

Foothills Regional Commission

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# RUTHERFORD COUNTY CONNECTIVITY REPORT

2025





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# INTRODUCTION

Rutherford County is located in Western North Carolina in the Appalachian Foothills. It is home to approximately 65,000 people. Like many other rural communities, this county has undergone a period of transition. In the 20th century, Rutherford County was a booming textile manufacturing hub that employed thousands of people. However, by 2008, over 6,000 textile jobs were lost—equivalent to roughly 10% of the population. This led to a significant economic downturn that has continued since.

Currently, Rutherford County is classified as a Tier 1 economically distressed county and is defined as “at-risk” by the Appalachian Regional Commission (ARC). It has consistently experienced higher unemployment and lower incomes compared to the rest of North Carolina. This situation has spurred a decline in investment, a notable exodus of young people starting around 2005, and ongoing concerns about rural brain drain.

With these challenges in the background, the county’s population is aging, and many residents struggle with inadequate technology access. As a result, broadband infrastructure rollout has been slow, leaving many areas either unserved or underserved, with digital literacy programs nearly nonexistent.



Rutherford County, NC

In 2020, about 25% of Rutherford County residents lacked broadband service at home; however, local experts believe this figure may underestimate the number of unconnected communities and overestimate data provided by internet service providers—meaning the actual percentage could be much higher.

Device access is also an issue, with roughly 25% of homes reporting that they do not have access to a computer device. Broadband affordability is a major concern in Rutherford County, with most respondents to the NC Broadband Survey indicating they pay over \$125 per month for internet service—an especially high cost for an already economically distressed area.

As a result, many households rely solely on cellular devices, public facilities, or simply go without. Consequently, Rutherford County has fallen behind the rest of the state in terms of digital inclusion, digital literacy, and broadband access and affordability.



## OVERVIEW OF HELENE

Rutherford County and Western North Carolina were struck by Hurricane Helene on September 27, 2024. Most residents expected strong winds and significant rainfall, but few anticipated the record flooding that occurred. This led to major damage in the towns of Chimney Rock and Lake Lure, as well as widespread destruction to homes, infrastructure, farms, and businesses throughout Rutherford County. Local officials and community partners continue to conduct comprehensive assessments of Hurricane Helene's impacts, recognizing that its full scope may take time to fully document.

As of December 2024, the overall damages, were estimated to be in the hundreds of millions of dollars. Most residents of Rutherford County were without power for at least seven days, and many were without internet service for several weeks.

Internet and cellular connectivity problems remain ongoing as of December 2024, and these issues are expected to persist for the foreseeable future as the infrastructure is brought back online.

**Most citizens of Rutherford County were without power for a minimum of seven days, and without internet for several weeks.**

# GEOGRAPHIES/STREETS/ LOCATIONS IMPACTED

The areas of Rutherford County most impacted by Hurricane Helene lie around Lake Lure and Chimney Rock. Chimney Rock Village is a small community bordering Henderson County, home to roughly 150 residents. Situated directly on the Rocky Broad River, it suffered extensive damage. Chimney Rock was nearly destroyed by floodwaters, with its downtown devastated, much of its infrastructure ruined, and many homes and businesses cut off from access.

As a result, the community has faced significant issues with broadband and cellular connectivity and continues to struggle with reliable service. However, rebuilding efforts offer an opportunity to incorporate greater resiliency into infrastructure and connectivity. Ensuring that this community is not cut off again in future disasters is a key priority.

The Town of Lake Lure was also severely impacted. Adjoining Chimney Rock, Lake Lure saw many buildings and bridges along the Rocky Broad River swept into the lake. This caused significant damage to homes around Lake Lure and downstream from Lake Lure Dam. The destruction has meant job losses, infrastructure failures, and homes and businesses destroyed or isolated.

Bridges were also destroyed, leaving many residents isolated or cut off from broadband and cellular services in an area that already struggled with connectivity.

The rest of the county experienced significant infrastructure damage, with utility poles destroyed and lines brought down. This caused lengthy delays in restoring power and broadband access. Some areas across the county still do not have broadband service, and there is currently no timeline for its restoration.

**Chimney Rock was almost destroyed by flooding from Hurricane Helene**

# STRATEGIES TO BUILD RESILIENCE

Rutherford County aims to build resiliency into its infrastructure through several projects as the community continues its rebuilding efforts. This approach can be divided into two main focus areas: Infrastructure and Digital Skills.

Infrastructure will be a major component of enhancing resilience. As Hurricane Helene demonstrated, the region's infrastructure was not prepared for a significant weather event. As utility lines, sewer lines, and water lines are rebuilt, broadband access and resiliency must be integrated into these networks. Given the volume of sewer and water lines that need to be repaired, replaced, or newly laid, there is an opportunity to install fiber alongside them. This also allows for advanced technology to be incorporated, enabling the detection of leaks, breaks, and other issues. The result is a more resilient fiber, water, and sewer infrastructure that better serves our citizens. Overhead utility lines and broadband services will continue to be necessary throughout the county, especially in Western North Carolina's mountainous areas.

One major issue revealed by this event is that most homes and businesses in Rutherford County have access to only one internet provider. If that single provider goes offline for weeks, residents and businesses are left without internet access entirely and may have to relocate, invest in costly satellite services, or simply do without.

This underscores the importance of giving residents and businesses multiple internet provider options to ensure a degree of redundancy and potentially better service and pricing through increased competition.

Another critical component requiring investment in Rutherford County is digital skills. After Hurricane Helene, the local library system stepped up to serve thousands of people, effectively functioning as digital navigators. However, this level of service is unsustainable for the library over the long term and highlights the need for a dedicated digital navigator to help residents learn and navigate technology. It also demonstrates the need for funding dedicated to staffing and upskilling residents in digital literacy.

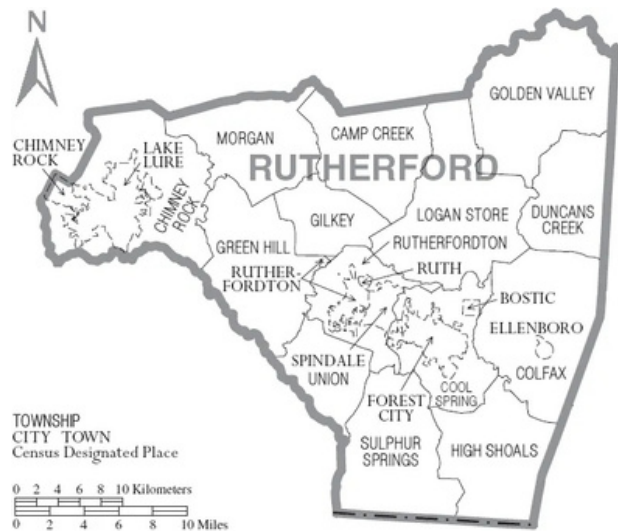
Rutherford County has a substantial, long-term need to develop digital literacy. Unfortunately, as a Tier 1 economically distressed county, obtaining local funding for these initiatives can be challenging. Consequently, external funding is crucial to increase digital training capacity within local governments, educational institutions, and nonprofits. Securing such funding is the most important long-term strategy for expanding programming and coordinating digital literacy initiatives across various institutions.

# STRATEGIES TO BUILD RESILIENCE CONT.

Due to limited funding and programming available, Rutherford County is actively exploring a range of strategies and program models to best serve its residents. Some pilot initiatives and experimentation may be necessary to determine which approaches are most effective for the community.

Another major gap lies in device access; due to the county's economic challenges, seniors and low-income community members often struggle to obtain suitable devices. Additionally, the lack of digital access and skills has created barriers to disaster recovery. With insurance and FEMA claims often requiring online submission, residents lacking internet connectivity or digital literacy face significant challenges. This requirement is straining already limited library resources and slowing individual submission and response times.

A significant need exists for an organization that can provide affordable device access within the community. This organization should ideally be an independent nonprofit, given the county's limited capacity to oversee such a program. The most strategic use of funding would be to provide seed money for launching this affordable device nonprofit or expanding a partnership with Through the Trees in Brevard.



# HELENE IMPACTS TO DIGITAL LITERACY AND DIGITAL INCLUSION

Hurricane Helene highlighted the region’s digital equity issues. Because of widespread power and internet outages, many people relied on cellphone towers for internet access, which were overwhelmed by the surge in new users lacking power and home internet service. This experience has unified the community around expanding broadband resources and building redundancy.

Existing problems with digital device access have been exacerbated by the hurricane, as many people lost their devices to flooding and cannot afford replacements. As a result, there is now a greater need than ever for affordable digital devices, yet limited resources are available to address this problem.

In Rutherford County, the current digital literacy and inclusion strategy focuses on ad-hoc educational support at the county library system, partnerships with the local robotics team Omegabytes to teach seniors at the Rutherford County Senior Center, and efforts by Rutherford County Schools to educate students. The Foothills Regional Commission has partnered with Land of Sky to secure a National Telecommunications and Information Administration (NTIA) Digital Equity Competitive Grant, which is funding a digital literacy teacher to serve each of the five senior centers in the region. However, this initiative is only the beginning of what is needed to address the county’s significant digital literacy challenges, and it does not provide for other segments of the population or address device access.



# HELENE IMPACTS TO INFRASTRUCTURE

Hurricane Helene had a major impact on Rutherford County’s infrastructure. It destroyed or damaged multiple town wastewater treatment plants and sewer systems, washed away roads and bridges, and knocked over electrical and broadband poles, cutting utility lines. To address these challenges, Rutherford County aims to employ a “dig-once” approach in its reconstruction efforts. By rebuilding infrastructure in coordination with town partners, the Foothills Regional Commission, and local nonprofits, the county hopes to save both time and money while fostering greater collaboration.

These rebuilding efforts will take years to complete, and significant funding and cooperation will be necessary for the county to fully recover from Helene’s damage. Hurricane Helene stands as the most expensive disaster in North Carolina’s recorded history, and it is expected to be the most expensive disaster in United States history.



## ACKNOWLEDGEMENTS

In addition to those involved in the creation of this plan, the following entities have been identified as partners essential to advancing the established goals. This is not an exhaustive list of partners, but an initial cohort of key players.

- Connect Humanity
- Reid Consulting Group
- Breaking Point Solutions



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