwayswva.org/
University of Virginia's College at Wise	Institutions of Higher Education (if not listed above)	Community Outreach	Information Technologies director was invited	https://www.uvawise.edu/directory/grant-baker
Virginia Career Works New River Mount Rogers	Workforce Development Organization	Data Collection	Sent Asset survey and invited to Stakholder mtg.	vcwnrmr.com
Virginia Department of Corrections	Organization that Represents Covered Populations	Data Collection	Invited to focus group	https://vadoc.virginia.gov/
Virginia Employment Commission-Wythe Office	Workforce Development Organization	Data Collection	Sent Asset survey and invited to Stakholder mtg.	www.vec.virginia.gov
Washington County Public Library	Community Anchor Institution	Community Outreach	Hosted focus group	https://www.wcpl.net/
Washington County Public Schools	Local Education Agency	Data Collection	Invited to focus group	https://www.wcs.k12.va.us/
Wise County Administration	County or Municipal Government	Community Outreach	County administrator was invited	https://www.wisecounty.org/170/County-Administration
Wise County Board of Supervisors	County or Municipal Government	Community Outreach	members were invited	https://www.wisecounty.org/203/Board-of-Supervisors
Wise County Public Schools	Local Education Agency	Community Outreach	IT individual for the school district was invited	https://www.wisek12.org/
Wise County Redevelopment and Housing Authority	Public Housing Authority	Community Outreach	Director was invited	https://www.wcrha.org/
Wythe County Department of Social Services	County or Municipal Government	Data Collection	Sent Asset survey and invited to Stakholder mtg.	www.virginia.gov
Wythe County Public Schools	Local Education Agency	Data Collection	Sent Asset survey and invited to Stakholder mtg.	www.wythe.k12.va.us
Wythe Grayson Regional Library	County or Municipal Government	Data Collection	Sent Asset survey and invited to Stakholder mtg.	wgrlib.org
Wytheville Community College	Institutions of Higher Education (if not listed above)	Data Collection	Sent Asset survey and invited to Stakholder mtg.	www.wcc.vccs.edu
Wytheville Training School Cultural Center	Predominantly Black Institution	Data Collection	Sent Asset survey and invited to Stakholder mtg.	wythevilletrainingschool.org

Regional Digital Opportunity Plan: Stakeholder Engagement Tracker

Engagement Title/Description	Engagement Date	Engagement Type	Engagement Location	Target Audience	Target Audience Location	Target Audience County	# Engaged	Covered Populations Reached — Which covered populations did you engage?								Notes
Include a brief title of the engagement (Example: Community Outreach Listening Session #1)	Enter the date as MM/DD/YYYY	Include the type of stakeholder engagement that occurred, using the dropdown list	If applicable, please include the physical address of where the engagement took place	Who was the engagement for? (Example: Covered Populations, Regional Listening Session, etc.)	Is this local, regional, or statewide engagement?	If available, indicate which counties will be represented by this engagement	How many people were engaged? (Example: # of people who attended the event, completed the survey, etc.)	Individuals who live in covered households	Aging individuals	Incarcerated Individuals	Veterans	Individuals with disabilities	Individuals with a language barrier	Individuals who are members of a racial or ethnic minority group	Individuals who primarily reside in a rural area	Add notes of what was discussed and any key themes or feedback (optional)
Stakeholder and target population meetings scheduled.	4/20/2023	Other		Stakeholders and Target Populations	Local	Lee, Scott, Wise, City of Norton	Meetings have not occurred									Meetings scheduled for May 15, May 16, and May 22.
Inventory of Local Assets	4/21/2023	Email	N/A	Established asset information	Local	Tazewell										
Inventory of Local Assets	4/21/2023	Email	N/A	Established asset information	Local	Tazewell										
Inventory of Local Assets	4/21/2023	Email	N/A	Established asset information	Regional	Tazewell, Russell, Buchanan, Dickenson										
Inventory of Local Assets and invite to stakeholders meeting	5/2/2023	Email	N/A	Regional Stakeholder Listening Session	Regional	Smyth, Wythe, Bland	16	X	X			X	X	X	X	links and invites emailed for stakeholders meeting and assets
Invitations to stakeholder meetings were distributed.	5/3/2023	Email	N/A	Stakeholders	Regional	Carroll, Grayson, Galax	32									
Invitations to stakeholder meetings were distributed.	5/8/2023	Email	N/A	Stakeholders	Local	Lee, Scott, Wise, City of Norton	21 Stakeholders were invited across all counties									
Invitations to stakeholder meetings were distributed.	5/8/2023	Email		Stakeholders	Local	Lee, Scott, Wise, City of Norton	21 Stakeholders were invited across all counties									Meetings scheduled for May 15, May 16, and May 22.
Inventory of Local Assets and invite to stakeholders meeting	5/10/2023	Email	N/A	Regional Stakeholder Listening Session	Regional	Smyth, Wythe, Bland	16	X	X			X	X	X	X	links and invites emailed for stakeholders meeting and assets
Bridging the Digital Divide - Washington Cou	5/11/2023	Listening Session (In-person)	Washington County Library, Abingdon, VA, USA	General Population	Local	Washington	1									Participant represented individuals with language barriers, those in rural areas, and aging individuals
Planning to Advance Digital Equity - Washing	5/11/2023	Listening Session (In-person)	Virginia Highlands Small Business Incubator, French Moore Junior Boulevard, Abingdon, VA, USA	Regional Stakeholder Listening Session	Regional	Washington/Bristol	3									Participants represented individuals with disabilities, aging individuals, those in rural areas, and those with a language barrier.
Bridging the Digital Divide - Bristol	5/12/2023	Listening Session (In-person)	1235 W State St, Bristol, VA 24201	Covered Population	Local	Bristol	7	X	X	X		X			X	
Bridging the Digital Divide - Dickenson Count	5/13/2023	Listening Session (In-person)	11378 Dante Mountain Rd, Trammel, VA	Covered Population	Local	Dickenson	23	X	X						X	
Stakeholder and target population meetings	5/15/2023	Listening Session (In-person)	Lee County Public Library539 Joslyn Ave. Pennington Gap, VA 24277	Stakeholders and Target Populations	Local	Lee County	3	X							X	
Focus Group	5/16/2023	Listening Session (In-person)	1379 Tazewell Ave, North Tazewell, VA	Regional Stakeholder Listening Session	Regional	Tazewell, Russell, Buchanan, Dickenson	1	X				X		X	X	Representative of Southwest Regional Adult Education participated in focus group, providing information about the services the organization could provide in terms of education and outreach.
Focus Group	5/16/2023	Listening Session (In-person)	Big Stone Gap Public Library	Covered Population	Local	Norton and Wise County	0									
Focus Group	5/16/2023	Listening Session (In-person)	CVCA Main Office	Covered Population	Local	Tazewell	1									
Regional Stakeholder meeting	5/16/2023	Listening Session (In-person)	WCC, 1000 E. Main St. Wytheville, VA	Regional Stakeholder Listening Session	Local	Smyth, Wythe	4	X	X			X	X	X	X	Smyth County Library:hotspots and digital training and computer lab
Regional Stakeholder meeting	5/16/2023	Listening Session (In-person)	Big Stone Gap Public Library	Regional Stakeholder Listening Session	Local	Norton and Wise County	0									
Stakeholder and target population meetings	5/16/2023	Listening Session (In-person)	Wise Coounty Public Library11 Proctor St. Big Stone Gap, VA 24219	Stakeholders and Target Populations	Local	Wise County and the City of Norton	3	X							X	
Focus Group	5/18/2023	Listening Session (In-person)	Rooftop of Virginia, CAP	Covered Population	Local	Galax	3									
Focus Group	5/19/2023	Listening Session (In-person)	Carroll County VA Public Library	Covered Population	Local	Carroll	0									
Focus Group	5/22/2023	Listening Session (In-person)	297 W Jackson St, Gate City, VA 24251	Covered Population	Local	Scott	3	X	X							
Regional Stakeholder meeting	5/22/2023	Listening Session (In-person)	297 W Jackson St, Gate City, VA 24251	Regional Stakeholder Listening Session	Local	Scott	2									
Focus Group	5/23/2023	Listening Session (In-person)	Grayson County VA Public Library	Covered Population	Local	Grayson	3									
Regional Stakeholder meeting	5/30/2023	Listening Session (In-person)	CVCA Main Office	Regional Stakeholder Listening Session	Local	Tazewell, Russell, Buchanan, Dickenson	1	X				X		X	X	Representative of Southwest Regional Adult Education participated in focus group, providing information about the services the organization could provide in terms of education and outreach.
Planning to Advance Digital Equity	6/1/2023	Listening Session (Virtual)		Regional Stakeholder Listening Session	Regional	Washington, Dickenson, Bland, Lee, Scott, Wise, Washington, Smyth, Wythe, Carroll, Grayson, Buchanan, Dickenson, Tazewell, Bland, Russell, City of Bristol, Norton and Galax	6	X				X		X	X	
Tenant Meeting	6/1/2023	Listening Session (In-person)	Bristol Redevelopment and Housing Authority, Edmond Street, Bristol, VA	Covered Population	Local	Bristol	16	X								The group was primarily concerned about privacy and cyber-security issues. They have access to subsidized internet. They are worried about the impact of social media and the vulnerability of their personal information online.
Target population	6/2/2023	Email	N/A	Covered Population	Regional	Smyth, Wythe, Bland	19	X	X			X	X	X	X	link sent to Board and staff for survey
Target population	6/2/2023	Other	N/A	FaceBook post	Regional	Smyth, Wythe, Bland	433	X	X			X	X	X	X	link and QR code posted for survey

Organization	Contact	Type of Resource	Description	Geography Served	Targeted Populations
Appalachian Community Action and Development Agency, Inc. appcaa.org	Lisa Barton lbarton@appcaa.org	other	We offer some education on computer skills and also fraud prevention in financial counseling	Lee, Norton, Scott, Wise	Individuals living in households below 150% of the poverty level, Individuals with low levels of literacy, Older population, Racial or ethnic minorities, Residents of rural areas, Veterans, Individuals with disabilities
Bland County Library www.youseemore.com/bcpl/		Wi-Fi access	Patrons are able to access from Wi-Fi at the library.	Bland	
Bristol Library bristol-library.org/	Tonia Kestner tonia@bristol-library.org	computer classes/workshops, computer access, Wi-Fi access		Bristol	
Bristol Redevelopment and Housing Authority brha.com	Lynn Pannell lpannell@brha.com	computer access, Wi-Fi access, computer classes/workshops, advocacy for broadband or other needs	The EnVision Center provides computer access for residents of BRHA as well as the communities of Bristol, VA, and TN. Computer literacy classes are offered as well. Folks are welcome to come in and access the Wi-Fi during computer lab hours - Mon-Fri from 1:00 - 4:00 p.m.	Bristol	English language learners, Individuals living in households below 150% of the poverty level, Individuals with disabilities, Individuals with low levels of literacy, Older population, Racial or ethnic minorities, Residents of rural areas, Veterans
Bristol Virginia Public Schools bvps.org/	Jeffrey Shelton jshelton@bvps.org	computer loan, other	We provide 1 to 1 laptops to grades 2-12. Grades 6-12 can take them home. Grades 2-5 stay in carts in the classroom. We provide 1 to 1 iPads for grades Pre-K through 1st, and they stay in carts as well. We provide online safety training yearly and as needed to the students. We try to include an online safety component to parents as well at an event at the schools in the evenings.	Bristol	Residents of rural areas, Other, Racial, or ethnic minorities, Individuals living in households below 150% of the poverty level, Individuals with disabilities, Individuals with low levels of literacy, English language learners

Buchanan County Public Schools bcpsk12.com/?showHomepage=true	Kevin Yates kevin.yates@bcpsk12.com	computer access, computer classes/workshops	All students in Pre-K through grade 12 have devices to use from home. Pre-K through fifth grade students have iPads, while students in grades 6-12 have Chromebooks. The curriculum includes technological skills for each grade level. Plans are to continue to incorporate greater internet safety awareness and information. An internet safety plan has been developed and is being implemented. The curriculum in the business departments of all high schools has been revised and upgraded to focus on information technology. Equipment in each department has been upgraded to support the revised curriculum. All four high schools have Certiport testing Software for CTE credentialing testing.	Buchanan	Students
Buchanan County Library bcplnet.org/		Wi-Fi access	Patrons are able to access from Wi-Fi at the library.	Buchanan	
Buchanan County Technology & Career Center bccthlc.bcpsk12.com/	Time Bane tim.bane@bcpsk12.com	computer classes/workshops	All four high schools have Certiport testing Software for CTE credentialing testing. High Schools and BCCTHLC also use the Wise Financial Credentialing Test with their students. IC3 certification is offered at the Buchanan County Technology & Higher Learning Center. Some BCCTHLC classes prepare students for state board exams or state certifications.	Buchanan	Students
Dickenson County Career and Technology **www.dcps.k12.va.us/district/departments/career___technical**	Denechia Edwards dedwards@dcps.k12.va.us	computer classes/workshops	Offers classes in IT and cybersecurity	Dickenson	Students

Dickenson County Public Schools **www.dickenson.k12.va.us**	Ryan Wallace rwallace@dcps.k12.va.us	advocacy for broadband or other needs, computer access, computer classes/workshops	Provides resources to assist families in applying for ACP. Digital Citizenship training. Device access for students.		
Lee County Public Schools leecoschools.com/	Brian Dean webmaster@lee.k12.va.us	computer classes/workshops	Computers are used for instruction in the classroom	Lee	Individuals living in households below 150% of the poverty level, Individuals with disabilities, Individuals with low levels of literacy, Racial or ethnic minorities
Lonesome Pine Regional Library www.lprlibrary.org/	Shannon Steffey ssteffey@lprlibrary.org	computer access, computer loan, Wi-Fi access, Wi-Fi hotspot	Library, 21 hot spots cost $9020.11; 23 iPads, 23 chrome books, 8 lap tops, Grant money	Wise, Scott, Norton, Lee, Dickenson	Residents of rural areas
Mount Rogers Community Services www.mountrogers.org/	Angela Shupe angela.shupe@mountrogers.org	computer access, technical support, computer classes/workshops, Wi-Fi access	Youth enrolled in the program are provided with computer and W-Fi access, career-focused computer classes, and technical support.	Grayson, Carroll, Galax, Smyth, Wythe, Bland	
Mount Rogers Regional Adult Education Program mrraep.com	Shannon Mutter shannonm@wcs.k12.va.us	computer access, computer classes/workshops, computer loan, Wi-Fi access	We provide free adult education classes. We have 10 Chromebooks that we loan throughout the Mount Rogers Region. We also have 5 older hp laptops that we loan across the region.	Bland, Bristol, Carroll, Galax, Grayson, Smyth, Washington, Wythe	English language learners, Incarcerated individuals, Individuals living in households below 150% of the poverty level, Individuals with disabilities, Individuals with low levels of literacy, Older population, Racial or ethnic minorities, Residents of rural areas, Veterans
Mountain Community Action Program, Inc. www.mountaincap.org	Andrea Williams awilliams@mountaincap.org	financial assistance for internet access, other	Clients enrolled in Adult Education have access to classes that will allow them to qualify for a certification that will make them eligible for improved employment opportunities. These clients may have a computer purchased for them. Clients must apply, then maintain passing grades in classes that prepare them for employment in a specific area	Bland, Smyth, Wythe	individuals in households at 200% of the federal poverty rate
Mountain Empire Community College mecc.edu/	Kristen Westover mgibson@mecc.edu	computer access, computer classes/workshops	MECC is the community college for the area. It provides computer classes for skilled and unskilled learners	Dickenson, Lee, Norton, Scott, Wise	Individuals living in households below 150% of the poverty level, Individuals with disabilities, Older population, Racial or

					ethnic minorities, Residents of rural areas, Veterans
Norton City Schools nortoncityschools.org	Dr. Gina Wohlford gwohlford@nortoncityschools.org	computer classes/workshops, computer loan	Computers are used in the daily instruction and used at home for homework.	Norton	Individuals living in households below 150% of the poverty level, Individuals with disabilities, Individuals with low levels of literacy, Racial or ethnic minorities
People Incorporated of Virginia www.peopleinc.net	Beth Carico ecarico@peopleinc.net	other	We may provide computers to WIOA clients when it is required for their participation in training. They have to be eligible for the WIOA program first before they are considered for this supportive service. The VA Career Works One-Stop Centers offer public computer access for the purpose of job search/employment.	Bland, Bristol, Buchanan, Carroll, Galax, Grayson, Other, Washington, Wythe, Smyth, Russell, Dickenson, Pulaski, Giles, Montgomery, Floyd, Radford	Individuals with low levels of literacy, Individuals with disabilities, Individuals living in households below 150% of the poverty level, English language learners, Incarcerated individuals, Veterans, Dropouts, Public Assistance Recipients
Regional Adult & Career Ed Myrace1.org	Rebecca Scott Rscott@myrace1.org	computer classes/workshops, computer access, free or reduced cost computers, technical support, Wi-Fi access, Wi-Fi hotspot	Free digital literacy classes are offered at all class locations with free certifications offered in 16 areas	Lee, Norton, Scott, Wise	English language learners, Incarcerated individuals, Individuals living in households below 150% of the poverty level, Individuals with disabilities, Individuals with low levels of literacy, Older population, Racial or ethnic minorities, Residents of rural areas, Veterans
Russell County Library russell.lib.va.us/		computer classes/workshops, Wi-Fi access		Russell	
Russell County Public Schools www.russell.k12.va.us/	Brandon Vance brandon.vance@russell.k12.va.us	computer access	Each student in grades 4-12 receive their own Chromebook. The schools also provide classroom sets for grades K-3 and classroom sets of iPad for Pre-K students. Students receive Digital Citizenship training.		
Scott County Schools scottschools.com/	John Ferguson john.ferguson@scottcountyschools.com	computer classes/workshops, computer loan	Scott County Schools is charged with educating the children of Scott County. Computers are used for in class instruction.	Scott	Individuals living in households below 150% of the poverty level, Individuals with disabilities, Individuals with low levels of literacy, Racial or ethnic minorities,

					Residents of rural areas
Smyth Co. Career & Tech sctc.scsb.org/		computer classes/workshops	Classes for IT certifications	Smyth	
Smyth County Library www.scplva.net/	rosel@scplva.net	computer access, computer classes/workshops, technical support, Wi-Fi access		Smyth	Residents of rural areas, Older population
Smyth County School Board www.scsb.org/	Terry R. Hawthorne terryh@scsb.org	computer access, computer classes/workshops, technical support	Middle and high school students receive a Chromebook to take home each day. There is a $20 rental fee that can be waived. At the end of the year, students have the option of paying next years' fee if they want to keep their Chromebook over the summer to use. Freshman usually get a new one and when they graduate it is theirs to keep.	Smyth	Youth
Southwest Virginia Community College sw.edu/	Adrianna Culbertson adrianna.culbertson@sw.edu	computer access, computer classes/workshops, technical support, Wi-Fi access		Buchanan, Dickenson, Russell, Tazewell	
Southwest Virginia WDB www.vcwsouthwest.com	Tiffanie Goff t.goff@swvaworks.com	computer access, computer classes/workshops, computer loan, Wi-Fi access, technical support	The entity provides workforce development opportunities to various groups in multiple counties	Buchanan, Dickenson, Lee, Tazewell, Norton, Wise, Scott	Incarcerated individuals, Individuals living in households below 150% of the poverty level, Individuals with disabilities, Individuals with low levels of literacy, Residents of rural areas
Tazewell County Library www.tcplweb.org/	Chris Wilkes jwilkes@tcplweb.org	computer access, computer classes/workshops, technical support, Wi-Fi access		Tazewell	
Tazewell County Public Schools www.tcpsva.org/	Melanie Lashinsky mlashinsky@tcpsva.org	advocacy for broadband or other needs, computer access, computer classes/workshops, technical support, other	digital inclusion funding	Tazewell	English language learners, Individuals living in households below 150% of the poverty level, Individuals with low levels of literacy, Individuals with disabilities, Racial or ethnic minorities, Residents of rural areas

Tazewell County Public Schools - Career and Technical Center ctc.tcpsva.org/	Charity Hurst - Principal Dr. Chris Stacy TCPS Superintendent churst@tcpsva.org	computer classes/workshops, computer access	This entity is the career and technical center for Tazewell County Public Schools. Classes in Mechantronics are offered at the facility. Additional C&T computer classes are offered at each high school in the county.	Tazewell	Residents of rural areas, High School students
United Way of Southwest Virginia www.unitedwayswva.org	Crystal Rasnake info.childhoodsuccess @unitedwayswva.org	computer access, computer classes/workshops, technical support	Childhood Success program offers computer classes and access to computers		Child Care Providers and Families with young children
Virginia Highlands Community College www.vhcc.edu	Robert Phillips rphillips@vhcc.edu	computer classes/workshops, computer access, Wi-Fi access, Wi-Fi hotspot	Provides access to computers, internet access, and computer training	Bristol, Smyth, Washington	English language learners, Individuals living in households below 150% of the poverty level, Incarcerated individuals, Individuals with disabilities, Individuals with low levels of literacy, Older population, Racial or ethnic minorities, Residents of rural areas, Veterans
Washington County Career and Technical Education Center wcctec.wcs.k12.va.us/o/ wcctec	Brian Johnson brianj@wcs.k12.va.us	computer classes/workshops	The CTE programs offers course studies in Cybersecurity Fundamentals, CCNA Cybersecurity Systems Technology, and Computer Network Hardware Operations I-IV.	Washington	Students
Washington County Library www.wcpl.net	Molly Schock mschock@wcpl.net	Wi-Fi hotspots, computer access, technology assistance, computer classes/workshops	WCPL currently has 20 hotspots to loan will all checked out at any given time (same group of people checking them out) used primarily for recreational use; expanded wi-fi access available at all libraries with wi-fi available outside of the building (until 11:00 pm); technical support provided in-person and over the phone; computer access via public computer labs in each library; on-demand computer/technology assistance offered on a one-to-one basis based on needs of guest; subject specific classes are also offered based on need.	Washington	Staff routinely offers targeted "programs" for older guests and for residents of rural areas

Organization	Contact	Services	Description	Counties Served	Target Population
Wise County Public Schools wisek12.org	Mike Goforth mgoforth@wisek12.org	computer access, computer classes/workshops, computer loan, free or reduced cost computers, Wi-Fi hotspot	Students are enrolled to receive a public education. Each student is issued a tablet for instructional use for in class and at home.	Wise	Individuals living in households below 150% of the poverty level, Individuals with disabilities, Individuals with low levels of literacy, Racial or ethnic minorities
Wythe County Library wythegrayson.lib.va.us/wythe-county-library-branch/	Mary Thomas mthomas@wgrlib.org	Wi-Fi access		Wythe	
Wytheville Community College www.wcc.vccs.edu/	jboukadida@wcc.vccs.edu	computer classes/workshops		Bland, Carroll, Galax, Grayson, Smyth, Wythe	
Wytheville Training & Cultural Center www.wythevilletrainingschool.org/		computer classes/workshops		Wythe	
Southwest Regional Adult Education sites.google.com/russell.k12.va.us/adulted	Beverly Proffitt	computer classes/workshops	Offers Northstar computer literacy training	Buchanan, Dickenson, Russell, and Tazewell	English language learners, Individuals living in households below 150% of the poverty level, Individuals with low levels of literacy, Individuals with disabilities, Residents of rural areas
Washington County Career and Technical Education Center wcctec.wcs.k12.va.us/o/wcctec/page/information-technology	Brian Johnson brianj@wcs.k12.va.us	computer classes/workshops	Offers training and certifications in cybersecurity and computer network hardware	Washington	Students