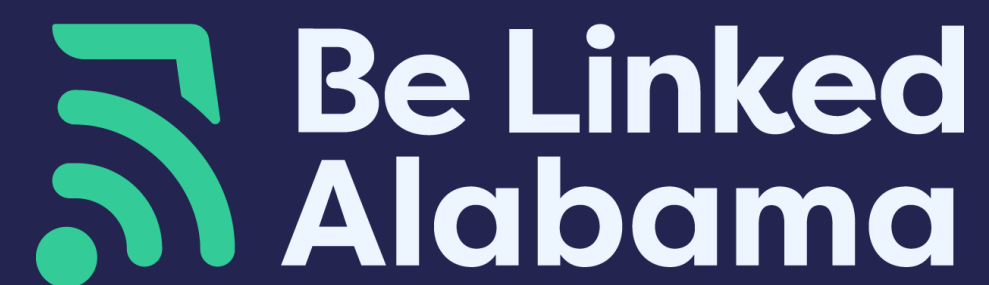


# Cherokee County

## Broadband Profile

August 2023



# Profile Background

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

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



# Introduction

**ADECA is pleased to present this profile document for Cherokee 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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## 1. Executive summary

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 Cherokee County

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

## 4. Broadband adoption and Digital Opportunity in Cherokee County

Data regarding the current state of broadband adoption and opportunity in Cherokee 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 Cherokee County can contribute and participate.



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Partial list of partners that contributed input to this County Broadband Profile.





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# Executive Summary

# Overview

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This section presents an overview summary of ADECA's findings regarding the broadband infrastructure and Digital Opportunity landscape in Cherokee 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 Cherokee 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.

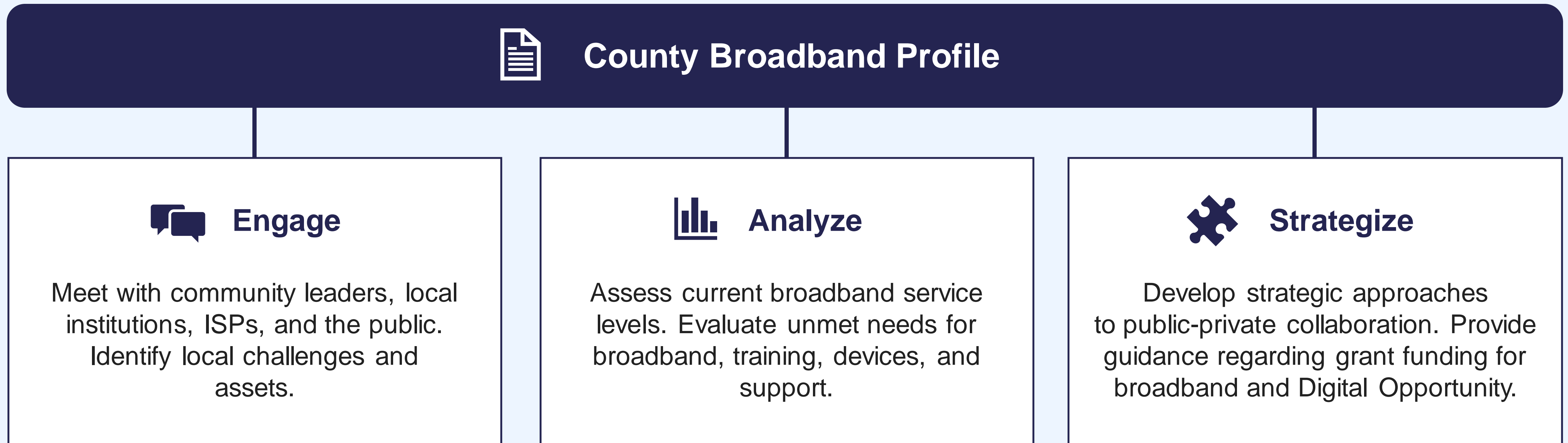
In 2021, ADECA received a grant from the U.S. Economic Development Administration to provide broadband technical assistance for local communities.

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 Cherokee 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 Cherokee 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 95 people from a pool of government officials, ISPs, and community-based organizations; the public was invited to attend, as well.

## On-site meetings

- ADECA conducted this meeting at the Cherokee County Chamber of Commerce on April 20, 2023. 27 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 needs specific to their communities and what obstacles to broadband they were experiencing. They also shared programs that are providing an impact on broadband access and Digital Opportunity.



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

- ISPs
- Elected officials
- Members of the public
- Utility corporations
- Anchor institutions, such as schools, community colleges, healthcare providers, & libraries



# Local perspectives

Partners note barriers and obstacles to broadband opportunity.



## Elected Officials

Noted the primary complaints from the public concern lack of connectivity.

Expressed concern that ISPs may not have an incentive to construct network in areas of the County with few households per mile.



## Internet Service Providers

Shared that costly access to public rights-of-way may negatively impact their ability to expand networks in the area.



## Community Organizations

Described how many residents may rely on local hotspot loan programs, potentially due to lack of wireline service at their home addresses.

Shared observations that many residents request help identifying ISPs with presence in the County.



## Residents

Felt ISPs may not have service centers close enough to perform timely repairs in the event of network outages.

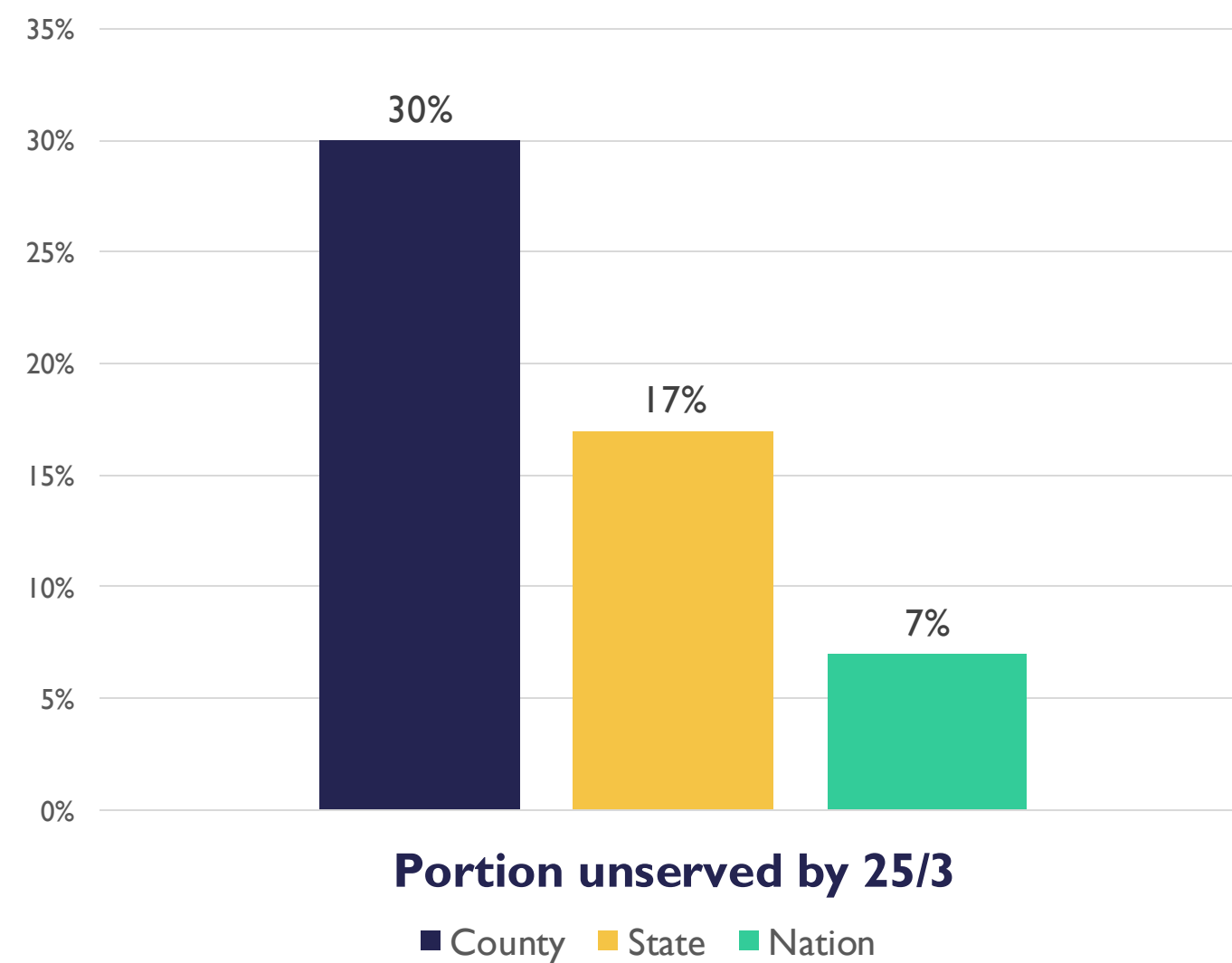


# Summary of findings

Cherokee County lags behind the state and national averages for broadband availability, adoption, and signups for internet service subscription subsidies.

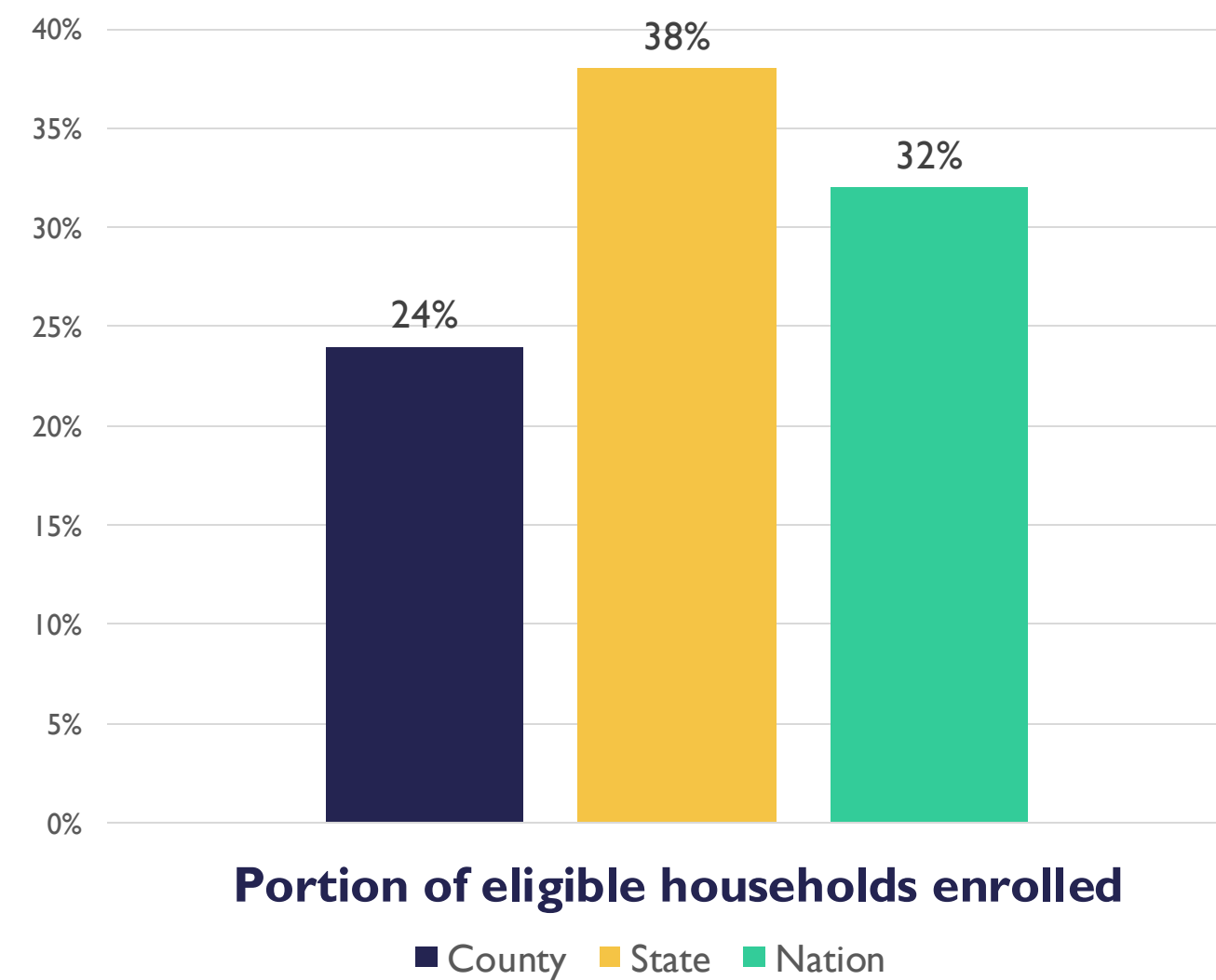
## Availability

The County underperforms the state and nation in availability, with more households unserved by broadband.



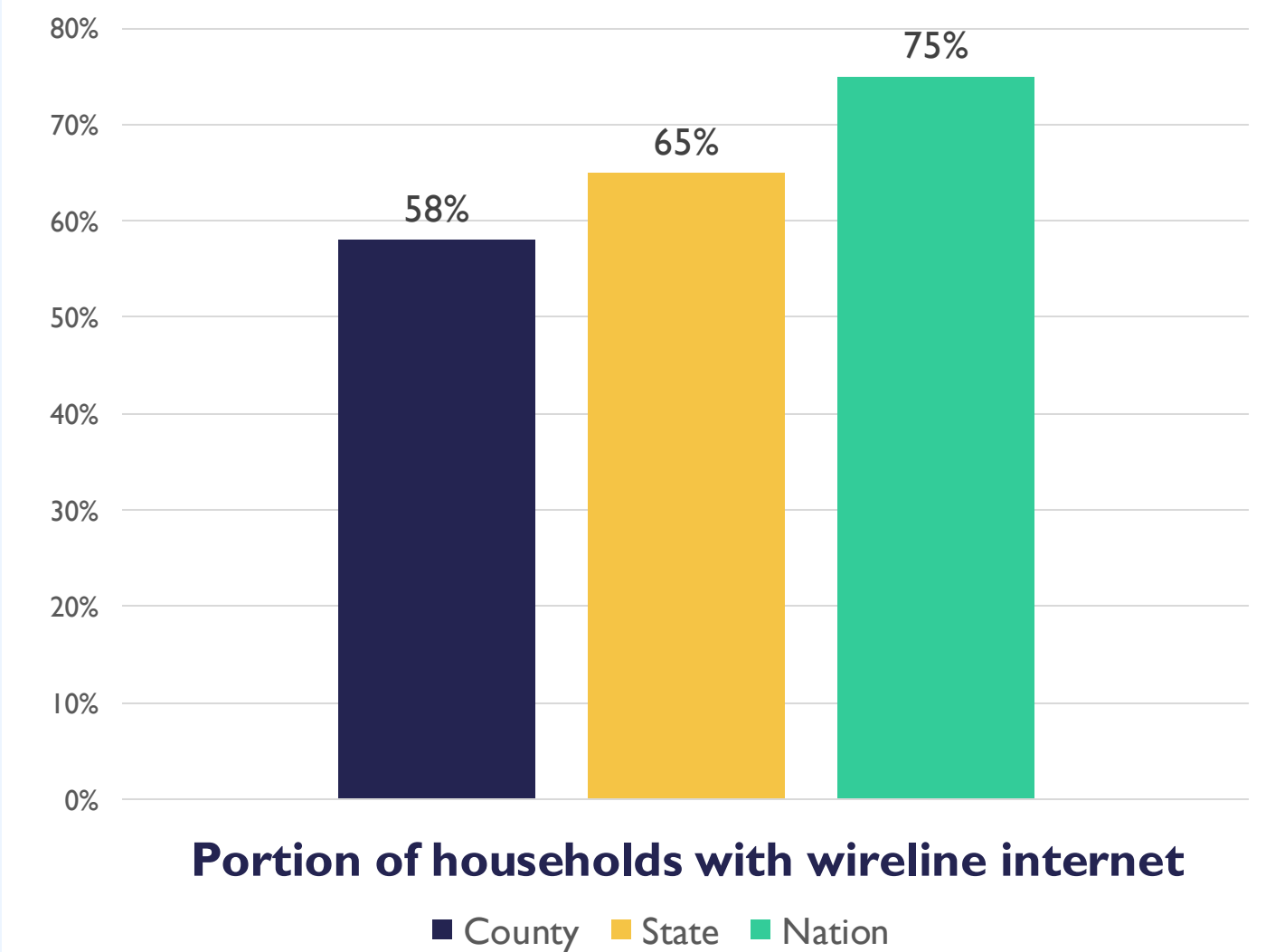
## Federal Subsidy Use

The County lags behind the state and national average for percentage of eligible households that participate in the federal Affordable Connectivity Program's \$30/month subsidy.



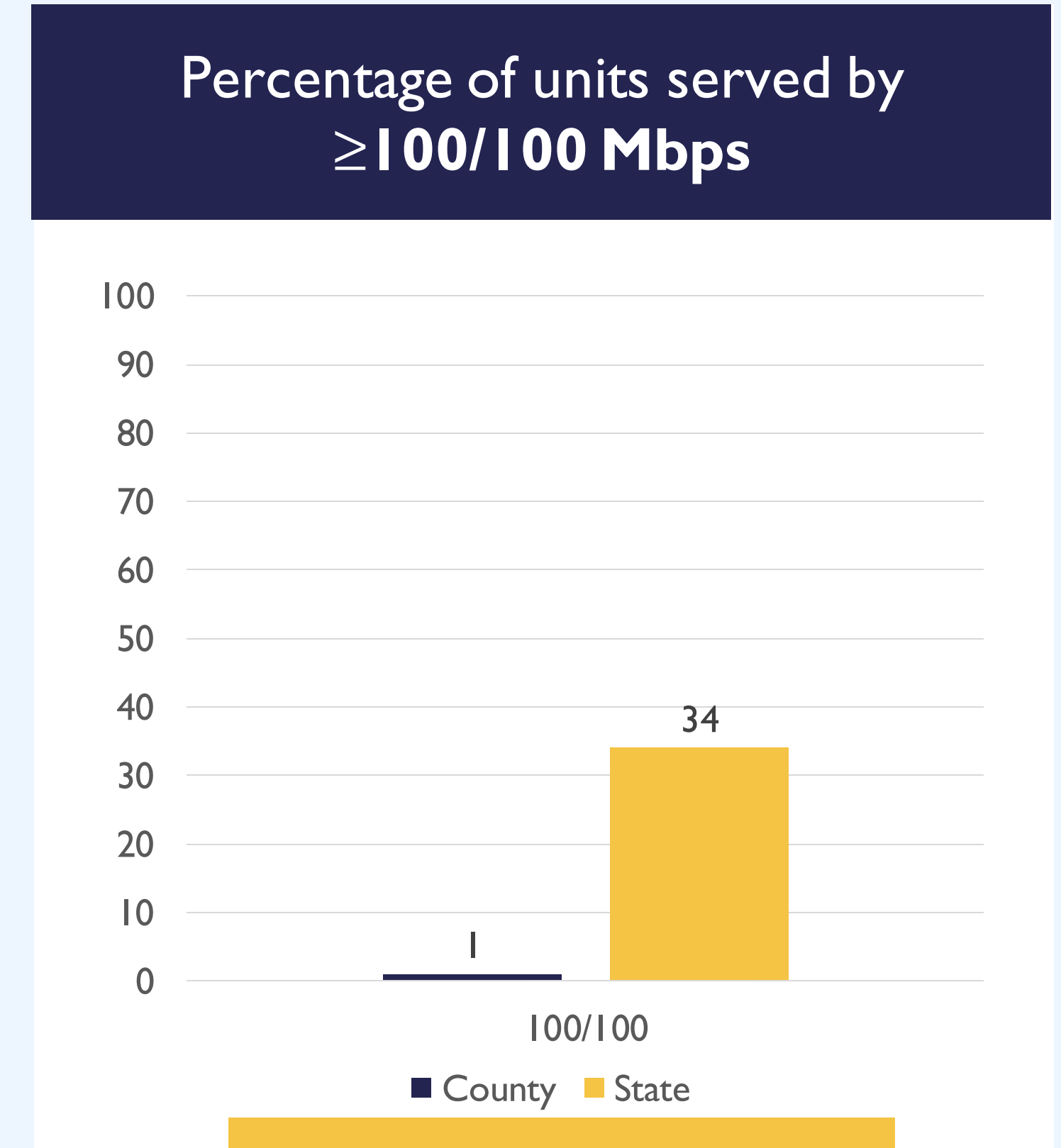
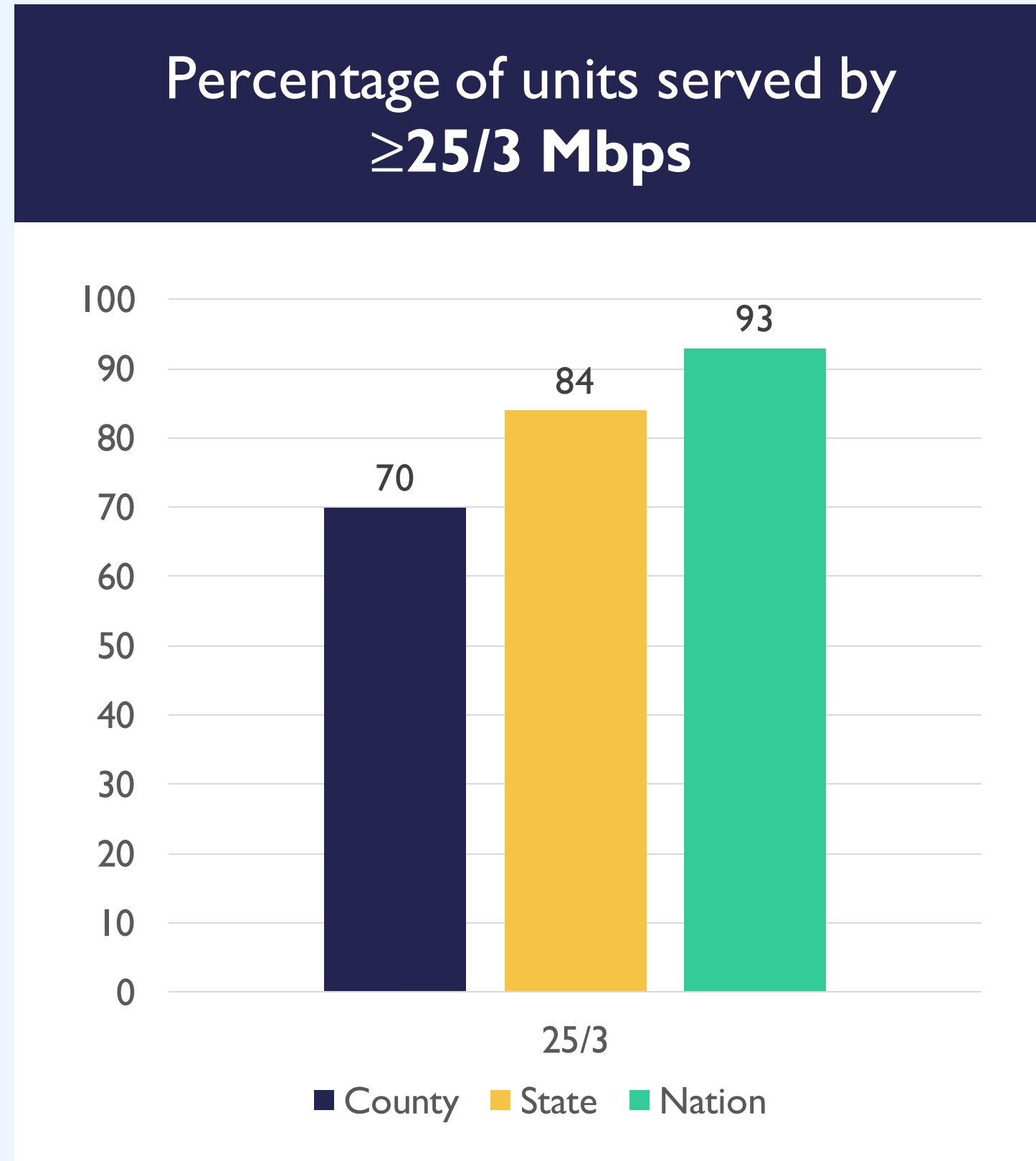
## Broadband Adoption

The County lags behind the state and rest of the U.S. on percentage of households with wireline internet service.



# Findings on availability

Cherokee County trails Alabama and the U.S. in broadband availability at all speeds.

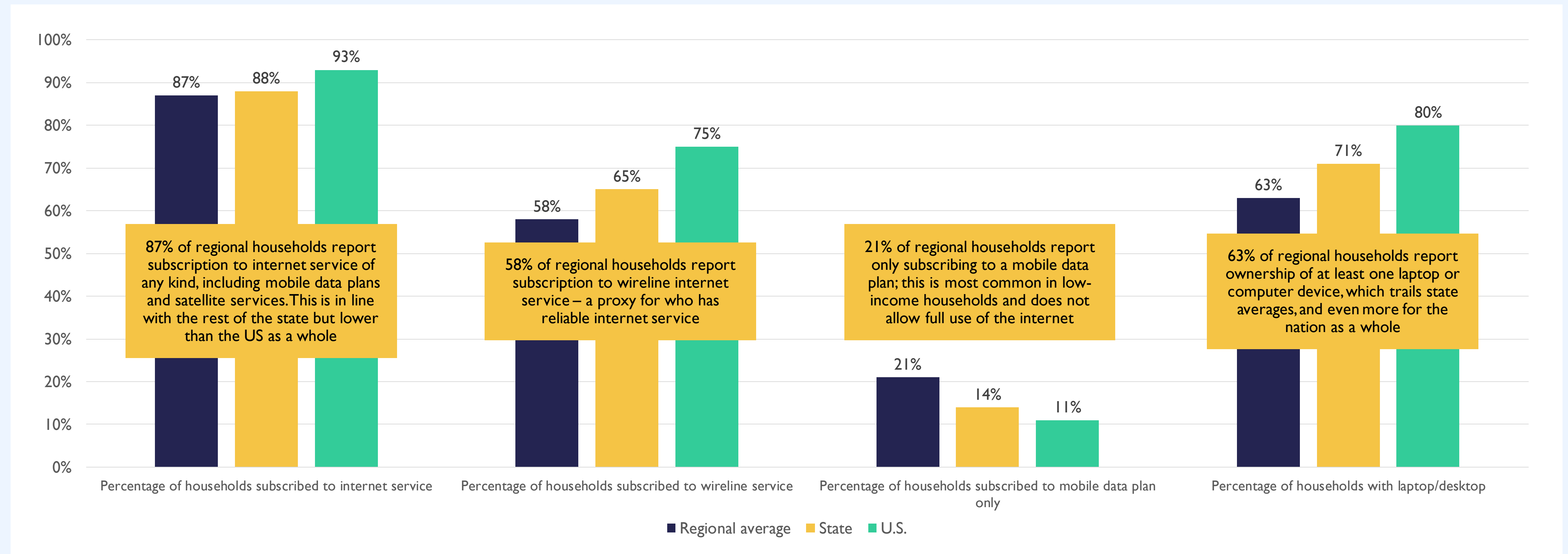


FCC's National Broadband Map does not report national figures for 100/100 Mbps



# Findings on adoption and use

Cherokee County's region is comparable to the state in internet adoption rate but lags behind the state and nation on all other broadband adoption parameters.



# Findings on Digital Opportunity

## Lower-income residents face greater barriers 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.

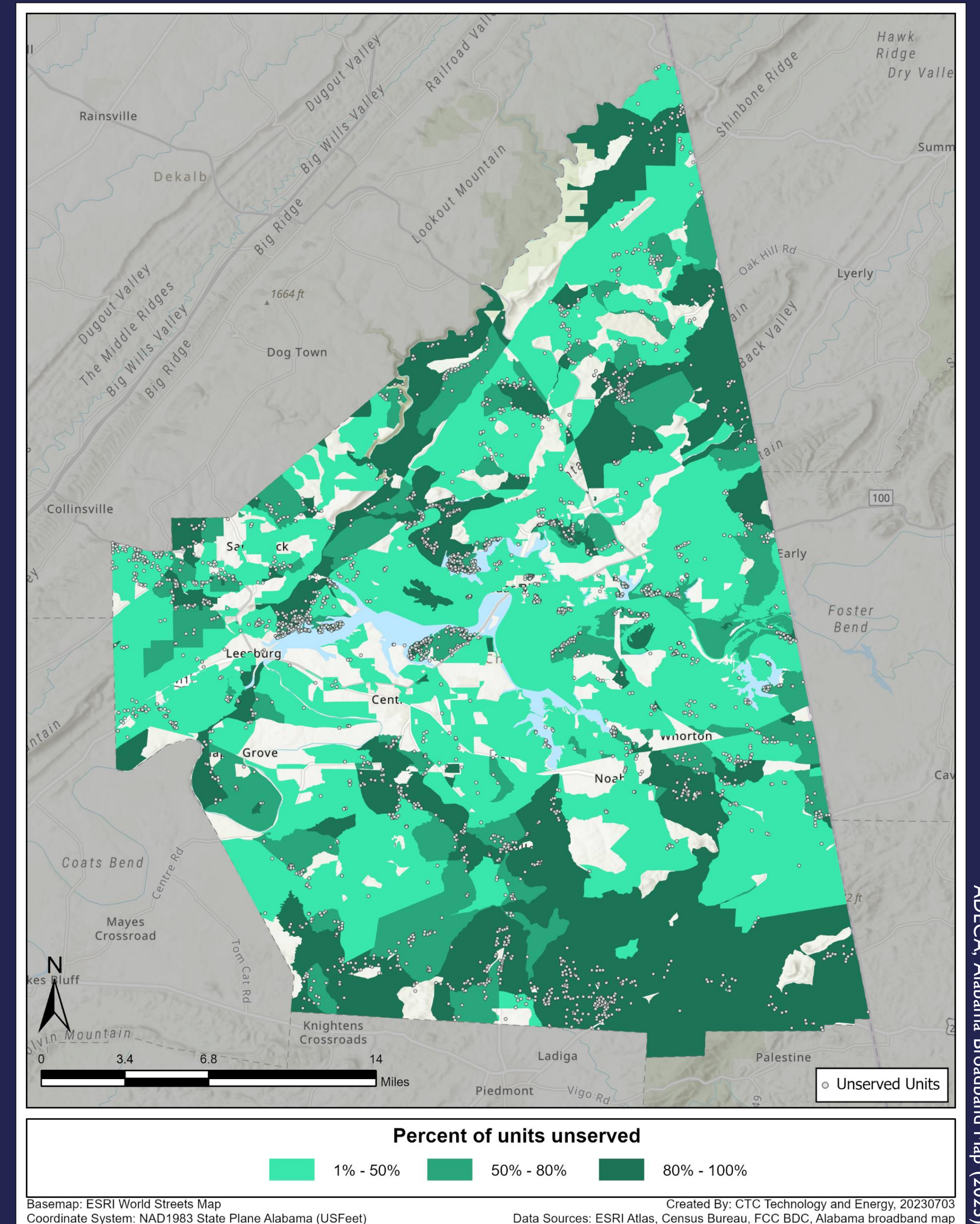


# 30% of County units are *unserved* on the FCC Map

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.



Source: Federal Communications Commission, National Broadband Map, Broadband Data Collection (2023); ADECA, Alabama Broadband Map (2023)

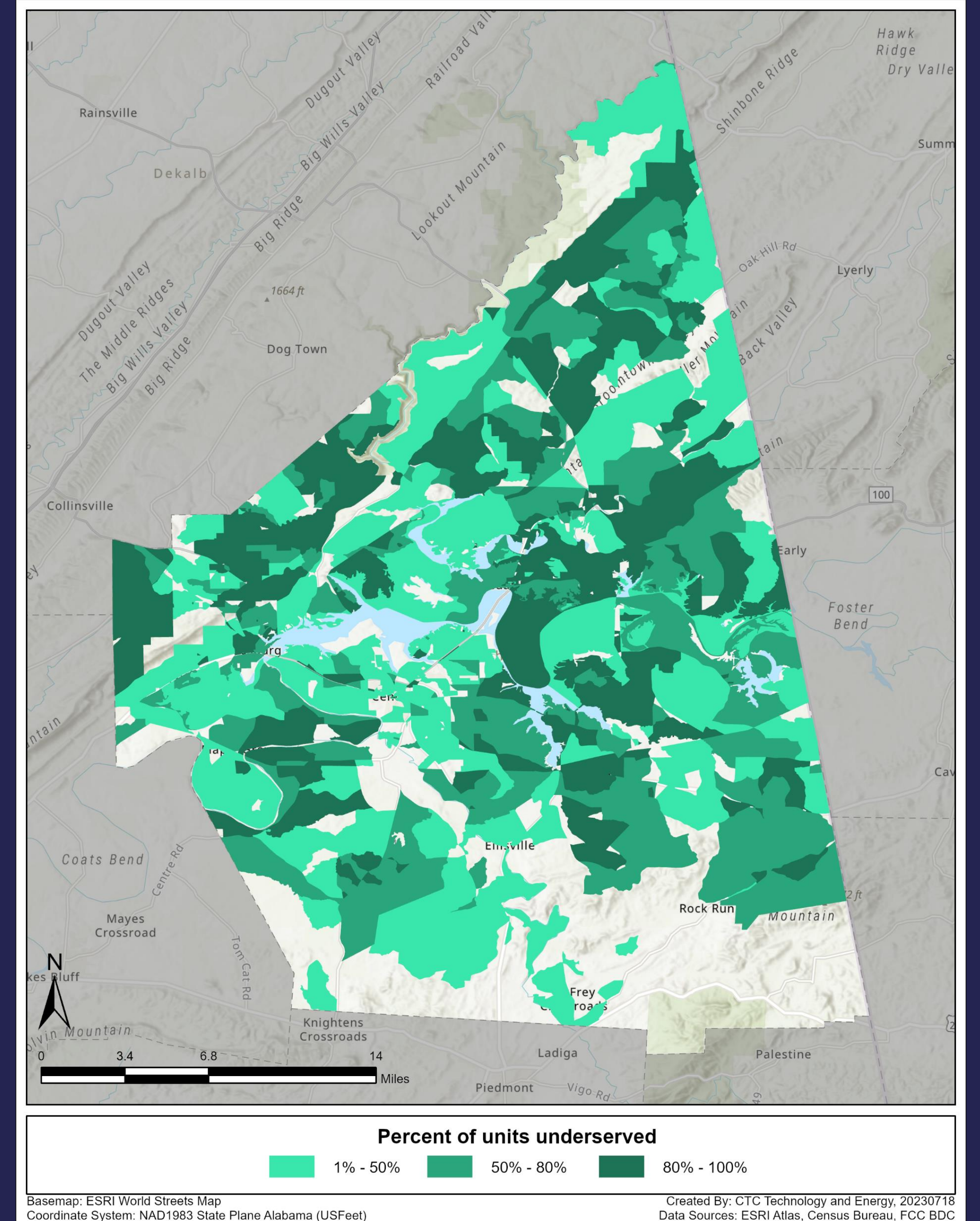
# 53% of County units are *underserved* on the FCC Map

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, and any funding remains for these areas.

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.

Cherokee County has the largest number of locations that fall into this federal “underserved” category relative to other Alabama counties.

- These locations are considered unserved by Alabama and could therefore be targeted with upcoming state broadband grant opportunities.



# Summary of strategies

ADECA recommends Cherokee 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 Cherokee 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			✓



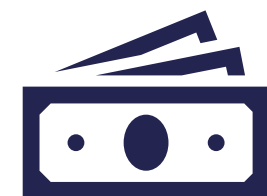
# Overview of ISP market dynamics

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.

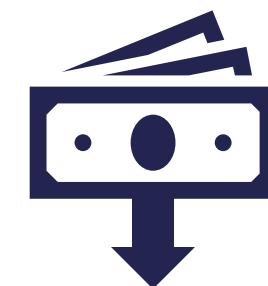


Low-income areas are less attractive for investment because low-income consumers subscribe at lower levels than higher-income households.

**Cherokee 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.

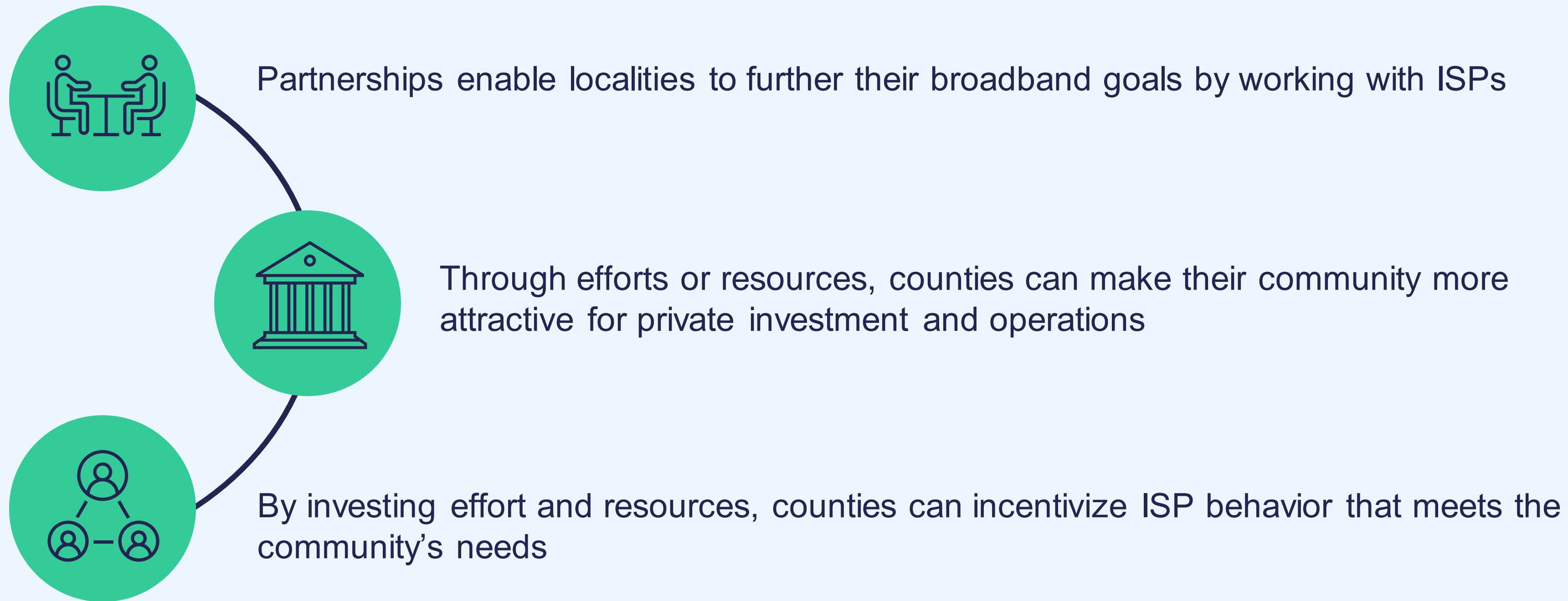


ISP costs are reduced in places where counties facilitate ISP deployment or offer grants or access to public assets.



# 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: prepare for funding opportunities

Cherokee 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 non-profits 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 non-profits 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.



# 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 like 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 current and planned digital skills programming by sharing resources and facilities and providing additional marketing; programs relevant to Cherokee County are listed in Appendix C.

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



## Disclaimer

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