

Fiber to the home (FTTH) Development in The United States

FTTH Development in Geography View

Fiber to the home (FTTH) is the advanced method to connect to the internet nowadays, and we want to figure out the FTTH development in the United States and find factors relevant to FTTH development to help better the government develop FTTH.

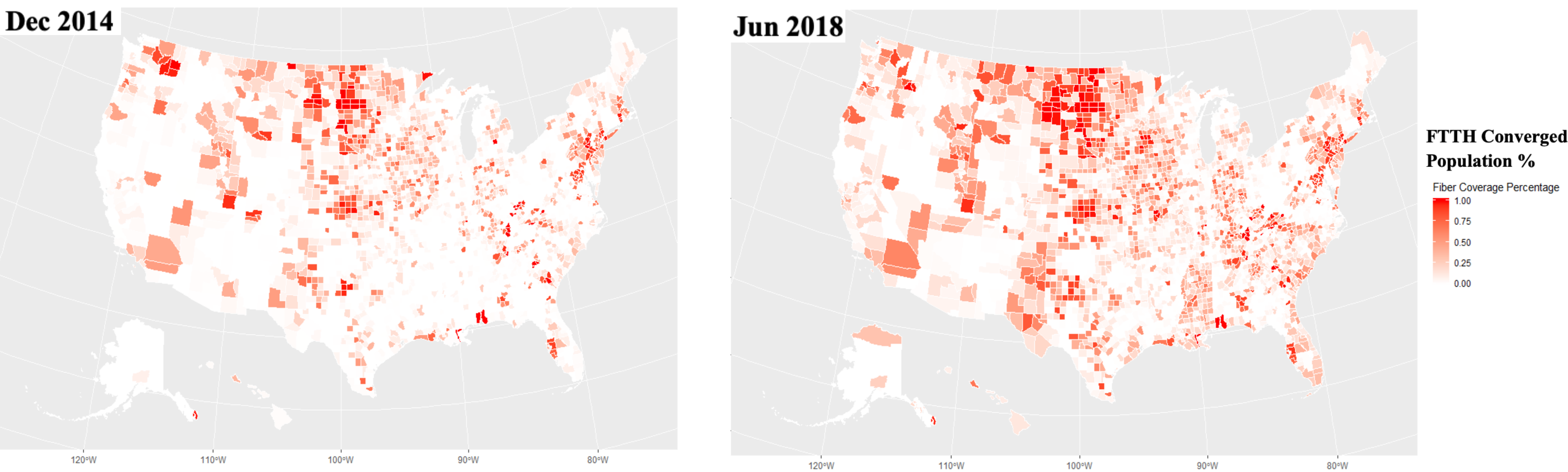


Figure 1. FTTH Covered Population Percentage Change From 2014 to 2018

Internet Service Providers (ISP) on FTTH Development

AT&T is the largest ISP in the U.S., Verizon is the largest player in FTTH. Large ISP such as Comcast and Charter (Spectrum) are focusing on DOCSIS. The ISP status is shown by the total and FTTH covered population. We divided ISPs into four quadrants by 95 percentile marks. ISPs in the 1st quadrant are a big player with big moves on FTTH, 2nd is smaller ISP emphasis on FTTH, 4th is a large ISP that reluctant on FTTH.

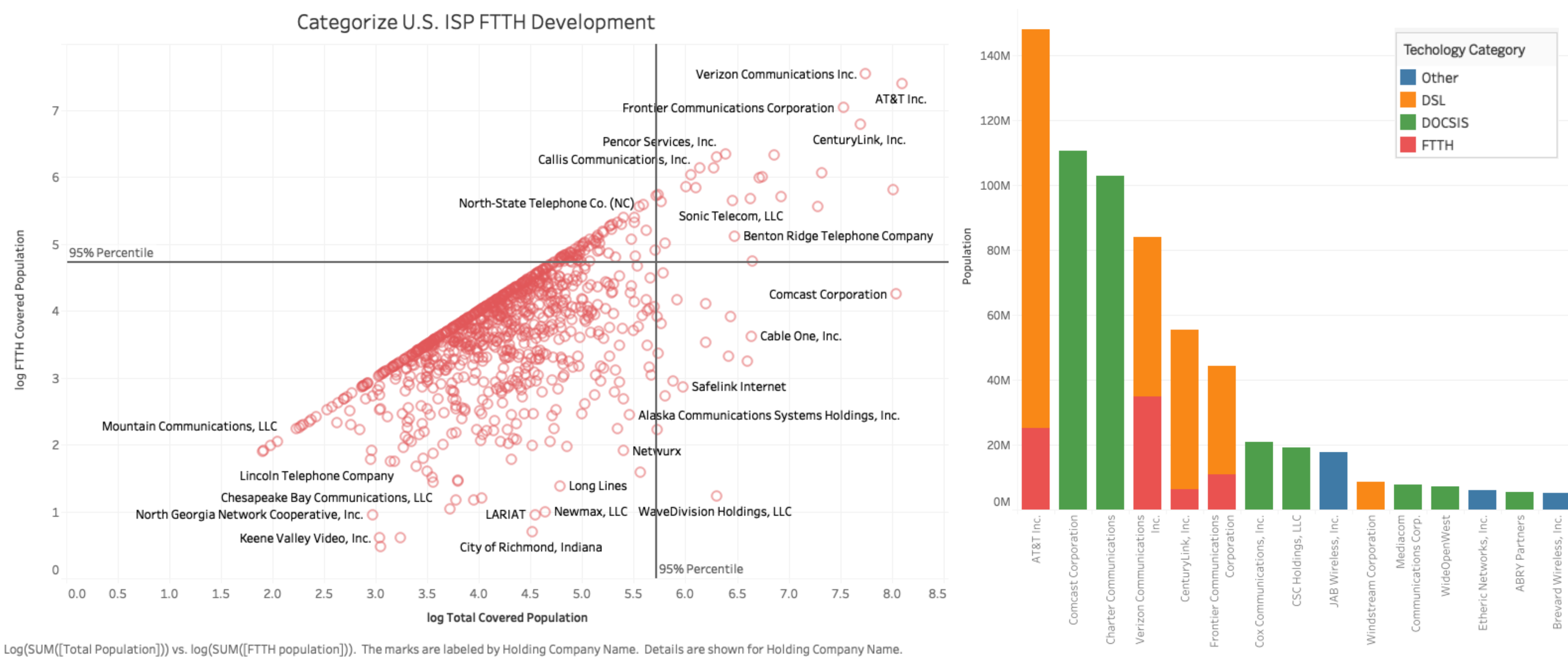


Figure 2. U.S. ISP current status on FTTH

Government Funding

Government funding combined federal infrastructure grants and broadband initiatives. We found the government funding helps more population to get covered by FTTH technology.

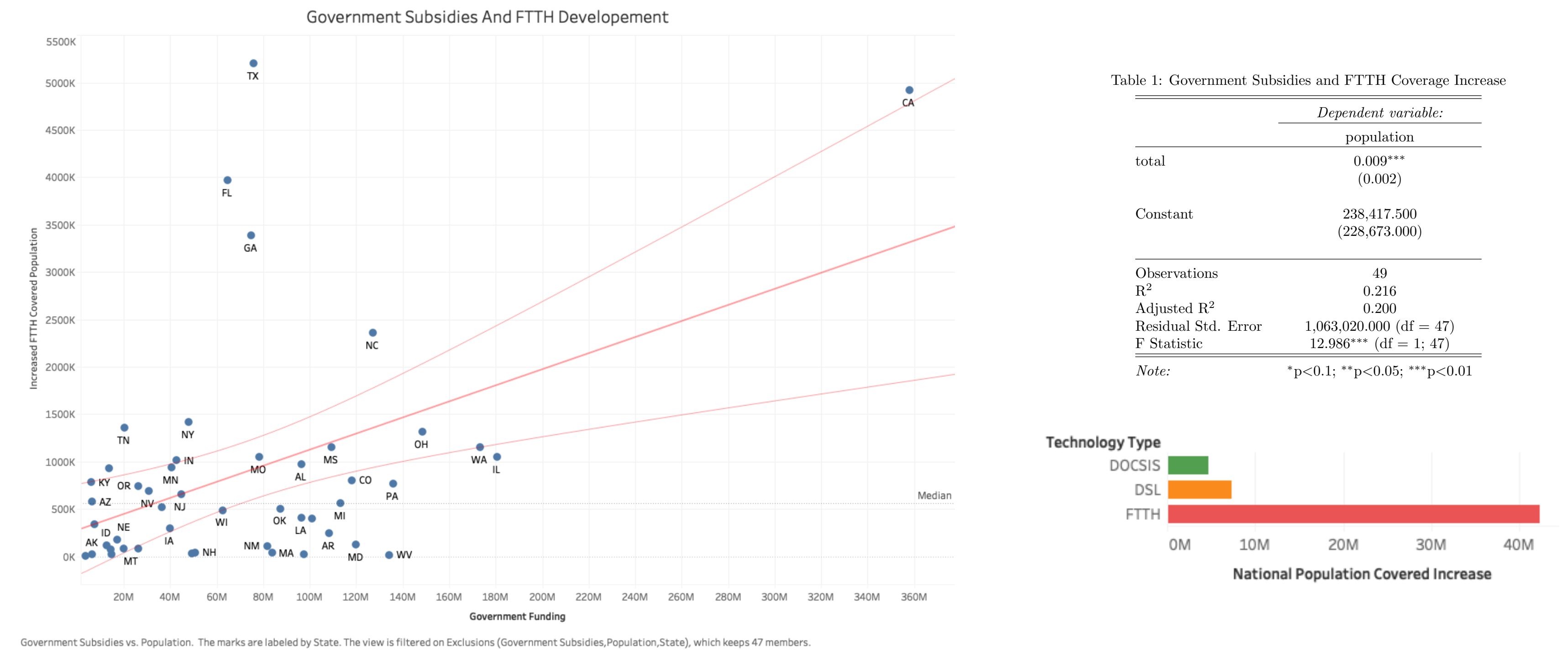


Figure 3. FTTH covered population change with government funding in each state

FTTH Development by New ISP – Geography view

This figure shows the new ISPs coverage distribution at a county-level. The left graph shows the population percentage covered by the new ISPs. The right graph shows the portion of the population covered by the new ISPs that use FTTH technology.

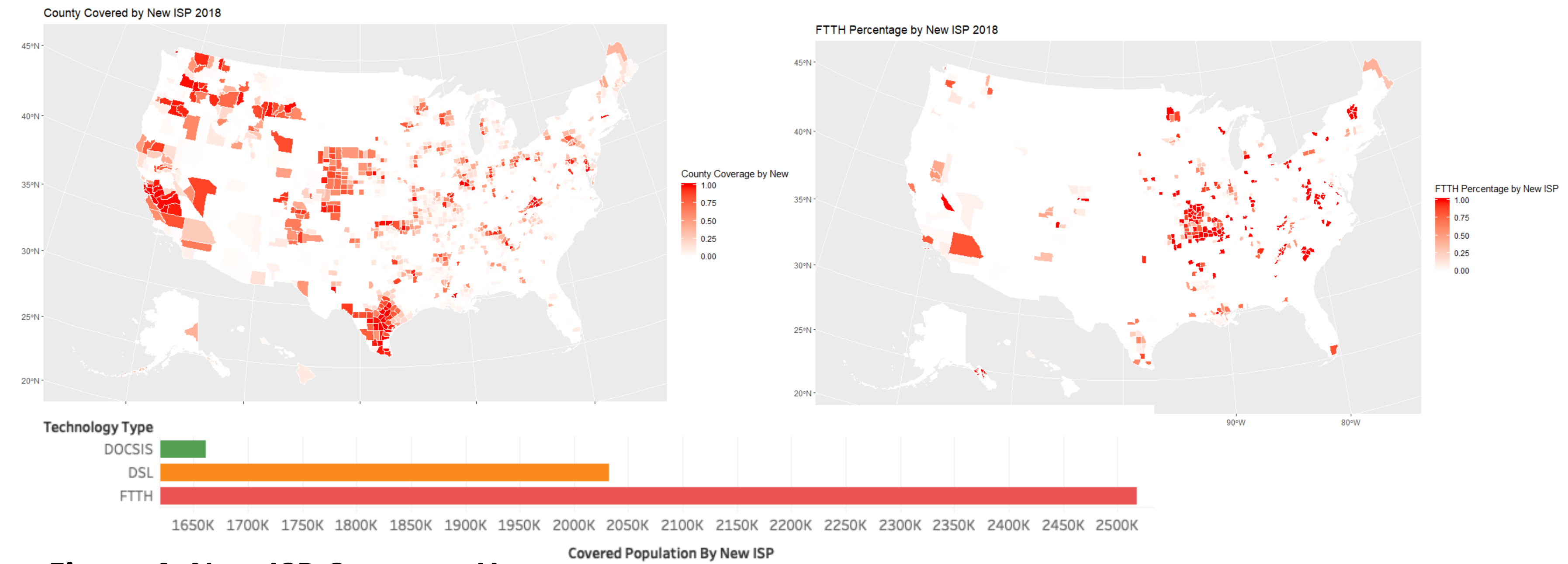


Figure 4. New ISP Coverage Heat map

Conclusion

From 2014 to 2018, we observed substantial development of the FTTH technology in the U.S. Many large ISPs are pioneering in FTTH deployment, and new ISPs also have significant contributions in some areas. Government funding played an essential role in increasing FTTH coverage.

References

Federal Communications Commissions (FCC.gov) & US Census Bureau (census.gov)

Acknowledgments

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