

5-1-2020

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Recommended Citation

Green, John J., "Broadband Subscriptions Vary in Mississippi: Implications for the COVID-19 Era" (2020).
Population Briefs. 4.
https://egrove.olemiss.edu/population_brief/4

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Broadband Subscriptions Vary in Mississippi: Implications for the COVID-19 Era

John J. Green, Ph.D.
Population Brief May 1, 2020

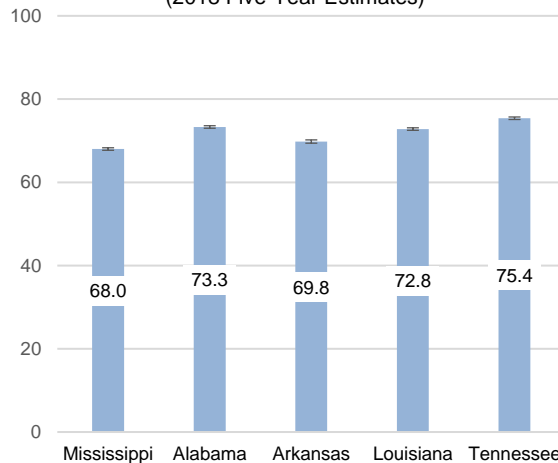


Access to internet services has become a critical component to people’s livelihoods, impacting education, work, and health, among other realms of life. Inequality in the ability to access these technologies is often called the “digital divide.” Although these are not new concerns¹, the need for people and organizations to rapidly adapt to the challenges caused by the novel Coronavirus Disease 2019 (COVID-19) pandemic has underscored the importance of access to broadband, given K-12 schools and colleges shifting to remote learning, people needing to work from home, and increased reliance on telehealth services². Additionally, people are attempting to use these technologies for social support and cultural interactions. As adaptations in the COVID-19 era unfold, infrastructure weaknesses are being uncovered, and these include inequalities. This *Population Brief* reports on household broadband subscriptions in Mississippi to identify spaces and groups that may have limited opportunities to adapt to changing needs in the pandemic.

There are multiple ways of thinking about access to and utilization of broadband services, such as availability, affordability, and adoption. Data are available from several sources, including companies providing internet services, governing bodies³, and surveys. The data provided here are from the American Community Survey (ACS) conducted by the U.S. Census Bureau, an annual survey of approximately 3.5 million households. It provides demographic, socioeconomic, and housing data at multiple levels of

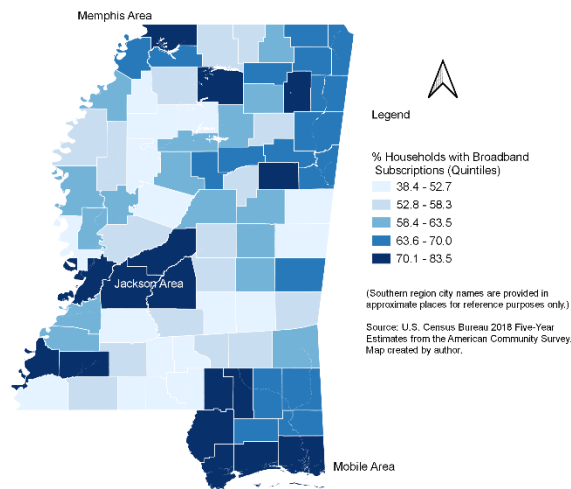
geography. Estimates are publicly available from www.data.census.gov, and the data are used to inform official decision making on numerous federal, state, and local programs.

Fig. 1: Percent of Households with Broadband Subscriptions in Region (2018 Five-Year Estimates)



Source: U.S. Census Bureau 2018 Five-Year Estimates from the American Community Survey. Error bars for 90% confidence levels. Fig. by author.

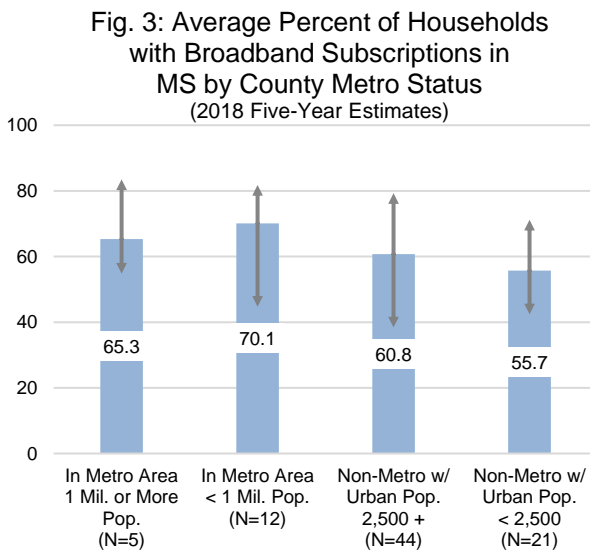
Fig. 2: Percent of Households with Broadband Subscriptions in MS Counties (2018 Five-Year Estimates)



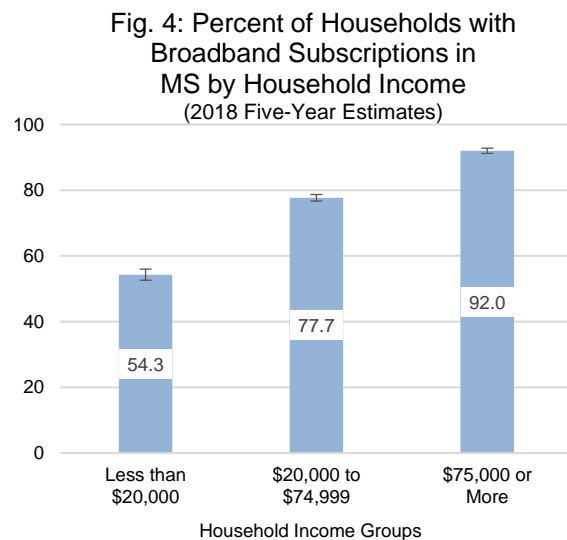
Households can have multiple types of internet subscriptions. Beyond dial-up services (not reported on here), broadband options in the ACS include three categories. According to 2018 five-year estimates, Mississippi households reported: cellular data at 72.8 percent; cable, fiber optic, or DSL at 68.9 percent; and satellite at 13.0 percent. Among those reporting cellular, 29.9 percent used it as their only subscription service.

Estimates from the ACS suggest that 68.0 percent of Mississippi households had broadband subscriptions of any type (Figure 1 above). This was the lowest among all 50 states. Nearby states were ranked in the lowest 10, but they were higher.

Figure 2 (above) shows that broadband subscriptions varied by the location within the state. There was regional clustering, and there were differences across the rural-urban continuum further demonstrated in Figure 3 (below). Broadband internet subscriptions varied by the metropolitan status of counties, with non-metro counties having the lowest average rates. Furthermore, as shown in Figure 4 (below), there was a notable difference in broadband subscriptions between household income groups. Those with lower incomes were much less likely to subscribe to these services.



Sources: U.S. Census Bureau 2018 Five-Year Estimates from the American Community Survey; U.S. Dept. of Agriculture, Economic Research Service Rural-Urban Continuum Codes based on 2010 Census. Arrows represent min. and max. values. Additional analysis and fig. by author.



Source: U.S. Census Bureau 2018 Five-Year Estimates from the American Community Survey. Error bars for 90% confidence levels. Income figures adjusted for inflation. Fig. by author.

In sum, prior to the pandemic, Mississippi had the lowest household broadband subscription rates in the country, and those in certain regional clusters, non-metropolitan counties, and with low-incomes were less likely to have these services. The findings presented here may be used to inform adaptation strategies in the face of challenges from COVID-19, along with longer-term rural and regional development initiatives. In evaluating institutional efforts to assist with needs confronted in the face of the pandemic, it will be important to explore changes in broadband utilization among vulnerable households and those living in rural spaces.

1 As just two illustrative examples of the breadth of research, see:

Van Dijk, Jan. 2020. *The Digital Divide*. Medford, MA: Polity Press.

Whitacre, Brian, Sharon Stover, and Roberto Gallardo. 2015. "How Much Does Broadband Infrastructure Matter? Decomposing the Metro–Non-Metro Adoption Gap with the Help of the National Broadband Map." *Government Information Quarterly* 32: 261–269. doi: <http://dx.doi.org/10.1016/j.giq.2015.03.002>

2 For instance:

United Nations Conference on Trade and Development. 2020. *The COVID-19 Crisis: Accentuating the Need to Bridge Digital Divides*. Available from https://unctad.org/en/PublicationsLibrary/dtlinf2020d1_en.pdf

Vogels, Emily, Andrew Perrin, Lee Rainie, and Monica Anderson. 2020. *53% of Americans Say the Internet Has Been Essential During the COVID-19 Outbreak: Report from the Pew Research Center*. Available from <https://www.pewresearch.org/internet/2020/04/30/53-of-americans-say-the-internet-has-been-essential-during-the-covid-19-outbreak/>

3 For example, see the Federal Communications Commission (FCC) [Fixed Broadband Deployment](#) data.

The University of Mississippi Center for Population Studies (CPS) engages in outreach, education, and research to advance and apply knowledge to inform community development and promote health and wellbeing.

The CPS is part of the Delta Directions Consortium, an interdisciplinary network focused on creating positive social change in the Mississippi Delta Region by improving public health and promoting economic development.



The ideas expressed here are those of the author and do not necessarily reflect the CPS as a whole or its partner organizations.

This document was part of a COVID-19 Working Group effort supported by the National Science Foundation-funded Social Science Extreme Events Research (SSEER) Network and the CONVERGE facility at the Natural Hazards Center at the University of Colorado Boulder (NSF Award #1841338). Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author and do not necessarily reflect the views of the NSF, SSEER, or CONVERGE.