Governor's Office *of* Economic Development
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October 6, 2016

National Telecommunications and Information Administration
U.S. Department of Commerce
1401 Constitution Avenue NW., Room 4887
Attn: National Broadband Research Agenda
Washington DC 20230

National Telecommunications and Information Administration,

The Utah Governor's Office of Economic Development (GOED) would like to provide comments on the National Telecommunications and Information Administration's Docket No. 160831803–6803–01 "National Broadband Research Agenda." From 2010 to 2015, the State of Utah managed the Utah Broadband Project through NTIA and is now operating the Utah Broadband Outreach Center, a state-funded broadband mapping and planning program. Working with broadband providers, federal agencies, state and local governments and businesses has given our office a unique perspective on broadband deployment and we would like to provide recommendations to the NTIA and the National Science Foundation (NSF) based on questions posed in the docket.

OVERARCHING QUESTIONS

1. What are the critical data and research needs in the areas of broadband technology and innovation?

Any broadband program implemented by NTIA, the NSF, USDA, the FCC and other federal agencies will rely heavily the accuracy of mapping resources to ensure that planning efforts are based on reliable information and funding is allocated appropriately. Since the national broadband map and state broadband maps were launched in 2011, many agencies, as well as state and local governments, have become reliant on this data to determine funding decisions and to conduct broadband planning efforts. Having reliable broadband data at a refined level is crucial to identifying underserved communities and developing strategies to ensure they are not left behind. GOED recommends that the NTIA and the NSF consider the following strategies to improve broadband data collection efforts:

- *Refine Broadband Data Collection Processes to Meet the Needs of Funding and Planning Efforts* - Beginning in the fall of 2014, the FCC began collecting broadband data directly from providers and changed the collection standard by aggregating all data

to a census block level. Basing data collection, planning efforts and funding definitions on census blocks is problematic, particularly in blocks which are large, remote and include terrain that makes it difficult to install infrastructure. For example, within the State of Utah, the largest populated census block is 947 square miles. Under the current model, any census block that is partially covered would be ineligible for all federal broadband programs, even if only a small percentage of households are covered. NTIA and the NSF should work with providers and state broadband mapping programs to coordinating data and mapping efforts in order to collect actual provider footprints. Collecting this more refined data will ensure that unserved residents are not denied funding and are not included in broadband planning efforts because they reside in a census block that is partially covered by broadband service. The Utah Broadband Outreach Center in GOED has developed maps to show the discrepancy between the previous NTIA data collection model being implemented by state broadband initiatives and the new FCC data model for cable, DSL, fiber, and fixed mobile wireless. The maps in Appendix A illustrate these discrepancies and highlight large geographic areas that will be negatively impacted by the new FCC data collection model.

- *Assist Providers in Completing Successful Data Submissions* - It has also been our experience that many small rural carriers may require assistance to submit broadband data, regardless of the model implemented. Over the last five years, Utah's providers have utilized and relied upon the state's SBI program's expertise and resources to submit broadband data. Many of these providers lack sufficient resources to be able to submit accurate data, particularly those who do not employ staff with mapping expertise. For example, in Utah, with the exception of a few major nationwide carriers, the Utah Broadband Project (Utah's SBI program) provided some level of technical assistance to most of the providers listed on the Utah Broadband Map and National Broadband Map. Since the SBI programs ended, several states, including Utah, have decided to continue a state data collection because the new federal model will not be sufficient to determine the locations of unserved households for state and local planning efforts. We ask that the NTIA consider utilizing state broadband offices and commissions to arbitrate this process to assist providers in submitting data, which would require ongoing state funding.

- *Establish a Data Verification Standard* - GOED also recommends that the NTIA develop a data verification standard for each applicable technology to ensure broadband data is correct and so funding can be allocated areas which truly meet the standard of being underserved and unserved. This verification should also include a mechanism for stakeholders to request that NTIA and the NSF review any reported inaccuracies so that maps can be corrected. NTIA should consider opening a public comment period specifically to gather information and input on methods to verify this data. NTIA should consider working with states to employ this mechanism, due to their expertise in collecting and verifying broadband data.

- *Make Broadband Data Publicly Accessible* - We would also ask NTIA and the NSF to coordinate to develop a strategy to display broadband data on a national broadband map platform and make the raw data available for download so states and local governments may incorporate the data into maps and planning activities. The FCC is no maintaining a national broadband map which makes it difficult for stakeholders without GIS capabilities unable to assess broadband access. Other data deficiencies exist with the current strategy including that mobile wireless speed data has not been made publicly available, making it difficult for state and local planning groups to evaluate mobile broadband needs. This data is crucial not only for federal funding but also for state and local planning efforts. The FCC should also work with states to display more refined data when available.

- *Release Broadband Data in a Timely Manner* - We also recommend that NTIA, the NSF and the FCC release broadband data in a timely manner (within 6 months of collection) to help ensure that federal agencies, along with state and local governments, have updated information to initiate planning and funding activities.

2. **What specific technology research proposals, and associated methodologies, should be prioritized to support the advancement of broadband technology? And why?**

   See response to Question 1.

4. **What are the critical data and research needs in the areas of broadband deployment and access?**

   See response to Question 1.

5. **What specific research proposals, and associated methodologies, regarding broadband access should be prioritized? And why?**

   See response to Question 1.

7. **What are the critical data and research needs in the areas of broadband adoption and utilization?**

   Identify Unserved Areas – NTIA and the NSF should also consider collecting data that specifically maps unserved/underserved residential areas and community anchor institutions (e.g. schools, libraries, hospitals, government buildings, tribal centers). Providers and other interested stakeholders should be included in this process and should have the opportunity to identify specific locations that are unserved/underserved and recommend ways to fund these areas. Mapping data on unserved/underserved areas could utilize existing datasets such as address points and CAI locations created with SBI funding, and possibly other population coverage datasets.

Opportunities for Federal Leadership in Data Collection and Research

13. What opportunities exist to improve the sharing of research from federal research programs with external stakeholders (e.g., industry, academia)? Likewise, how can external stakeholders better share their research with federal agencies?

GOED recommends that NTIA and the NSF work with states on their ongoing research agenda. States have a unique perspective in working with federal agencies, local governments and broadband providers that would be valuable to future decisions. Having an ongoing mechanism for feedback between the state broadband offices and NTIA/NSF will be vital so states can advise these agencies on potential impacts future policies may have based on local input and data analysis.

14. What are suggestions for enhancing cross-disciplinary collaboration in broadband research?

See response for Question 13.

15. Given limited federal budgets and existing research efforts led by industry, academia, and other external groups, what specific role should the federal government play in the area of broadband research (e.g., funding, data gathering, coordination)?

The federal government plays a central role in assessing consumer needs and broadband speed goals and standards inform federal policies and funding mechanisms. Since the Federal Communications Commission (FCC) has updated the definition of broadband to a minimum standard of 25 Mbps upload and 3 Mbps download, GOED recommends that this standard apply to all funding mechanisms within NTIA, the NSF and other federal agencies that support residential broadband. We also recommend that in addition to the 25 Mbps upload/3 Mbps or greater download requirement, conducting consumer needs research in order to review and adjust speed tiers as technology continues to change, potentially requiring higher speeds, will ensure that this funding mechanism meets the growing needs of citizens and communities.

NTIA should seek comments and review the speed thresholds on a regular basis to advise the FCC, the United States Department of Agriculture (USDA) and other funding agencies on speed goals that will meet the growing bandwidth demands for individuals, businesses, and community anchor institutions. Federal broadband funding programs should evaluate and re-consider areas of funding eligibility for all federal programs that fund broadband to ensure that the services delivered using these funds in underserved regions are reasonably comparable to the services enjoyed by consumers in urban areas.

Several federal programs are currently funding broadband services at a standard below the FCC's 25 Mbps upload/3 Mbps definition of broadband service. For example, the FCC's Connect America Fund II will provide funding to serve rural areas at a level of 10 Mbps upload/1 Mbps download. The United States Department of Agriculture's (USDA) Community Connect Fund and Rural Utility Service (RUS) Broadband Loan Program are both example of a programs that could be updated to help communities reach the FCC's broadband goal.

Using consumer research to update the speed thresholds for these programs and extending funding to areas with speeds below the new FCC definition is crucial to ensuring communities have the speeds they need for vital activities such as economic development, education, health care and public safety.

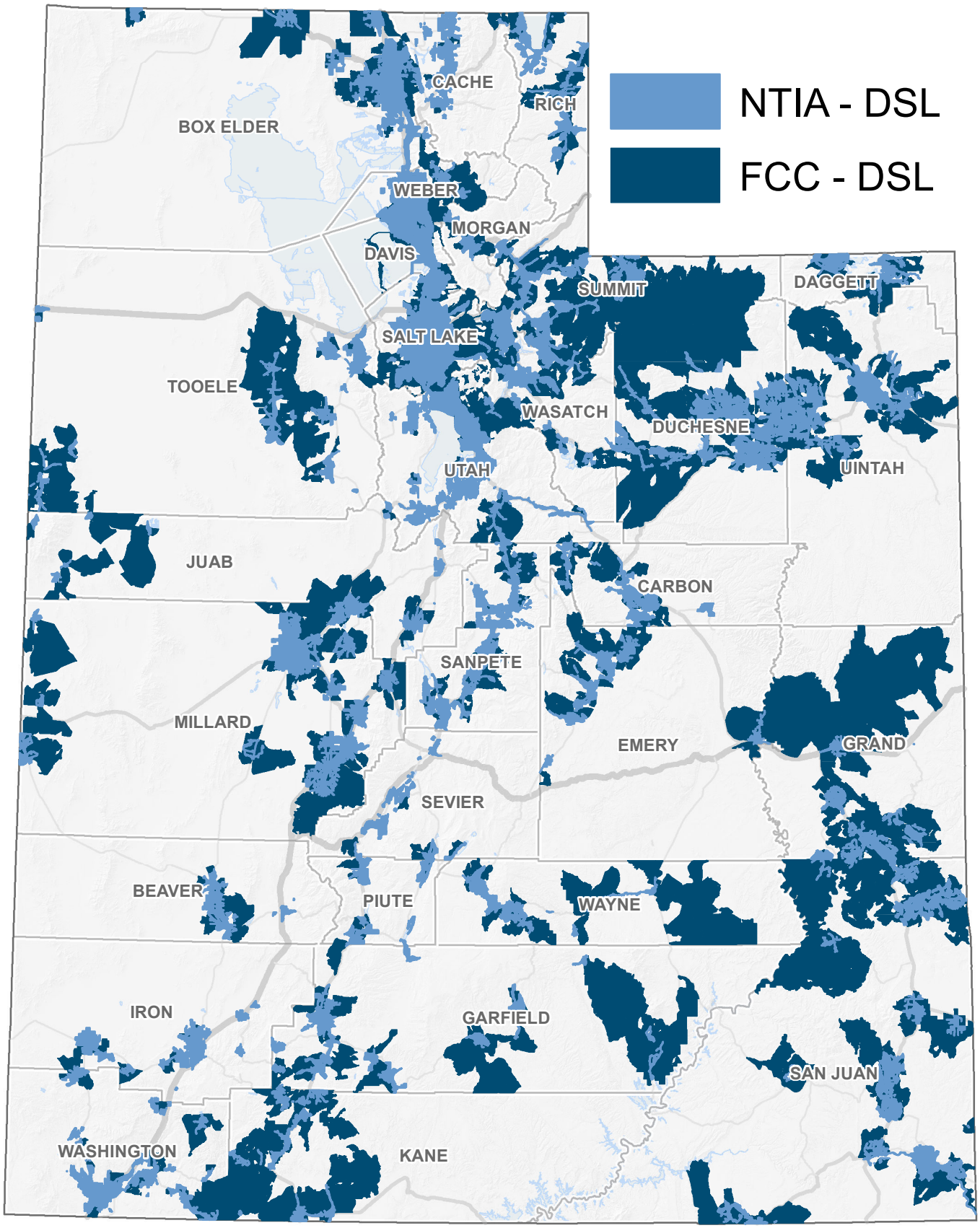
16. **Are there opportunities to collect new broadband-related data or expand current data sets within federal programs that fund and/or produce research?**
See response to Question 4.

We respectfully ask NTIA and the NSF to consider these comments when making decisions regarding their upcoming research agenda. We look forward to working closely with you in the future.

Sincerely,

Q. Val Hale
Executive Director
Utah Governor's Office of Economic Development

Transition to FCC's Data Model: Broadband Coverage Difference by Technology Type - DSL



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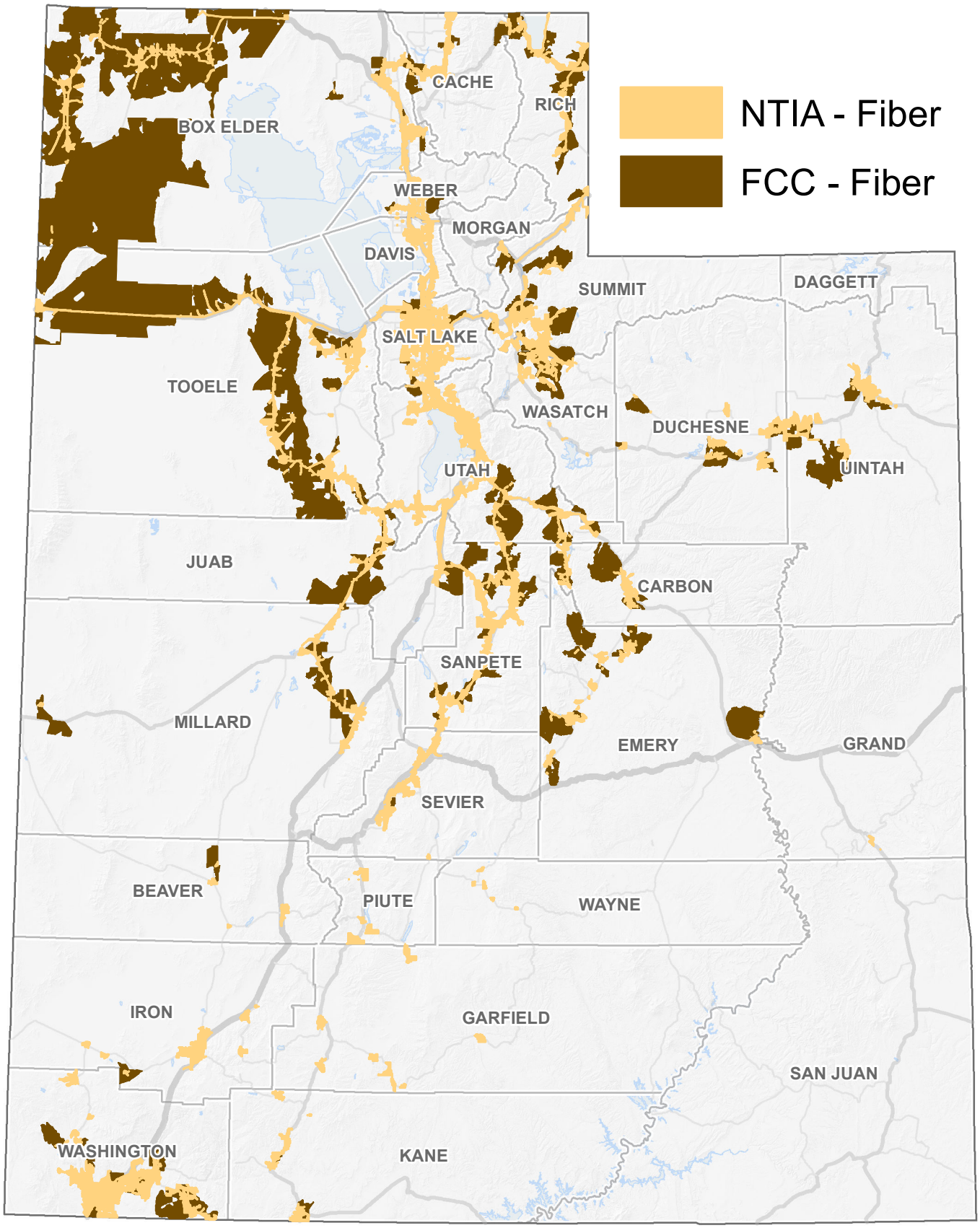
Transition to FCC's Data Model: Broadband Coverage Difference by Technology Type - Fiber



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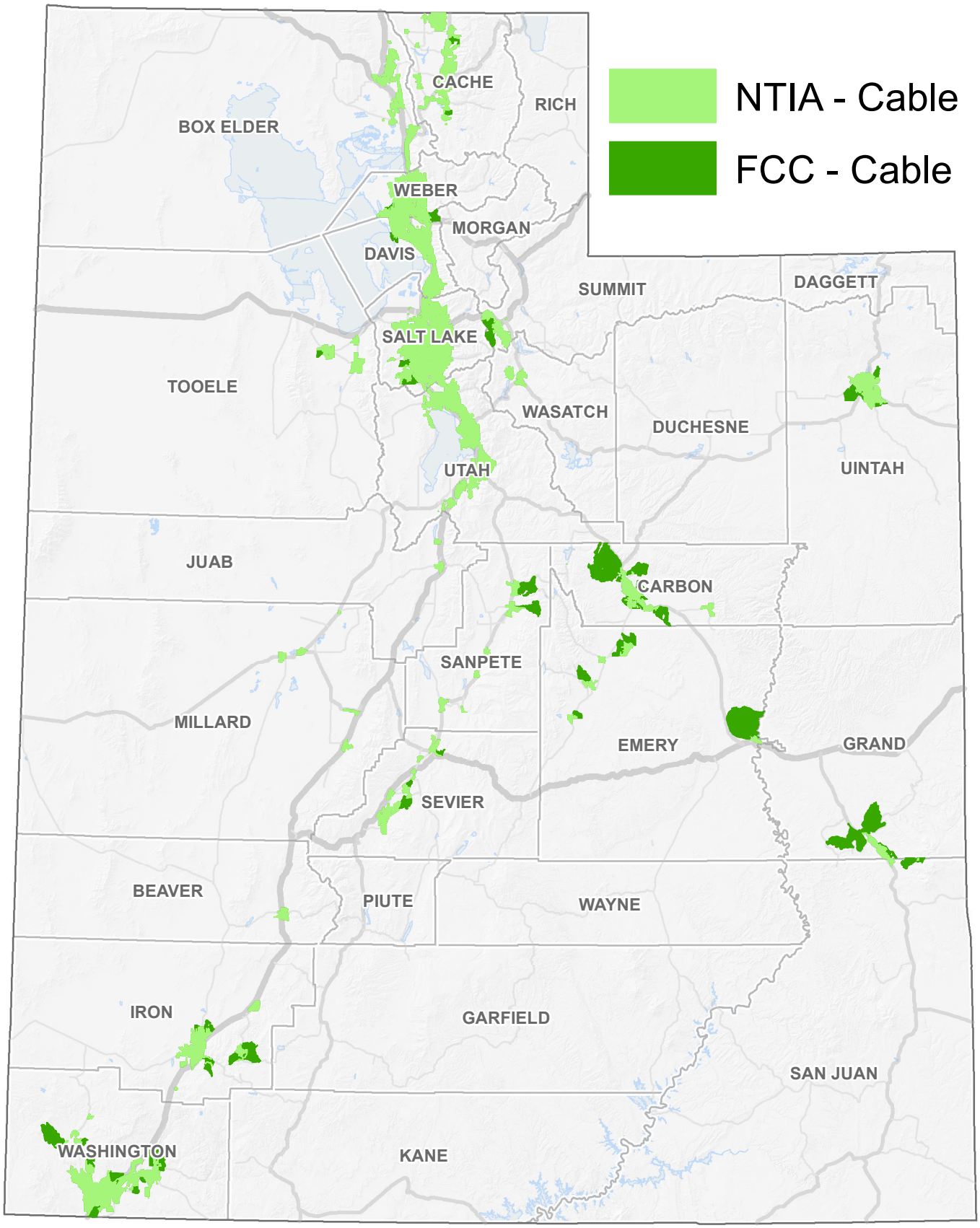

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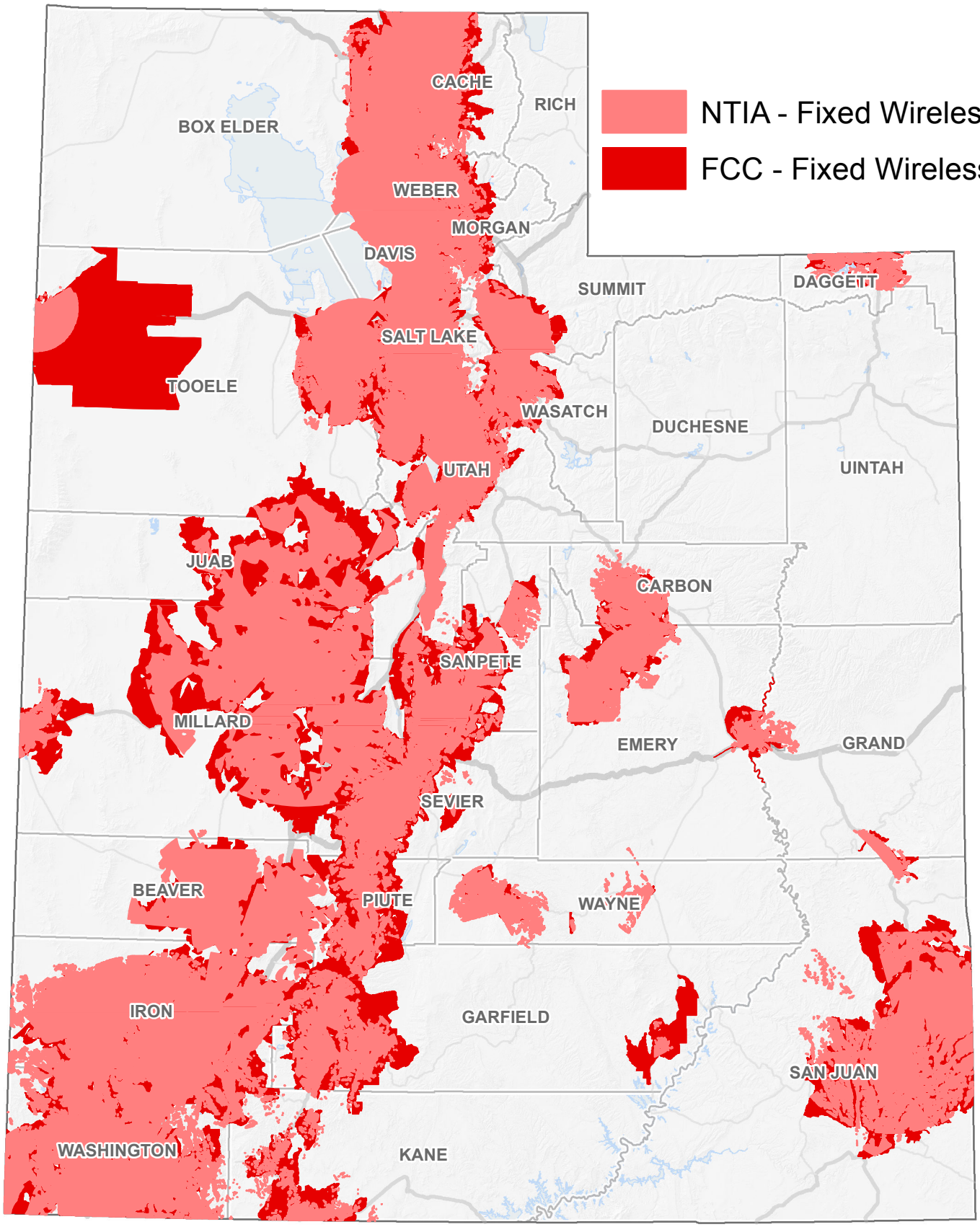
Transition to FCC's Data Model: Broadband Coverage Difference by Technology Type - Fixed Wireless



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