North Carolina Broadband Data & Mapping

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Internet for All
May 23, 2023

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FCC Broadband Data Collection - Evolution

- Since 2015, broadband availability data has been collected by the Federal Communications Commission (FCC)
- Data was granular to the census-block level, not the household level
- Census-block-level data: useful in showing us *fully* unserved blocks, but not in gaining granular information on partially served blocks
- In 2019, the FCC created the new Digital Opportunity Data Collection to collect deployment data in a more granular form
- In 2020, Congress passed the Broadband DATA Act, ratifying the FCC's new approach

Foundation of FCC Mapping – 2 Pieces

Broadband Serviceable Location Fabric

+

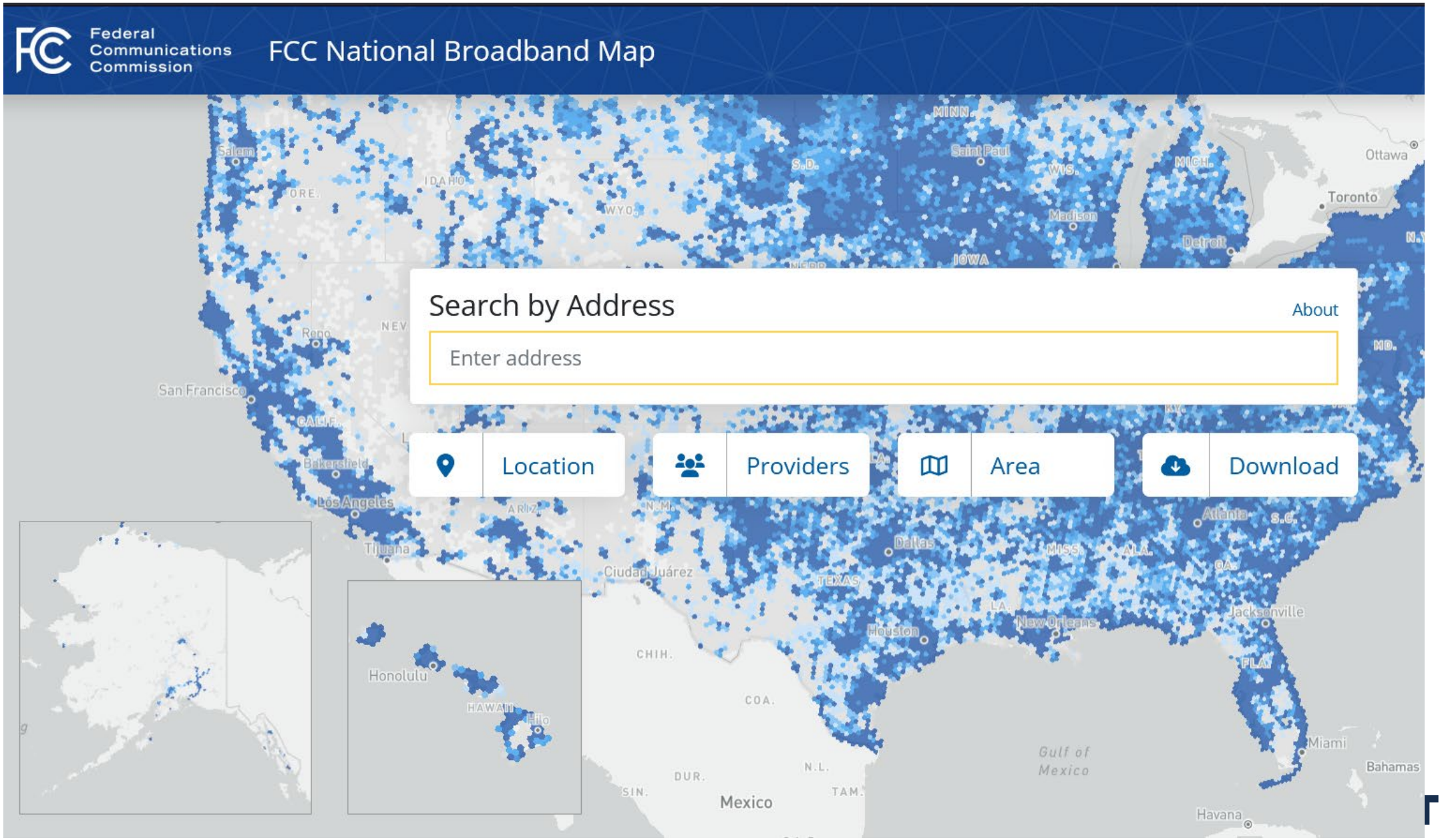
Broadband Availability Data

FCC Broadband Data Collection Process

- In Jan. 2022, the FCC released additional details on implementation of this new data approach – Broadband Data Collection
- Sept. 1, 2022: deadline for broadband providers to submit data for the first round of this new data collection process
- Oct. 31 , 2022: initial round of broadband serviceable location fabric challenges due to FCC
- Nov. 18 , 2022: FCC released the pre-production draft of its new National Broadband Map: **https://broadbandmap.fcc.gov**
- Jan. 13: initial round of availability challenges due to the FCC
- **6-month data cycles** for internet service provider data submission, FCC map refresh, fabric challenges, new fabric version releases, and availability challenges

New FCC Broadband Map

https://broadbandmap.fcc.gov/home



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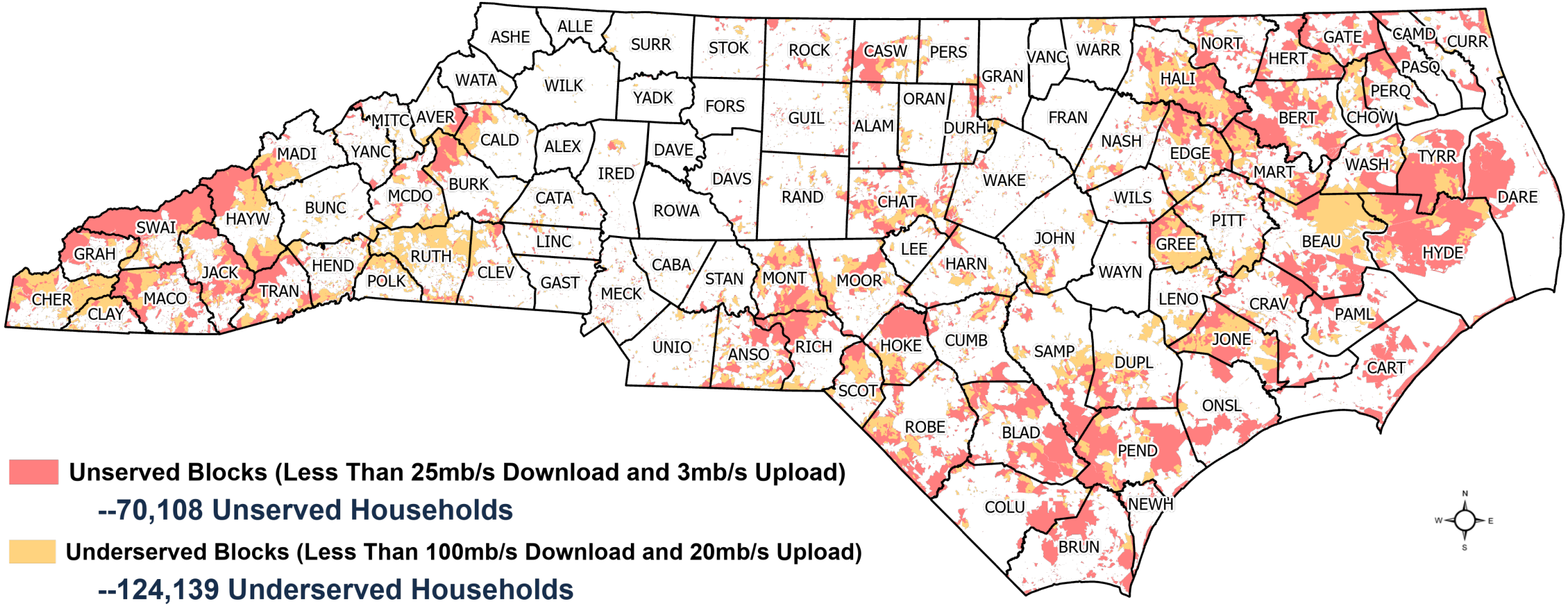
NC Broadband Profile

Evolving identification of Unserved Locations

Form 477 – Census Block Level Reporting – December 2021



Unserved Blocks (Less Than 25mb/s Download and 3mb/s Upload)

--70,108 Unserved Households

Underserved Blocks (Less Than 100mb/s Download and 20mb/s Upload)

--124,139 Underserved Households

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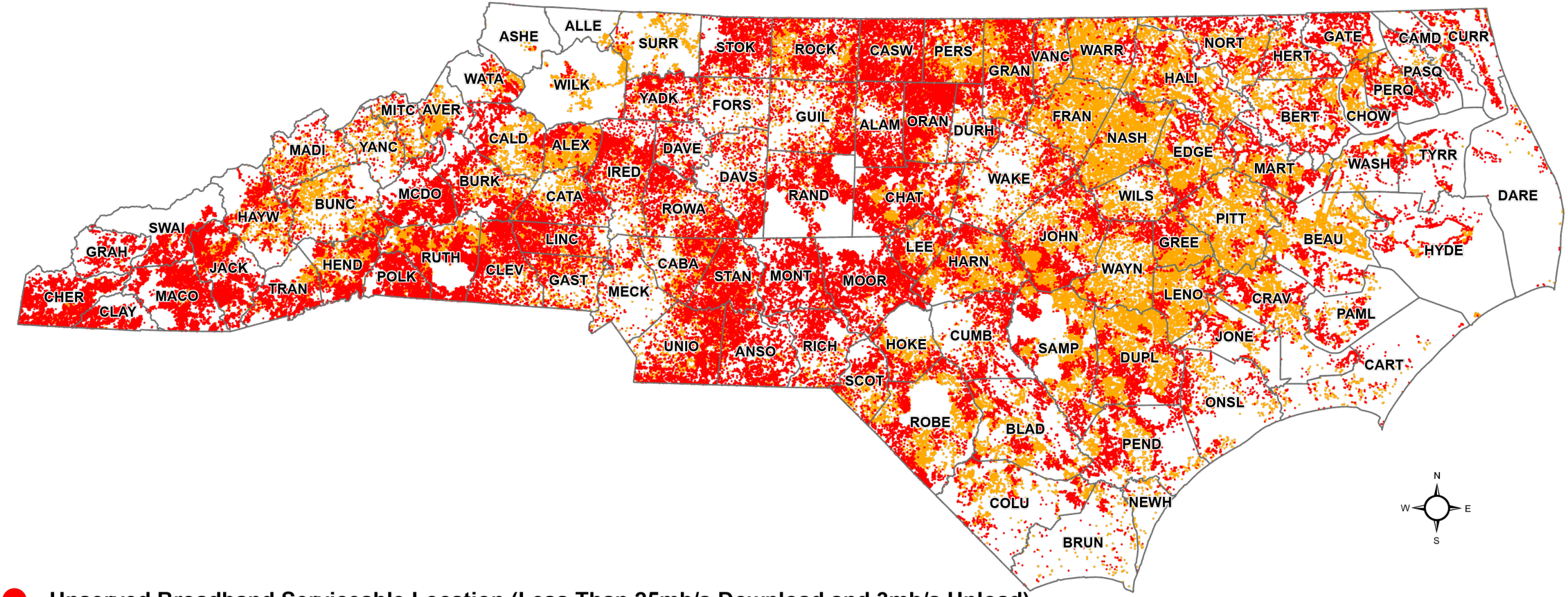
NC Broadband Profile

Evolving identification of Unserved Locations

New FCC Broadband Data Collection Serviceable Location Fabric – June 2022



Unserved Broadband Serviceable Location (Less Than 25mb/s Download and 3mb/s Upload)

--253,409 Unserved BSLs = 274,906 units (homes and businesses)

Underserved Broadband Serviceable Location (Less Than 100mb/s Download and 20mb/s Upload)

--266,998 Underserved BSLs = 296,269 units (homes and businesses)

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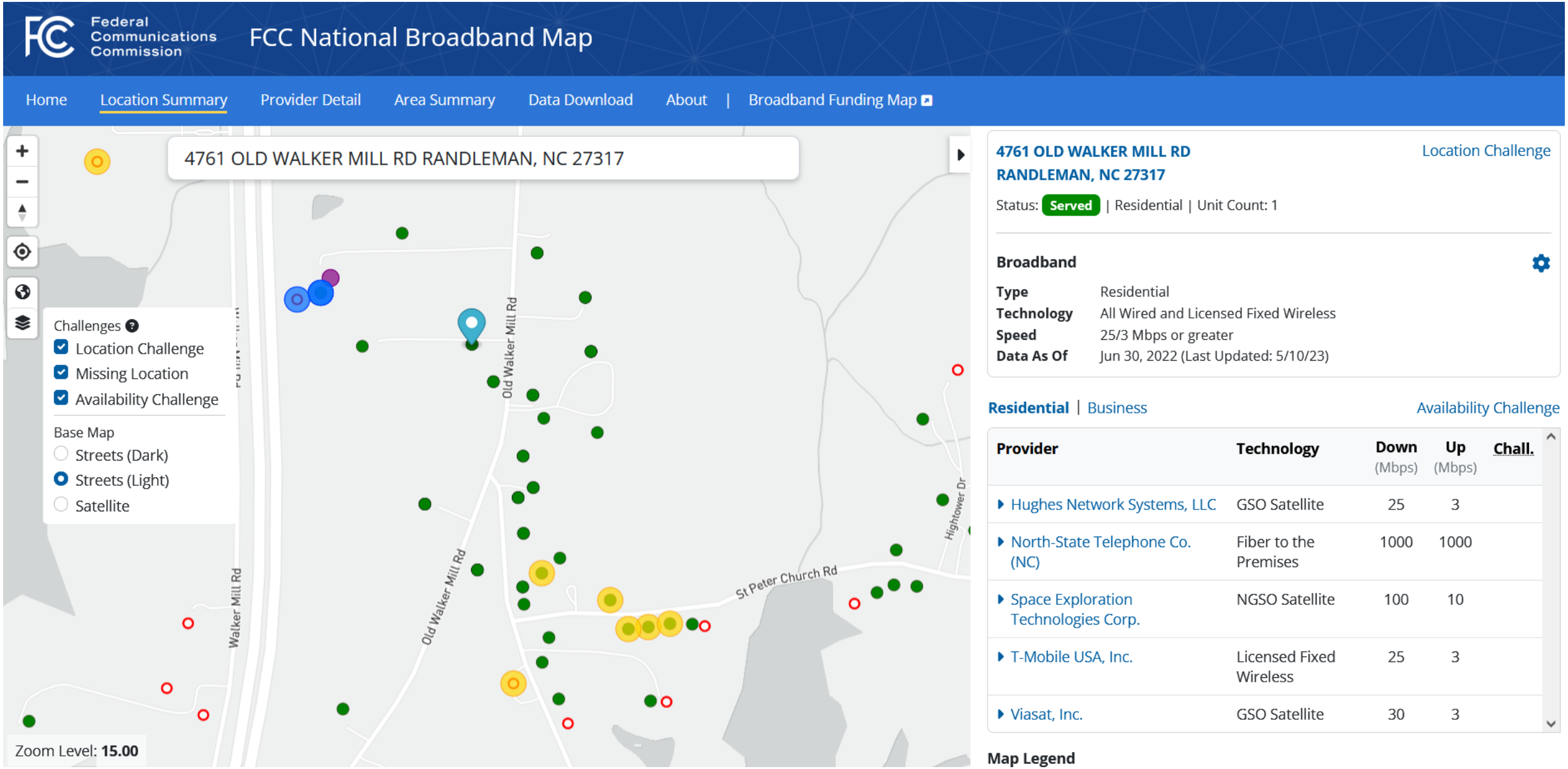
New FCC Broadband Map

https://broadbandmap.fcc.gov/home



FCC Broadband Map Challenges
Availability Challenges

43,027

Bulk challenge locations submitted to the FCC
by Jan. 13 deadline
(1,919 additional crowdsource data locations)

60% (25,763)

upheld as of 5/15/23

https://broadbandmap.fcc.gov/location-summary/fixed

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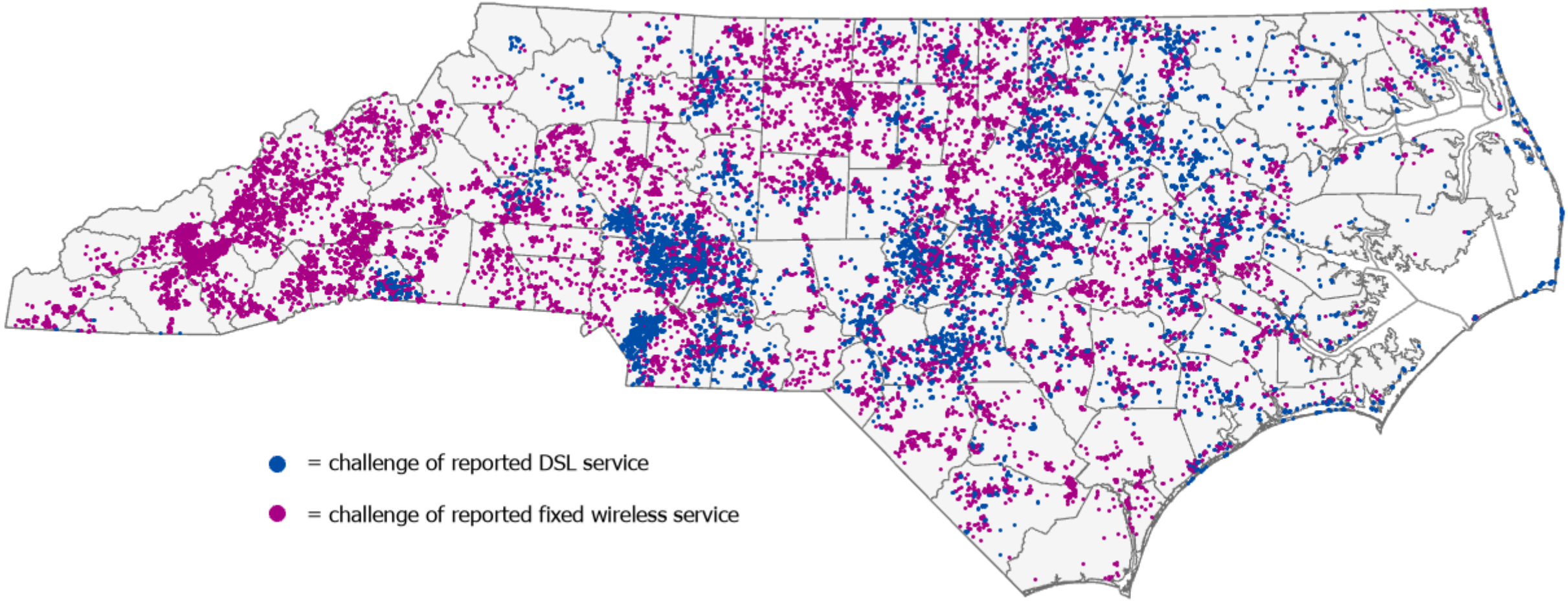
FCC Broadband Map Challenges

Availability Challenges



- Bulk challenges thus far to broadband availability data reported as of 6/30/22
- More challenges forthcoming

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Statewide GIS Datasets and the Location Fabric

Fabric Location Challenges

Addresses, parcels, building footprints, and orthoimagery

NC can challenge missing locations, misplaced locations, and multiple types of incorrect addressing.

- FCC Broadband Serviceable Location
- Potential Fabric Challenge Location

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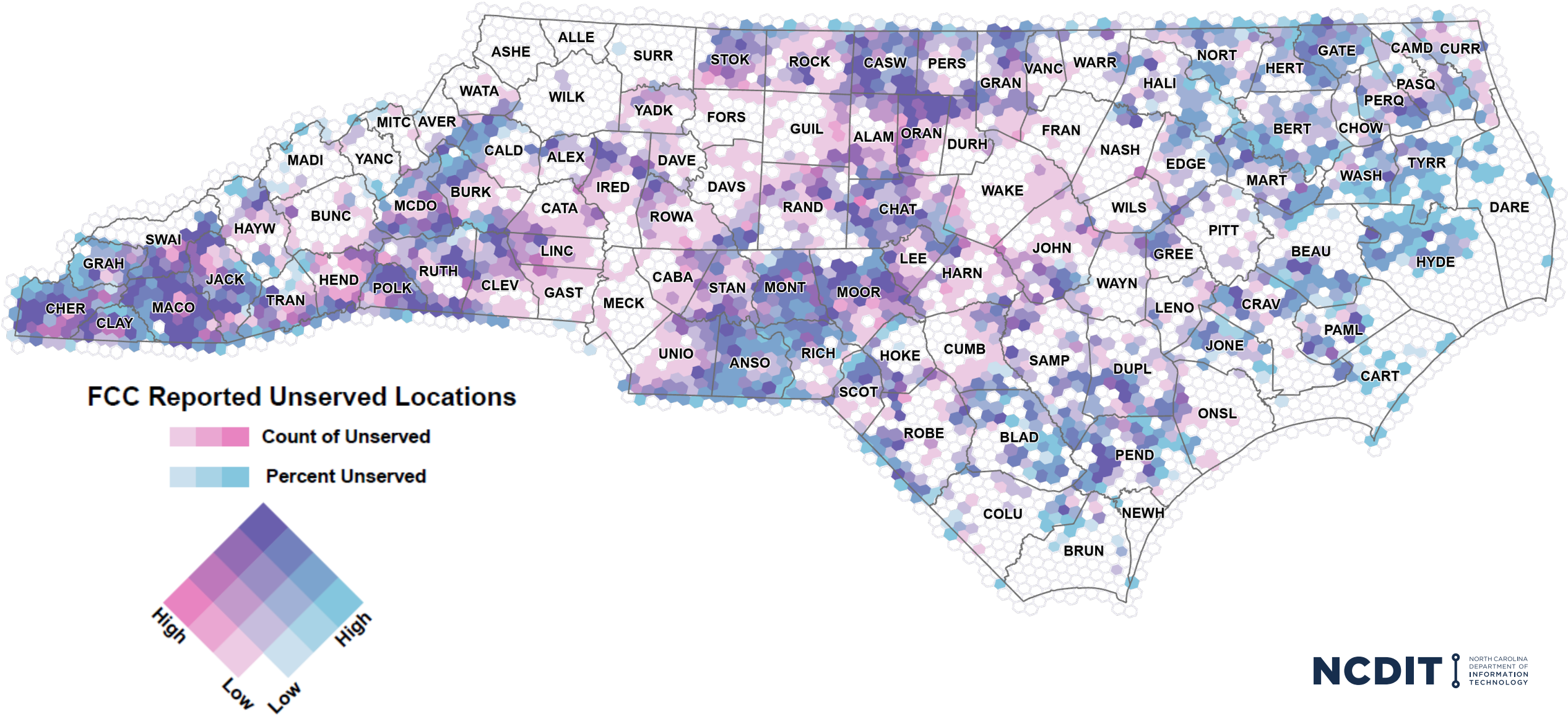
Fabric Challenges

- 5,700 locations from previously unserved census blocks analyzed by NC Center for Geographic Information Analysis
- **528** missing locations formally challenged, still under FCC review
    - **2,503 Units** at 528 locations challenged
- Gaining insight on the methods and review process
- Next step: scaling up to statewide analysis of 150,000 NC address locations potentially missing from FCC map

NC Broadband Profile

Defining Eligible Project Areas



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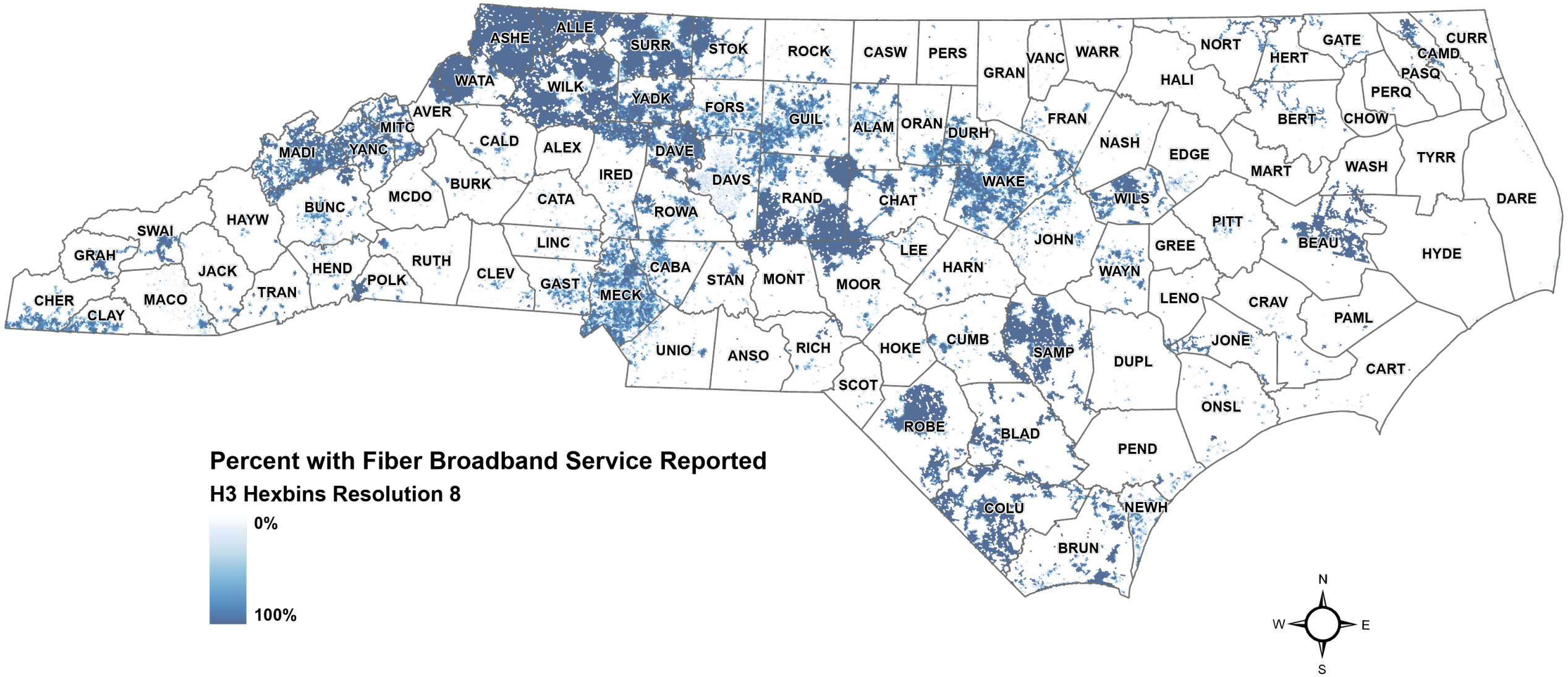
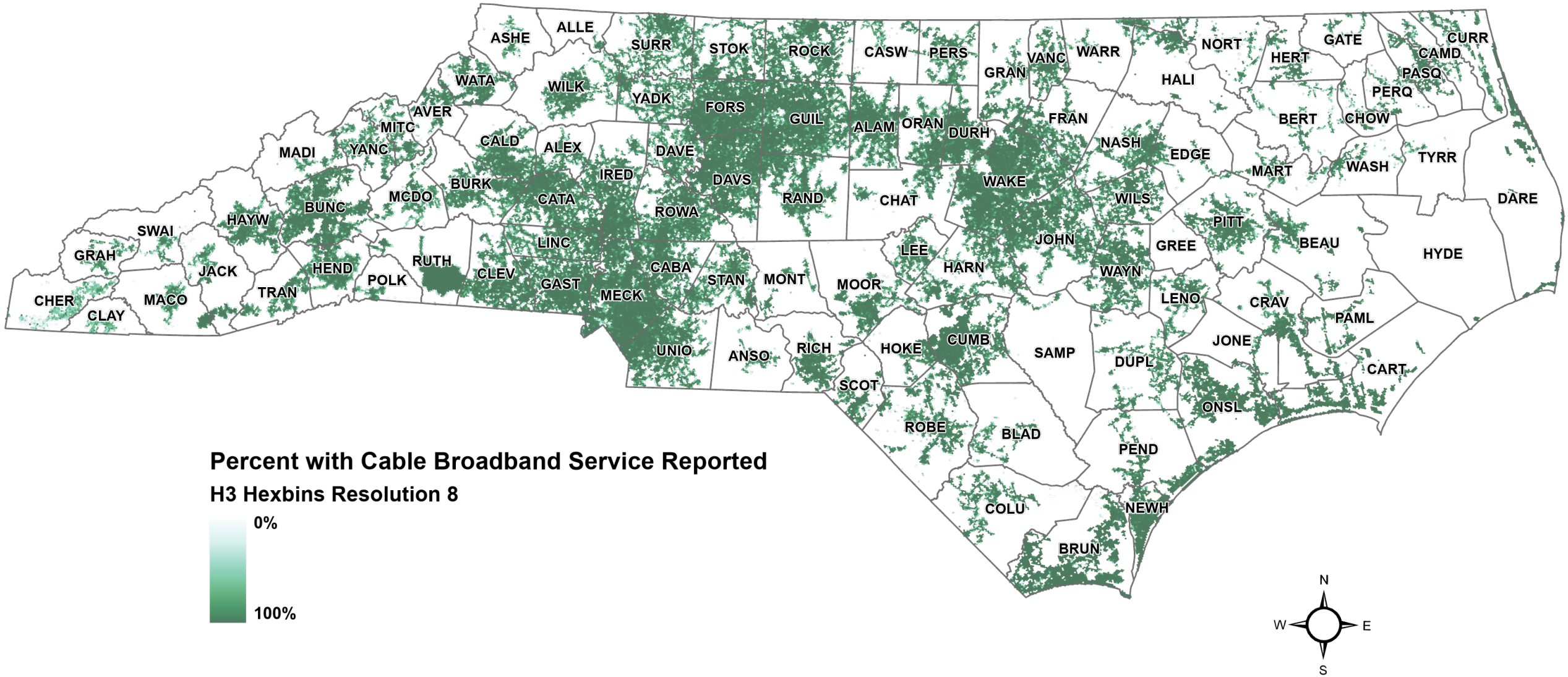
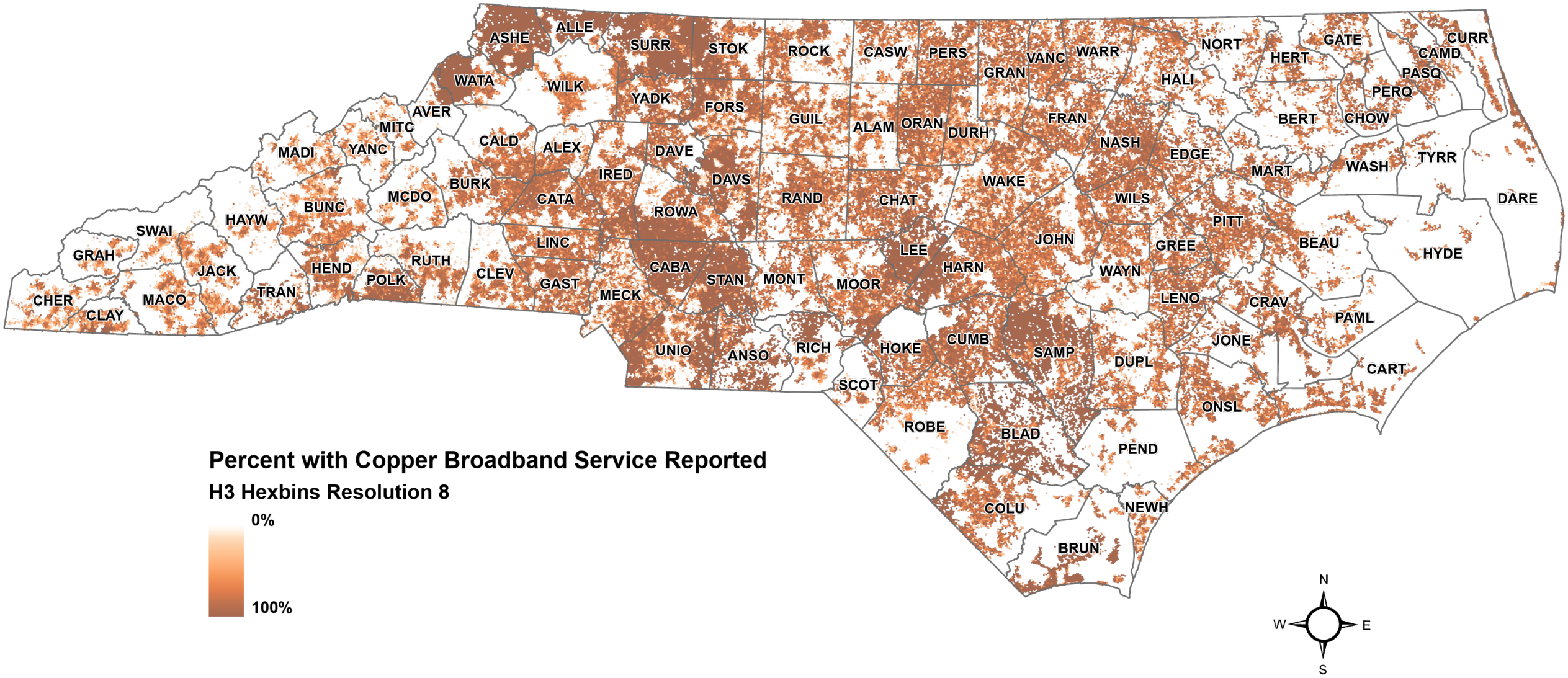
Reported Service by Technology Type: Fiber as of 6/30/22



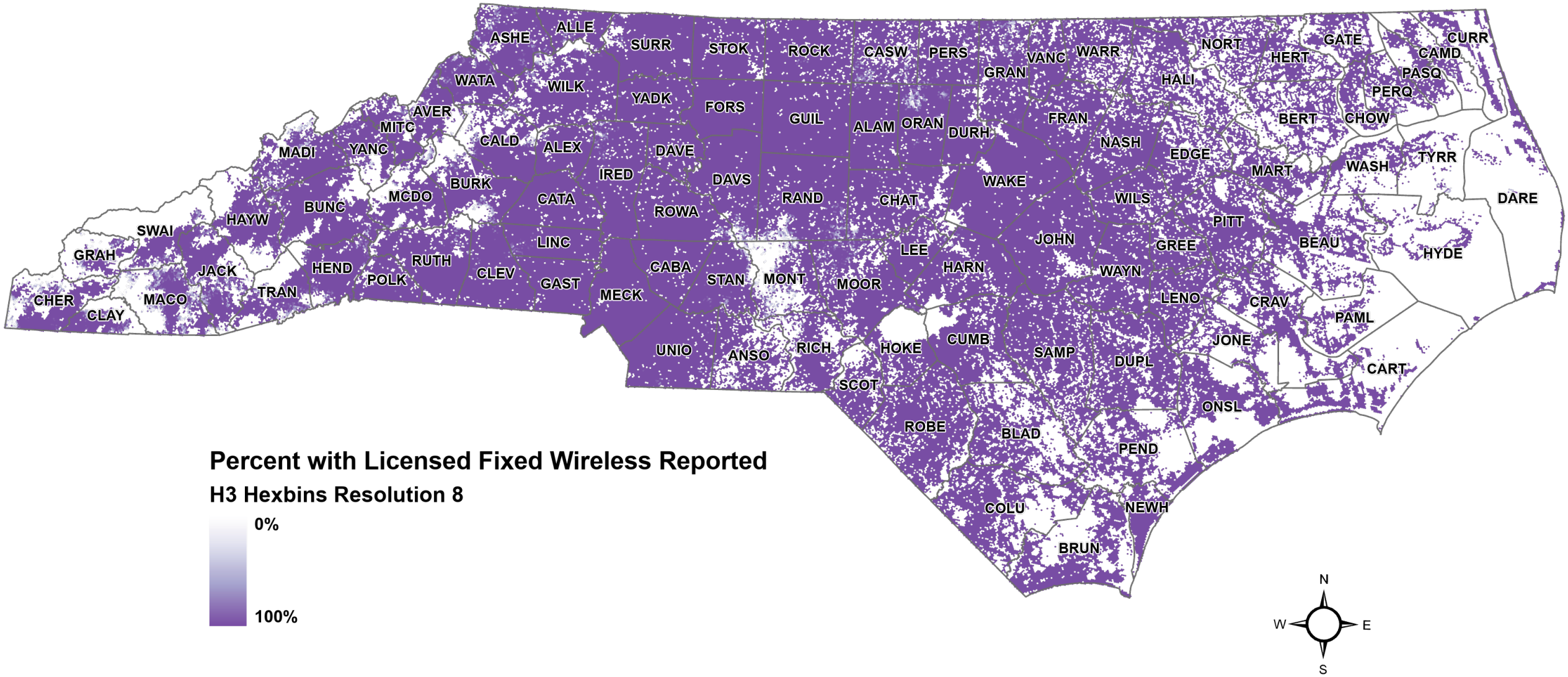
Reported Service by Technology Type: Cable as of 6/30/22



Reported Service by Technology Type: Copper as of 6/30/22

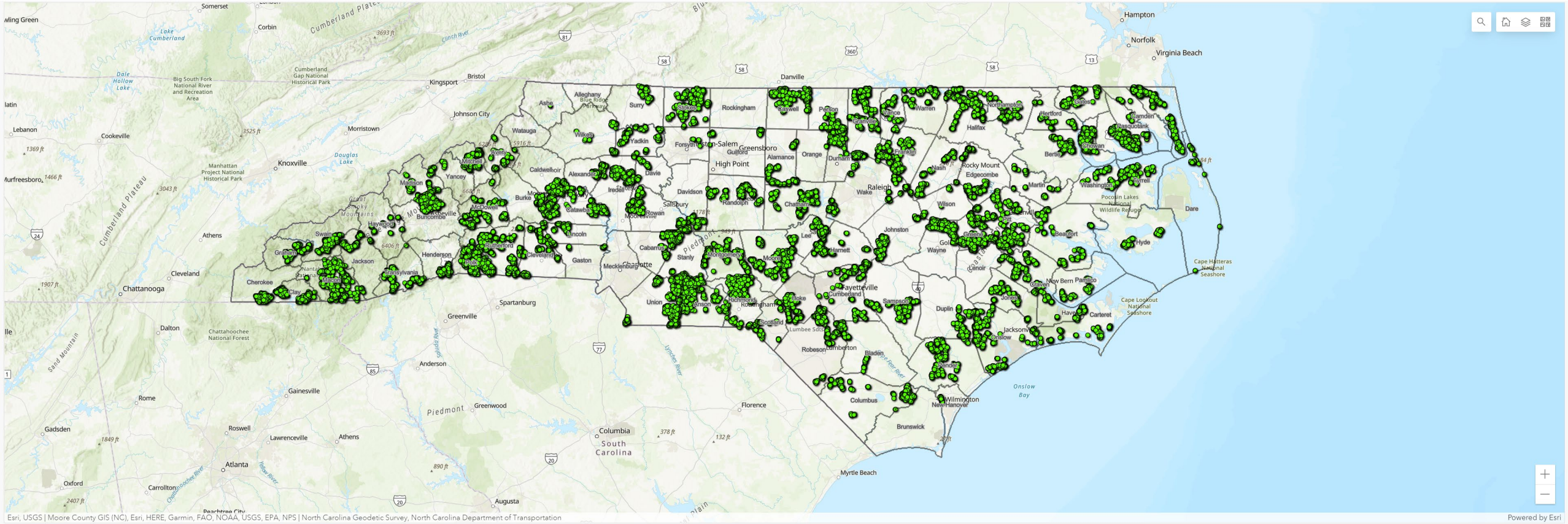


Reported Service by Technology Type: Licensed Fixed Wireless as of 6/30/22



GREAT Grant Program

Federally Funded Contingent Awards



Contingent Award Locations

Total Project Cost
$419.8M

Total Grant Amount
$272.2M

Total Match Amount
$147.6M

Total Awarded Locations
113,613

Households Served
109,988

Businesses Served
3,626

Average Cost Per Location
$4.8k

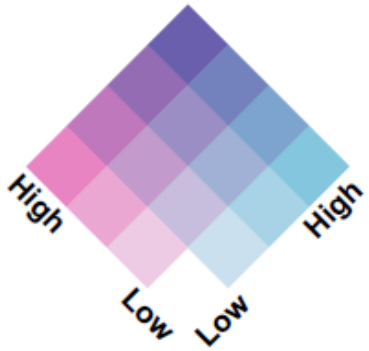
Sampson County Broadband Profile

Defining Eligible Project Areas

FCC Reported Unserved Locations

Count of Unserved

Percent Unserved



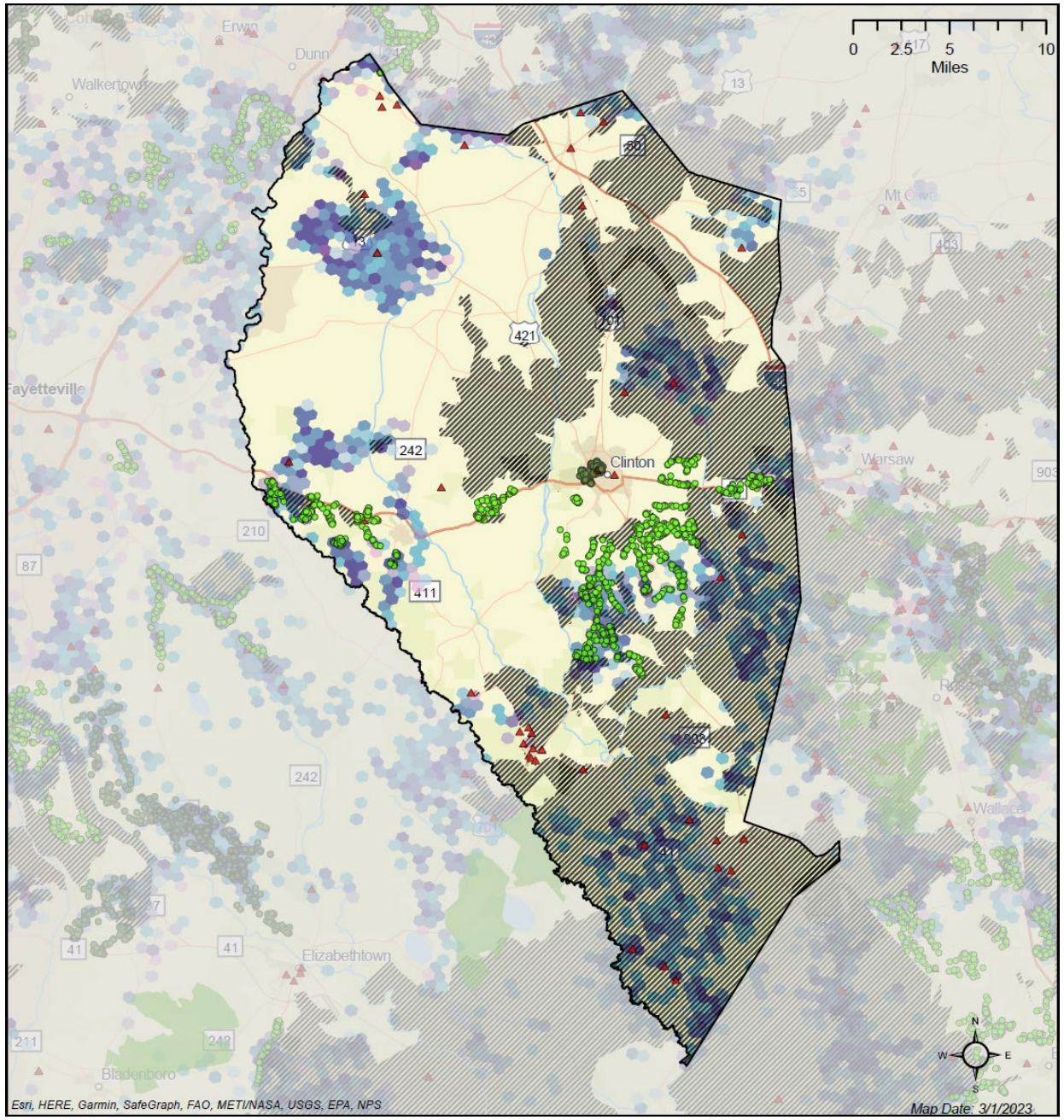
- NC Broadband Survey - Unserved Responses
- GREAT Contingent Award Locations (Federally Funded)
- GREAT Award Locations (State Funded)
- GREAT Award Areas (State Funded)
- Other Federal Grants

https://www.nconemap.gov/pages/broadband

County Profiles

Overviews of broadband service and funding for each county in North Carolina.

Download



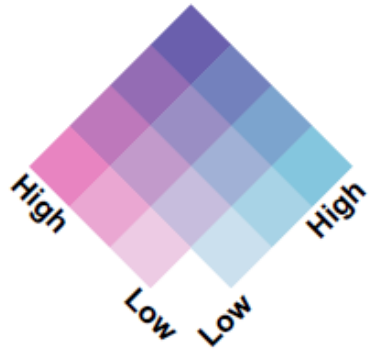
Polk County Broadband Profile

Defining Eligible Project Areas

FCC Reported Unserved Locations

Count of Unserved

Percent Unserved



- NC Broadband Survey - Unserved Responses
- GREAT Contingent Award Locations (Federally Funded)
- GREAT Award Locations (State Funded)
- GREAT Award Areas (State Funded)
- Other Federal Grants

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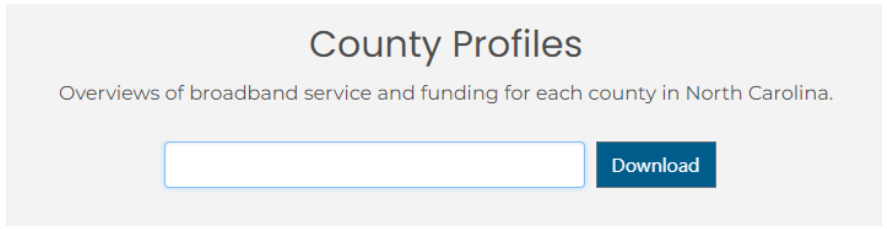
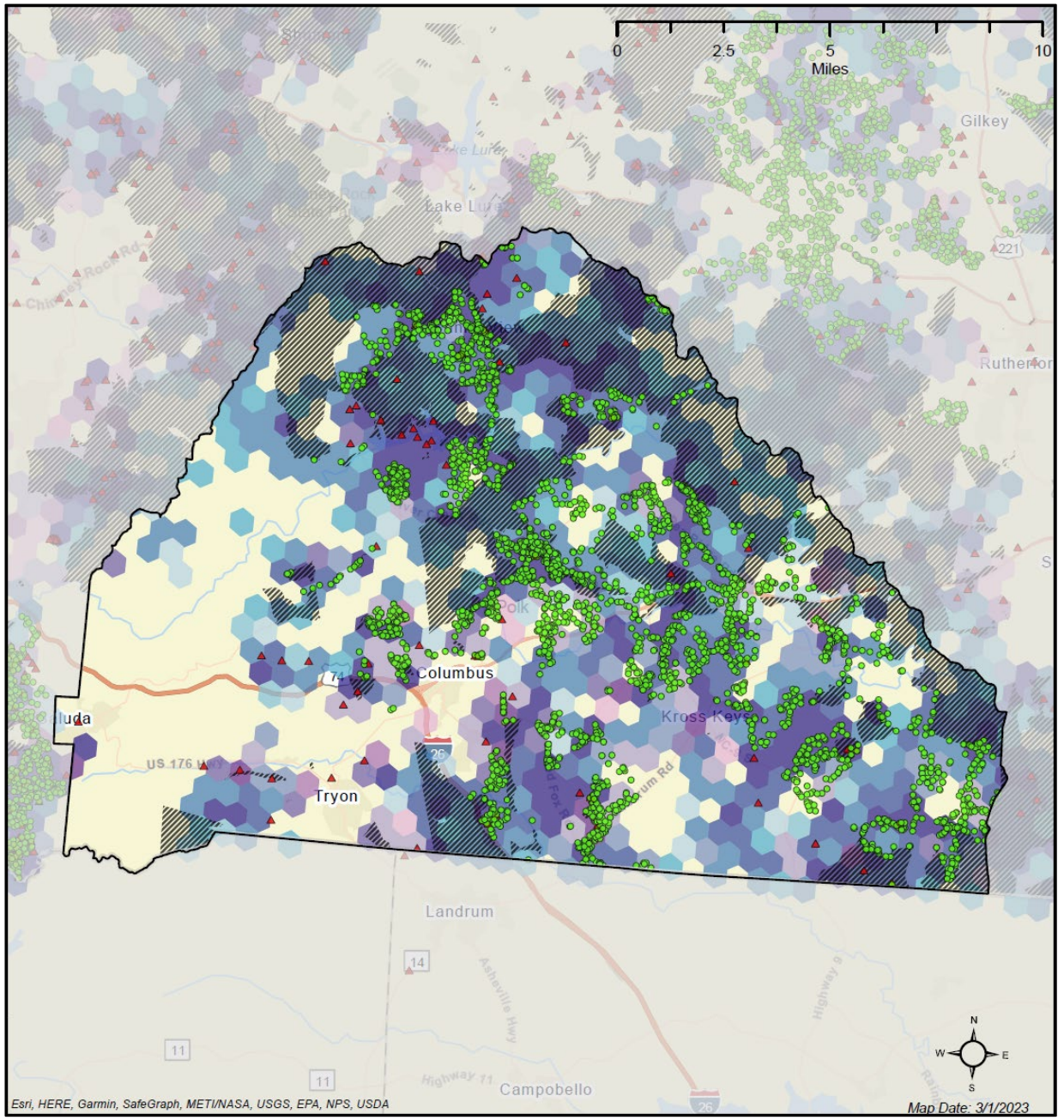
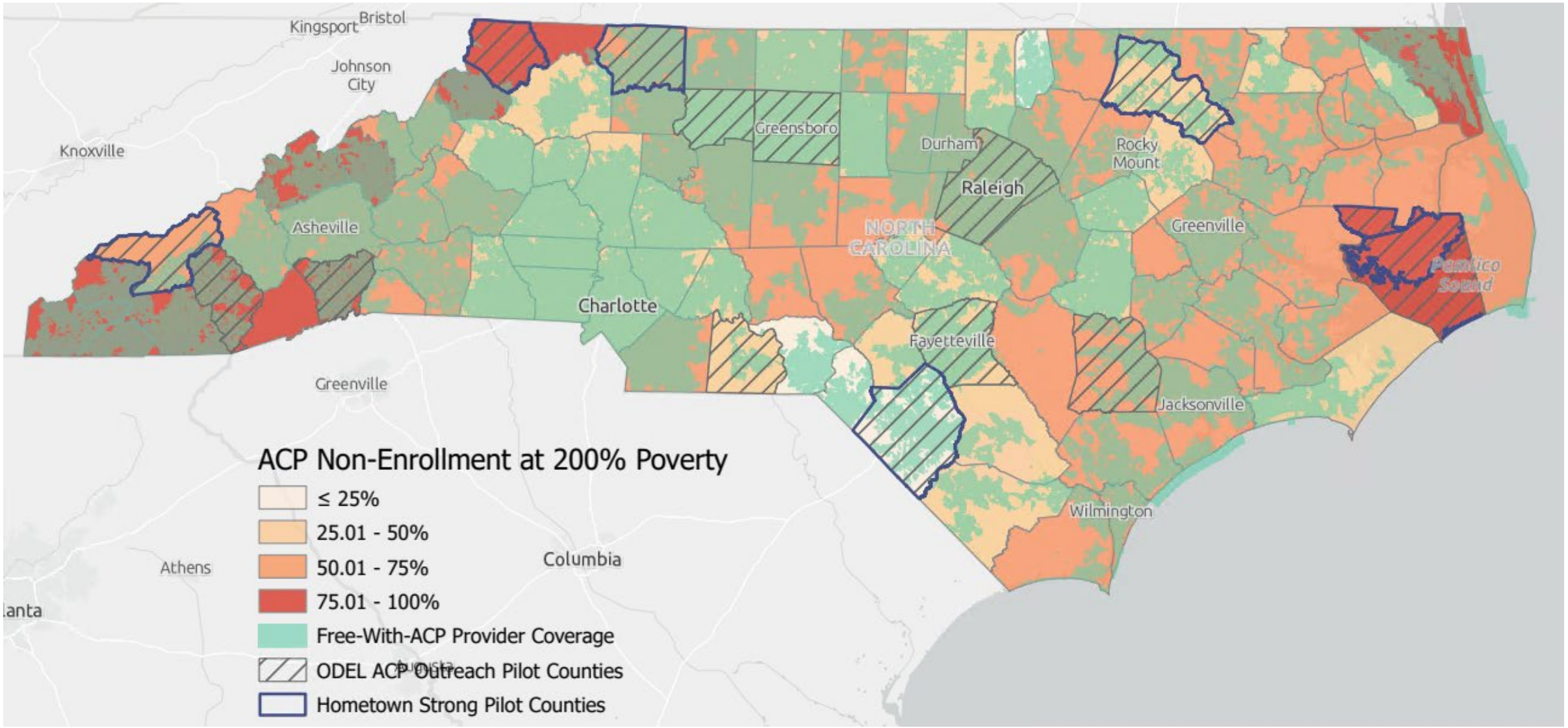




Affordable Connectivity Program
Non-enrollment among Eligible Households Through December 2022



Interactive Maps for Agricultural Community

North Carolina Migrant Worker Housing Connectivity

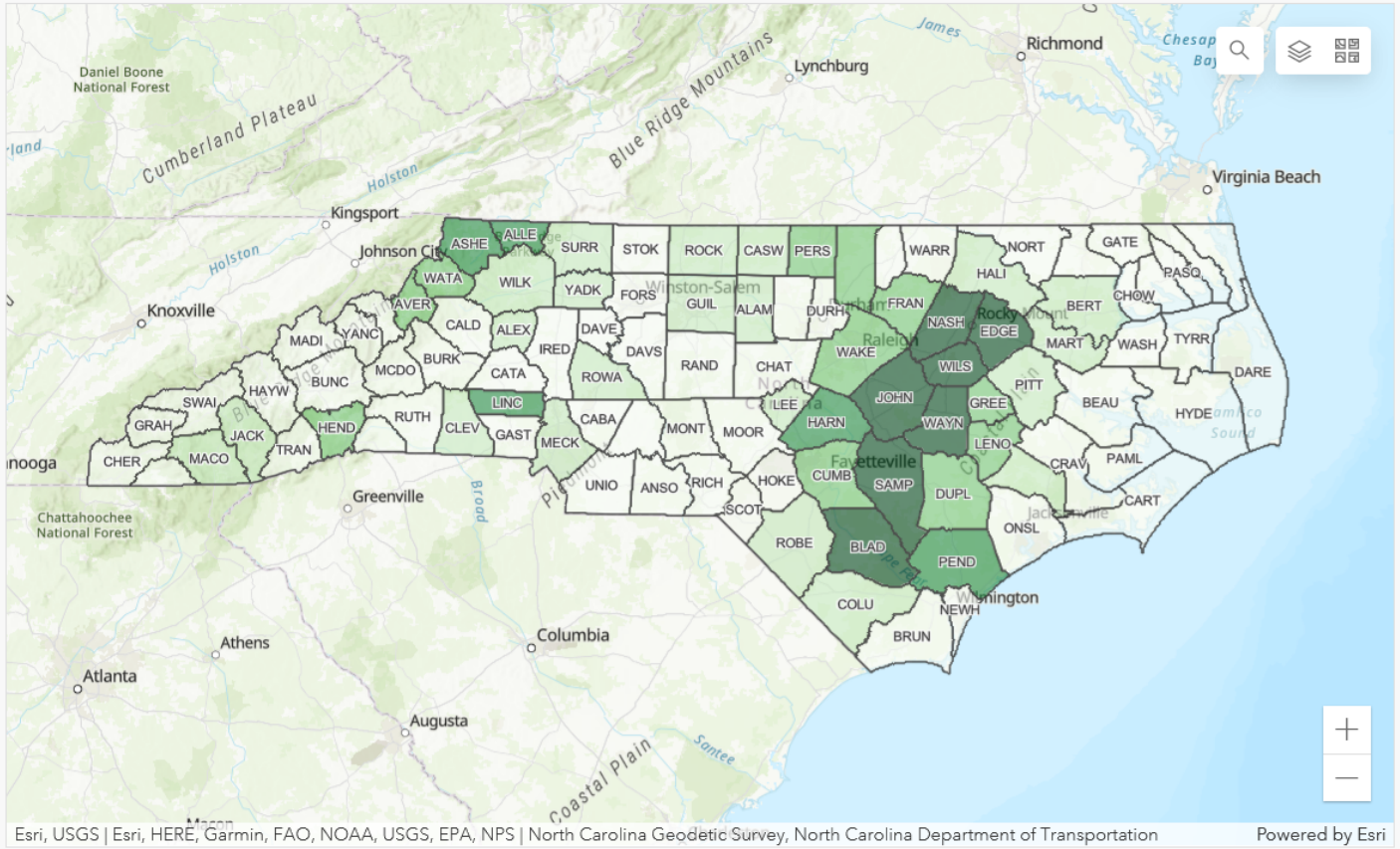
SELECT A COUNTY:
All Counties

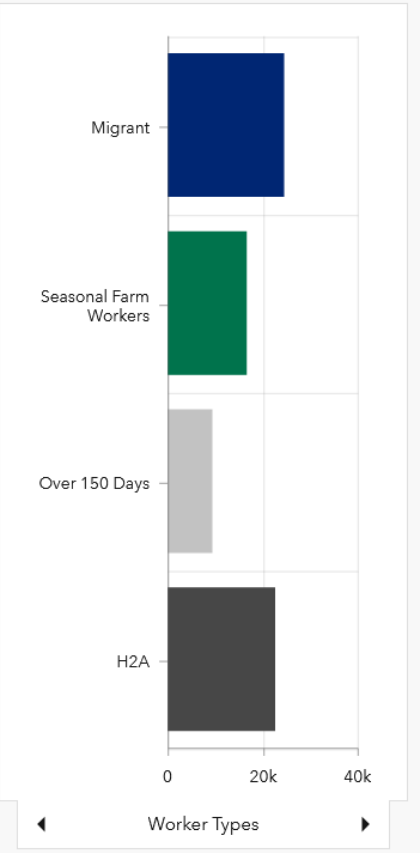
BROADBAND PROVIDER:
No data

H2A Workers Per County

H2A

- 1030 - 2683
- 517 - 1030
- 204 - 517
- 74 - 204
- 0 - 74





ABOUT

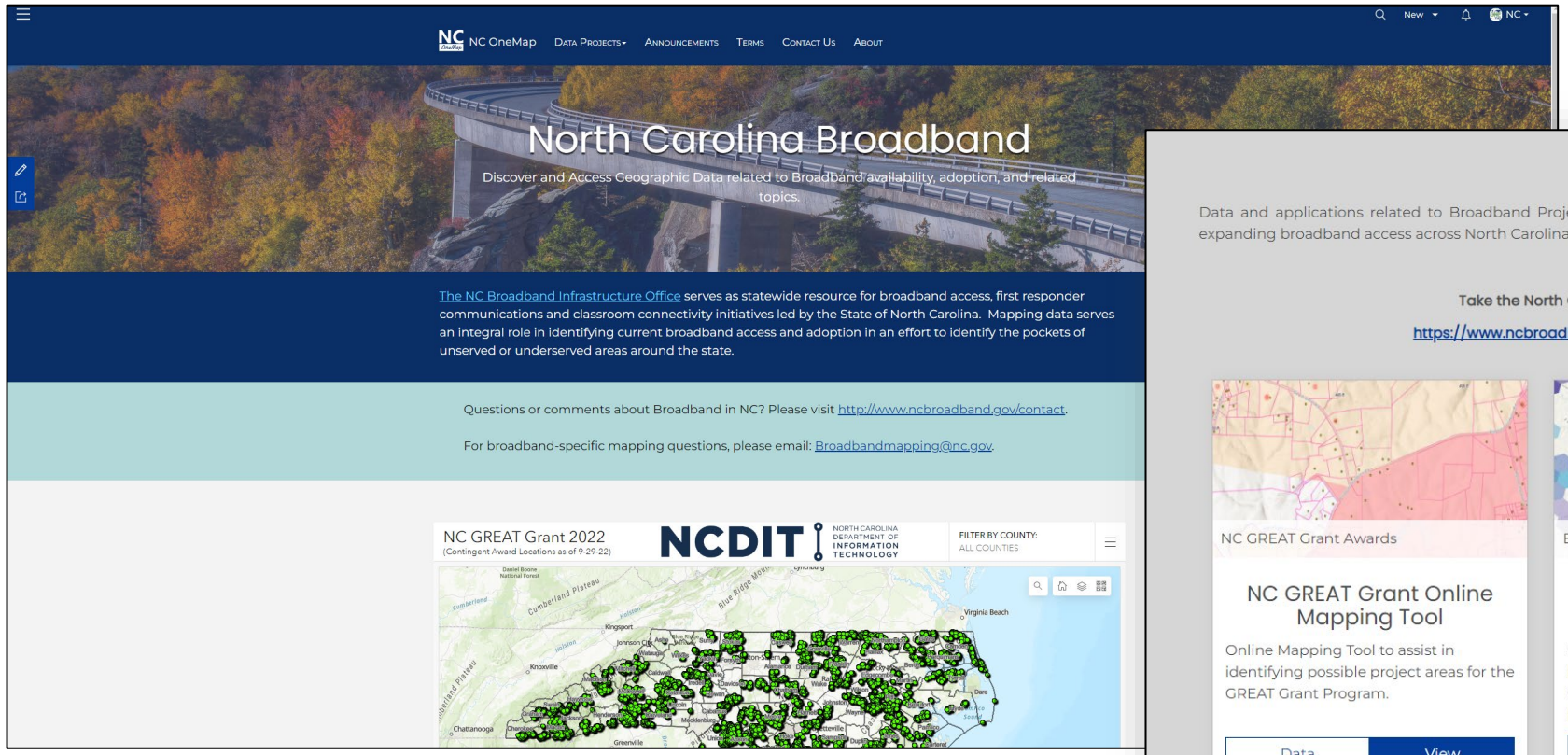
This map displays data on farms and migrant workers in relation to broadband connectivity. The data is visualized in the map as layers that will turn on or off as a user zooms in/out to display the data at different scales. Additional data can be turned on or off using the map tools ( ) in the upper-right hand corner of the map window.

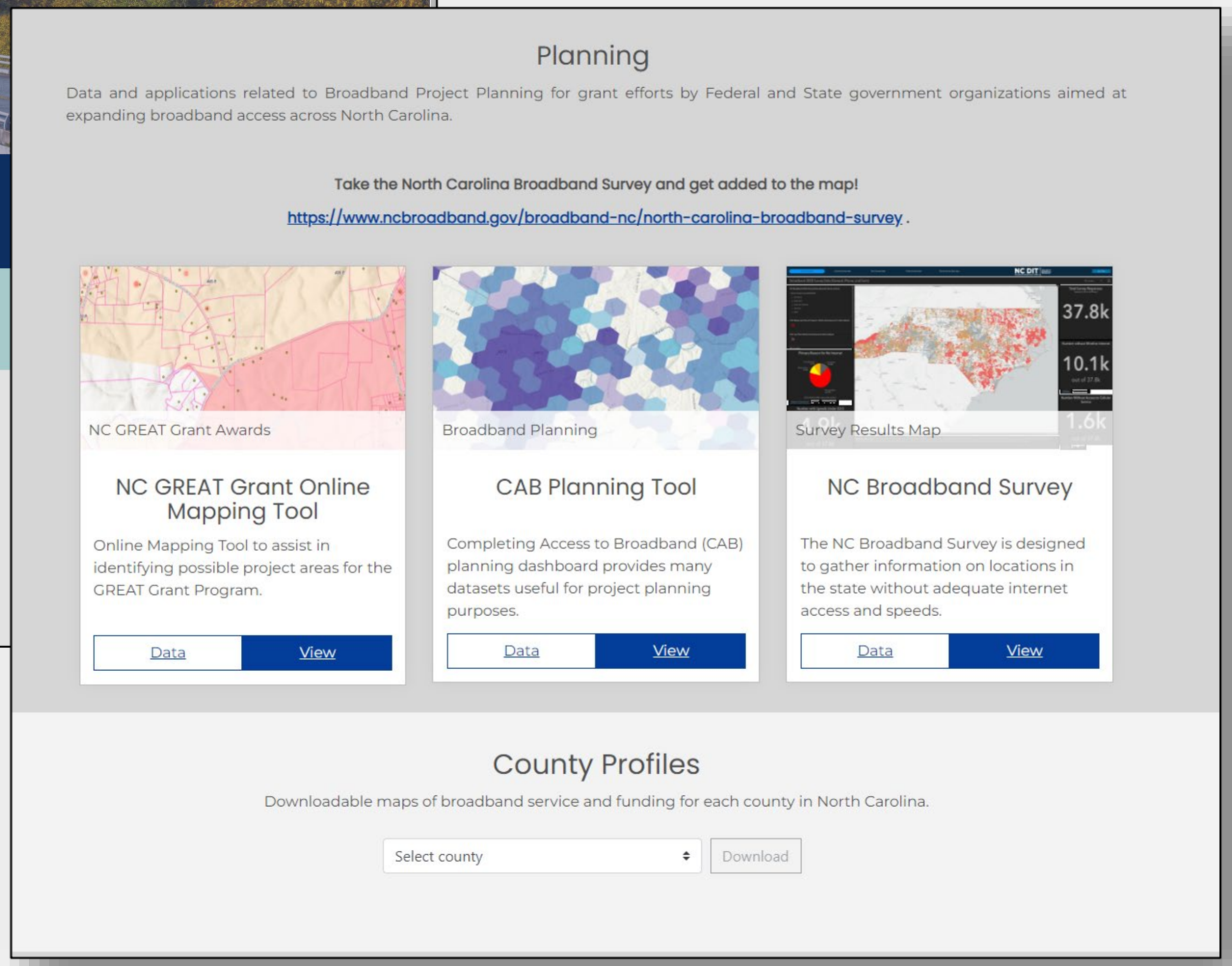
This additional data includes cellular provider coverage areas, number of farms per census tract, and Federal Communications Commission (FCC) Form 477 fixed broadband data. The FCC data is derived from provider-reported lists of census blocks in which

County	Site Name	Site OC First Name	Site OC Last Name	Site OC Email	Site OC Phone	
Alamance	Piedmont Health Services: Prospect Hill	Nahu	Palacios	palacion@piedmonthealth.org	336-583-1004	322 Main St

MIGRANT HEALTH CENTER CONTACTS | COUNTY COOPERATIVE EXTENSIONS

NC OneMap – Broadband Apps & Data





www.nconemap.gov/pages/broadband

BEAD State Challenge Process

- Will finalize locations eligible for BEAD funding
- States define Community Anchor Institutions
- NTIA released draft guidance and model plan, NC submitted feedback, NTIA is reviewing public comments
- New FCC map of federally funded areas: **https://fundingmap.fcc.gov**

Metrics in Development

- BEAD and Digital Equity baselines on access, barriers, assets, covered populations, etc.
- Program evaluation (GREAT; eventually CAB, Stop-Gap Solutions)
- Affordability: Affordable Connectivity Program Dashboard
- Context maps and metrics: Health, Education, Agriculture, etc.
- Groundwork for tracking access *to* and *through* community anchor institutions

Broadband Call to Action

What can broadband advocates do to improve broadband in our communities?

- **Help get the word out, share feedback**
  Surveys, map challenges, Affordable Connectivity Program

- **Local mapping work for Addresses & Parcels that funnel into statewide efforts**
  Mapping offices, share data for: Land Use, Improved Value, Structures, CAI's

- **Give input on Completing Access to Broadband (CAB) program, advocate for participation**
  Evaluate Eligible Areas for GREAT grant, CAB, and other infrastructure programs

- **Use, Share, and Contribute To Data/Maps:**
  Distribute NC OneMap maps/data
  - County Profile Maps
  Share ideas and items to include in mapped inventories

- **Keep this Conversation Going!**
  Broadbandmapping@nc.gov

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