

# The Digital Divide in Mississippi



“Digital divide” is a term you will hear more and more in the coming months and years. It refers to the divide between those who have access to, know how to use, and can afford digital technology (mobile devices, computers, Internet subscriptions) and those who do not have access, know-how, and the ability to afford the technology.

Lack of access to the technology or the skills to use it is leaving many people behind in an increasingly digital world. In many cases, access to information, education, and jobs is available only through online resources. If you don’t know how to browse the web or operate a computer or you cannot afford an Internet subscription, you are missing out on many opportunities.

Children struggle to complete homework and other school-related activities. Job seekers cannot improve their skills using free, online tutorials and cannot search or apply for jobs. People with chronic diseases miss out on programs and resources to help them manage their conditions more

effectively. Businesses and communities are less competitive. Government officials and residents miss out on opportunities to engage with each other, which makes them less effective in responding to 21st century challenges.

The digital divide has two ugly faces: lack of access (including affordability) and refusal to adopt the technology. Many times, people and households simply do not have access to the Internet; if they do, the service may be prohibitively expensive. Other times, they have access to the technology but choose not to adopt it because they don’t understand the value of it.

As with any public-policy issue, the first critical step is to define and measure the problem. We know that the digital divide revolves around access and adoption. But can we measure these two components of such an important issue?

According to the latest (2016) Federal Communications Commission (FCC) Broadband Progress Report, Mississippi ranked last in the nation in the availability of

fixed broadband technology (not including mobile). Thirty-four percent of the state’s population lacks access to what the FCC considers to be high-speed Internet (Figure 1).

Broadband commonly refers to high-speed Internet access that is always on and much faster than the traditional dial-up systems. Data transfer speed is measured in megabits per second (Mbps); a megabit is 1 million bits of information. The higher the number of megabits, the faster a digital system can retrieve information from the Internet. To meet the FCC’s definition of broadband, a system must provide a download speed of at least 25 Mbps and an upload speed of at least 3 Mbps (or 25/3 for short).

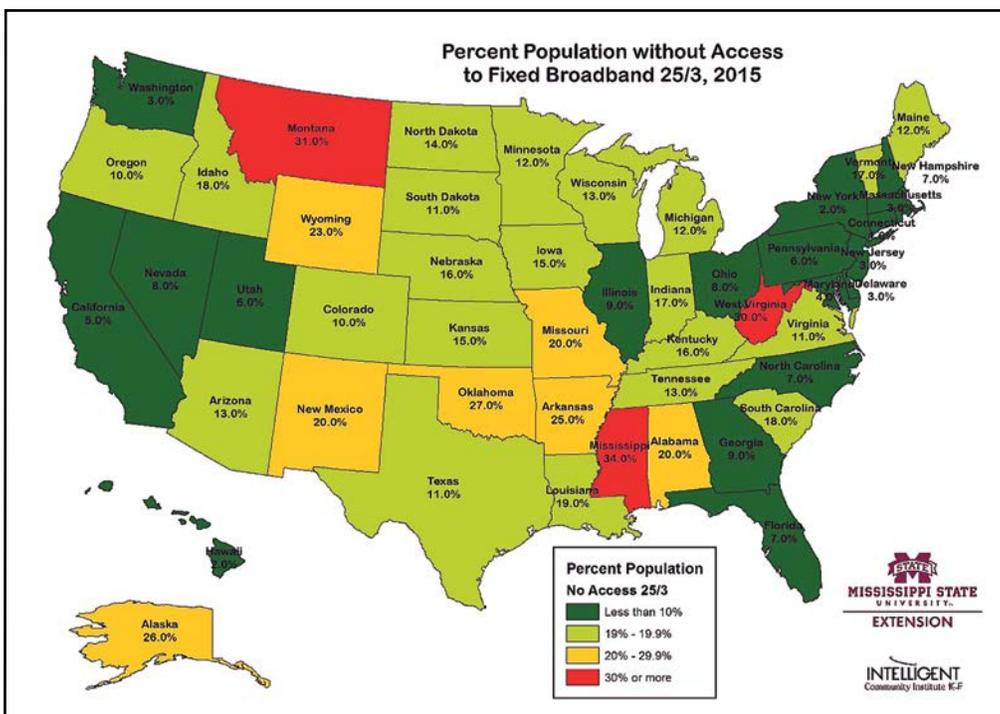


Figure 1. Access to fixed broadband with download speeds of at least 25 Mbps and upload speeds of at least 3 Mbps [Source: FCC Form 477, June 2015].

As of June 2015, only three states had populations with more than 30 percent lacking access to 25/3 fixed broadband. On the other end of the scale, only 2 percent of Hawaii's population lacked access to 25/3 fixed broadband. Areas with greater access to high-speed digital technology enjoy a competitive advantage over areas without adequate access.

Now let's take a look at broadband adoption. While statewide information is useful, a more detailed view can showcase regional differences within the state. Figure 2 shows residential broadband connections at the county level. The definition of broadband used to classify each county was much lower than the 25/3 speed threshold currently used by the FCC. Nevertheless, the resulting color-coded map is still useful in helping us visualize regional differences in Mississippi.

Notice that east Mississippi had much lower fixed broadband adoption as of December 2014. In the counties shaded in red (30 total, mostly in the eastern half of the state), 20 percent or less of the households had fixed broadband connections. In only three counties (dark green), 60 to 80 percent of the households had fixed broadband connections.

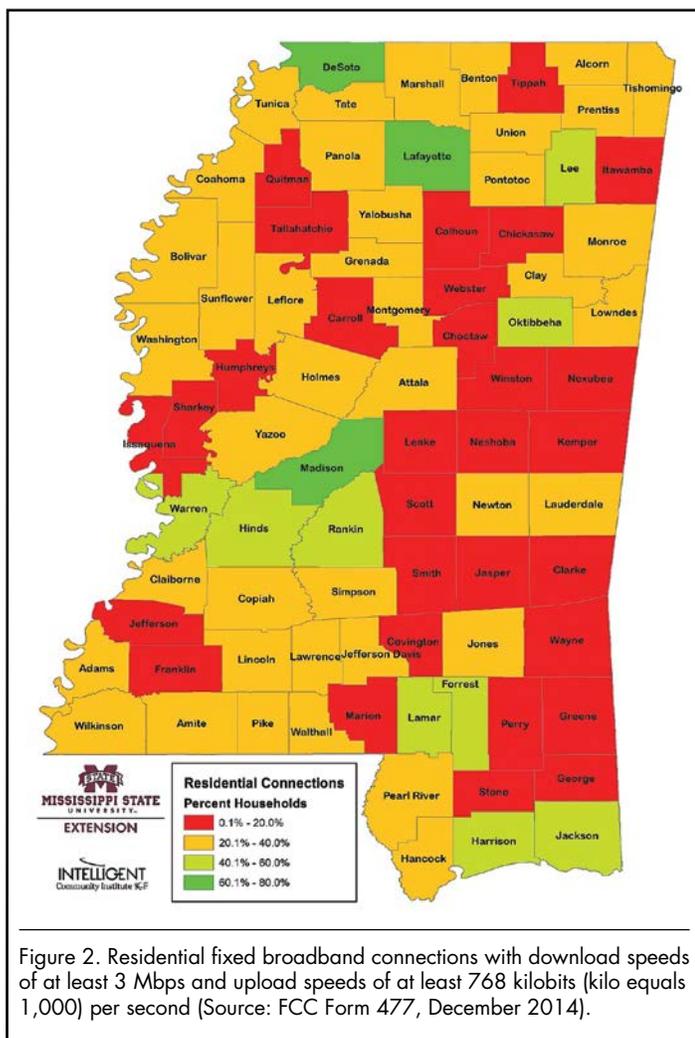


Figure 2. Residential fixed broadband connections with download speeds of at least 3 Mbps and upload speeds of at least 768 kilobits (kilo equals 1,000) per second (Source: FCC Form 477, December 2014).

In addition to access and adoption, Internet speed is becoming more and more important as a measure of the digital divide. Adequate speeds are important mainly because the web itself is demanding more powerful digital systems. If you do not believe me, try browsing the web today using dial-up Internet service!

Figure 3 shows average advertised download speeds of fixed broadband at the block-group level. A block group is the smallest geographical unit for which the U.S. Census Bureau publishes sample data. Block groups can show variations within each county. Looking at these more specific variations is very useful when deciding where and how to invest in digital infrastructure.

Remember that an Internet connection consists of downloads and uploads. Download takes place when you receive an email or watch a movie online. Upload takes place when you send an email, submit a job application, or update your social-media status.

Most parts of the state (lightest color) have access to fixed broadband download speeds of less than 25 Mbps. Only a few areas have access to download speeds of at least 25 Mbps. Very few households (darkest color) have access to speeds of 50 Mbps or more.

Upload speeds are also important. Figure 4 shows average advertised upload speeds at the block-group level. Most of the state (the lightest color) does not have access to the upload speed of 3 Mbps, which the FCC established as the minimum speed to be considered broadband. Many Mississippi counties do not have a single block group with upload speeds of at least 3 Mbps, which is very concerning. These areas are at a competitive disadvantage in the digital age.

In order to bridge the digital divide, the problem has to be addressed in terms of both access and adoption. Regarding access, we need to develop incentives for Internet providers to deploy or upgrade the technology. Some federal agencies offer loans and grants that can help providers upgrade or increase their broadband availability and speed.

Regarding adoption, digital literacy workshops can help people understand how the technology benefits them. Demonstrating the usefulness of digital technology will help people discover its relevance. Once Mississippians see the relevance and usefulness of digital technology, adoption rates should increase—assuming the technology is available and affordable.

Much remains to be done to narrow the digital divide. However, I am hopeful that better understanding of these issues and the value of digital technology will jumpstart needed conversations on how to bridge this divide.

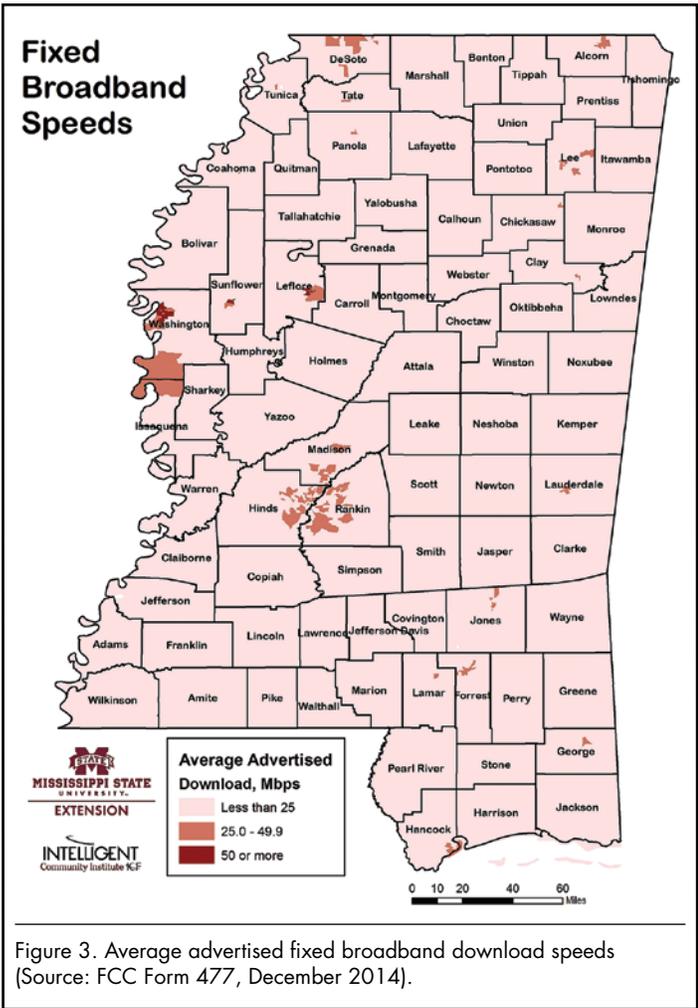


Figure 3. Average advertised fixed broadband download speeds (Source: FCC Form 477, December 2014).

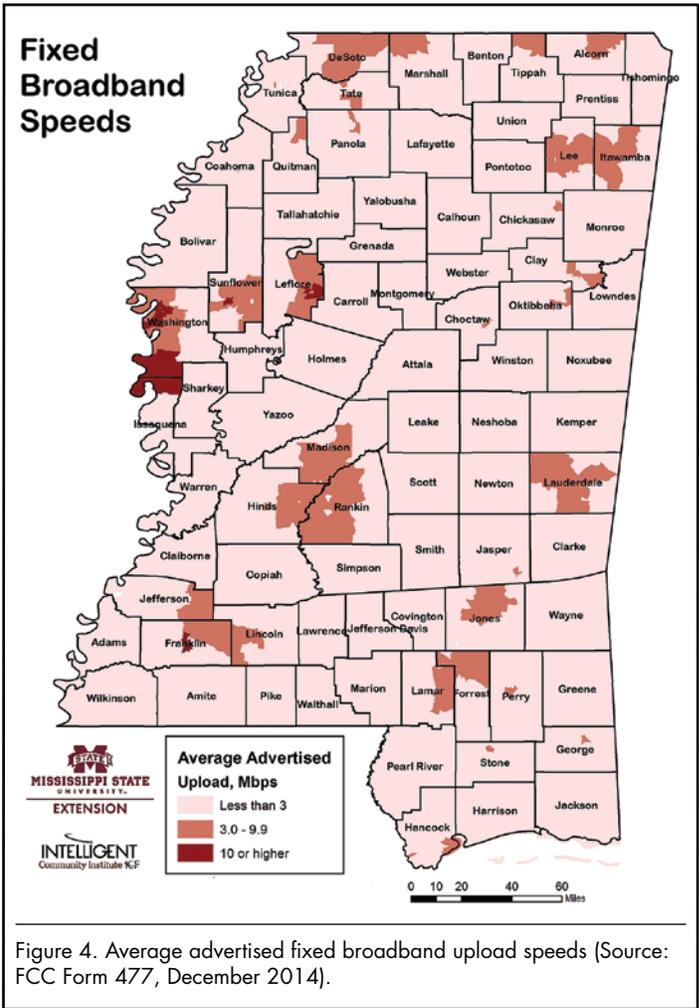


Figure 4. Average advertised fixed broadband upload speeds (Source: FCC Form 477, December 2014).

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**Publication 2969** (POD-07-16)

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Extension Service of Mississippi State University, cooperating with U.S. Department of Agriculture. Published in furtherance of Acts of Congress, May 8 and June 30, 1914. GARY B. JACKSON, Director