

Public Sector Practice

# Closing the digital divide in Black America

Five steps could help to bring broadband and digital equity to every Black household in the United States—urban and rural—while bolstering efforts to create a more inclusive economy.

*This article is a collaborative effort by Ayebea Darko, Danielle Hinton, John Horrigan, Blair Levin, Kunal Modi, and Todd Wintner, representing views from McKinsey's Public Sector Practice.*



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**The digital divide** was first recognized in the mid-1990s.<sup>1</sup> Three decades later, due in part to long-standing economic inequity and the economics of broadband, it remains an impediment to inclusive economic growth, particularly in Black American communities. Approximately 40 percent of Black American households—as opposed to 28 percent of White American households—don’t have high-speed, fixed broadband.<sup>2</sup> In dense urban areas such as Chicago and Baltimore, Black households are twice as likely as their White counterparts to lack a high-speed internet subscription.<sup>3</sup> In the rural South, 38 percent of Black households don’t have broadband, compared with 23 percent of White households.<sup>4</sup>

But broadband access is only part of a much bigger picture. Ensuring all Americans can fully participate in civic life and the digital economy requires affordable subscriptions, internet-enabled devices, applications, digital skills, and high-quality technical support. For example, while smartphone and tablet penetration are approximately equal among White, Black, and Hispanic and Latino adults in the United States, only 69 percent of Black Americans and 67 percent of Hispanic Americans have desktop or laptop computers, compared with 80 percent of White Americans (Exhibit 1).<sup>5</sup> A 2020 OECD survey found that roughly half of Black workers had the advanced or proficient digital skills needed to thrive in our increasingly tech-driven economy, compared with 77 percent of White workers.<sup>6</sup>

Lower levels of digital readiness are both a consequence and an ongoing driver of large gaps in Black American representation in jobs that require digital skill sets. Although Black Americans comprise approximately 13 percent of all workers, they make up only 7.4 percent of digital workers.<sup>7</sup>

This lack of representation feeds racial income and wealth gaps. The median pay for tech jobs is more than twice that for all occupations, and digital and IT jobs are expected to grow by 13 percent through 2030—1.7 times the overall rate of job growth.<sup>8</sup> To the extent that Black Americans can achieve greater participation in the digital workforce, such jobs could help close income and wealth gaps.

### **Unprecedented government funding for broadband and digital equity**

More than \$425 billion in federal funding is available to state and local governments to help close the digital divide. Approximately \$350 billion of that falls under the 2021 American Rescue Plan Act (ARPA) State and Local Fiscal Recovery Funds. The Bipartisan Infrastructure Law (BIL), also signed in 2021, provides \$65 billion in federal funds for broadband efforts, including approximately \$44 billion that will flow directly to states as part of the Broadband Equity, Access, and Deployment (BEAD) and State Digital Equity Capacity Grant programs. In addition, \$10 billion is available in the ARPA Capital Projects funds.

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<sup>1</sup> “Falling through the net: A survey of the ‘have nots’ in rural and urban America,” National Telecommunications and Information Administration, US Department of Commerce, July 1995.

<sup>2</sup> McKinsey analysis of 2020 US Census Bureau five-year American Community Survey microdata, retrieved via IPUMS, University of Minnesota.

<sup>3</sup> McKinsey analysis of American Community Survey data.

<sup>4</sup> Dominique Harrison, *Affordability & availability: Expanding broadband in the Black rural South*, Joint Center for Political and Economic Studies, October 2021. The “Black rural South” itself is a term used to describe more than 150 rural counties with populations that are at least 35 percent Black. These counties generally cover areas where enslaved Black laborers once worked on cotton plantations at a time when cotton was the largest cash crop in the country and a major driver of economic growth and prosperity in the early United States. See also: Harin Contractor and Spencer Overton, *An introduction to the future of work in the Black rural South*, Joint Center for Political and Economic Studies, February 2020.

<sup>5</sup> Sara Atske and Andrew Perrin, “Home broadband adoption, computer ownership vary by race, ethnicity in the U.S.,” Pew Research Center, July 16, 2021.

<sup>6</sup> *Applying a racial equity lens to digital literacy: How workers of color are affected by digital skill gaps*, National Skills Coalition, March 20, 2020.

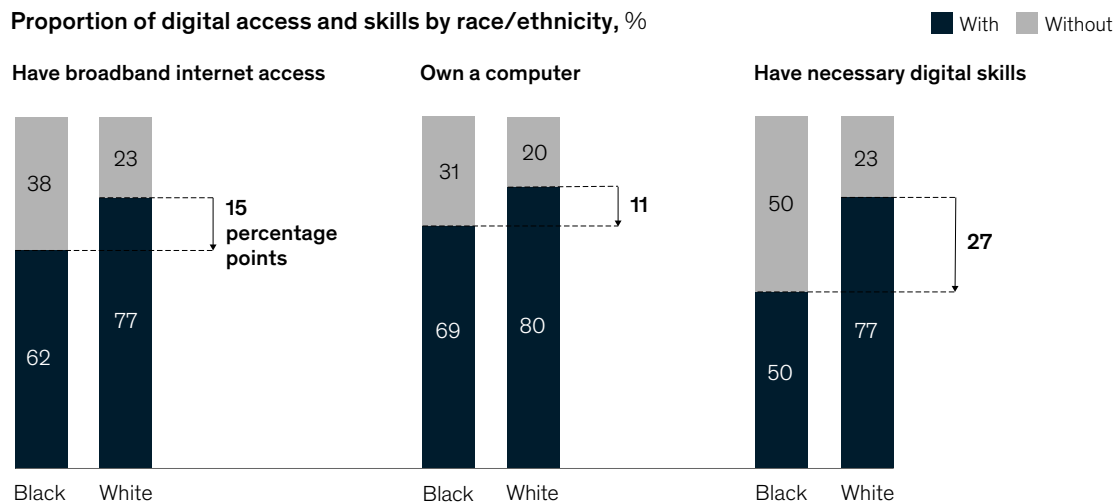
<sup>7</sup> “Labor force characteristics by race and ethnicity, 2020,” BLS Reports, US Bureau of Labor Statistics, November 2021; “Diversity in high tech: Executive summary,” US Equal Employment Opportunity Commission, accessed November 2022; Padraig Belton, “Why are there so few black tech entrepreneurs?” BBC News, September 4, 2020; Nicholas Jones et al., “2020 Census illuminates racial and ethnic composition of the country,” US Census Bureau, August 12, 2021.

<sup>8</sup> “Labor force characteristics,” 2021; “Computer and information technology occupations,” US Bureau of Labor Statistics Occupational Outlook Handbook, September 8, 2021; “Employment projections 2020–2030,” US Bureau of Labor Statistics, September 8, 2021.

Exhibit 1

## The digital divide disproportionately affects Black Americans across adoption, computer ownership, and digital skills.

Proportion of digital access and skills by race/ethnicity, %



Source: Dominique Harrison, *Affordability & availability: Expanding broadband in the Black rural South*, Joint Center for Political and Economic Studies, Oct 2021; Sara Atske and Andrew Perrin, "Home broadband adoption, computer ownership vary by race, ethnicity in the U.S.," Pew Research Center, July 16, 2021; *Applying a racial equity lens to digital literacy: How workers of color are affected by digital skill gaps*, National Skills Coalition, Mar 20, 2020

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This funding is unprecedented in three ways:

1. **Scope.** The funds, which are administered by the Treasury and Commerce departments, the Federal Communications Commission (FCC), and the Department of Agriculture, are targeted across the board—at infrastructure, adoption, affordability, devices, tech support, digital literacy and skills training, and accelerating workforce development and remote work opportunities.<sup>9</sup>
2. **State led.** Earlier federal infrastructure investments were primarily allocated by the FCC to internet service providers (ISPs). This time, most funding is going directly to states, which can "subgrant" awards to various providers, programs, and organizations, subject to internal guidelines.

3. **Digital equity and inclusion focus.** For the first time, the federal government will provide subsidies that are substantial enough to allow many low-income Americans to afford broadband subscriptions. Considerable federal funds—some directed to states—are also allocated to broader digital-inclusion programming, and additional funding will be distributed to local governments and not-for-profit organizations through a competitive grant process.

These federal funds are designed to encourage progress toward extending affordable, reliable, high-speed broadband access, which Congress has declared as "essential to full participation in modern life in the United States."<sup>10</sup> But the money alone will not be enough to eradicate the digital divide.

<sup>9</sup> "President Biden's Bipartisan Infrastructure Law," White House.

<sup>10</sup> Infrastructure Investment and Jobs Act of 2021, Pub. L. No. 117–58, 135 Stat. 429 (2021).

Fully meeting this moment requires a vision for digital equity and inclusion, new levels of data collection, robust stakeholder engagement, and partnerships across the public, private, and not-for-profit sectors. It also requires taking targeted steps to understand the barriers impacting specific communities.

Here are five steps that state and local leaders and broadband stakeholders could take to expand broadband access and promote digital equity and inclusion in Black communities (Exhibit 2).

### 1. Make explicit commitments to digital equity and inclusion

As states, cities, and municipalities develop their aspirations and make broadband plans, leaders can promote change by elevating a public commitment to digital inclusion and equity alongside the commitment to expanding high-speed broadband-infrastructure coverage. This public commitment also can broaden the set of engaged stakeholders to include private-sector players and not-for-profit organizations with an equity focus. Getting

these other stakeholders involved could help deepen the fact base, sharpen the plan, and encourage effective execution.

Several states are already making their commitment to equity clear. In 2021, North Carolina established the nation's first Office of Digital Equity and Literacy to "accelerate the critical work of bringing all North Carolinians up to speed with the digital society so they can live more equitable, prosperous, educated, and healthier lives."<sup>11</sup> This office coordinates with the state's expanded Division of Broadband and Digital Equity, which is charged with executing the plan, including investing \$165 million in digital-equity efforts.

Also in 2021, Maryland kicked off an initiative that aims to ensure "universal broadband to everyone, in every single corner of the state" by 2025.<sup>12</sup> To facilitate this work, the state allocated \$75 million to provide an additional \$15 a month in subscription support and device subsidies to low-income residents.<sup>13</sup> This subsidy was provided in addition

Exhibit 2

## There are five steps that could expand broadband internet access and encourage digital equity and inclusion in Black communities.



**1. Make explicit statewide commitments** to digital equity and inclusion.



**2. Conduct a comprehensive survey** of unserved and underserved locations, and ensure funds reach communities that need them.



**3. Involve all stakeholders** in understanding the underlying barriers to access and digital equity.



**4. Partner with local stakeholders** to ensure households access subsidies for internet subscriptions and devices.



**5. Seek out partnerships** among private enterprises, not-for-profit organizations, academia, and government to close the digital divide.

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<sup>11</sup> "Governor Cooper establishes nation's first Office of Digital Equity and Literacy," North Carolina Department of Information Technology, July 1, 2021.

<sup>12</sup> "Governor Hogan announces \$400 million initiative to ensure universal broadband for Maryland," Office of Governor Larry Hogan, August 20, 2021.

<sup>13</sup> "Governor Hogan, President Ferguson, Speaker Jones announce bipartisan agreement for American Rescue Plan funding," Office of Governor Larry Hogan, March 31, 2021.

to the \$50 monthly federal Emergency Broadband Benefit, from September 2021 to August 2022. Furthermore, Maryland has made equity a high priority, and has allocated an additional \$10 million for digital-inclusion programming, digital-literacy training, and a digital-navigators program.<sup>14</sup>

## **2. Conduct a comprehensive survey of unserved and underserved locations, and ensure the funds reach the communities that need them**

The allocation of the BIL's BEAD funds will be derived from the number of unserved locations in the new broadband Deployment Accuracy and Technological Availability (DATA) maps, whose creation was required by the 2020 Broadband DATA Act.<sup>15</sup> If governments fail to properly count all unserved broadband-serviceable locations, including individual households and small businesses in minority communities, the broadband DATA maps will not accurately reflect the needs. A proper count is therefore the first step toward ensuring that Black communities receive their fair share of funding to close broadband infrastructure gaps, and is necessary for contesting any errors or omissions in the maps.

The new maps are at the location level and thus much better than the existing FCC maps, which rely on less precise census block-level data. But gaps may still exist. Many rural areas, especially in states such as Mississippi, Alabama, and Louisiana, still have significant infrastructure gaps that disproportionately impact Black Americans.<sup>16</sup> Lower-speed DSL and cable deployments are linked to neighborhood economics; more affluent areas more likely to have higher speed and often have fiber deployments. And multi-dwelling units in underserved areas can experience additional capacity constraints, especially during high-demand hours, due to shared bandwidth limitations and insufficient indoor wiring or Wi-Fi equipment.<sup>17</sup>

To make sure the new maps accurately depict broadband gaps, governments could survey targeted areas using a mix of door knocking, telephone campaigns, and outreach via trusted community members and organizations. They could supplement the initial information they collect with engineering assessments of the available technology to determine whether the area's broadband infrastructure has the capacity to serve residents. Governments could then include that information along with addresses and geographic information systems coordinates in their submissions contesting the FCC maps.<sup>18</sup> As state and local leaders consider the best way to mobilize a workforce capable of gathering information on broadband infrastructure gaps, they could take inspiration from US Census data collection. A similar program could both create jobs and identify data collectors who could subsequently be retrained and connected with other broadband and digital-equity initiatives.

Once the National Telecommunications and Information Administration establishes funding levels, states could work with the administration, corporations, and civic organizations to ensure that funding for reliable and resilient high-speed internet reaches Black communities. Local elected officials who represent significant numbers of Black constituents could have a seat at the table as project areas are being drawn, so that they can ensure their constituents are included in the state's final proposal. After unserved and underserved locations are connected or upgraded, states could prioritize funding for historically Black colleges and universities (HBCUs) and other minority-serving institutions (MSIs). Because they play a trusted central role in Black communities, HBCUs and MSIs could serve as hubs for the digital equity and inclusion resources and programs.

<sup>14</sup> Maryland Broadband Investment Advisory Workgroup, Maryland Department of Housing and Community Development, May 3, 2022; "The digital navigator model: Adding digital equity to our social safety net," National Digital Inclusion Alliance, accessed November 2022.

<sup>15</sup> Broadband DATA Act, Pub. L. No. 116-30, 134 Stat. 228 (2020).

<sup>16</sup> *Affordability & availability*, 2021.

<sup>17</sup> In older buildings or buildings where funding for wiring upgrades and maintenance is inadequate, indoor wiring to individual units within multifamily dwellings is often insufficient to support higher broadband, which constitutes a further barrier to access. Although indoor wiring gaps within locations will not be captured in the FCC mapping data, and thus not impact their BEAD allocation, indoor wiring upgrades likely constitute an authorized use of Digital Equity Act funding (and BEAD funding, subject to the prioritization defined in the BIL statute). On-the-ground teams could identify and log these gaps and report them to state broadband offices for inclusion in a barriers assessment.

<sup>18</sup> Broadband Data Collection, Federal Communications Commission, December 9, 2022.



# The majority of Black households directly impacted by the digital divide live in areas with available infrastructure but simply can't afford broadband service.

### **3. Involve all stakeholders in understanding the underlying barriers to access and digital equity**

To gain a deeper understanding of the underlying barriers that cause the digital divide and identify and create solutions to close it, state leaders could get feedback from a range of stakeholders, including impacted residents, local government leaders, not-for-profit leaders, digital-equity and workforce development practitioners, utilities and electric co-ops, ISPs, private-sector companies focused on growing the digital workforce, and multiple others.

Engaging multiple stakeholders could help state leaders understand the aspirations of impacted communities, the barriers that stand in the way of access and digital equity, and which solutions might yield the greatest outcome based on the experiences of residents and practitioners who have been working for years to close the digital divide. State and local leaders could also work to scale up the existing programs that have been most effective and identify regions where new programs are needed to meet residents' needs.

Not-for-profit leaders and digital-equity practitioners could also proactively engage state leaders through phone calls, letters, and meetings to share their knowledge and help shape the priorities, approach,

and plans in development. State leaders could consider paid partnerships with community institutions to support stakeholder engagement work and the development of implementation plans to drive broadband access and digital equity.

### **4. Partner with local stakeholders to ensure households can access subsidies for internet subscriptions and devices**

Federal, state, and local governments could partner with local broadband stakeholders to ensure eligible households are able to take advantage of the FCC's Affordable Connectivity Program (ACP), which provides subsidies for internet service and devices. The majority of Black households directly impacted by the digital divide live in areas with available infrastructure but simply can't afford broadband service. Approximately 37 percent of Black Americans in the workforce make less than 200 percent of the federal poverty level and are economically insecure.<sup>19</sup> These families would likely qualify for assistance through the ACP, but surveys show that many are unaware of that. Among those who are aware of the ACP subsidy, 32 percent found it difficult to sign up for ACP support.<sup>20</sup> Since the eligibility criteria for ACP include participation in federal programs such as Medicaid and the Supplemental Nutrition

<sup>19</sup> *100 million and counting: A portrait of economic insecurity in the United States*, PolicyLink and USC Program for Environmental & Regional Equity, 2018.

<sup>20</sup> *Affordability and the digital divide: The first in a 3-part series on digital connectivity during the pandemic*, EveryoneOn and John B. Horrigan, December 2021.

Assistance Program, government agencies and community organizations could use existing outreach channels to communicate with eligible Black residents.

Multiple local organizations across the country are doing impactful work to promote ACP uptake. The Baltimore Digital Equity Coalition, for example, hosts live information sessions that provide details on the ACP and how to apply for subsidies. Detroit and other cities supplement their outreach efforts with a printed digital-citizen's guide, which gives residents an overview of the benefits of connectivity and tactical steps for obtaining an ISP subscription. In Ohio, state leaders worked with not-for-profit organizations and K–12 schools to encourage ACP uptake, as an example of cities and states partnering with local organizations to help ensure the ACP benefit gets to the residents who need it most.<sup>21</sup>

#### **5. Seek out partnerships among private enterprises, not-for-profit organizations, academia, and government**

Corporations, state and local governments, not-for-profit organizations, and stakeholders in academia—particularly HBCUs—could look for opportunities to partner on initiatives to close the digital divide. These partnerships could include workforce development programs that teach digital skills, develop new talent pools, and provide access to higher-wage jobs.

HBCUs are widely trusted anchor institutions with deep community roots. They also serve as critical platforms for educating and advancing students of color. HBCUs confer 17 percent of all the bachelor's degrees awarded to Black Americans and play a vital role in accelerating Black economic mobility, both for their students and their communities.<sup>22</sup> One

report found that HBCUs create roughly 134,000 jobs for their local and regional economies.<sup>23</sup>

Given the importance of HBCUs to their communities, they could play an even larger role in promoting connectivity, digital literacy, and digital-skills development. Several HBCUs are already innovating in this space. For example, Benedict College, an HBCU in South Carolina, has used \$6 million from the Governor's Emergency Education Relief Fund (GEER) to partner with the University of South Carolina, providing open access to eight computer labs throughout the state, making digital technology more accessible to local school districts, HBCUs, the South Carolina Technical College System, and community members.<sup>24</sup> At Stillman College, an HBCU in Alabama, the campus-incubated Black Tech Futures Research Institute is focused on cultivating a community-centered Black tech ecosystem that informs policy recommendations and eradicates racial tech disparities within cities.<sup>25</sup>

Beyond HBCUs, corporations are already engaged in efforts to expand broadband access and, along with it, the available pool of tech talent to work in the digital economy. For example, Microsoft and Cisco are partnering with not-for-profit organizations and state governments to support and scale existing digital-skills-building programs. Since 2017, Microsoft has used its Airband Initiative to expand high-speed internet access in underserved areas by leveraging fixed wireless technology over the television white-space spectrum.<sup>26</sup> In 2020, Microsoft also launched a skills initiative to help 25 million people around the world to acquire digital skills.<sup>27</sup> The program provides content for people to develop in-demand digital skills, in partnership with LinkedIn, to help with job placement.

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<sup>21</sup> For example, see "Digital access policy & strategic infrastructure plan," City of Detroit, April 2022; Affordable Connectivity Program, Broadband Ohio, accessed December 2022.

<sup>22</sup> Integrated Postsecondary Education Data System, National Center for Education Statistics, July 2021; B. T. Nagle and K. M. Saunders, *HBCUs punching above their weight: A state-level analysis of historically Black college and university enrollment and graduation*, UNCF, 2018.

<sup>23</sup> "HBCUs make America strong," UNCF, November 14, 2017.

<sup>24</sup> "Gov. Henry McMaster provides \$6 million in GEER funds for community computer labs," South Carolina Office of the Governor, March 30, 2021.

<sup>25</sup> Black Tech Futures Research Institute, accessed November 2022.

<sup>26</sup> *An update on connecting rural America: The 2018 Microsoft Airband Initiative*, Microsoft, 2018.

<sup>27</sup> *Official Microsoft Blog*, "Microsoft launches initiative to help 25 million people worldwide acquire the digital skills needed in a COVID-19 economy," blog entry by Brad Smith, Microsoft, June 30, 2020.

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In Atlanta and several other US cities, Microsoft has built a broad coalition of partners to create a place-based initiative that aims to close the digital-skills gap and build a more inclusive workforce.<sup>28</sup> Involving state and local leaders and not-for-profit organizations with deep relationships in the community, Accelerate: Atlanta helps facilitate learning programs, offers career support, and helps connect program participants with job opportunities.<sup>29</sup> The program has targeted learning pathways focused on helping physical laborers, tradespeople, and office and service workers to develop business and technical skills to prepare them for top jobs.

Meanwhile, Cisco's Networking Academy delivers industry-standard IT education through partnerships with high schools, colleges and universities, not-for-profit organizations, prisons, and community

centers. In 2021, Cisco launched Skills for All, a free, mobile-first, self-paced program that works to make acquiring technology skills more inclusive and accessible.<sup>30</sup> Cisco also made a \$50 million contribution to the Student Freedom Initiative's Access to Education endowment for HBCU students.

## Changing the trajectory toward greater equity

The United States is at a pivotal moment for closing the digital divide in Black communities. By gaining a better understanding of the barriers affecting Black communities and engaging communities with a range of broadband and digital-equity stakeholders to address those barriers, public- and private-sector leaders can rise to meet this moment.

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<sup>28</sup> *An update on connecting rural America*, 2018.

<sup>29</sup> Accelerate: Atlanta, Microsoft, accessed November 2022.

<sup>30</sup> 2021 Cisco purpose report: Our purpose, our progress, Cisco, 2021.