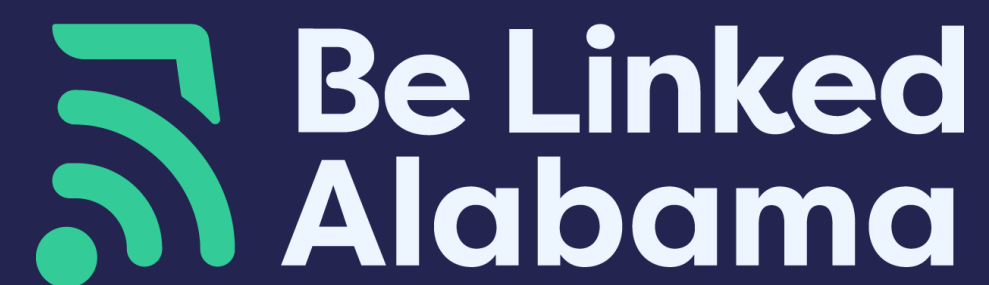


Russell County

Broadband Profile

August 2023



Profile Background

This report was prepared by the Alabama Department of Economic and Community Affairs for Russell County.

ADECA thanks the elected officials, staff, internet service providers (ISPs), institutions, and residents of Russell County for their input and insights.



Introduction

ADECA is pleased to present this profile document for Russell County. This plan was developed as part of ADECA's Alabama Community Broadband Technical Assistance Program in 2022 and 2023.

The profile is based on meetings with County partners, data collected through a phone survey of residents, the Alabama Broadband Map, and a range of federal and other relevant data sets.



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An executive summary of findings and recommendations.

2. Background: The Broadband Market and Ecosystem

Background information on the broadband market and the economics of broadband deployment. This provides a framework to understand broadband deployment challenges and identify potential partners for County efforts.

3. Broadband availability and services in Russell County

Data that describes the current state of broadband in Russell County, including areas that may be eligible for state and federal grant funding.

4. Broadband adoption and Digital Opportunity in Russell County

Data regarding the current state of broadband adoption and opportunity in Russell County, including issues like affordability, access to devices, and digital skills.

5. Local perspectives and input

Feedback shared by potential County partners on the current obstacles to connectivity and the existing Digital Opportunity programs.

6. Opportunities for collaboration and partnerships

Presents a framework for understanding how communities can partner with service providers to mutual benefit.

7. Broadband grant funding

A summary of grant opportunities that offer funding for broadband adoption and Digital Opportunity initiatives.

8. Next steps and ADECA's upcoming efforts

Describes ADECA's upcoming multi-year broadband efforts and how Russell County can contribute and participate.



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01

Executive Summary

Overview

This section presents an overview summary of ADECA's findings regarding the broadband infrastructure and Digital Opportunity landscape in Russell County. It briefly summarizes the content of the County Broadband Profile, including potential strategies and opportunities to address broadband availability and Digital Opportunity.



Background

This County Broadband Profile results from ADECA's award to Russell County of support under the Alabama Community Broadband Technical Assistance Program.

In 2020 and 2021, ADECA identified an urgent need for broadband planning to address gaps in broadband infrastructure and participation, and to allow communities to plan for grant opportunities.

Through its competitive Technical Assistance Program, ADECA is providing technical assistance for communities seeking to expand broadband infrastructure and services in response to the critical need for internet access.

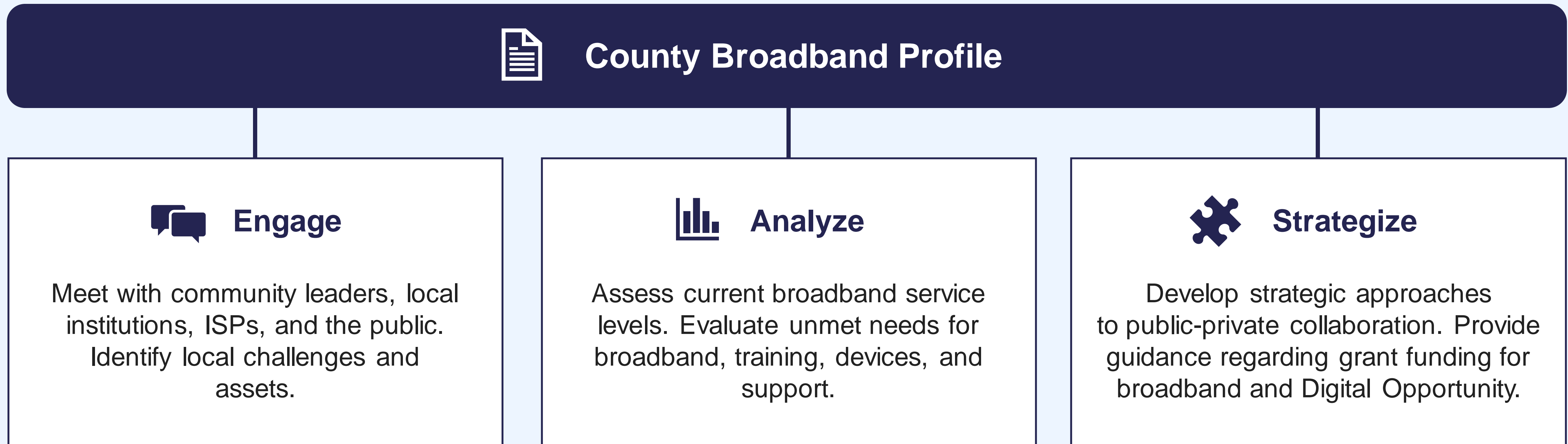
In 2021, ADECA received a grant from the U.S. Economic Development Administration to provide broadband technical assistance for local communities.

The technical assistance — as delivered in this County Broadband Profile — takes a broad view of infrastructure and digital participation needs across the County and provides recommendations for how the County can improve its broadband profile.



ADECA's Technical Assistance Program

The Technical Assistance Program followed three stages that led to the development of this County Broadband Profile.



Opportunities

The current moment presents an opportunity to address broadband challenges through state, local, and ISP efforts.



Awareness of Broadband's Criticality

following the pandemic and widespread adoption of remote work and education.



State and Federal Funds

available now and in the next few years for infrastructure. Federal funds may be available to help lower-income households afford broadband service.



Growing Data Needs

resulting from growth in digitalization, online services, streaming, and connected devices.



ISP Investment Plans

to expand and upgrade current networks through both public grants and private funds, in collaboration with the state and localities.



ADECA's engagement with Russell County

In-person meetings in the County, along with statewide engagements, will inform ADECA's planning for the upcoming grant programs.

Initial collaboration

- ADECA collaborated with Russell County leaders to identify participants and coordinate logistics for an on-site meeting. The meeting was designed to share information about the Broadband Equity, Access, and Deployment (BEAD) and Digital Opportunity programs, understand barriers to broadband, and gather information about current broadband related programs in communities throughout the County.
- ADECA invited 80 people from a pool of government officials, ISPs, and community-based organizations; the public was also invited to attend.

On-site meetings

- ADECA conducted this meeting at the Russell County Courthouse on May 9, 2023. 8 participants were in attendance, including organizations representing the entities listed to the right.
- Appendix D includes a partial list of organizations that attended the on-site meeting.

Outcome

- Participants provided insights into their community-specific needs and what obstacles to broadband they were experiencing. They also shared programs that are making an impact on broadband access and Digital Opportunity.



The meetings in Russell County included participation from a range of entities:

- ISPs
- Elected officials
- Members of the public
- Union leaders
- Local utilities



Local perspectives

Partners note barriers and obstacles to broadband opportunity.



Elected Officials

Emphasized that broadband networks constructed with public funding should be built to be as future-proof as possible, so that broadband infrastructure can last for decades, and not just a few years, with more public funds required.



Union Leaders

Said that safe broadband deployments require a skilled local workforce, highlighting the need for more local workforce development programs, including training classes and apprenticeships.



Internet Service Providers

Described how supply chain bottlenecks may delay network deployment, even under ideal circumstances.

Noted that some residents may need support developing digital skills.



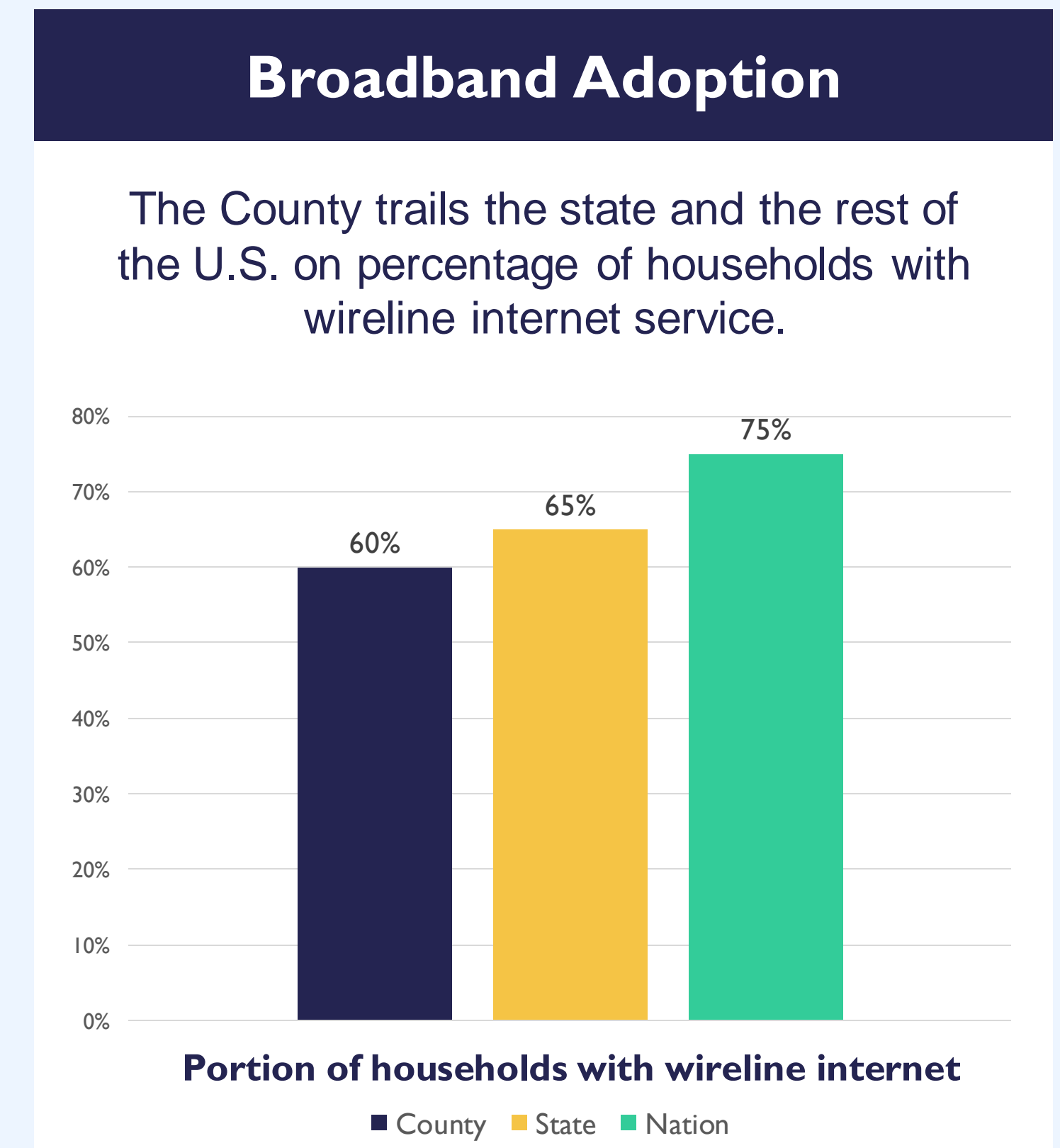
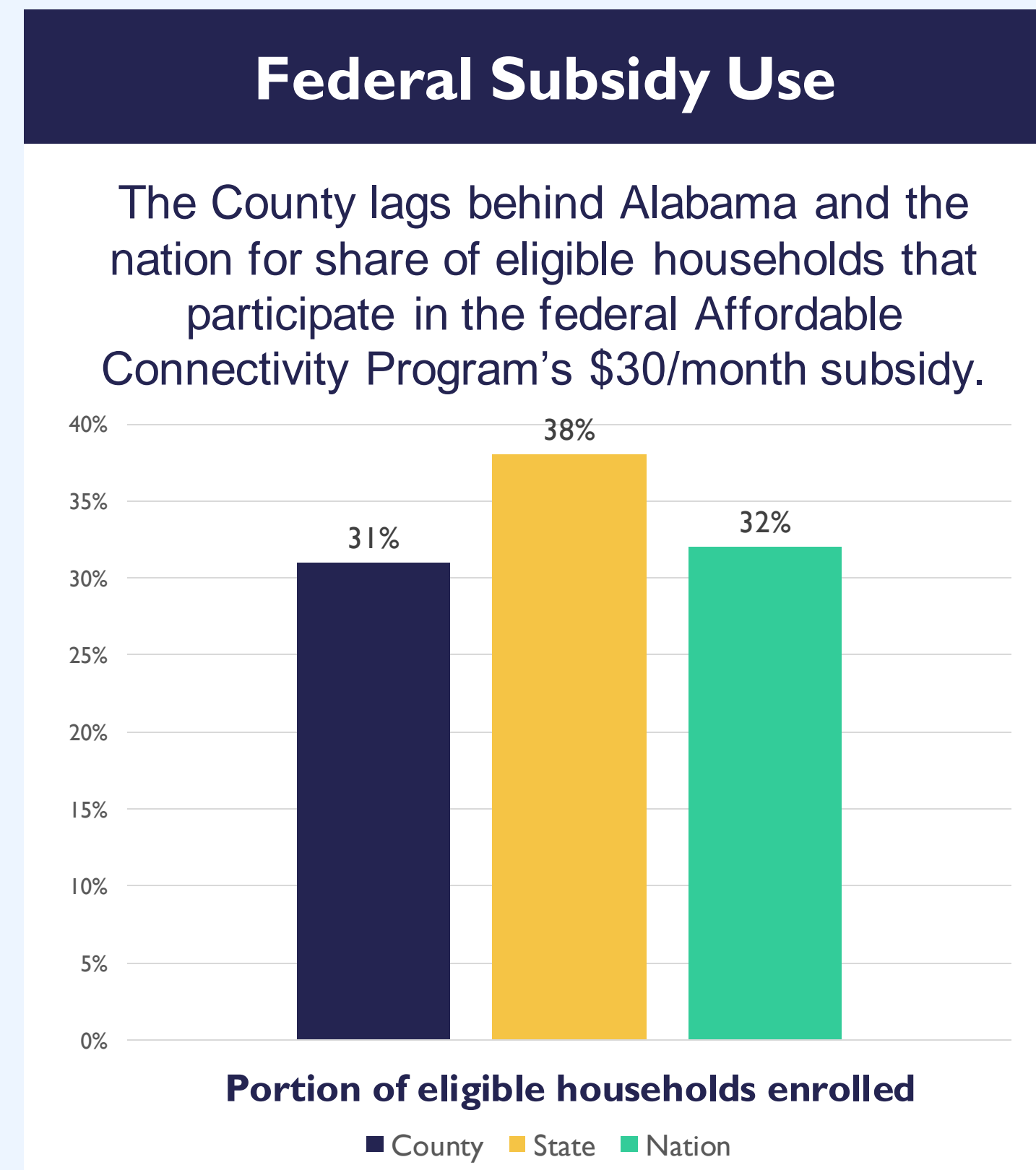
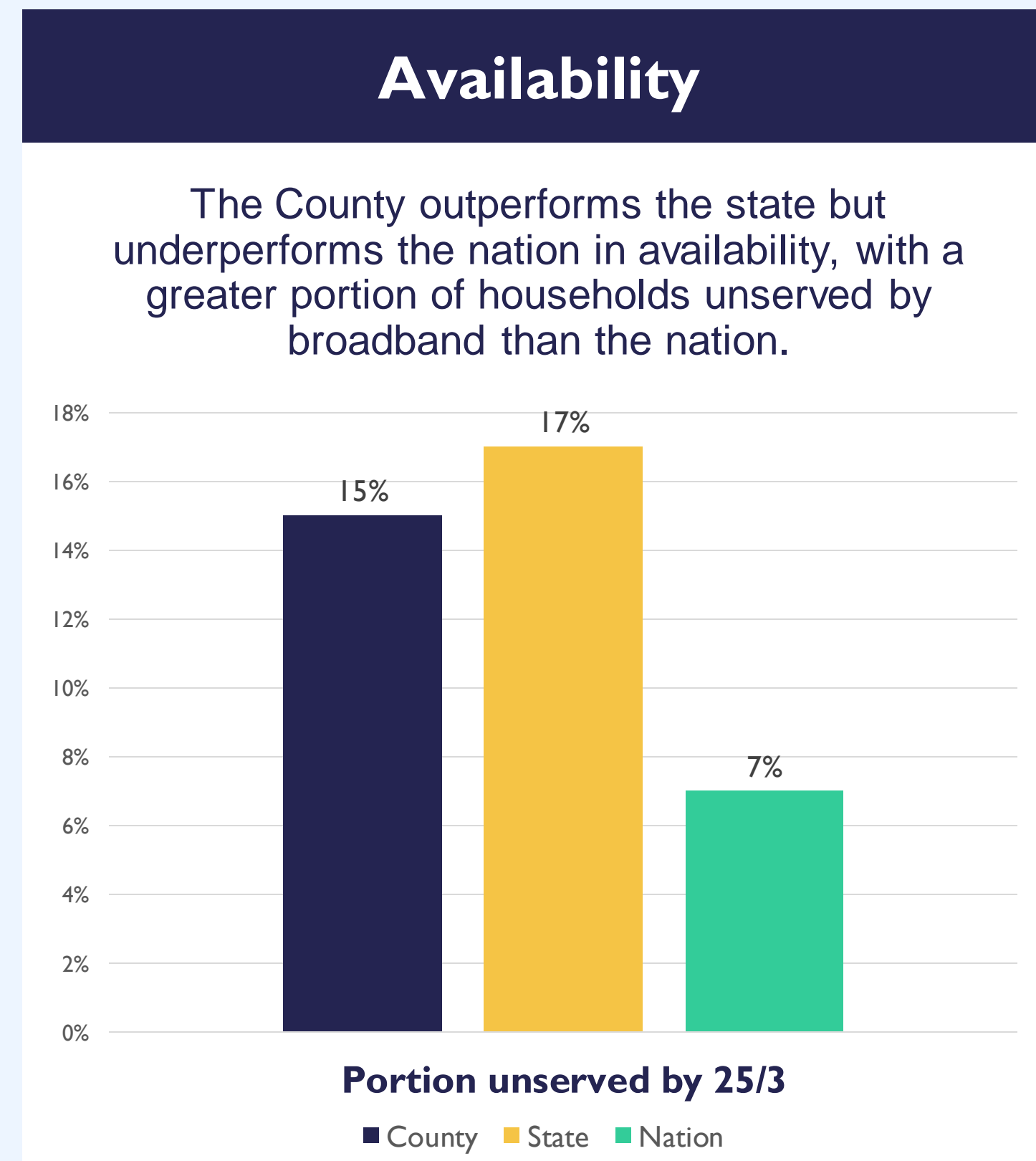
Residents

Reported challenges with internet reliability and described that outages are a regular experience of residents and businesses, disrupting their ability to have fully functional use of broadband.



Summary of findings

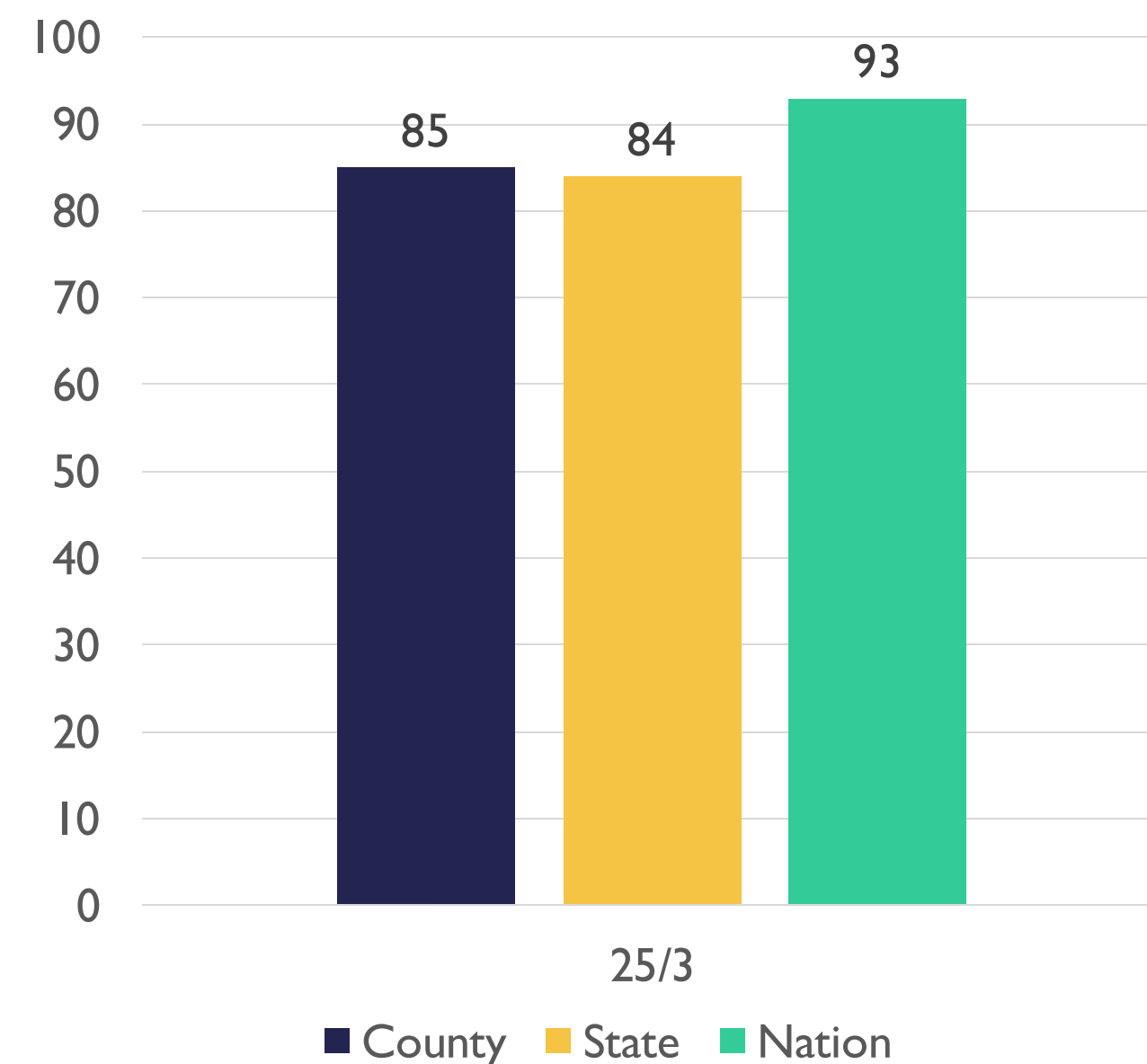
Russell County performs well relative to other Alabama counties on availability but lags behind national averages for subsidy use and broadband adoption.



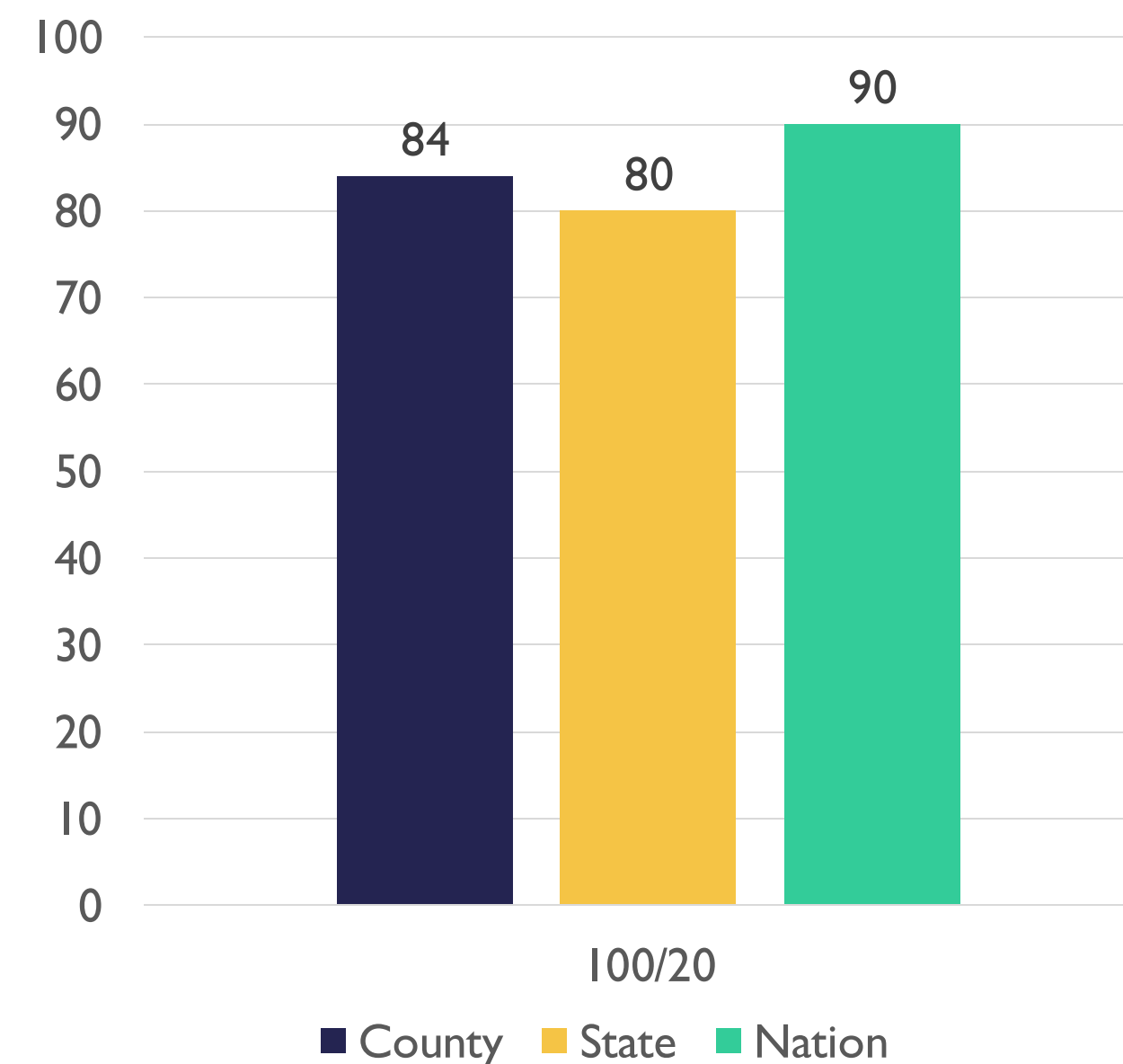
Findings on availability

Russell County lags behind the nation in broadband availability but is in line with Alabama and outperforms the state on infrastructure at the highest speeds.

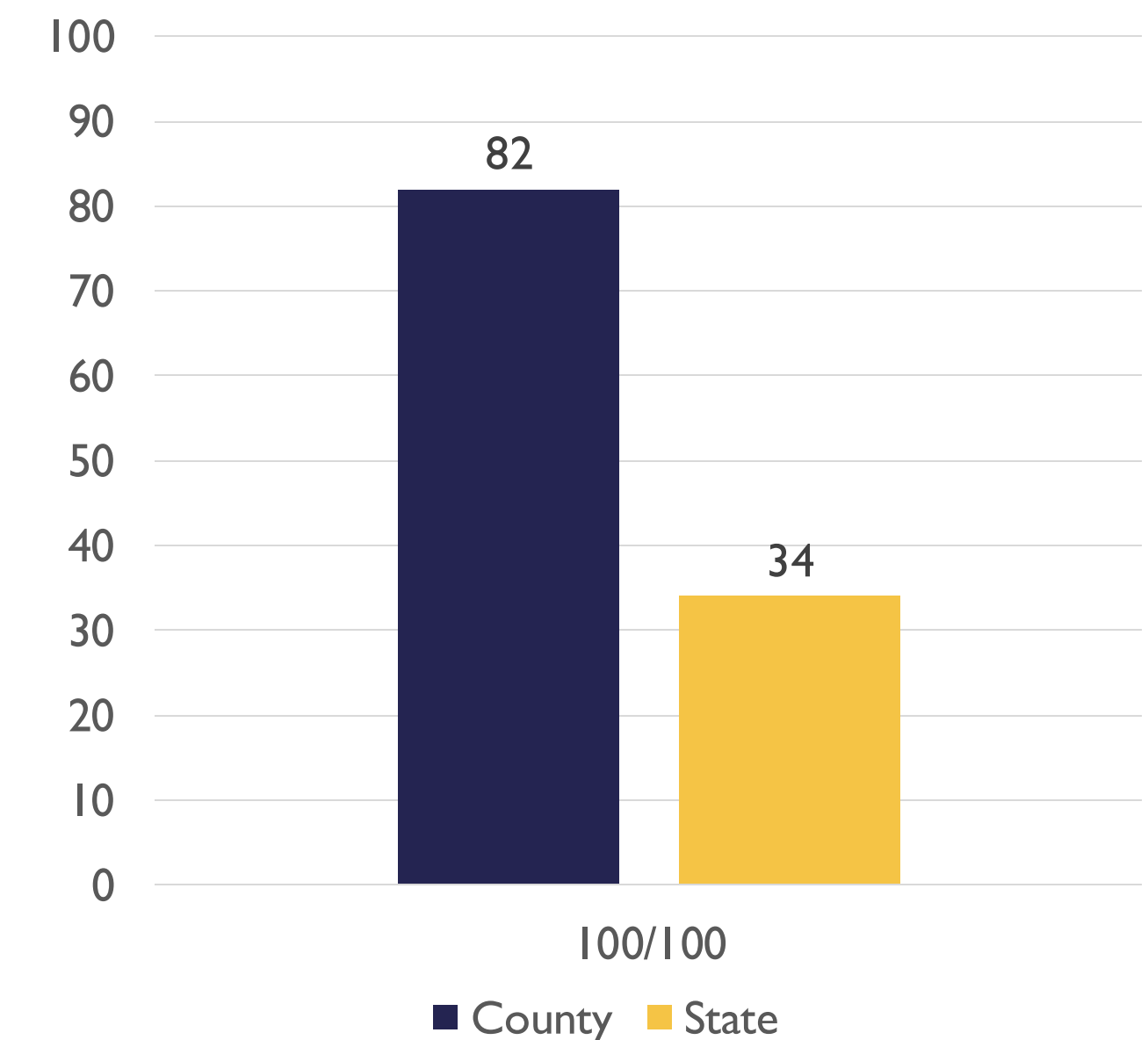
Percentage of units served by $\geq 25/3$ Mbps



Percentage of units served by $\geq 100/20$ Mbps



Percentage of units served by $\geq 100/100$ Mbps

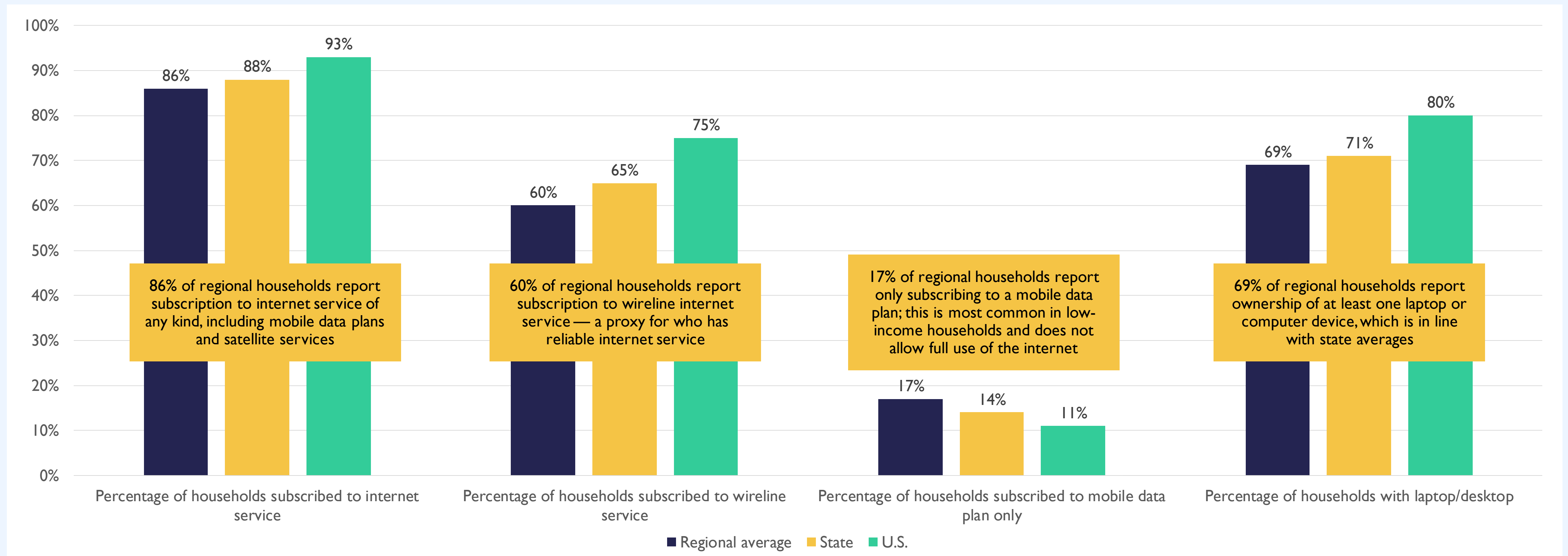


FCC's National Broadband Map does not report national figures for 100/100 Mbps



Findings on adoption and use

Russell County's region lags behind the state and national averages on all broadband adoption parameters.



Findings on Digital Opportunity

Lower-income residents lag across four pillars of Digital Opportunity.

Findings were derived from Census survey data, and ADECA's phone survey of County residents, both of which inquired on residential needs in internet and device access, and confidence in digital skills.



Broadband Access

Low-income households subscribe to internet at lower rates and report less reliable service. Subsidies available from the federal Affordable Connectivity Program are underutilized.



Devices and Tech Support

Low-income, senior, and disabled households lag behind others in device ownership.



Privacy and Security

Low-income households do not feel confident in their ability to identify fraud and misinformation.



Digital Skills

Many low-income households are not confident in their ability to use basic digital skills. Senior households lag behind other groups in key digital skills, including accessing medical services.

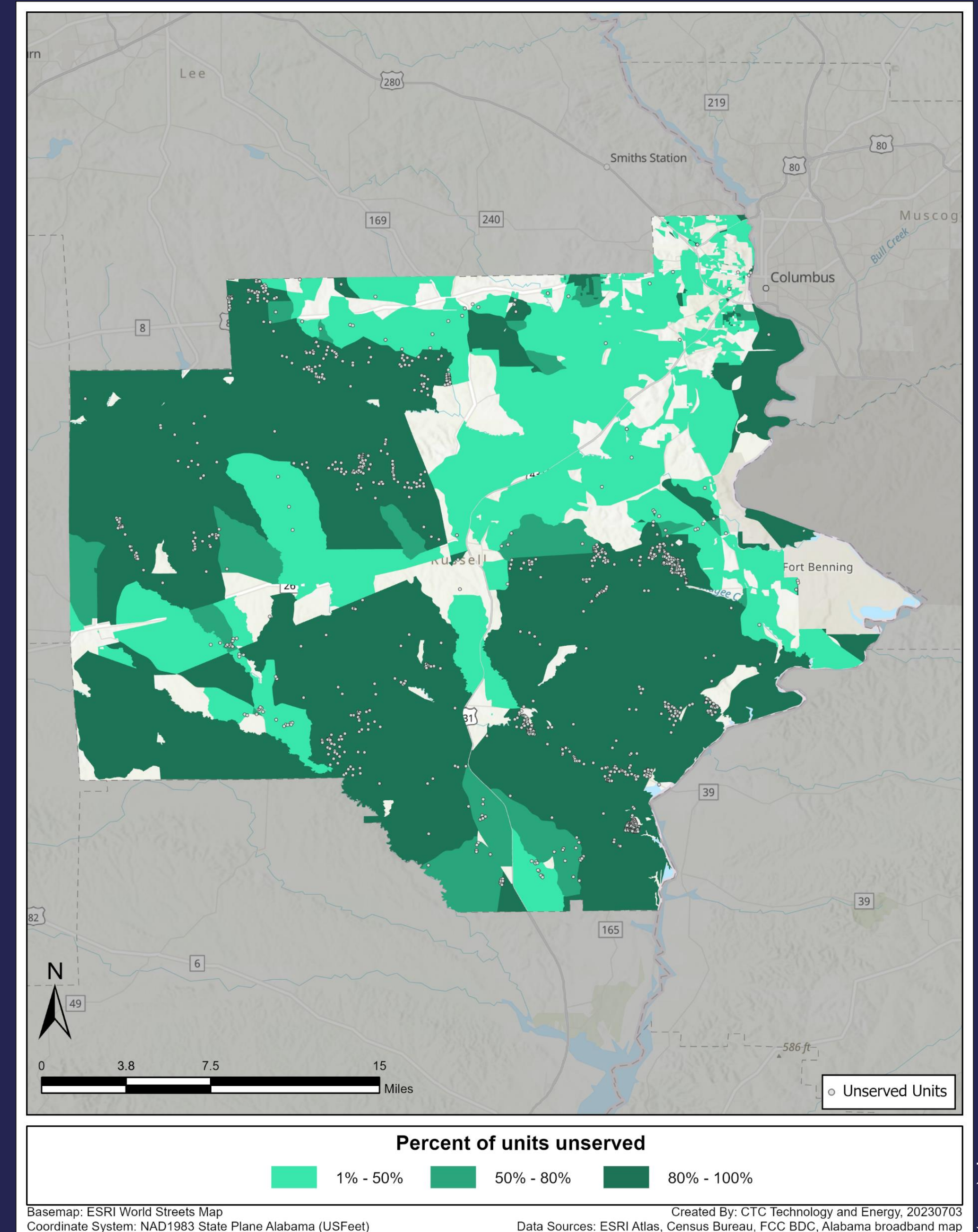


15% of County units are *unserved* on the FCC Map

These unserved locations do not have access to an internet service product providing speeds of greater than or equal to 25/3 Mbps.

These areas are the top priority for federal funding under the Infrastructure Investment and Jobs Act, through the Broadband Equity, Access, and Deployment (BEAD) program.

ISPs and policymakers can observe additional address-level data on unserved units on ADECA's Alabama State Broadband Map.

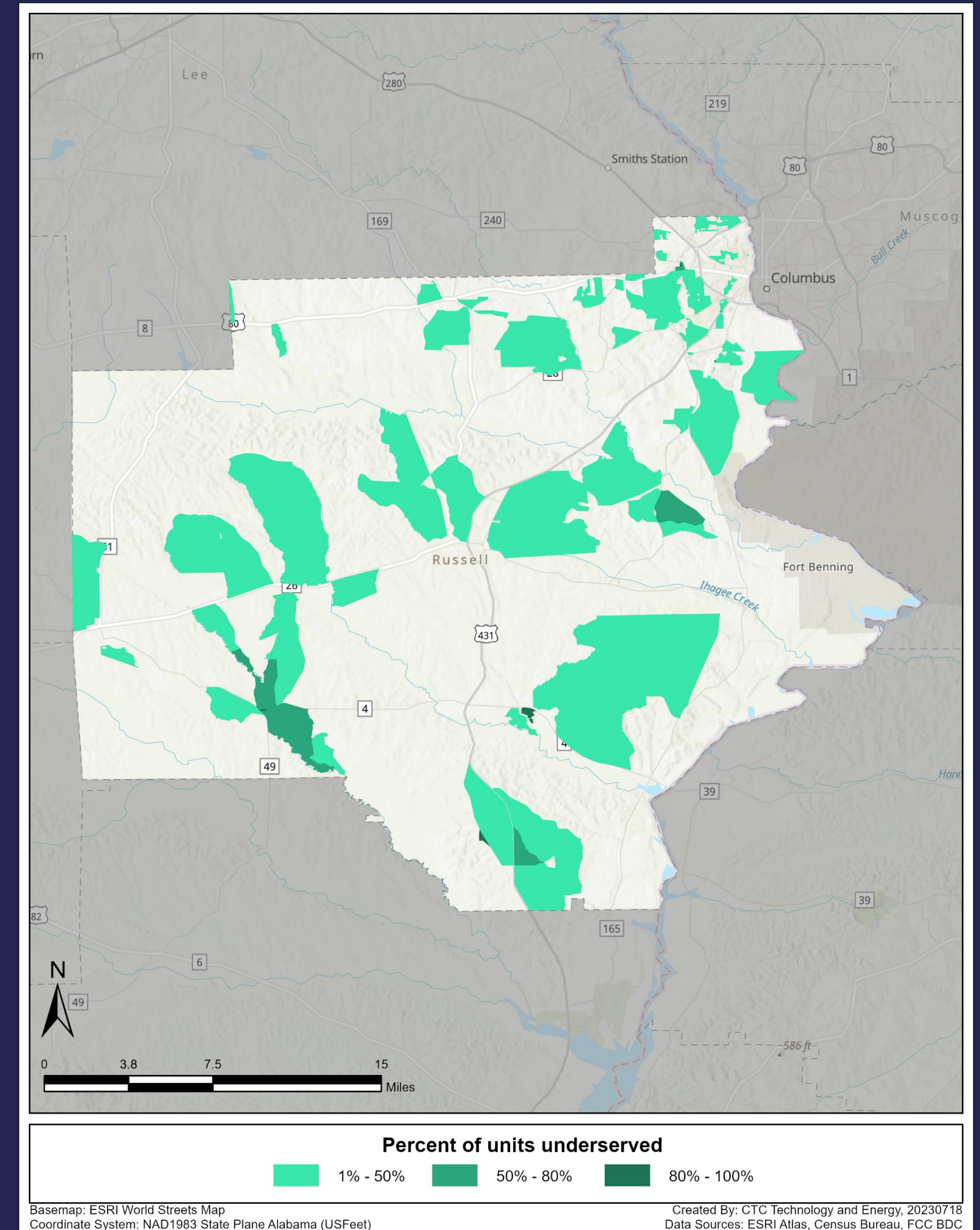


1% of County units are *underserved* on the FCC Map

Under federal rules for the upcoming broadband funding (known as “BEAD”), underserved areas (between 25/3 Mbps and 100/20 Mbps) receive funding if unserved areas are connected first.

Addresses are sometimes inaccurately reported as underserved when they are actually unserved if ISPs overstate the capabilities of their networks. This sometimes happens with DSL and fixed wireless/mobile home internet products.

As only a few locations in Russell County fall into this federal “underserved” category, Russell County can focus on encouraging deployment in unserved areas under both the Alabama and federal maps.



Summary of strategies

ADECA recommends Russell County consider several strategies to prepare for upcoming funding opportunities over the next two years.

Challenge	Recommendation	Potential Impacts on:		
		Availability	Affordability	Adoption
Unserved locations	1. Identify ISPs that commit to meeting County needs and support applications for ADECA broadband infrastructure funds	✓		
Low ISP interest in investing in low-density areas of Russell County	2. Consider strategies to attract ISP interest, including modest grants, support for grant applications, and optimized, efficient permitting	✓		
Affordability of internet service and device procurement	3. Develop programs, potentially with schools, libraries, or nonprofits, to help low-income households use federal subsidy programs, such as the Affordable Connectivity Program		✓	✓
Insufficient digital skills among low-income households	4. Support programs, such as those housed by some Alabama libraries, to help low-income households develop internet skills and access devices			✓
Lack of resources for programs to increase adoption and use	5. Develop local plans to apply for federal Digital Equity Act grants in 2025			✓



Strategy: consider programs to improve opportunity

Educational programming and subsidy programs may help lower-income and senior residents.



Broadband Access

Communicate with ISP partners regarding known service gaps and emerging markets to prioritize infrastructure in areas without reliable service. Partner with ISPs and local organizations to publicize the federal Affordable Connectivity Program to low-income households.



Devices and Tech Support

Consider a device giveaway program in partnership with organizations, such as PCs for People. Market these programs to low-income households that are likely enrolled in other support programs.



Privacy and Security

Review the digital skills curriculum of current and future digital skills programs to make sure they educate participants on privacy and security risks.



Digital Skills

Support the local digital skills programming by sharing resources and facilities and providing additional marketing; programs relevant to Russell County are listed in Appendix C.

Partner with AARP and hospitals to address challenges that seniors face accessing telehealth.



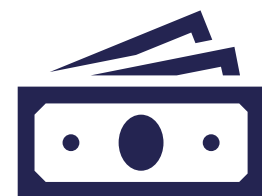
Overview of ISP market dynamics

ISPs prioritize lower-cost, higher-income areas where returns are high and risk is low. Counties can use proven strategies to improve their attractiveness for private investment.

Certain areas see low levels of investment because private ISPs choose to invest elsewhere, where return will be greater



Low-density areas are unattractive for investment because there are fewer potential customers available relative to construction costs.

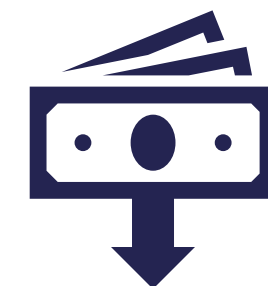


Low-income areas are less attractive for investment because low-income consumers subscribe at lower levels than higher-income households.

Russell County can use proven strategies to help make these areas more attractive to ISPs



ISP revenue opportunity increases in places where counties help low-income consumers access federal broadband subsidies or learn digital skills to use the internet.

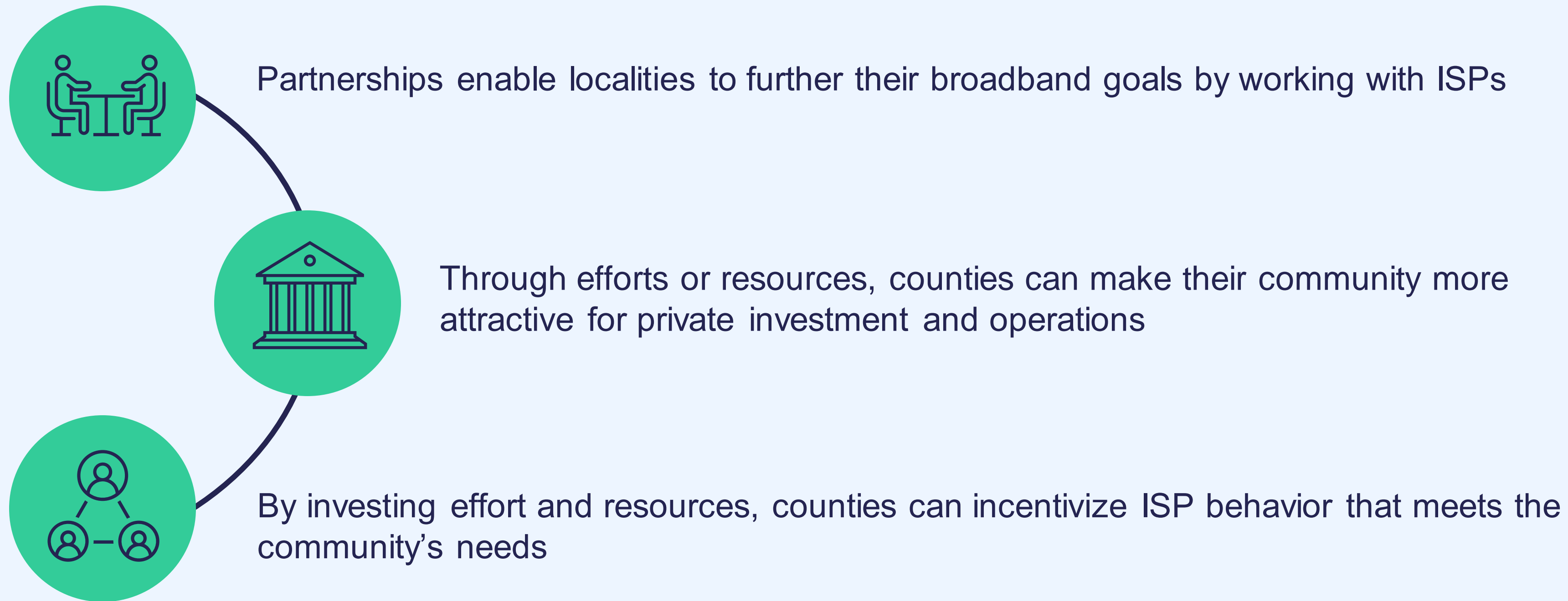


ISP costs are reduced in places where counties facilitate ISP deployment or offer grants or access to public assets.



Strategy: develop public-private collaboration to improve local broadband infrastructure

Working together can enable communities and ISPs to develop win-win outcomes.



Three primary models for public-private collaboration can drive infrastructure deployment

Every community should adopt and refine the approach or approaches that best meets its own needs and goals.

1

Facilitation

1. The community makes investment more attractive for companies
2. Mechanisms include lowering costs and increasing revenues

2

Grant

1. The community makes a grant to the company
2. The company makes enforceable commitments to build infrastructure and deliver service

3

Investment

1. The community pays for and owns the network assets
2. The private partner operates the network and provides service to the public

Any of these models can accommodate collaboration between counties and ISPs to prepare for the funding that ADECA will administer — and to enable the County to support its preferred partner, including through provision of financial support.



Strategy: partner with organizations that serve the community

These organizations are logical partners for Digital Opportunity efforts such as training and expanding access to devices.

1

Organizations such as AARP, the Alabama Public Library Service, the Alabama Community College System, United Way, and the Black Belt Digital Equity and Inclusion Coalition shared their interest in collaborations to develop programs that increase digital skills and device access among their partners, members, and patrons.

2

A wide range of community organizations recognize the importance of local coalitions, including to maximize opportunities for Digital Opportunity/equity grant funding from the U.S. Department of Commerce in 2025.

3

ADECA has developed a Community Broadband Organization and Programming Inventory to help identify organizations participating in Digital Opportunity programming; programs relevant to Russell County are listed in Appendix C.



Strategy: prepare for funding opportunities

Russell County can take steps to inform ADECA'S plans for federal infrastructure and Digital Opportunity funds — and to benefit from them.

Ensure service coverage data accurately reflects availability in your County

- Check the FCC map and challenge if necessary
- Provide data on unserved and underserved locations to the FCC

Continue to collect Digital Opportunity data to understand your community

- Understand how many households lack access to broadband because of affordability, language, or other issues — even where it is available
- Use existing data and collect new data to understand challenges

Develop partnerships with nonprofits for Digital Opportunity programs

- Using your data, prioritize areas of effort for your community
- Identify existing Digital Opportunity programs that work and can be expanded — and needs for new programs
- Plan to support state and federal grant applications by local nonprofits or submit your own

Develop partnerships with ISPs

- Build partnerships with ISPs that show intent to invest in your County and that have track records
- Plan to support state and federal grant applications by ISPs in return for ISP commitments



Strategy: prepare for grant opportunities

There are two general types of grants: those for ISPs and those targeted for other parties.

ISP grant opportunities are usually for building network infrastructure in underserved areas

ADECA will administer 3 major grant programs that will enable ISPs to build network infrastructure

1. Last-mile infrastructure to unserved locations — **\$191M in 2023**
2. Middle-mile infrastructure to anchor institutions — **\$245M in 2023**
3. Last-mile infrastructure to unserved addresses — **\$1.4B in 2025**

At the federal level, USDA awards grants to help build network infrastructure in rural and unserved areas.

Public entities and nonprofits typically have access to funding for broadband planning, community owned infrastructure, or addressing Digital Opportunity needs

The federal Economic Development Administration (EDA) provides comprehensive planning grants that can include broadband planning.

In 2025, the U.S. Department of Commerce will offer Digital Opportunity grants, enabling counties and nonprofits to compete for funding to operate Digital Opportunity programs.

USDA awards grants for distance learning and telemedicine equipment to public entities and enables public entities to compete for broadband loans and grants.



Disclaimer

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