

WNC Broadband

Top Ten Issues for 2023-24



Top Ten Issues Preface:

Our UNCA students and individuals involved in WNC Broadband have identified what we believe should be the top ten broadband policy issues for 2023-24. Some issues from previous years diminished in importance. One such issue was leadership. We have seen a very positive shift towards bipartisan support for broadband over the past few years. Local regional planning councils and local governments have made broadband a priority. Leadership does still remain an issue, but not nearly to the degree it was six years ago, when local leaders often didn't know what "broadband" meant.



We don't expect a large influx of new funds. The emphasis will be the administration of the current programs and whether WNC will be treated fairly. Currently, the state and federal government are behind schedule in implementing the various programs for broadband.

These recommendations reflect a shift away from physical infrastructure and towards digital equity and application. Ten years from now the discussion will all center around how high-speed internet is used and mis-used. For 2023-24 we have identified a mix of issues, including building the infrastructure, closing the digital divide and thinking about how to maximize the benefits of high-speed internet.

Reflecting these climate changes, here are the top ten issues for 2023-24.

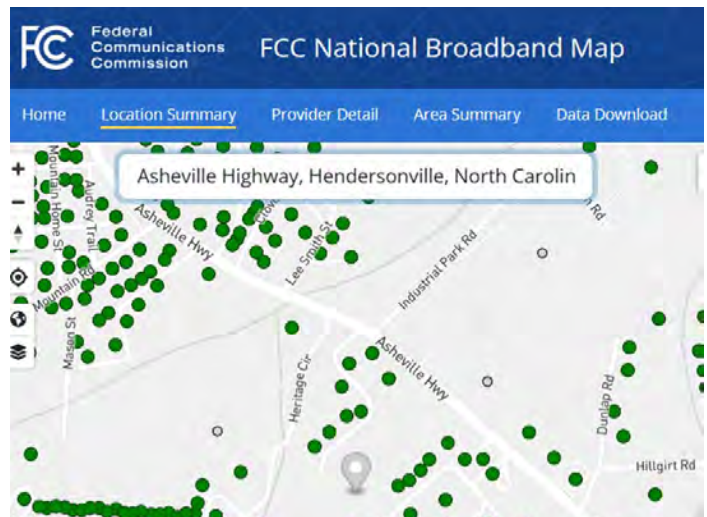
1. Mapping of Internet Service: FCC and State Efforts

Broadband coverage map accuracy is of great importance to WNC, as these are the maps that will be used by the National Telecommunications and Information Administration as they begin to administer grants for broadband expansion this summer.

WNC, given the difficult terrain and national parks, faces a big challenge and stands to lose millions of dollars if the maps are not accurate. When we started our broadband advocacy efforts, former FCC Chief Technologist Stagg Newman identified mapping of services as a prerequisite to future sound policy. In spite of state and federal efforts, poor maps remain a huge weakness for Western North Carolina.

In November 2022, the FCC unveiled their first rendition of the new broadband access mapping data as mandated by Congress. However, as local activists reviewed the data, significant errors were found.

1a. We recommend that the FCC continue to prioritize data quality by having a second period where citizens and local governments can review the accuracy of the maps.



<https://broadbandmap.fcc.gov/>

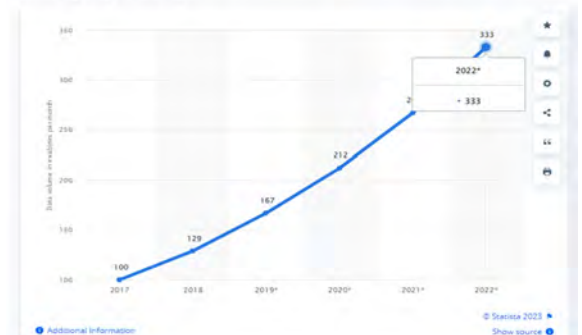
1b. The state and federal offices have continually refused to accept locally generated maps. Counties should instead be empowered to help create these maps.

1c. NC should evaluate using an approach of physically walking the state to review the quality of maps. This is a methodology used by states, such as Michigan, and has shown to be successful.

2. Better Data and ISP Data Reporting:

The huge increase in internet usage and the need for better mapping requires the state to build significant public access databases showing where service is and isn't (mapping), what the internet speeds are within the service area, outages that occur, what prices are being charged, how many people are receiving Affordable Connectivity Program funding and data about usage (i.e. telemedicine services, etc.) This data needs to integrate wireless, fixed wireless, satellite, and fiber service

Data volume of global consumer IP traffic from 2017 to 2022
(in exabytes per month)



<https://www.statista.com/statistics/267202/global-data-volume-of-consumer-ip-traffic/>

We recognize that since 1996 internet services are recognized as a private, not public, good. However, given the public subsidization for broadband expansion, the critical economic need for broadband, and the special privileges given to ISPs for access to right of ways (like electric and natural gas), internet service providers should be required to provide high quality, comprehensive data to the state. As the public arena gets “built out” the emphasis needs to shift to utilization and public information.

2a. North Carolina should enact a law like South Carolina’s requirement that ISPs provide detailed mapping information to the state office.

2b. A university should create an institute for the study of the internet with a special focus on data creation, usage, and monitoring.

2c. The ISPs should mutually fund a help line for citizens to call when issues emerge and where complaints can be filed.

3. Continuation of the Affordable Connectivity Program:

Current estimates predict that funding for the Federal Government's Affordable Connectivity Program (ACP) will expire as soon as Summer 2024. This is a great concern, as the ACP has proven to be an effective program in advancing digital inclusion. WNC lags other parts of NC in getting citizens to enroll. As of February 2023, only 39 % of eligible citizens are enrolled in the ACP, with WNC having some of the lowest enrollment rates in the state. Our region should do better in utilizing this resource.



3a. We recommend that Federal and State entities maintain their commitment to supporting the Affordable Connectivity Program into the foreseeable future.

3b. Local non-profit organizations and foundations should make informing their clients about the ACP a priority.

3c. The state should adequately fund the United Way's 211 phone system as the "go to" access point for people with questions about the ACP and local providers.

3d. Federal and state tax laws should give foundations more latitude in how they spend their money on broadband.

4. Building Digital Skills:

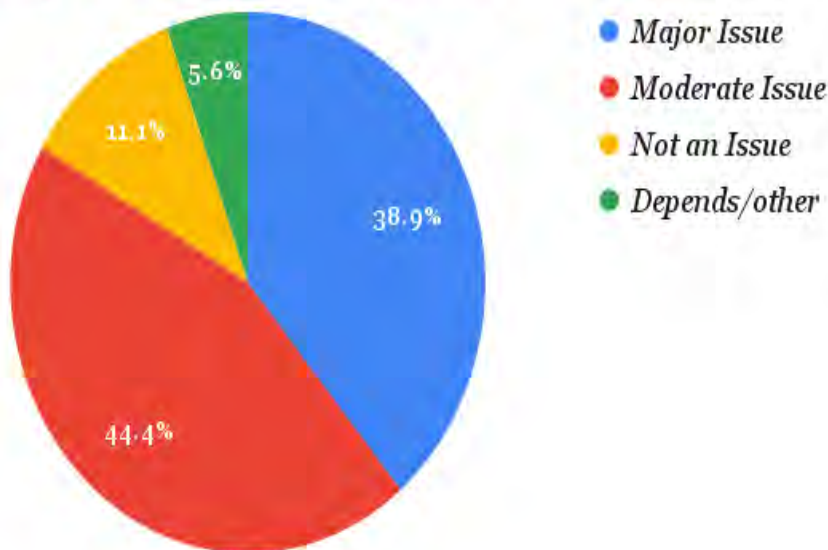
During the initial broadband initiative and WNC Broadband leadership summits, the emphasis was on building out the physical infrastructure. The emphasis is now shifting towards access (digital equity and inclusion) and application (telemedicine, education, artificial intelligence, etc.) Interestingly, the issue of application is where we started the journey six years ago. Students of Lenoir Rhyne and UNCA drafted a paper, titled “Accelerating Opportunities” which reviewed the importance of broadband in advancing tourism, education, health care, etc. We now find a need for our education system to train our citizens in what the National Digital Inclusion Alliance (NDIA) calls “digital skills pathways.” These pathways include training for fiber technicians, expansion of telemedicine, training in artificial intelligence, and using econometrics to name a few.

4a. We recommend the state’s universities help build a robust data base and analysis tools about broadband coverage, accessibility, and policy impact.

4b. The local community colleges should make a long-term commitment to training the employees of the digital future, in partnership with local employers.

4c. Local universities should lead the way in educating their students, faculty, and the public about artificial intelligence and its impact.

Teaching Citizens Digital Literacy Skills



WNC Broadband

Survey

83% of the survey respondents believe that teaching citizens digital literacy skills will be an important issue in the future

5. Digital Equity and Inclusion:

As federal and state money is flowing into building the broadband infrastructure, attention is shifting to reducing the gap between people with and those without high-speed internet, either because of cost or availability. We have found the digital divide to be at least partially a function of income, location, knowledge, and personal interest. The location aspect of the digital divide is no longer rural vs urban, it is neighborhood by neighborhood.

The issues related to digital equity and inclusion are significantly different from the technical issues of building high speed networks. The set of “experts” and “activists” are also different. This shift alters efforts such as WNC Broadband and emphasizes the need for programs such as the North Carolina Digital Equity and Inclusion Collaborative (NCDEIC). The NCDEIC is a statewide effort by NCDIT’s State Broadband Office to help support digital equity within the state. Its members include state and local government agencies, nonprofits, coalitions, and individuals working to close the digital divide in North Carolina. The Collaborative is a valuable resource for local governments and nonprofits who are looking to address digital inclusion issues within their communities.

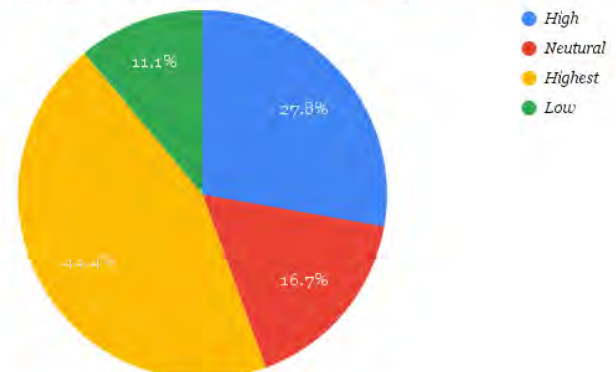
5a. We recommend the state adequately fund the NCDIEC and its initiatives.

5b. The state should also fund local efforts to complete the digital equity plans required of each county. Foundations and ISPs should partner with local organizations to enhance digital equity and inclusion strategies.

WNC Broadband Survey

72% of respondents view digital equity and inclusion programs as being a High or Highest priority.

Prioritizing Digital Equity and Inclusion Programs



6. Funding the Infrastructure:

The past two years have seen a significant increase in funding from both the state and federal government for broadband expansion. However, the additional funds are not adequate to meet the need as evidenced by the applications for state funds far exceeding the appropriated levels.



Historically, most government grants have gone to large rural geographic areas that are underserved. Increasingly, we see the need for programs to bring broadband to small clusters or individual homes that are not presently served. We find a “swiss cheese” effect of unserved areas being next to or intermingled with served areas.

6a. With the state surplus funds, NC has the ability and should take the action to fully build out the state infrastructure through the North Carolina Growing Rural Economies with Access to Technology (GREAT) and the Completing Access to Broadband (CAB) Grant Programs.

6b. The state should work closely with county governments in filling in the gaps of service, particularly through the state’s CAB program.

6c. The state needs to accelerate their efforts to hire staff and distribute grant dollars. The state should investigate contracting some of these services to a private company.

7. Empowering Local Governments:

NC County governments and regional planning councils can, and do, play a key role in advocating for broadband and partnering with private companies to supply broadband. However, the NC legislature has put restrictions on the role counties and cities can play, including preventing them from providing internet services. The efforts by the FCC to develop accurate maps at the national level points out the difficulty of doing something at the national scale without adequate local input and involvement. The state has also erred in refusing to use local county data and information about accurate maps.

7a. The state should fund staff at regional planning councils to assist with mapping, digital inclusion efforts, and serving as liaisons between providers citizens.

7b. The state should allow counties more leeway in providing internet services to the smaller “pockets” of unserved homes and businesses.

7c. The FCC should engage county governments in their review of plans and implementation of federal programs.



Wayne County Courthouse, Goldsboro, North Carolina

8. Expansion of 5G Wireless Coverage:

While much of the current Federal and State broadband grant programs are intended to promote fiber optic broadband infrastructure, the rollout of 5G technologies in parts of western North Carolina has proven to serve as a useful and functional alternative given the geological barriers to fiber access in the mountainous and rural areas of the region. In locations where fiber connectivity is unviable due to the costs associated with fiber expansion, the implementation of 5G networks may serve as a much more useful resource in getting rural North Carolinians connected. 5G rollout will also provide both pricing and feature competition, without which the fixed wired broadband providers have little incentive to better their services.

8a. We recommend both Federal and State entities continue pursuing funding opportunities for 5G development in rural areas.

8b. The state should create a model whereby 5G wireless coverage is provided throughout the state to serve as a back up to other delivery systems. State coverage of 5G services will supply competition in a system that leans towards local monopolies.



Graphic from Ele.Times.com

9. RDOF Funding Guidelines:

The FCC's Rural Digital Opportunity Fund has provided Internet Service Providers with capital to expand broadband services in rural communities, including western North Carolina. Local community leaders and broadband advocates have expressed concerns that ISPs acting on their RDOF funding have failed to show that they are making adequate efforts to fulfill their proposed RDOF commitments.

This is a major concern, as ISPs who have received RDOF funding were subsequently considered ineligible for certain State-level grants, further inhibiting rural broadband development.

9a. We recommend that the FCC establish stronger development guidelines and accountability measures to ensure that ISPs maintain their commitment to their RDOF projects.

9b. The state should review the GREAT and CAB grant applications and include those geographic areas where the progress promised by the RDOF grant has not occurred.



Image from <https://anthonyveachlaw.com/blog/2021/12/16/fcc-rural-digital-opportunity-fund-rdof-news-update-w6lwy-t6jkd-r2k32-3lhbm>

10. Pole Replacement Program:

One of the “easiest” ways of insuring access to broadband is to use telephone and electrical poles to deliver fiber. Telephone and electrical service is provided to all citizens. In North Carolina, yet Duke Energy controls access to the predominant number of utility poles. Numerous public electric utilities throughout the country are including broadband services. In North Carolina, public co-ops have led the way in making shift.

The recent influx of Federal money being allocated to broadband expansion projects has exacerbated disputes over which groups have access to utility poles. Recent disputes in rural areas of Kentucky, Michigan, and South Carolina between ISPs and electric utilities have made national news. To assist the use of utility poles, NCDIT’s Pole Replacement Program provides money to utility companies, reimbursing them for additional cost. In certain areas these costs can be significant due to the need to replace the entire pole.

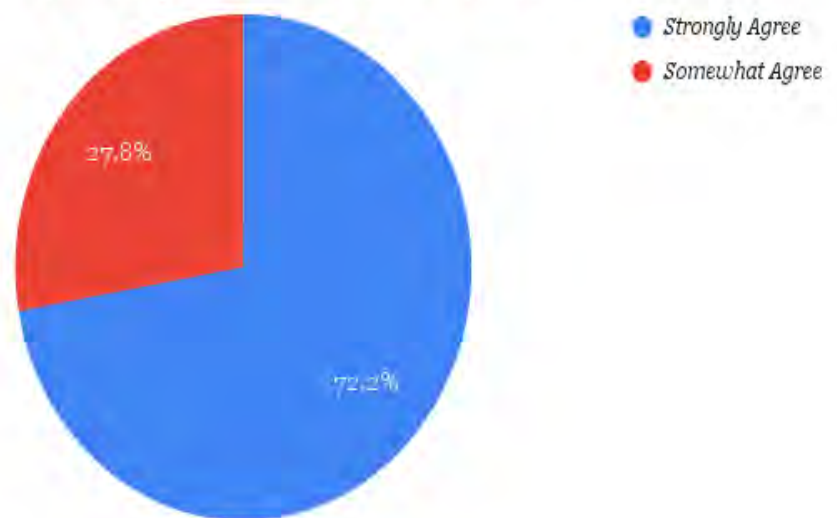
10a. We recommend increased funding for pole replacement and improvement.

10b. We ask the state legislature and NC Public Service Commission to investigate changing the legal responsibility of public electric utilities to include facilitating broadband access.

WNC Broadband Survey

100% of respondents agree that utility companies should support expanding broadband access through their utility poles.

Should Public Utility Companies Support Broadband Access through their Telephone and Electric Poles?



Conclusion:

In 2016, a small group of individuals interested in promoting better internet access in Western North Carolina created the West Next Generation Network (WNGN). Based on the original Next Generation Network located in the research triangle, the group sought to encourage major companies to expand gigabit service to our region.



WNGN was not successful in the manner originally conceived. However, it did create the foundation for the Land of Sky Regional Council, Southwest Commission, local communities, and knowledgeable citizens to collaborate on broadband. The WNC Broadband Project was also created to augment the work of WNGN.

Since 2017, WNC Broadband Project and UNCA have hosted annual Leadership Summits, published policy papers, created a presence on the web and social media, utilized UNC Asheville students to spread the word about broadband issues, and provided expertise to the community. A lot has changed and improved during this time.

My thanks to UNCA students Braden Ball, who just graduated with honors, and Claire Tomlinson, who is on her way to being an excellent attorney, WNC web expert Marc Czarnecki, Dr. Ashley Moraguez who supervised our UNCA students, and our panel of interviewees and survey participants. If you have any questions or suggestions—please let us know.

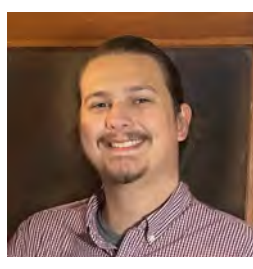
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