

2020



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Welcome To

Memphis
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Next Century Cities

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Memphis

Tennessee

Known for its deep roots in music and unforgettable food, Memphis is also known for its long-standing digital divide. Broadband connectivity has always been elusive to segments of Memphis' population, a reality that has crippled their ability to adapt when COVID-19 encroached into their neighborhoods. Remote learning and work from home mandates have, since, forced connectivity challenges onto the priority lists of local government leaders. Meanwhile, community leaders and private sector partners have acquired critical support to expand broadband access and boost adoption.

To gain background information on the state of connectivity and ongoing efforts being employed in Memphis, a researcher from the Next Century Cities team conducted interviews with Memphis stakeholders who are working to bridge the City's digital divide. Two interviews were conducted via video conferencing and one interview was conducted via telephone. The interviewer took notes and recorded the conversations. Below are examples of the questions used to frame the discussion.

Could you describe Memphis' digital landscape?

What factors contribute to the city's digital divide?

How has the COVID-19 pandemic affected the city's digital landscape?

What initiatives are being implemented to address the divide? How is your organization aiding in the effort?

What specific future actions could be taken to narrow the divide in Memphis?

Is there anyone that you think that I should speak to as I continue this research?

Key Takeaways

Like many localities nationwide, Memphis' digital access is largely divided among varied demographics, including age and socioeconomic status. Several stakeholders including the county's public school system, the local government, and nonprofit organizations are working together to address the City's stark divisions. The COVID-19 pandemic added a sense of urgency to addressing broadband connectivity and adoption issues across the City.



The median household income in Memphis' most impoverished neighborhood is \$14,548.¹ Unsurprisingly, that is also where the digital divide is most prevalent.

In 2018, long before the COVID-19 pandemic, approximately 50% of Memphis households did not have cable, DSL, or fiber broadband. When compared to other cities, it had one of the lowest adoption rates in the U.S.²



In 2020, after remote learning mandates were put in place, Memphis was still ranked the fourth worst city in the country for distance learning, because of the number of residents without access to digital devices and high-speed internet.³ In response to this, community-based organizations have rallied to provide support for digital tools and literacy training.



Welcome to *Memphis*

When Memphians meet one another for the first time, the most common conversation opener is, “What high school did you attend?” To an outsider, this inquiry might seem irrelevant and trivial. However, for Memphians, this question provides a wealth of information regarding an individual’s background.

A Memphis high school tells a story about the demographics of the surrounding neighborhood such as what church an individual likely belongs to and “who their people are,” among additional details. In other words, many high schools are telling of the neighborhood in which they reside, and the students that call it home.

This comes as no surprise because educational institutions are central to the Memphis fabric. For decades schools have served as sites of immense pride as well as major sites of contention in the city, partly shaping local geographical dynamics and culture. To this day, Memphis schools both shape the neighborhoods where they are located and often serve as direct reflections of residents’ daily lives.

Memphis is a beautifully complex locale with a rich history. Founded on May 22, 1819, Memphis is a sleepy southern city located atop a bluff overlooking the Mississippi River. In the years since its establishment, Memphis has become well known for activism, largely due to the key role that the city played during the Civil Rights Era.⁴

If activism is the fabric of the city, then music is the thread. Touted as the home of Blues, Memphis is responsible for artists such as Issac Hayes, B.B. King, Memphis Minnie, Rufus Thomas, Bobby Blue Bland, and W.C. Handy, to name a few. Many other artists, both past and present, have called Memphis home.

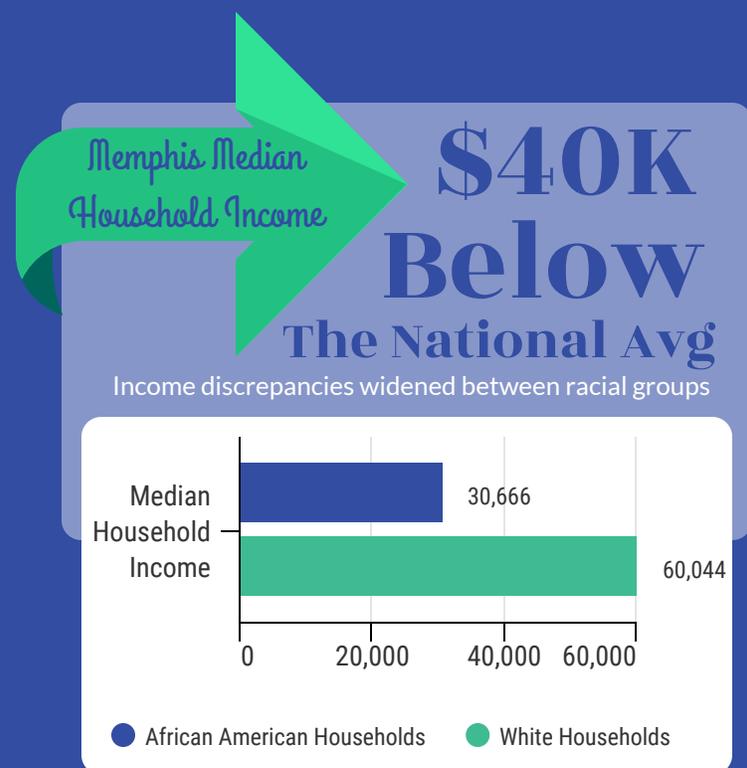
Memphis's history and culture are rich, but not absent of the societal ills that have historically plagued many cities nationwide. Like other municipalities, its divisions are especially stark along the lines of economics and race.



As of 2019, the median household income in the city of Memphis was almost \$40,000 below the national average. Its income discrepancies widen between racial groups.⁵ Among the recorded populations, the median income for African American households was \$30,666, almost \$30,000 below the median income for their White counterparts, which was \$60,044.⁶ When examining the city's demographics by its zip codes, concentrations of poverty exist in certain areas of the city, especially those areas with predominantly minority populations.

These divisions are often detectable to even the untrained eye, because of the number of buildings and homes in those neighborhoods that are abandoned or in disrepair. Many of the divides do not exist along manmade or geographical lines. Instead, divides exist within the same zip code from street to street.

Memphians frequently make remarks about how one street could be tree lined with large homes, and the next street over will exhibit clear signs of blight. Consequently, residents who struggle with broadband access live in neighborhoods with fewer resources. They remain at a distinct disadvantage as society becomes more reliant upon digital technology.

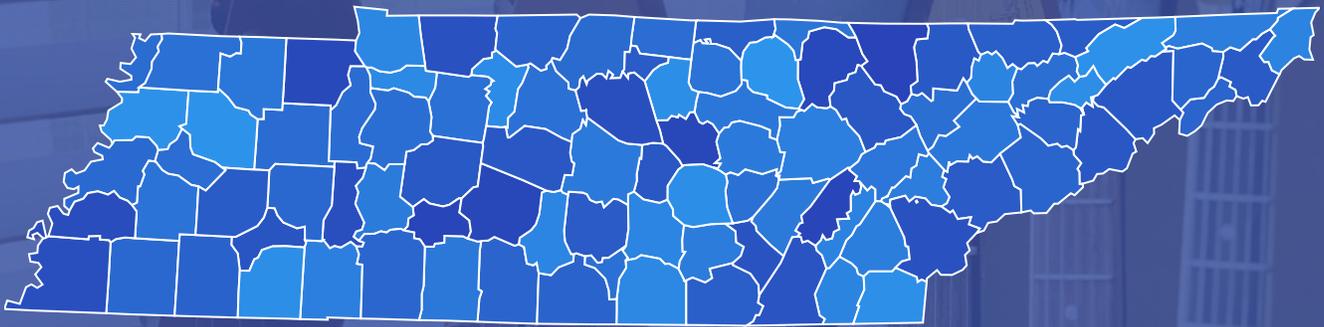


Tennessee's Digital Landscape

The Tennessee Broadband Initiative



The Tennessee Department of Economic and Community Development created the Tennessee Broadband Initiative to address the state's digital divide. The multifaceted effort is informed by the Tennessee Broadband Accessibility Act, which was signed into law in 2017 under Governor Bill Haslam.⁷ The Bill focuses on rural broadband expansion and aimed to connect the 34% of rural Tennessee residents without access primarily through private-sector broadband deployment. It addresses broadband access and adoption through three methods: deregulation, education, and investment.



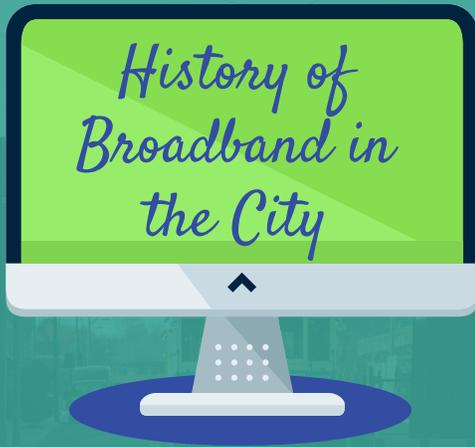
First, the Tennessee Broadband Accessibility Act sought to address the existing regulations surrounding electric cooperatives and their ability to expand their services and provide internet for their members. Second, the Law sought to educate residents about device use and internet navigation. Third, the Bill sought to provide \$45 million in grant funding to broadband providers over the course of three years as an incentive for deployment in low-access areas.



Memphis'

State of

Connectivity



Comcast is the primary cable internet provider for Memphians.⁸ In 2019, Comcast expanded its Internet Essentials program to include Memphis. At full bloom, the expansion could potentially provide 150,000 Memphis residents with internet access, based upon the program's qualifications.

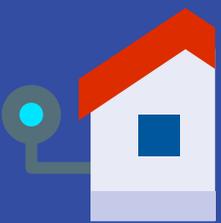
In 2018, the National Digital Inclusion Alliance (NDIA) ranked Memphis as one of the 'Worst Connected' cities in the country.⁹ The ranking is based upon the 2018 American Community Survey One Year Estimates (ACS) recorded by the U.S. Census and released in 2019.

According to 2018 American Community Survey data, Memphis was the 20th most disconnected city out of the 623 cities included in the survey. At the time nearly 50% of Memphis households did not have cable, DSL, or fiber broadband. This figure is astounding considering that there were more than 250,000 recorded households in Memphis at the time.

In addition to the low connectivity across the city, Memphis was also found to have the slowest internet speed in the nation at 44.86 Mbps.¹⁰ For comparison, Kansas City, the city with the fastest broadband speed is 159.18 Mbps.¹¹

How Memphians are Working

to Bridge the Divide



In February 2020, the Brookings Institute published an analysis of digital poverty examining the broadband adoption rates in neighborhoods across the country. Using the 2018 American Community Survey One Year Estimates (ACS) data, it concluded that while urban adoption rates are complex and sometimes varied within the same neighborhoods, Memphis was one of the cities with the lowest adoption rates in the U.S.¹²



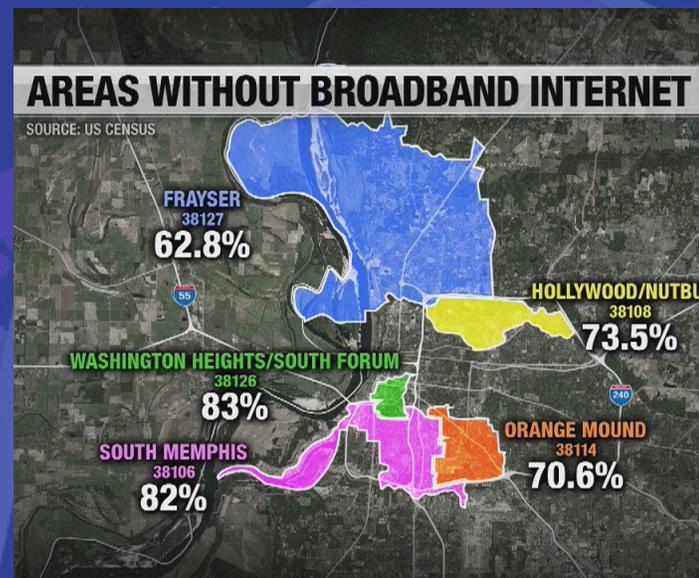
In order for Memphis to thrive and reach its full potential, community leaders are doing their part to connect residents one step at a time. Nonprofit organizations have individually implemented their own initiatives to tackle the city's access, adoption, and affordability challenges.

Nationwide, millions of students did not have the requisite digital tools or broadband subscriptions to comply with remote learning mandates triggered by the COVID-19 pandemic, which forced school districts to take on a leadership role in generating connectivity solutions. In 2020, for example, Shelby County Schools created an 11-person advisory committee to develop a digital access plan for students and teachers in the 2020-2021 academic school year. The first step in bridging the gap included providing each student and teacher with a digital device at the beginning of the school year. A limited number of district-owned hotspots were also distributed to students. The district also offers virtual trainings for parents and guardians to learn to operate the distributed devices.¹³

A Conversation with the CIO of Memphis

Kimberly Bailey, the Chief Information Officer (CIO) for the City of Memphis, sat down with a member of our research team to discuss initiatives aimed at bringing connectivity within reach for every resident. As CIO, Chief Bailey also heads Memphis' Information Technology (IT) Division which identifies their goals through three distinct pillars: (1) Infrastructure, (2) Implementation, and (3) Innovation. This approach frames the way that the City addresses its vast digital divide.¹⁴

Ms. Bailey started by sharing a map of the City's most disconnected neighborhoods. The information displayed in the image right was collected from U.S. Census data. In descending order, residents in Washington Heights/South Forum (38126), South Memphis (38106), Hollywood/Nutbush (38108), Orange Mound (38114), and Frayser (38127) are in the most urgent need of connectivity solutions.



Connecting students in those areas is a high priority. Ms. Bailey indicated that many students in those areas are transient, spending time between multiple households. This social pattern makes it more important to connect all households in the area, since students could be at one of several households at any given time.

In addition to student connectivity, Ms. Bailey highlighted the significance of public-private partnerships to reach other residents including seniors, people with disabilities, and low-income populations. In order to expand digital literacy efforts among residents, the City is forging partnerships with traditional community-based institutions and organizations such as churches outside of the digital sector. Additionally, service-based organizations like the Shelby County Alumnae Chapter of Delta Sigma Theta Sorority, Incorporated, have partnered with Comcast to promote the Comcast Essentials Program to qualifying residents. Ms. Bailey feels that it is especially important that businesses use their resources to help connect the city.





In 2015 The Women’s Foundation for a Greater Memphis (WFGM) launched their Vision 2020 plan, with the goal of reducing the poverty rate by five percent in Memphis’ 38126 area code, the City’s most impoverished neighborhood, where the median household income is \$14,548. The Vision 2020 plan addresses poverty reduction through five focus areas, one of them being job preparation and marketable skills.

Most recently, the initiative provided graduates of Booker T. Washington High School, the area’s public secondary school, with laptops, hotspot devices, and computer coding training.¹⁵ As indicated in the image on the previous page, the 38126 area code is also the City’s most disconnected neighborhood.

In addition, WFGM has partnered with over 50 organizations to address the 38126 poverty level. One of those organizations is Code Crew.

Code Crew partners with schools to teach students digital literacy skills so that they can be more informed and develop reasoning and management skills. This is a citywide initiative.



COVID-19 AND CONNECTIVITY

The need for broadband infrastructure, higher bandwidth, and increased speeds were immediately ushered into Memphis with the COVID-19 pandemic. A recent LendingTree study found Memphis to be fourth among the worst cities in the country for distance learning because of the number of residents without access to digital devices and high-speed internet.¹⁶ Poor connectivity has also greatly affected healthcare access during the pandemic because some of the most vulnerable residents do not have the requisite broadband connections to benefit from tele-health programs.

Federal Landscape & Resources



Memphis schools and libraries could benefit from E-Rate, the federal universal service fund program aimed at expanding Internet access for students of all ages. When the federal E-rate program was started in 1996, only 14 percent of the nation's K-12 classrooms had access to the internet.¹⁷ In conjunction with state-level subsidy programs, E-rate funding makes information services more affordable for schools and libraries across the nation.



Eligible schools and libraries are able to receive discounts on telecommunications, telecommunications services, and internet access, as well as internal connections, managed internal broadband services and basic maintenance of internal connections.¹⁸ These services are intended to complement the efforts of state and local governments to bring internet access and increased capacity to schools and libraries.



Additionally, under the Coronavirus Aid, Relief, and Economic Security Act (CARES Act), fifteen million dollars was allocated to the Institute of Museum and Library Services in order to equip museums, libraries, federally recognized tribes, and organizations that primarily serve Native Hawaiians to equip them to respond to community needs resulting from the COVID-19 pandemic.¹⁹ Eligible institutions could use these funds to expand digital network access, purchase internet accessible devices, and provide technical support services to their communities.



Finally, the proposed Health and Economic Recovery Omnibus Emergency Solutions Act (HEROES Act) that passed the House of Representatives in May included 1.5 billion additional dollars for schools and libraries to prevent, prepare for, and respond to the COVID-19 pandemic. This money is not limited in the type of connectivity solutions it could support as long as it was related to prevention, preparation, and response efforts. That may include the purchase of internet-capable devices, internet service, and other digital services.²⁰

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