Notes from the Field

Broadband in Alabama's Black Belt in 2025

Garrett Asa Till, The University of Alabama, *gatill1@ua.edu*

Nathaniel J. Bray, The University of Alabama, *nbray@ua.edu*

Stephen G. Katsinas, The University of Alabama, *katsinas@ua.edu*

Henry N. Vlacovsky, The University of Alabama, *hnvlacovsky@crimson.ua.edu*

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Abstract

This issue brief, "Broadband in Alabama's Black Belt in 2025," examines Alabama's strategic pursuit of universal high-speed internet access, analyzing the total public investment since 2018, the resulting impact, and the access gaps remaining today. The findings confirm that through strong executive leadership and bipartisan consensus, Alabama has transitioned into a national policy model. Since 2018, nearly $2.5 billion in federal and state funds have been strategically allocated, culminating in the ahead-of-schedule completion of the crucial Alabama Fiber Network (AFN) middle-mile backbone across all 67 counties. This foundational work has driven tangible connectivity improvements in historically disconnected areas, such as Choctaw and Perry counties, validating the state's strategic use of public-private partnerships.

However, the brief highlights that a persistent and critical digital divide remains. The Federal Communications Commission's 2024 update of the high-speed benchmark to 100/20 Mbps reveals the Black Belt's average high-speed coverage (76%) lags significantly behind the statewide (87%) and national (94%) averages. Crucially, 10 out of the state's 14 most critical unserved and underserved counties are concentrated in the Black Belt. The brief concludes by urging a critical shift in policy focus beyond infrastructure to ensure digital equity. This requires rigorous oversight of BEAD deployment projects and intentional investment in digital literacy and affordability programs—such as the Alabama Digital Education Network (ADEN)—to ensure the historic investment successfully translates into functional access for healthcare (telehealth), education, and economic development for every Alabamian.

Keywords: Broadband; Access; Policy; Infrastructure; Disparity

Introduction

To celebrate the successful extension of the Alabama Fiber Network's (AFN) "middle-mile" broadband backbone to all 67 Alabama counties, Governor Kay Ivey came to her hometown of Camden, in the heart of the 24-county Black Belt. "This is what partnership looks like," AFN's Terry Metze said, referring to the teamwork of state leaders and Alabama's rural electric cooperatives, which created AFN. More than 3,500 miles of fiber optic cable have been laid with $82 million from the 2022 American Rescue Plan Act (ARPA) managed by the Alabama Department of Economic and Community Affairs (ADECA), and the AFN project was completed ahead of schedule.

"Alabama has become a national model for state initiative and success in broadband policy and strategy," the Benton Institute for Broadband & Society noted in early 2025 (Ivey, 2025). This high praise from the Benton Institute, the nation's leading entity tracking universal broadband, speaks to how far Alabama has come since 2017, when the scandal-ridden term of

Gov. Robert Bentley ended suddenly with resignation, and Lt. Gov. Kay Ivey became governor. No statewide broadband plan then existed. Today, Alabama stands tall. How this happened is the subject of this brief.

Broadband in Alabama's Black Belt in 2025 describes the tremendous progress made to date and the persistent gaps that still exist. In partnership with the University of Alabama' Center for Business and Economic Research, the Education Policy Center, UA's oldest center or institute, has published 7 reports on Education & Workforce Development, 6 on Economic Development, Poverty, & Employment, 3 on Healthcare, and 4 on Infrastructure & Community Capacity. We draw from this extensive research, building on our 2020 brief, "*Internet Access Disparities in Alabama & the Black Belt*" and our 2022 brief, "*Infrastructure in Alabama's Black Belt,*" to answer three questions:

1. What is the total public investment of federal and state governments to achieve broadband connectivity since 2018, when the landmark Alabama Broadband Accessibility Act was passed?
2. What did these funds buy, especially in the Black Belt?
3. Given the moving target of changing high-speed benchmarks, what access gaps exist today that must be addressed to secure universal connectivity?

We start by noting that delivering high-speed broadband access is a moving target. For example, the Federal Communications Commission issued new high-speed broadband standards in 2024 (Benton Foundation, 2025). This is why delivering broadband expansion to all places statewide requires a tremendous level of coordination among and across private businesses, public utilities, rural cooperatives, and federal, state, and local leaders. Rather than an isolated policy objective, it is a foundational linchpin that closely links to improvements in healthcare, education, and economic development. We begin by describing federal and state enactments that created a positive funding and administrative climate for broadband expansion (FCC, 2024). This is followed by data comparing where Alabama counties stood in 2020 and 2025, and thoughts about where we go from here.

About Alabama's Black Belt

That the 24 counties of Alabama's Black Belt (see Figure 1) host all 11 of the state's majority-minority counties does not explain the name. "Black Belt" describes the black soil of Alabama, where slaves were imported to grow cotton.

Key civil rights history events happened here, including the 381-day Montgomery Bus Boycott that propelled Martin Luther King, Jr., to prominence, and the founding of the Southern Christian Leadership Conference. The Bloody Sunday police riots at the Edmund Pettus Bridge, and the Selma-to-Montgomery march, which preceded the Voting Rights Act of 1965, happened here.

The Black Belt is characterized by searing poverty. All 24 counties were in persistent poverty in 1970; 50 years later, in 2020, 19 still were. In 2023, the Black Belt's labor force participation rate was 52%, compared to national and state rates of 63% and 57%, respectively. The rates of single-

parent households in 2023 in Dallas, Perry, and Wilcox counties were 54, 72, and 59 percent, respectively. Selma's population was ~28,000 in 1960 and ~17,000 in 2025. This persistent poverty is found in 180 counties in Arkansas, Georgia, Louisiana, Mississippi, & S. Carolina.

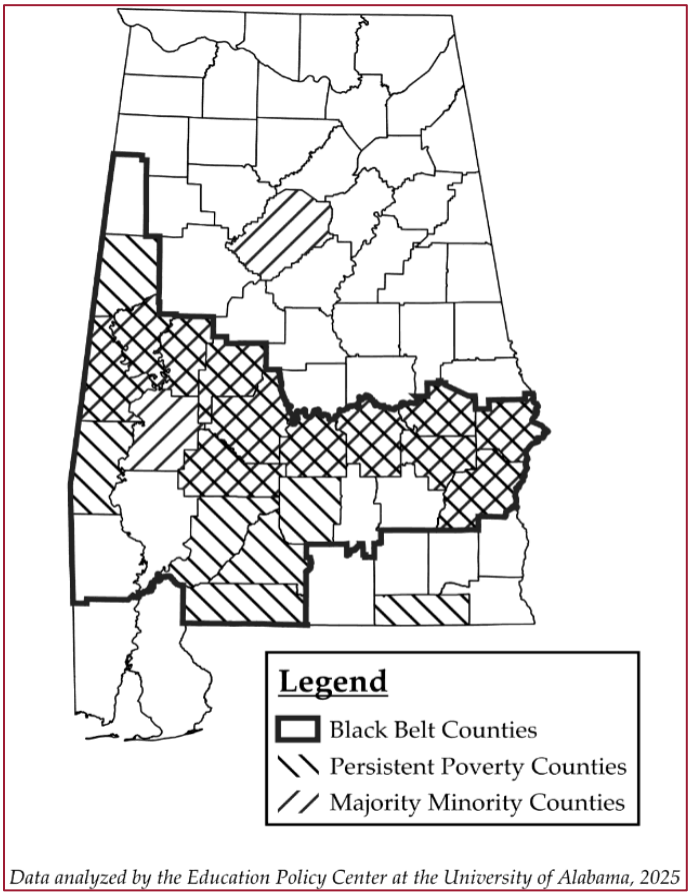

Figure 1: Alabama's Black Belt

Federal and State Investment in Broadband Access in Alabama

Governor Ivey's deep commitment to broadband expansion was evidenced by her signing **Executive Order 704, which placed functions of the Office of Broadband Development in the Alabama Department of Economic and Community Affairs** (ADECA), signed on April 26, 2017, just 16 days after her swearing in (see Figure 2) (Rebuild Alabama Act, 2019). Broadband was an issue long before our March 2022 brief, "COVID-19 and Alabama's Black Belt," which documented higher death rates in those 24 counties (Ivey, 2017). The pandemic elevated broadband access to "top priority," and legislation and investments followed (Corley et al., 2022).

Date	Name	Description
April 2017	*Executive Action 704*	Established Alabama Deparment of Economic & Community Affairs (ADECA), absorbing Office of Broadband Development
March 2018	*Alabama Broadband Accessibility Act*	Established Broadband Accessibility Fund
May 2019	*Broadband Using Electric Easements Accessibility Act*	Lifts major hurdles for electric providers, including electric cooperatives, to assist in providing high-speed broadband connectivity to unserved and underserved communities within Alabama.
May 2021	*Connect Alabama Act*	Created 1) the Alabama Digital Expansion Authority to advise, review, and approve the statewide connectivity plan; 2) the Alabama Digital Expansion Division of ADECA to develop and begin executing a statewide connectivity plan; and 3) the Alabama Digital Expansion Finance Corporation to administer the Connect Alabama Fund
September 2023	*House Bill 1*	Made supplemental appropriations from the ARPA-Coronavirus State Fiscal Recovery Fund, allowing up to $260 million to be used for the improvement and expansion of broadband network access to the citizens of Alabama, and for the modernization of cybersecurity

Data Analyzed by the Education Policy Center at the University of Alabama, 2025

Source: Alabama Department of Economic and Community Affairs, Alabama Digital Expansion Division, Overview • Created with Datawrapper

Figure 2: Relevant Acts/Actions for Broadband in Alabama: Review of Legislation and Executive Orders enacted in Alabama involving Broadband since 2017

Placing broadband expansion under ADECA meant the same state agency responsible for rural development policy would lead state broadband efforts. The competence of ADECA's leadership was proven by the successful effort to ensure every citizen was counted in the 2020 Census, so Alabama would hold onto all 7 of its U.S. House seats (Moon, 2020).

In March 2018, Governor Ivey signed the **Alabama Broadband Accessibility Act**, which established the Alabama Broadband Accessibility Fund (Ivey, 2020). This fund expanded internet access to underserved communities and became a key policy lever for ADECA. The Business Council of Alabama was a major advocate for the legislation, with State Sen. Clay Scofield and Rep. Donnie Chesteen stating, "Without effective high-speed Internet, or broadband service, rural Alabama's infrastructure will be unable to attract jobs," (Alabama Broadband Accessibility Act, 2018).

The following year, in May of 2019, Governor Ivey signed the **Broadband Using Electric Easements Accessibility Act.** This allows broadband carriers to partner with electricity providers to use their existing power line easements and infrastructure, a major hurdle faced by rural Alabama electric cooperatives in participating in expanding broadband. "Every day the uses of

internet grow more dynamic," Ivey said, as she signed the bill, adding, "It's just imperative that we provide our students and our hospitals and small businesses and our communities with high-speed internet (Business Council of Alabama, 2018).

In May of 2021, Governor Ivey signed the landmark **Connect Alabama Act,** a comprehensive bill that created the Alabama Digital Expansion Authority, the Alabama Digital Expansion division within ADECA to administer funds provided through the Authority, and the Alabama Digital Expansion Finance Corporation to administer the Connect Alabama Fund, also created by the Act. The policy goal was to create a clear division of administrative authority, funding, development, and implementation. The Connect Alabama Act is key to implementing broadband projects without delay.

Further demonstrating state commitment, Governor Ivey called a **special legislative session** that resulted in House Bill 1, signed on January 28, 2022, **that invested nearly half -- $300 million – of Alabama's $772 million American Rescue Plan Act (ARPA) allocation to broadband** (Tomberlin, 2019)**.** Administrative responsibility over these crucial funds fell to the Digital Expansion Division within ADECA, created by the Connect Alabama Act.

The foundational state enactments listed in Figure 2 positioned Alabama to maximize the impact of the substantial investments from the unexpected major federal enactments responding to the pandemic, and the federal infrastructure investments that followed (see Figure 3, below). State enactments positioned the use of Alabama dollars to fill in gaps that the various federal legislative enactments and funding streams could not fill.

Name	Purpose	Estimated Investment $ (in millions)
FEDERAL FUNDS		
Coronavirus Aid, Relief, and Economic Security (CARES) Act, 2020	Alabama Broadband Connectivity for Students, providing vouchers for families of students currently eligible for free and reduced-price school meals	100
American Rescue Plan Act (ARPA), 2021	ADECA's Digital Expansion Division Grants (statewide middle-mile projects); expanding fiber broadband infrastructure to schools, hospitals and government facilities; Alabama Fiber Network (AFN)	400
Infrastructure Investment and Jobs Act (IIJA)/ Bipartisan Infrastructure Law, 2021 *National Telecommunications and Information Administration (NTIA), 2025*	The IIJA gave the NTIA the central role in administering billions of dollars to expand broadband access. The BEAD Program, created out of the NTIA, extends broadband service availability to more than 101,090 locations throughout the Alabama	1,400
STATE FUNDS *-Alabama Broadband Accessibility Fund (ABAF)* *-Alabama Digital Education Network (ADEN)* *House Bill 1 (2023)*	-The ABAF creates middle-mile and anchor institution projects -The ADEN partnership, between Apple and Alabama Power, will establish future-focused community learning hubs in collaboration with anchor institutions, including libraries, community centers, and schools -Made supplemental appropriations from the ARPA-Coronavirus State Fiscal Recovery Fund, up to $260 million to be used for improvement and expansion of broadband access to citizens of Alabama.	~360
Private Funds	Internet Service Provider (ISP) projects	185

Data Analyzed by the Education Policy Center at the University of Alabama, 2025

Source: Alabama Department of Economic and Community Affairs, Alabama Digital Expansion Division, Overview • Created with Datawrapper

Figure 3: Funding for Broadband in Alabama since 2017

This speaks directly to the effective use of executive convening power by Governor Ivey and her leadership team, including ADECA is the “secret sauce” critical to long-term success. Weekly bipartisan meetings of Republican and Democratic legislative leaders at the Executive Mansion, when the Legislature was in session, began immediately after Ivey ascended to the governorship in April 2017. Such meetings had not been held under her predecessor, and the benefits were seen in unanimous votes for nearly every enactment listed on Fig. 2, and the four-bill education and workforce package in 2019.

The executive’s convening power was used by ADECA and the governor’s office to convene Internet Service Providers and owners of existing power and gas lines, such as Alabama Power, Power South, Spire (formerly Alabama Gas), and the 23 rural electric cooperatives, so that actors sang off the same hymnal. By gaining commitment to a larger State plan, diverse actors were headed in the same direction, which in turn allowed for much more effective braiding of the diverse federal fund streams identified in Figure 3. Problems identified early on were fixed via further enactments, such as the Broadband Using Electric Easements

Accessibility Act, so rural Alabamians generally and the Black Belt specifically would not again be left behind.

The State of Alabama received additional federal funding for broadband in 2023. In July 2023, the National Telecommunications and Information Administration (NTIA) allocated $1.4 billion to the state through the **Broadband Equity, Access, and Deployment** program (BEAD) to connect its 101,090 unserved and underserved locations (Act 2022-1, 2022). ADECA began its initial BEAD application process for service providers (alongside ARPA funds) in 2025. Delays in obtaining permits and weather setbacks slowed progress for some providers. The funds must be spent by ADECA before the end of December 2026, or millions might be returned (Tepper & Garner, 2025). Alabama leaders are committed to this not happening. Alabama's initial BEAD Proposal, which was approved, states three "primary objectives for broadband [to] enhance economic growth and job deployment":

1. "Serving 100 percent of unserved locations (i.e., below 25/3 Mbps) with a minimum of 100/20 Mbps service within five years"
2. "Serving 100 percent of underserved locations (i.e., between 25/3 Mbps and 100/20 Mbps) with a minimum of 100/20 Mbps service within five years (if sufficient funds are available)"
3. "Delivering gigabit connections to community anchor institutions (CAIs) that do not have that level of service within five years (if sufficient funds are available)," (Rocha, 2025).

In September of 2025, ADECA submitted its final BEAD proposal to Washington. This proposal was accompanied by data on subgrantees, deployment projects, locations, and, if approved, ADECA can distribute the remaining BEAD funds to subgrantees (Neighbors, 2025). The subgrantees then have four years to provide broadband service to customers. Alabama proposed spending $479,655,034 among 15 subgrantees and "approximately $858,496,413 in remaining BEAD funds to be allocated to eligible non-deployment activities." As of November 18, 2025, the NTIA approved 18 BEAD program final proposals; Alabama was not selected as one (47 U.S. Code § 1702, 2021). The 38 states without approved plans should expect amendments to their plans to be finalized by the end of the year.

The leveraging of federal funds for broadband was strategic. State officials worked closely with its congressional delegation, led by Richard Shelby, who was Chairman or Ranking Member of the powerful Senate Appropriations Committee (2017-2023). Shelby ranked #1 among all senators in landing earmarks in the final two budgets of his 36-year senate career (Reminder: What BEAD final proposals, 2025). Alabama spent $100 million of its Coronavirus Aid, Relief, and Economic Security Act (CARES) allocation for "equipment and service for broadband, wireless hot spots, satellite, fixed wireless, DSL, and cellular-on-wheels" for distance learning K-12 students (Cohn, Kelly, & Jackson, 2022) (Roberts, 2023),and Alabama colleges got $72 million for remote learning (Flowers, 2023).

Alabama added millions more in state grants to expand broadband. In March 2020, $9.5 million in grants were awarded, with a large portion for Black Belt communities, and $5.1 million was awarded in May 2020. Gov. Ivey affirmed the ongoing commitment: "Thanks to the

Broadband Accessibility Fund and broadband providers, we are making progress in ensuring that Alabamians have access to high-speed internet services. [But] there is no question we have a long way to go on completing this mission" (Office of the Governor of Alabama, July 31, 2020).

The pandemic made broadband expansion a popular federal and state policy response. This was evidenced by the January 2022 Alabama Legislature Special Session that garnered strong bipartisan and business support. The secret sauce of using the latent executive convening power to bring political leaders, business leaders, and service providers together allowed Alabama to take and extend the positive momentum for broadband expansion. In a 2024 op-ed, ADECA Director Kenneth Boswell wrote, “Let’s not slow down as we continue to push our way to the finish line. Let’s strike the iron while it’s hot and accomplish our Governor’s ambitious goal of giving Alabamians access to high-speed internet,” (Office of the Governor of Alabama, September 10, 2020). This sentiment rings true today: As Boswell noted in September 2025, “We’re making progress, but we’re not where we need to be,” (Office of the Governor of Alabama, July 16, 2020).

Where Do We Stand Today: Addressing the Moving Target of Broadband Access

Our October 2020 brief, "Internet Access Disparities in Alabama & the Black Belt," found Alabama ranked 47th in broadband access. The Black Belt was "markedly behind”: 22 of the 24 counties ranked below the statewide average of 86% coverage for high-speed internet, defined as 100+ megabits per second, and half were below 50% coverage (Boswell, 2024).

Access to lower broadband speeds (25 Mbps or faster) was higher than for high speeds (100+ Mbps) generally, but just 3 Black Belt counties were above the Alabama average of 89% coverage -- while 10 were at 50% or below. The high-speed access in the Black Belt was particularly dire: Perry and Choctaw counties had zero percent high-speed internet coverage, and Greene County registered a negligible 2% coverage.

The federal funding for broadband in response to COVID-19 changed the dynamic. And as so often occurs in the American system, generous federal funding was coupled with administration largely directed by state governments (Katsinas et al., 2020). This is why Executive Order 704 (2017), the Alabama Broadband Accessibility Act (2018), and the Connect Alabama Act (2021) were so essential. These acts opened the door, and ADECA and its Alabama Digital Expansion Division are filling in gaps. Governor Ivey announced in July 2025 the awarding of $6.2 million to continue the expansion of high-speed internet access through its Alabama Fiber Network (AFN). The AFN’s award will “supply 125 miles of ‘middle-mile’ broadband service,” in Baldwin, Bibb, Choctaw, Clarke, Clay, Conecuh, Dallas, Greene, Macon, Monroe, Randolph, and Washington counties (Plott, 2025). The Alabama Statewide Middle-Mile Network is a roughly 3,500-mile fiber optic network that expands AFN to all 67 counties ahead of schedule as of October 31, 2025 (Ivey, November 5, 2025).

Rural states like Alabama are challenged to expand infrastructure to meet changing needs. The Federal Communications Commission (FCC) in March 2024 updated its standard from 25 Mbps, set in 2015, to 100 Mbps (FCC, 2024). Figure 4 presents the percentage of U.S.

residents, residents of 17 southern states, the Alabama statewide average, and the Black Belt and non-Black Belt county averages for access to fixed high-speed 100/20 broadband. Alabama still ranks 14th among 17 southern states, ahead of Louisiana, Mississippi, and West Virginia, ranking 45th yet only 8% behind the national average. The target is clearly moving to universal access, and Alabama policy must move with it.

Comparing % of the Residential Population of the United States (US), the 17 Southern states, Alabama (2020) (2024), and the Black Belt (2020) (2024) with 100/20+ Mbps internet speeds

Regions	% of Residential Population with at least 100/20 Mbps Broadband Speed
US	94
South	93
Alabama (2024)	87
Alabama (2020)	86
Non Black Belt (2024)	89
Non Black Belt (2020)	89
Black Belt (2024)	76
Black Belt (2020)	67

Southern states, as defined by the Southern Education Foundation (SEF), include: Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, Missouri, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia

Source: FCC National Broadband Map Data (Dec. 2024) analyzed by the Education Policy Center at the University of Alabama, 2025 • Created with Datawrapper

Figure 4: Alabama's Black Belt Lags in Meeting New Broadband Speed Benchmark

Figure 5 (appendix), which uses the FCC's new 2024 benchmark of 100/20 Mbps broadband speed, shows that *statewide and even countywide averages obscure profound differences in broadband access, confirming a reality found in every subject area of our 20+ Black Belt reports since 2020.* The persistent digital divide is most acutely felt in rural Alabama and the Black Belt, where connectivity rates are far below the statewide average of 87%. Figures 5 & 6 best illustrate the stark urban-rural divide within the state. Of the 7 "Unserved" Alabama counties, seen in Figure 5, 4 are in the Black Belt, and of the 7 classified as "Underserved," 6 are in the Black Belt (the remaining unserved and underserved counties are rural Alabama counties outside of the Black Belt). Figure 6 (appendix) from ADECA's Alabama Broadband Map offers a more detailed view of the size and scale of underserved areas, detailing where exactly the service stops.

Figure 7 (appendix) compares individual county averages for high-speed coverage for 2020 and 2024. The 24 Black Belt counties are bolded.

Today, 4 Black Belt counties outpace the statewide average, and Lamar is the highest among all 67 counties. Still, broadband challenges persist: The 24 Black Belt counties include 5 of the 10 counties with the lowest coverage rates, and 10 of the bottom 15.

The progress from our 2020 study is striking: Perry, Choctaw, and Greene, Black Belt counties that registered zero or near-zero coverage in 2020, stand at 27%, 35%, and 58%, respectively. The astonishing jump to 58% coverage in Greene County reflects investments by West Alabama's largest rural electric cooperative, the Tombigbee Electric Cooperative (Corley et al., 2022). Further, 7 of 24 Black Belt counties were below 20% coverage in 2020; today, no Black Belt county stands below 27%, and 21 of the 24 Black Belt counties are above 40%.

Broadband's Impact on Policy

Expanding broadband is not an isolated policy objective; it is intrinsically linked to addressing other top Alabama public policy challenges. The COVID-19 pandemic propelled the world into an age of technological interdependence and remote work. Alabama Rep. Robert Aderholt stated the obvious in an ABC interview: " In parts of rural Alabama and across America, it's still much more difficult to get high-speed internet. Without it, you can't really operate a business or do serious work," (ABC, 2025).

This need predates the pandemic. In 2018, the Business Council of Alabama advocated tax support for broadband development, but challenges persist, as State Senator Clay Scofield from rural Cullman County noted: "The return on investment just isn't there in sparsely populated areas" (Business Council of Alabama, 2018). Thanks to good state leadership, a positive legacy of great broadband policy progress has followed a tragic pandemic. The new broadband infrastructure positions Alabama to take big steps forward in rural healthcare, education, and economic development, to which we now turn.

I. Healthcare (Telehealth)

Telehealth is defined by the Mayo Clinic as "the use of digital information and communication technologies, such as computers and mobile devices, to access healthcare services remotely and manage your healthcare" (Berg, 2021). Telehealth became an indispensable tool in the pandemic, allowing rural Black Belt residents access to specialized healthcare; however, this can only be done if broadband is strong and staff know how to use it (Benton Foundation, 2025; Albright, 2025).

The internet connectivity telehealth demands put many individuals and communities at a significant disadvantage. Previous 2020 and 2022 EPC Black Belt Series briefs found large healthcare disparities in the Black Belt access, including physical distance to health facilities and rural hospital closings (Till et al., 2025). That the 24 Black Belt counties are the least internet-connected parts of Alabama shows how the digital gap directly impedes access to vital remote medical services. *KFF Health News* found "counties with the highest rates of internet access and

health care providers correlated with higher life expectancy, less chronic disease, and key lifestyle factors such as higher incomes and education levels" (Tribble & Hacker, 2025).

State policymakers strongly support telehealth expansion. Of the $1.9 billion in COVID-19 relief provided to the State of Alabama, $300 million was designated for remote learning technology and infrastructure, which can support telehealth initiatives. In July 2020, the FCC awarded the University of Alabama at Birmingham (UAB) $1 million "to purchase iPads, webcams, and remote patient monitoring devices to facilitate the huge increase in telehealth that UAB has experienced" (UAB, 2020). Of the $72 million in grants awarded nationally by the U.S. Department of Agriculture to expand telehealth infrastructure, $3 million was awarded to Alabama (Moseley, 2020). With its infrastructure backbone in place, state funds strategically deployed can provide end-user technology and equipment to bring the functional benefits of telehealth to rural Alabamians, maximizing past and current federal, state, and private-public investments in broadband.

II. Education

The COVID-19 pandemic acutely exposed internet disparities, as pre-K through post-secondary students were forced into remote learning (Bray et al., 2023). Connectivity became a major challenge for school leaders launching emergency measures to bridge the "homework gap." Many cited the "same old problems—lack of internet access or computers for doing homework," worsened by rural school financial woes. Without connectivity, emergency policies had only modest short-term positive impacts, underscoring the need for sustained strategies (Whitacre, 2021) bridging the digital divide to bring, as Governor Ivey said, "the power of technology and high-quality education and workforce training directly to our most rural communities, and securing a brighter future for all Alabamians" (Blevins, 2025). Alabama State Superintendent Eric Mackey applauded the Ivey Administration's work amidst the COVID-19 pandemic to allocate CARES Act funding for the Alabama Broadband Connectivity (ABC) for Students program (Office of the Governor of Alabama, July 31, 2020).

A major effort to continue to close the educational access gap was announced in October 2025 with the launch of the Alabama Digital Education Network. Funded by $16 million in state funds, ADEN, in partnership with Ed Farm, aims to use the new broadband infrastructure to place learning hubs across the Black Belt.

Ed Farm's three-pillar approach of Digital Skills Training, Community Learning Spaces, and Broadband Infrastructure has as its goal addressing the digital divide "hurdle" to grow digitally fluent learners. The commitment is to bring long-term sustainability and trust, as Ed Farm leaders acknowledge the historical weariness and "heartache" in the Black Belt region (a reality described in various EPC Black Belt issue briefs over the years). Daniel Whitt, Ed Farm's Head of Learning Spaces, notes that the commitment from "Apple, Alabama Power, the governor, and the state legislature across the aisle" signifies an "actual solution that can be sustained" (D. Whitt, personal communication, October 21, 2025). Improving digital fluency is a foundation not only for education but also for economic development, and the momentum

already established in Alabama provides optimism for continued state and public-private investment for future digital education needs.

III. Economic Development & Quality of Life

Expanding broadband access is fundamental to strengthening the Alabama Black Belt workforce. Without reliable high-speed internet, residents face barriers to education, training, and employment that limit their economic mobility and contribute to regional population decline (Selma had 26,000 residents in 1960, and about 18,000 today). Broadband infrastructure provides an essential foundation for modern workforce development, connecting individuals to digital skill-building opportunities, remote and hybrid job pathways, and high-demand career fields that otherwise remain out of reach.

Effective workforce development requires more than training alone—it requires addressing the structural obstacles that prevent residents from participating in the first place. By pairing broadband expansion with intentional barrier-reduction strategies such as childcare, transportation support, and flexible learning models, the region can create truly accessible pathways into the digital economy. This approach not only equips residents with marketable skills but also ensures that those skills can be applied locally, reducing the out-migration of youth and adults seeking opportunity elsewhere.

"Broadband access is no longer optional—it is the backbone of a modern workforce," said Donny Jones, Executive Director of West Alabama Works and Executive Vice President of the Chamber of Commerce of West Alabama (D. Jones, personal communication, November 20, 2025). "When communities in the Black Belt lack high-speed internet, they also lose access to education, training, and career opportunities. Expanding broadband gives our residents the ability to learn new skills, secure better jobs, and build futures right here at home. This investment doesn't just connect households—it connects people to possibility."

Broadband-enabled workforce initiatives also empower individuals to reimagine the future of their communities. With access to high-quality digital training, residents can develop the confidence and capacity to launch businesses, pursue emerging careers, and participate in shaping a more vibrant local economy. Over time, these opportunities contribute directly to rising incomes, stronger labor force participation, and possibly stabilizing—and eventually reversing—the Black Belt's population decline.

Investing in broadband is, therefore, not only an infrastructure project but a long-term workforce strategy. It creates the conditions for residents to thrive where they live, for businesses to compete more effectively, and for communities to build a more resilient and prosperous future.

Moving Forward

With the Broadband Deployment Accuracy and Technological Availability (DATA) Act signed into law by President Donald J. Trump in March 2020, the FCC is compelled to regularly update broadband datasets to show where fixed broadband can be installed, with a special emphasis on rural and insular areas (Broadband DATA Act, 2020). By meticulously mapping areas where

internet is unavailable, federal and state leaders can pinpoint regions in critical need of broadband access. Overcoming this data challenge can remove rural invisibility, and thus represents a monumental stride for residents in areas like Alabama's impoverished 19 persistent poverty Black Belt counties, who until recently have not been able to fully enjoy the benefits of internet access.

Of particular note is ADECA's Broadband Map Connectivity Plan, issued on January 5, 2022 (Broadband maps, 2024) (featured in Figure 6), which addresses well-known deficiencies in the FCC's mapping system by identifying and evaluating census blocks only partially served with broadband. Collaboration with its utility and Internet Service Providers (ISPs), including Alabama Power and its ISP Partnership program, positions Alabama well should new federal funds become available, as occurred with the CARES and ARPA acts under administrations of both political parties (ISP Partnership Program, n.d.). This forward-thinking approach means state broadband grants -- 90 have been issued by ADECA since 2018 through the Alabama Broadband Connectivity Fund -- are more likely to effectively fill identified access gaps.

This brief sought to assess Alabama's path toward universal broadband by addressing three fundamental questions concerning investment, impact, and remaining gaps. The answers reveal a mix of significant policy success and persistent connectivity challenges.

1. What is the total public investment of federal and state governments to achieve broadband connectivity since 2018?

Since the passage of the landmark Alabama Broadband Accessibility Act in 2018, nearly $2.5 billion in combined federal and state funds have been allocated or invested to achieve universal connectivity. This total includes:

- Federal Funds (Allocated): Over $1.9 billion from programs like the CARES Act, ARPA, and the BEAD allocation.
- State Funds & Private Match: Approximately $585 million from sources like the Alabama Broadband Accessibility Fund, Connect Alabama Fund, House Bill 1 appropriations, and private match investment.

Notably, the final deployment spending formally submitted in September 2025 for the NTIA's BEAD program is currently projected at $530,743,198 for deployment projects, which leaves remaining funds for eligible non-deployment activities.

2. What did these funds buy, especially in the Black Belt?

The primary outcome of this investment is the completion of the Alabama Fiber Network (AFN) middle-mile backbone to all 67 counties ahead of schedule, laying the foundational infrastructure for last-mile connectivity.

In the Black Belt specifically, these funds fueled progress that yielded tangible results in areas previously unserved:

- High-speed internet access (100/20 Mbps) in Choctaw County increased from 0% to 24%.
- High-speed internet access (100/20 Mbps) in Perry County increased from 0% to 27% between 2020 and 2024.

3. Given the moving target of changing high-speed benchmarks, what access gaps exist today that must be addressed to secure universal connectivity?

Access gaps persist throughout rural Alabama, particularly in the Black Belt, where connectivity rates are far below the statewide average. The Black Belt's average high-speed access rate (100/20 Mbps) is 76%, significantly below the statewide average of 87% and the national average of 94%. This divide is acutely visible:

- Of the state's 7 "Unserved" counties, 4 are in the Black Belt.
- Of the 7 "Underserved" counties, 6 are in the Black Belt.

To secure universal connectivity, policymakers must commit to steps beyond the initial infrastructure deployment:

a. Future-Proof Planning: Given that some providers may default on their contracts, leaving locations without the promised service, the state broadband office must plan beyond current BEAD investments to address locations left unconnected and to meet future technology demands.
b. Maximize Infrastructure Use: Intentional investment is needed to ensure all Alabamians can utilize the new infrastructure. This includes robust funding for digital literacy support (for all ages and walks of life), affordable service, and access to devices. These efforts can be tied to other sectors, like the Alabama Digital Education Network (ADEN) in partnership with Ed Farm for schools, as well as initiatives focused on health, libraries, and services for older adults and veterans.

Conclusion

The journey towards universal broadband access in Alabama's Black Belt testifies to the persistent challenges of the digital divide and the significant, concerted efforts to bridge them. While our 2020 assessment revealed the Black Belt to be markedly behind the rest of Alabama in internet connectivity -- with zero percent high-speed coverage in some Black Belt counties – we applaud the significant progress over the past five years. Improvements such as the increase in high-speed internet access in Choctaw County from 0% to 24%, and in Perry County from 0% to 27% demonstrate that focused investment can yield tangible results. The state's overall ranking in broadband connectivity has also improved from 47th to 44th nationally, reflecting advancements (BroadbandNow, 2025). While Alabama has fluctuated greatly in

BroadbandNow's rankings -- Alabama was 24th in June 2024 (BroadbandNow, 2024) - this speaks more to the moving target we acknowledged at the start of this report, and not to any inaction or negative action on the state's part. Other states are picking up the pace, and Alabama must keep up.

This progress is largely attributable to decisive policy actions, starting with assigning leadership to ADECA, passage of the Alabama Broadband Accessibility Act, and the landmark Connect Alabama Act, which established a comprehensive statewide broadband plan and dedicated administrative entities (Alabama Broadband Accessibility Act, 2018) (Connect Alabama Act, 2021). With these plans in place, state grants and private-public partnerships allowed strategic utilization of federal funds from the CARES Act and the American Rescue Plan Act to inject hundreds of millions of dollars into coordinated, forward-looking broadband expansion initiatives. In an opinion piece, State Senate Minority Leader Bobby Singleton emphasizes the necessity of further state investment, saying, "The future of Alabama is bright. By investing in this statewide fiber network, Alabama is investing in our people, our communities, and our economy" (Singleton, 2024). The consensus is clear to continue to move Alabama forward.

In past years, state leaders turned to their powerful congressional delegation. Led until recently by Senator Richard Shelby, the first Alabamian to ever chair the Senate Appropriations Committee from April 10, 2018, to January 3, 2021, the nearly $2 billion of federal funds for broadband expansion still had to be administered on the ground and in the dirt. This required sustained convening of internet service providers, electric cooperatives, county officials, regional planning commissions, state representatives and senators, and the general public.

Use of the convening power led by Governor Kay Ivey was the secret sauce. Good governance enabled state plans to be modified and extended as the $2 billion in federal funding streams shifted and expanded. This maximized the impact of effective public-private investment in Alabama, which the Benton Institute cited as a national model. The goal of extending universal broadband access is achievable, assuming sustained commitment, good leadership, and creative policy and programs.

We close by noting that much work remains. Eight Black Belt counties' high-speed coverage is still less than 50%, nearly 30 points lower than the rest of the state. Addressing the persistent digital divide is a foundational element for enabling telehealth services, facilitating equitable educational opportunities, and driving economic development and improved quality of life across the Black Belt region.

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References

47 U.S. Code § 1702 - Grants for broadband deployment. (2021). LII / Legal Information Institute. https://www.law.cornell.edu/uscode/text/47/1702

ABC. (2025, October 22). Rep. Robert Aderholt highlights progress on rural broadband access in Alabama. *WBMA*. https://abc3340.com/news/local/rep-robert-aderholt-highlights-progress-on-rural-broadband-access-in-alabama

Act 2022-1, 2022 Ala. Acts 1 (2022).

Alabama Broadband Accessibility Act. (2018). Ala. Code § 41-23-210 et seq.

Alabama's broadband model for the nation. (2025, January 22). *Benton Foundation*. https://www.benton.org/blog/alabama-broadband-model-nation

Albright, D. (2025, November 25). Dr. David Albright: Alabama's rural health plan can work if leaders commit to lasting sustainability. *Yellowhammer News*. https://yellowhammernews.com/dr-david-albright-alabamas-rural-health-plan-can-work-if-leaders-commit-to-lasting-sustainability/

Berg, S. (2021, January 8). What doctors wish patients knew to make the most of telehealth. *American Medical Association*. https://www.ama-assn.org/practice-management/digital-health/what-doctors-wish-patients-knew-make-most-telehealth

Blevins, S. (2025, October 17). Alabama launches $16 million Alabama Digital Education Network to bridge rural divide. *Yellowhammer News*. https://yellowhammernews.com/alabama-launches-16-million-alabama-digital-education-network-to-bridge-rural-divide/

Boswell, K. (2024, May 1). Opinion | Let's accomplish our goal of high-speed internet for all Alabamians. *Alabama Political Reporter*. https://www.alreporter.com/2024/05/01/opinion-lets-accomplish-our-goal-of-high-speed-internet-for-all-alabamians/

Bray, N.J., Till, G.A., D'Amico, M.M., Katsinas, S.G. (2023). Emerging from COVID-19: The 2022 report of finance and access issues. *Journal of Education Finance*, *48*(3), 251-266.

Broadband DATA Act. (2020). S. 1822, 116th Congress.

Broadband maps - ADECA Broadband. (2024, February 28). *ADECA Broadband*. https://broadband.alabama.gov/broadband-maps/

BroadbandNow. (2024, June 20). *Internet access in Alabama: Stats & figures*. https://broadbandnow.com/Alabama

BroadbandNow. (2025, June 13). *Internet access in Alabama: Stats & figures*. https://broadbandnow.com/Alabama

Business Council of Alabama. (2018, March 13). High-speed internet service will enable rural Alabama infrastructure development - the Business Council of Alabama. *The Business Council of Alabama*. https://www.bcatoday.org/high-speed-internet-service-will-enable-rural-alabama-infrastructure-development/

Cohn, P, Kelly, R., & Jackson, H. (2022, March 22). In the game of earmarks, Shelby has no peers. *Roll Call CQ*. https://rollcall.com/2022/03/16/in-the-game-of-earmarks-shelby-has-no-peers/

Connect Alabama Act, § 41-23-270 et seq. (2021), Ala. Code § 41-23-270 et seq. (2024).

Corley, E.C., Till, G., O'Brien, S., Katsinas, S.G., & Bray, N.J. (2023). *COVID-19 and Alabama's Black Belt*. *Issue Brief No. 55*. Tuscaloosa, AL: The University of Alabama Education Policy Center. https://ir.ua.edu/items/34d42dfd-58b9-427d-94db-2279b3c1c16f/full

Everett, G. (2025, October 15). Tombigbee Electric to mark completion of $145 million rural fiber buildout Thursday in Hamilton. *Yellowhammer News*. https://yellowhammernews.com/tombigbee-electric-to-mark-completion-of-145-million-rural-fiber-buildout-thursday-in-hamilton/

FCC. (2024, March 18). FCC increases broadband speed benchmark. *Federal Communications Commission*. https://www.fcc.gov/document/fcc-increases-broadband-speed-benchmark

Flowers, S. (2023, February 15). "Our Congressional Delegation Has Garnered Good Committee Assignments," *Inside the Statehouse*. https://www.google.com/search?q=https://steveflowers.us/2023/02/15/february-15-2023-our-congressional-delegation-has-garnered-good-committee-assignments-2/

ISP Partnership Program. (n.d.). https://www.alabamapower.com/company/innovation/fiber/isp-partnership-program.html

Ivey, K. (2017, April 26). Governor of Alabama. Executive Order 704. https://adeca.alabama.gov/wp-content/uploads/Executive-Order-704.pdf

Ivey, K. (2025, November 5). “Governor Ivey Celebrates Major Milestone in Alabama's Statewide Middle-Mile Fiber Network.” [Press Release].

https://governor.alabama.gov/newsroom/2025/11/governor-ivey-celebrates-major-milestone-in-alabamas-statewide-middle-mile-fiber-network/

Katsinas, S. G., Keeney, N. E., Jacobs, E., Corley, E. G., & Whann, H. (2020, October). Internet access disparities in Alabama & the Black Belt. *Ir.Ua. Edu; ir.ua.edu*. https://ir.ua.edu/bitstream/123456789/9922/1/201018_internet-access-disparities-al-black-belt.pdf

Katsinas, S.G. Bray, N.J., Till, G.A., Jacks, K.R., Keeney, N.E., & Ogunniran, M.O. (2023, October) *Alabama's prime age employment gap: Addressing persistent poverty in the Black Belt, Issue Brief No. 61*. Tuscaloosa, AL: Education Policy Center and the Center for Business and Economic Research.

Katsinas, S.G., Corley, E.G., and Till, G.A., O'Brien, S, and Bray, N.J., (2022, April). *Infrastructure in Alabama's Black Belt, Issue Brief No. 59*. Tuscaloosa, AL: Education Policy Center and the Center for Business and Economic Research.

Moon, J. (2020, August 26). Lawmakers: Broadband access most important issue facing Alabama. *Alabama Political Reporter*. https://www.alreporter.com/2020/08/26/lawmakers-broadband-access-most-important-issue-facing-alabama/

Moseley, B. (2020, October 8). USDA awards $3 million in grants for Alabama distance learning, telemedicine infrastructure. *Alabama Political Reporter*. https://www.alreporter.com/2020/10/08/usda-awards-3-million-in-grants-for-alabama-distance-learning-telemedicine-infrastructure/

Neighbors, M. (2025). Broadband Equity Access and Deployment (BEAD) Program [Unpublished grant proposal]. Alabama Department of Economic and Community Affairs.

Office of the Governor of Alabama. (2020, July 31). “Governor Ivey allocates $100 million for Alabama broadband connectivity for students” [Press release]. https://governor.alabama.gov/newsroom/2020/07/governor-ivey-allocates-100-million-for-alabama-broadband-connectivity-for-students/

Office of the Governor of Alabama. (2020, July 31). Governor Ivey allocates $100 million for Alabama broadband connectivity for students. *Gov. Ivey*. https://governor.alabama.gov/newsroom/2020/07/governor-ivey-allocates-100-million-for-alabama-broadband-connectivity-for-students/

Office of the Governor of Alabama. (2020, July 16). “Gov. Ivey awards broadband grants for 7 projects in Alabama” [Press release]. https://governor.alabama.gov/newsroom/2020/07/gov-ivey-awards-broadband-grants-for-7-projects-in-alabama/

Office of the Governor of Alabama. (2020, September 10). Governor Ivey announces $72.34 million in CARES Act funds for higher Education -. *Gov. Ivey*. https://governor.alabama.gov/newsroom/2020/09/governor-ivey-announces-72-34-million-in-cares-act-funds-for-higher-education/

Office of the Governor of Alabama. (2025, November 5). Governor Ivey celebrates major milestone in Alabama's statewide Middle-Mile Fiber Network -. *Gov. Ivey*. https://governor.alabama.gov/newsroom/2025/11/governor-ivey-celebrates-major-milestone-in-alabamas-statewide-middle-mile-fiber-network/

Plott, J. (2025). Gov. Ivey awards $6.2 million for 'middle mile' broadband projects - ADECA. https://adeca.alabama.gov/2025/07/08/gov-ivey-awards-6-2-million-for-middle-mile-broadband-projects/

Reminder: What BEAD final proposals looked like when submitted to NTIA. (2025, November 18). *Benton Institute for Broadband & Society*. https://www.benton.org/blog/reminder-what-bead-final-proposals-looked-when-submitted-ntia

Roberts, K. (2023, February 5). "Shelby's last hurrah will benefit the state for generations." *Tuscaloosa News*. https://www.google.com/search?q=https://www.tuscaloosanews.com/story/opinion/columns/2023/02/05/shelbys-last-hurrah-will-benefit-generations-inside-the-statehouse/69853454007/%3Fgnt-cfr%3D1%26gca-cat%3Dp%26gca-uir%3Dtrue%26gca-epti z114844d00-v114844b0048xxd004865&gca-ft=176&gca-ds=sophi

Rocha, A. (2025, June 4). Alabama officials demand stricter reporting on $400M broadband expansion progress. *The Alabama Reflector*. https://alabamareflector.com/2025/06/04/alabama-officials-demand-stricter-reporting-on-400m-broadband-expansion-progress/

Singleton, B. S. (2024, December 10). Singleton: Investing in broadband fiber is investing in Alabama's future - *Alabama Daily News*. https://aldailynews.com/singleton-investing-in-broadband-fiber-is-investing-in-alabamas-future/

Tepper, G., & Garner, D. (2025, September 16). BEAD BEAD BEAD, and more BEAD plans. *Benton Foundation*. https://www.benton.org/blog/bead-bead-bead-and-more-bead-plans

Till, G.A., Katsinas, S.G., Bray, N.B., & Vlacovsky, H.N. (2025). *Healthcare in Alabama's Black Belt: Impacts of potential Medicaid cuts*. Education Policy Center at the University of Alabama.

Tomberlin, M. (2019, May 31). "Governor signs bill to boost broadband access in rural Alabama." *Alabama News Center*. https://alabamanewscenter.com/2019/05/31/governor-signs-bills-to-boost-broadband-access-in-rural-alabama/

Tribble, S. J. & Hacker, H. K. (2025, April 30). Millions in US live in places where doctors don't practice and telehealth doesn't reach - *KFF Health News*. https://kffhealthnews.org/news/article/dead-zone-sickest-counties-slow-internet-broadband-desert-health-care-provider-shortage/

UAB. (2020, July). $1 million grant will support COVID telehealth efforts. *Department of Medicine*. https://www.uab.edu/medicine/dom/news-events/dom-news/1-million-grant-will-support-covid-telehealth-efforts

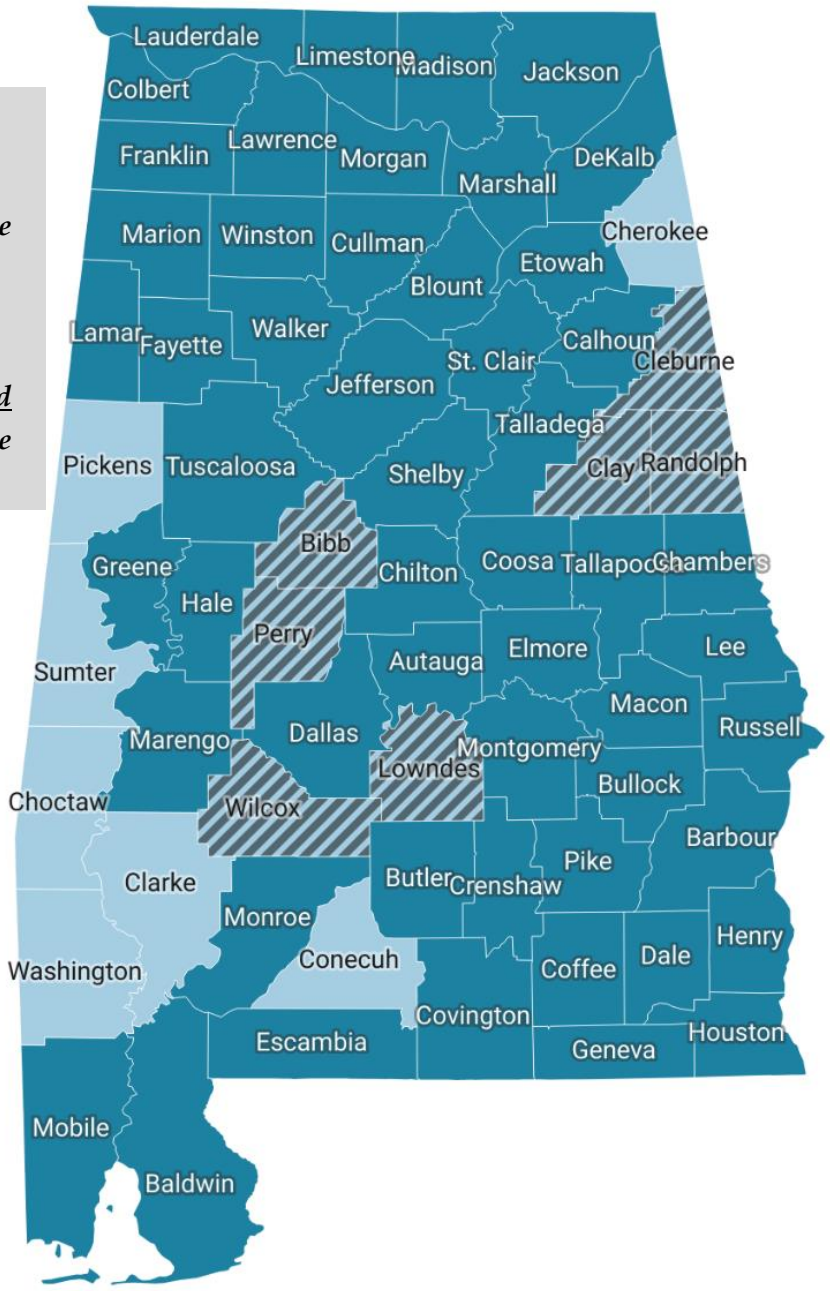
Whitacre, B.E. (2021). "COVID-19 and Rural Broadband: A Call to Action or More of the Same" *Choices*. Quarter 3. https://www.choicesmagazine.org/choices-magazine/theme-articles/rural-development-implications-one-year-after-covid-19/covid-19-and-rural-broadband-a-call-to-action-or-more-of-the-same

Appendix

Figure 5. Unserved and Underserved Populations

Counties across rural Alabama still lack basic standards of broadband availability, with 7 unserved (less than 50% have speeds of at least 25/3Mbps) and 14 underserved (less than 50% have speeds of at least 100/20Mbps)

Served Underserved Unserved



Source: FCC National Broadband Map Data (Dec. 2024) analyzed by the Education Policy Center at the University of Alabama, 2025 • Created with Datawrapper

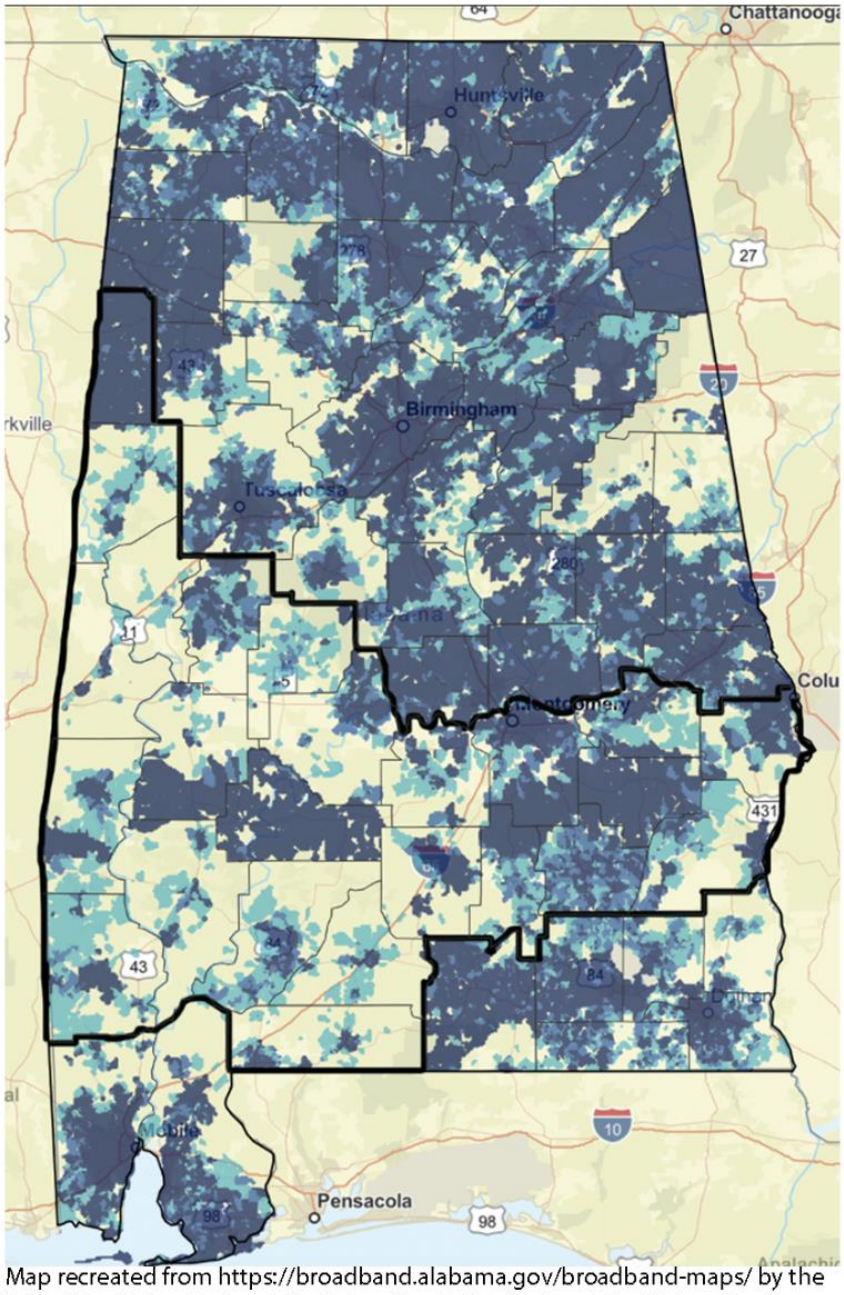
Key Takeaway:

Of the 7 <u>unserved</u> counties, 4 are in the Black Belt

&

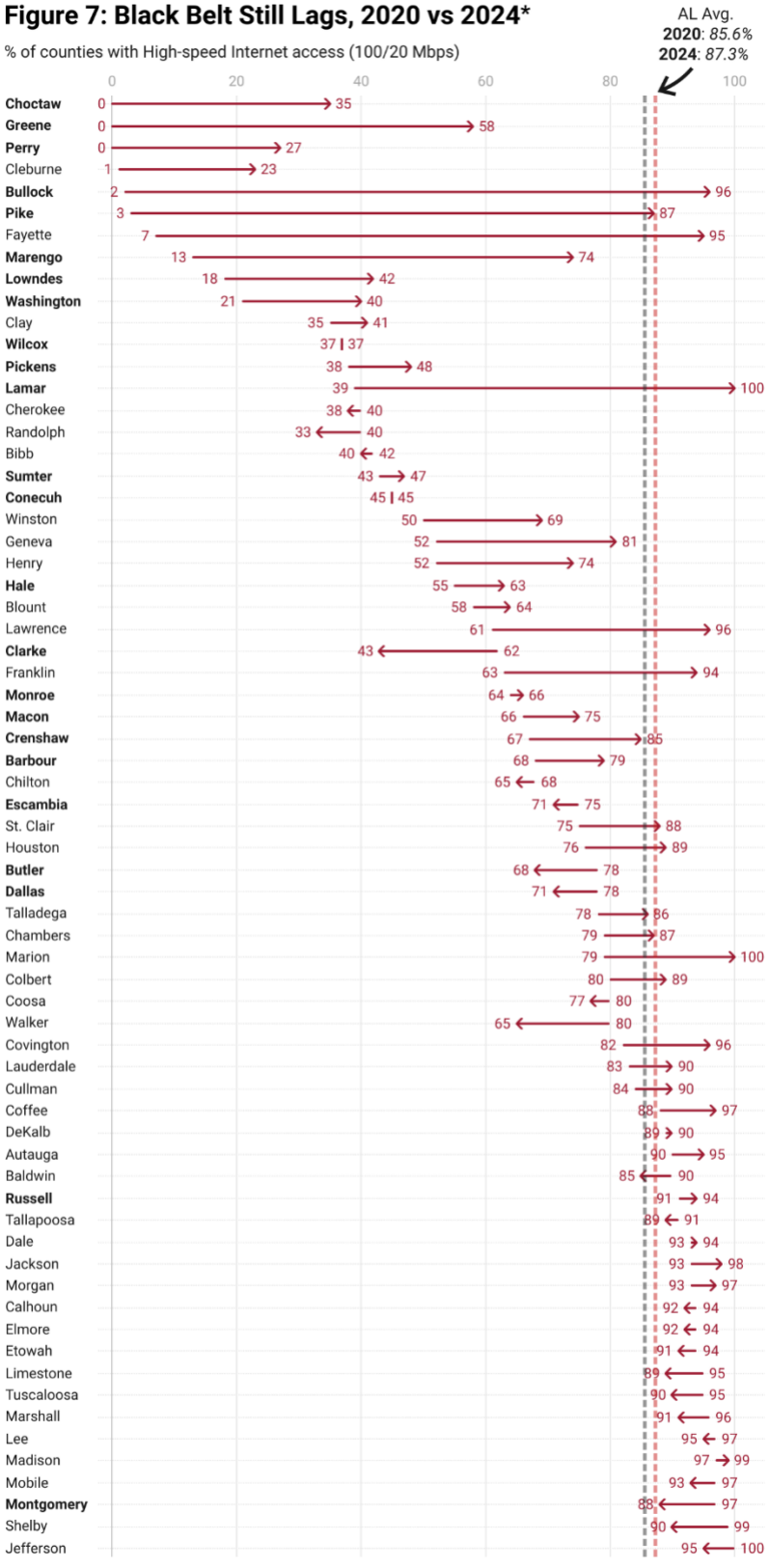
Of the 7 <u>underserved</u> counties, 6 are in the Black Belt

Figure 6. The Black Belt is *still* Alabama's Broadband Deadzone



Map recreated from https://broadband.alabama.gov/broadband-maps/ by the Education Policy Center at the Education Policy Center at the University of Alabama, 2025.

Figure 7: Black Belt Still Lags, 2020 vs 2024*



Data analyzed by the Education Policy Center at the University of Alabama, 2025

Source: FCC National Broadband Map Data (Dec. 2024) analyzed by the Education Policy Center at the University of Alabama, 2025 • Created with Datawrapper