

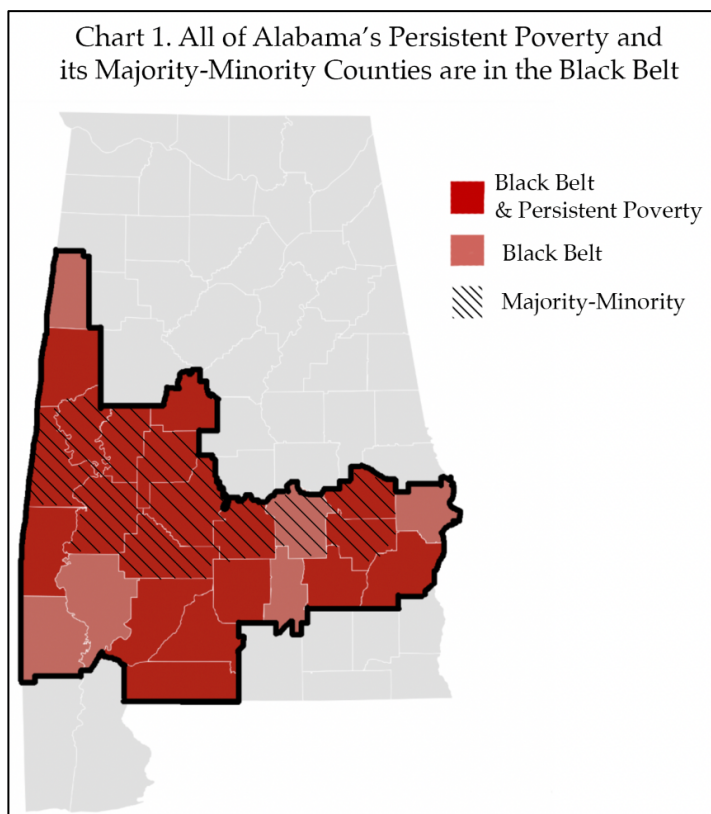
*Issue Brief № 55*

## COVID-19 and Alabama's Black Belt

by Emily Grace Corley, Garrett Till, Sean O'Brien,  
Stephen G. Katsinas, and Nathaniel J. Bray

Alabama's Black Belt is named for the region's dark, rich soil, and it is part of an arc of persistent rural poverty extending from Virginia, south to Georgia and west through Mississippi and Alabama to East Texas.<sup>1</sup> In 2019, the Economic Research Service (ERS) of the U.S. Department of Agriculture defined 310 counties as persistent poverty, with poverty rates consistently over 20 % in 1980, 1990, 2000 and on average for 2007-2011 and 2015-2019.<sup>2</sup>

Of these 310 persistent poverty counties, 267 or 86 % are rural. As the ERS notes: "These rural counties were concentrated in historically poor areas of



the Mississippi Delta, Appalachia, the Black Belt, and the southern border regions as well as on Federal Indian reservations." More than 5 million people live in these counties.<sup>3</sup> Additionally, 180 of the 310 persistent poverty counties are in six Deep South states: Alabama (19), Arkansas (17), Georgia (49), Louisiana (31), Mississippi (52), and South Carolina (12). All 19 of Alabama's

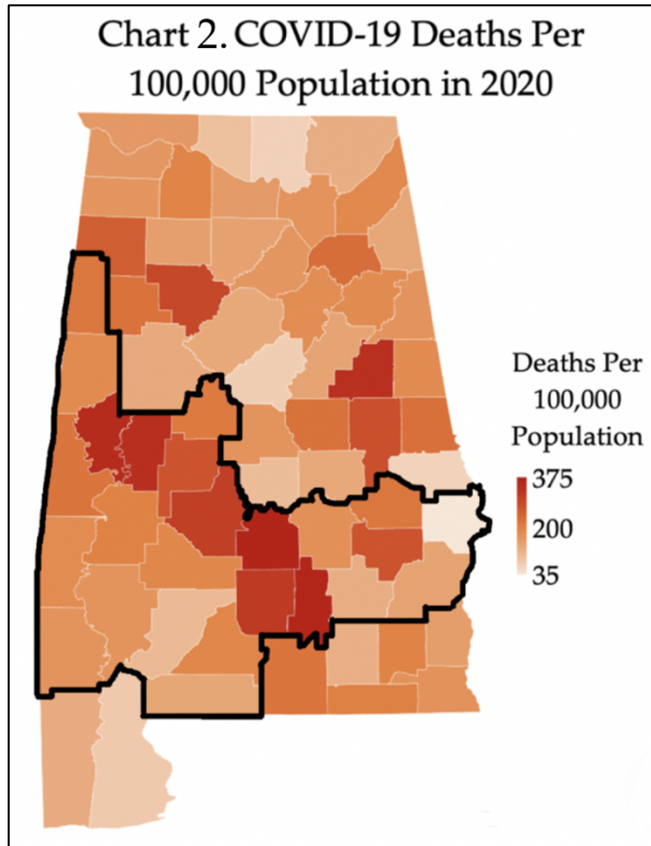
persistent poverty counties are in the Black Belt (Chart 1), and every majority-minority Alabama county lies in the Black Belt.

The emergence of the COVID-19 virus in March 2020 has amplified historically rooted disparities between urban and rural communities. The disparities exist across a wide scope of public policy areas and are even more pronounced in rural, persistent-poverty counties. In the fall of 2020, The University of Alabama's Education Policy Center (EPC) released the *Black Belt 2020* issue brief series. *Black Belt 2020* investigated population decline; unemployment and labor force participation; healthcare and broadband access; and manufacturing prospects, among other topics.

This year, with the generous support of donors for which we are grateful, the EPC is pleased to partner with the University of Alabama's Center for Business and Economic Research (CBER) and *AL.com* on a new series, *Black Belt 2022*, which will investigate new public policy topics and update issues covered in 2020. This issue brief, the first in our new series, reviews the ongoing impact of COVID-19 in the Black Belt and assesses disparities of health outcomes between the Black Belt and the rest of the state. We close with policy proposals to move the Black Belt forward. Any mistakes or errors in the transcription of data or interpretation are the responsibility of the authors.

### ***COVID-19 Death Rates***

Across the country, rural Americans are dying of the COVID-19 virus at higher rates than those in metropolitan areas.<sup>4</sup> This trend is no different in

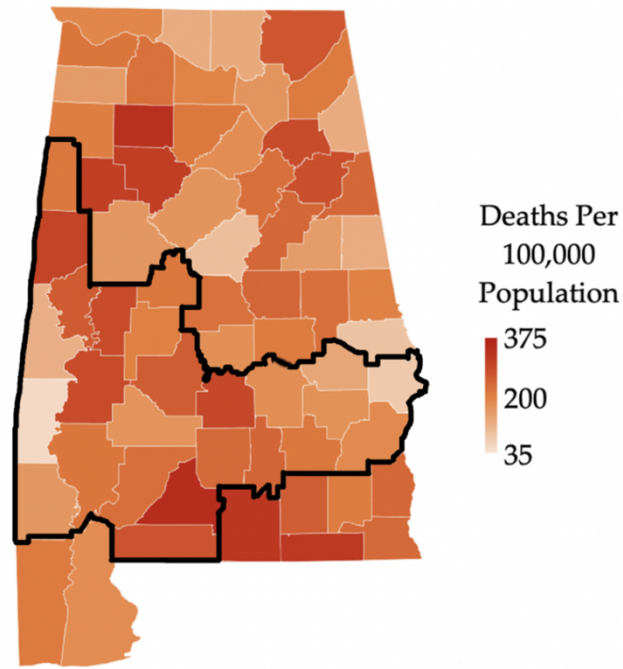


Alabama: over the last two years, rural Alabama counties have had higher rates of death from COVID-19 per 100,000 population than their metropolitan counterparts. However, the Black Belt region—which the Education Policy Center defines as 25 counties in the southern half of the state, including 19 persistent poverty

counties—has borne the brunt of impact from COVID-19.<sup>5</sup> Chart 2, displaying 2020 COVID-19 death rates per 100,000, shows that Black Belt counties have experienced higher death rates than other rural counties and the state overall. Lowndes, Crenshaw, Greene, and Hale counties, 4 of the top 5 Alabama counties with the highest death rates, are all in the Black Belt and are all classified as persistent poverty. *The average 2020 COVID-19 deaths per 100,000 for the 25 Black Belt counties is 218, nearly 30% greater than the average of 168 COVID-19 deaths per 100,000 in the non-Black Belt counties.* None of the top 20 Alabama counties for COVID-19 death rate in 2020 are classified as metropolitan counties.

By 2021, COVID-19 deaths per 100,000 population in non-Black Belt rural areas across Alabama “caught up” to the levels in the Black Belt (Chart 3). Average COVID-19 deaths per 100,000 population in Black Belt counties hardly fell from 2020 to 2021— from 218 deaths per 100,000 in 2020 down to 213 in 2021. However, death rates in

**Chart 3. COVID-19 Deaths Per 100,000 Population in 2021**

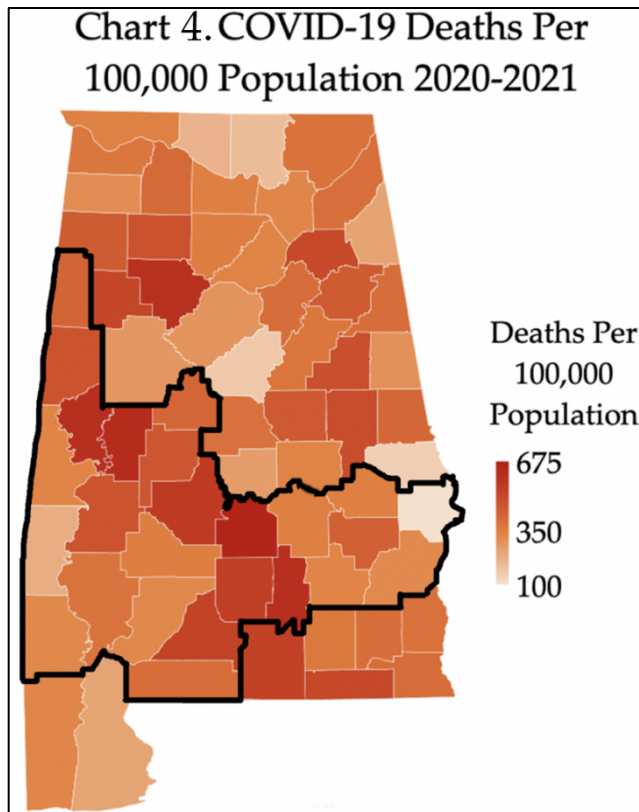


non-Black Belt counties surged close to levels observed in the Black Belt, increasing by roughly 25% from 168 to 211 in 2021. *Overall, 5 of the top 10, and less than half of the top 20 counties by COVID-19 death rate in 2021 were in the Black Belt.*

The difference between the average 2021 COVID-19 death rate in Black Belt counties (213) and non-Black Belt counties (211) is less than 1%. However, there are still no metropolitan areas in the top 20 counties by COVID-19 death rates. This suggests that COVID is problem for rural Alabama as a whole and is marginally worse among the Black Belt’s vulnerable citizens.

The difference between statewide death rates in 2020 versus 2021 is puzzling, considering the stark contrast in COVID-19 deaths rates in 2020 between Black Belt and non-Black Belt counties. During the summer 2020

surge, *AL.com* reported that over a quarter of cases could be found in the Black Belt as well as a quarter of all deaths in the state to that point.<sup>6</sup> Additionally, in June 2020, Lowndes County had the highest per capita infection rate in the state, which tracks with its status as the county with the highest COVID-19 death rate both in 2020 and overall.<sup>7</sup> The nearly identical 2021 death rates between Black Belt and non-Black Belt counties might be explained by several factors discussed below. Still, as Chart 4 shows, Black Belt counties have experienced the highest COVID-19 death rates overall.



When considering the combined deaths from 2020–2021, Lowndes, Hale, Greene, and Crenshaw are still the top 4 counties by COVID-19 deaths per 100,000 population. This is of particular importance, since the Black Belt is already suffering from population loss—the region lost over 40,000 residents from 1998 to 2018—as the

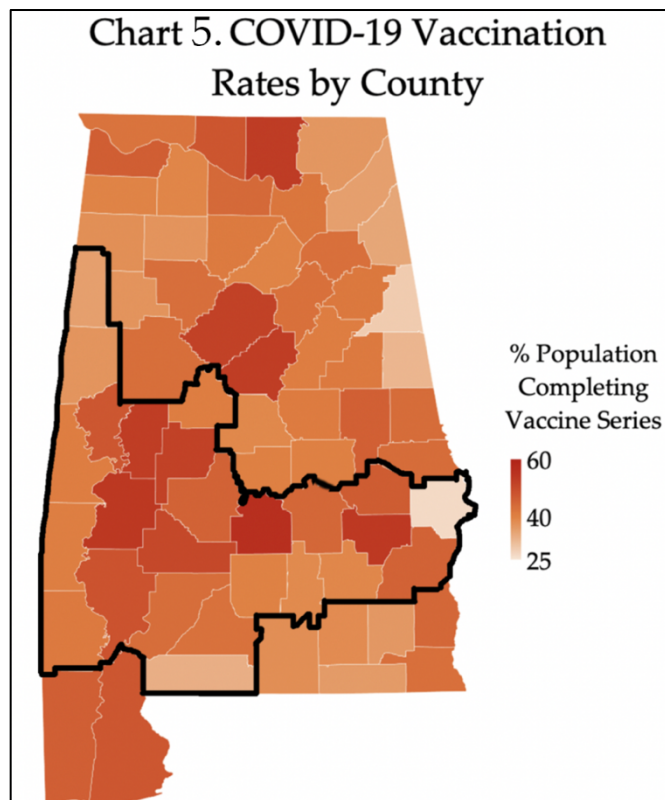
rest of Alabama has grown.<sup>8</sup> Clearly, the Black Belt has struggled with the COVID-19 pandemic over the last two years, yet the problem is really for rural Alabama as a whole.



### *Reasons for Higher Black Belt COVID-19 Death Rates*

We now turn to explanations for the patterns of COVID-19 deaths captured in this data, particularly the concentration of deaths in the Black Belt and rural areas. Rural Americans tend to be older and more vulnerable to disease.<sup>9</sup> According to Jessica McGraw, CEO/Administrator of John Paul Jones Hospital in Wilcox County, hospitalized COVID-19 patients in rural areas tend to have higher rates of chronic diseases or underlying conditions, such as diabetes, obesity, or heart disease.<sup>10</sup> Rural populations in Alabama also tend to be poorer.<sup>11</sup> The Black Belt's large African American population, a demographic disproportionately affected by the pandemic across the country, is also relevant in explaining the health disparities.<sup>12</sup>

The explanations we explore in this brief are vaccination rates by county and access to health care. Chart 5 shows the COVID-19 vaccination rates for those completing a full vaccine series, not including booster shots (1 Johnson & Johnson shot or 2 Pfizer/Moderna shots).<sup>13</sup> Despite national



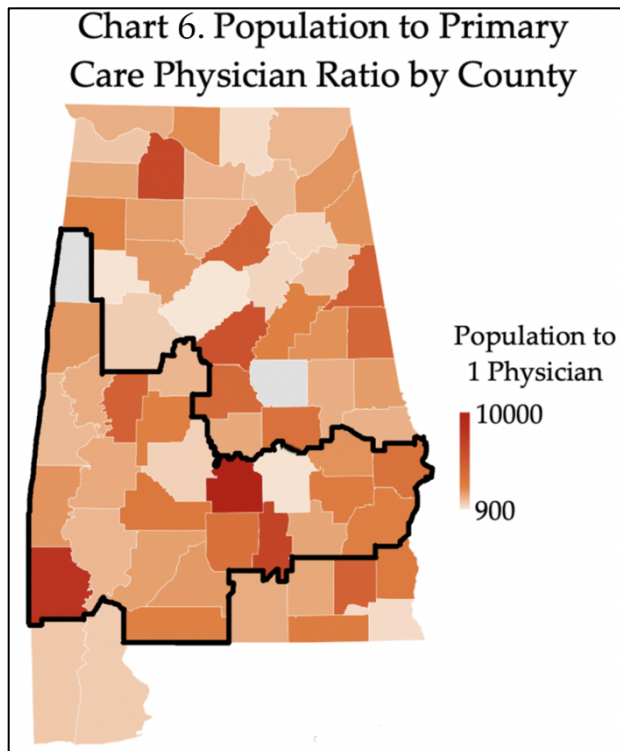
trends showing that rural populations are less likely to be vaccinated than metro areas, as well as the historically-rooted vaccine hesitancy among

African Americans, 7 of Alabama's top 10 most vaccinated counties are in the Black Belt: Lowndes, Marengo, Bullock, Hale, Perry, Wilcox, and Clarke.<sup>14,15,16</sup> The other 3 counties in the top 10 are Madison, Shelby, and Jefferson—home to two of Alabama's largest metropolitan areas.

This high vaccination rate among majority-minority Black Belt counties might explain the data in Chart 3, where the impact of COVID-19 deaths was more equally dispersed across rural Alabama as a whole. During the latest Omicron surge in January 2022, Black Belt counties with higher vaccination rates tended to have lower COVID positivity rates, while the reverse held true for lesser vaccinated non-Black Belt rural counties.<sup>17</sup> This may speak to the success by state and county officials to extend COVID-19 vaccinations to vulnerable, older Black Belt populations, since the Black Belt's population is on average older than the rest of the state; yet it may also speak to the lower vaccination levels in rural non-Black Belt counties.<sup>18</sup> There is also strong national evidence that COVID-19 vaccination rates differ sharply along partisan lines, with counties voting for Democrats in 2020 having a nearly 13% higher vaccination rate than those voting for Republicans—and six out of the seven Black Belt counties in the top 10 by vaccination rate voted for Democrats in 2020.<sup>19,20</sup>

### *The Lack of Primary Care Physicians and COVID-19*

Our *Black Belt 2020* series found Black Belt counties are losing rural hospitals, with residents having to travel farther to receive healthcare.<sup>21</sup> Chart 6 shows the ratio of population to primary care physicians by county.<sup>22</sup> Similarly to the 2021 COVID-19 death rates in Chart 3, however, no clear pattern emerges. While Black Belt counties face severe challenges



to access primary care physicians—Lowndes County shares one physician for nearly 10,000 residents—*access to primary care physicians is a general problem for all of rural Alabama.* Primary care physicians provide essential preventative and primary care and make referrals for specialized care. Inadequate

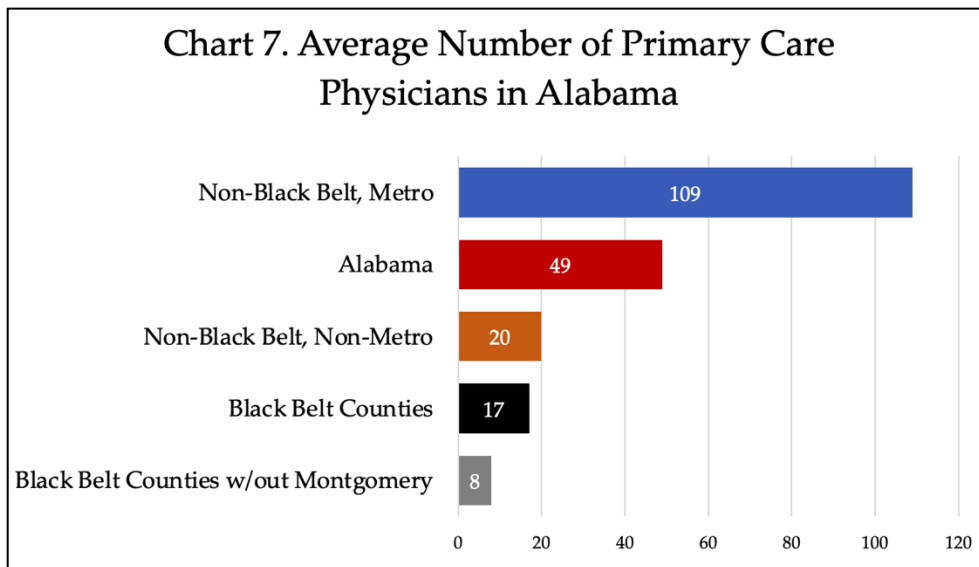
access to healthcare has detrimental effects on health outcomes, and this likely contributes to the wider spread of COVID-19 deaths across rural Alabama in 2021 (Chart 2).

Chart 7 shows the staggering difference in the number of primary care physicians available in the Black Belt and non-metro areas versus the rest of Alabama. Non-Black Belt Metro counties (which includes Jefferson, Madison, Mobile, and Tuscaloosa) have an average of 109 primary care physicians per county—more than twice the state average of 49.<sup>23</sup> The state average is more than two times greater than the non-Black Belt, non-metro counties' average of 20 primary care physicians. The non-Black Belt, non-metro average is only marginally better than the average for all Black Belt counties at 17—less than a quarter of the metro average. If the Black Belt's only metropolitan county—Montgomery, an outlier in the Black Belt—is excluded from the count, the average number of physicians in Black Belt



counties falls from 17 to just 8. While these numbers are not adjusted for population, they demonstrate the limited access to healthcare that rural Alabamian's face, especially in the Black Belt.

Because primary care physicians are key to preventative care, limited access to these healthcare providers has a cascading impact. Combined with the fact that hospitals in the Black Belt have limited capacity to treat advanced



illnesses, many people in the Black Belt and rural Alabama must travel great distances to seek the care they need. This has undoubtedly

contributed to the trend of COVID-19 deaths hitting rural Alabama generally, and the Black Belt specifically, the hardest.

### *Implications and Policy Recommendations*

COVID-19 has clearly devastated the already financially and medically stressed Black Belt region of Alabama. Healthcare has become one of Alabama's fastest growing industries, with some of the highest demands for labor. The COVID-19 pandemic has only increased this demand over the last two years.<sup>24</sup> The Black Belt and other rural parts of Alabama have especially struggled with this, as the few hospitals and clinics that remain open in the region met their capacities almost instantly, and the region's

few hospitals have strained to maintain personnel and supplies.<sup>25</sup> According to Loretta Wilson, CEO/Administrator at Hill Hospital in Sumter County, the unknowns of the COVID-19 pandemic also strained staffing at hospitals as fear fell on doctors and nurses and caused some to exit the health care field altogether.<sup>26</sup>

The pandemic has made clear that the Black Belt is not well-equipped for public health emergencies. In Wilcox County, according to Jessica McGraw, CEO/Administrator at John Paul Jones hospital, COVID-19 patients requiring intensive treatment had to be transferred to hospitals in Montgomery, Greenville, or Birmingham due to lack of adequate supplies.<sup>27</sup> To better prepare the Black Belt for future emergency scenarios, there needs to be significant investment to ensure there are enough supplies and facilities, as well as to incentivize healthcare professionals to work in the Black Belt and rural Alabama generally.

The healthcare industry is already known for generally offering higher-wage jobs, but as the COVID-19 pandemic has shown, much more is at stake than just a paycheck. For Ms. Loretta Wilson, CEO/Administrator at Hill Hospital and a native of the Black Belt, her stake in the Black Belt is a personal passion for her family and community.<sup>28</sup> Potential incentives for healthcare workers should make it attainable and sustainable for motivated and passionate people to stay and work in their Black Belt communities. Some incentives that have succeeded in other states include, but are not limited to, housing accommodations, student loan forgiveness for extended contracts in rural areas, and assistance with childcare.

The Black Belt continues to struggle with lacking or inadequate institutions essential for everyday life, health, education, and prosperity. The region has made efforts in recent years to recruit businesses and retain health institutions, but the lack of outside investment in the Black Belt—combined with population decline—has consistently stunted the region’s progress. For example, Selma’s population declined from 25,000 to just under 18,000 between 2010 and 2020. This population decline has challenged the recruitment and retention of a skilled-workforce, particularly for hospitals and healthcare providers in the region in light of COVID-19. Investment in all aspects of the Black Belt—such as expanding broadband infrastructure to improve telemedicine access—can uplift communities like Selma, but also the state as a whole.

### **THE EDUCATION POLICY CENTER AT THE UNIVERSITY OF ALABAMA**

Established in 1924, the Education Policy Center is The University of Alabama's oldest center or institute. Through its ongoing nonpartisan research and programs, it seeks to assist the College of Education and the University to fulfill their mission to improve the quality of life for all Alabamians. The EPC promotes expanding access and success, strengthening equity, and advancing economic and community development with special emphasis on telling the story of the Deep South to policymakers in Alabama, the region and nation. In 2020, EPC released the *Black Belt 2020* issue brief series examining policy issues pertinent to the Alabama Black Belt. *Black Belt 2022* builds upon this work and will examine new issues as well as revisit previous issues.

**Director:** Stephen G. Katsinas, Ph.D.

**Associate Director:** Nathaniel Bray, Ph.D.

**Project Coordinators/Managers:** Brandi M. Stacey, Michael S. Malley, Jr., & Stephanie Paul

**Senior Fellow & Issue Briefs Editor:** James E. "Ed" Davis, PhD (Emeritus, MS State University)

**Associate Issue Briefs Editor:** Phillip D. Grant, Ph.D. (University of West Georgia)

**Senior Fellows:** Arleene P. Breaux, Ph.D., James E. "Skip" Dotherow, Ph.D., Phillip D. Grant, Ph.D., Ray Huebschmann, Ph.D., Brian K. Johnson, Ph.D., Vincent A. Lacey, Ph.D., R. Frank Mensel, Ph.D., David Murphy, Ph.D., J. Warner

**Fellows:** Mark D'Amico, Ph.D., Janice Friedel, Ph.D., Linda Hagedorn, Ph.D., Michael Kennamer, Ph.D., Dustin Smith, Ph.D.

**Research Associates:** Emily Grace Corley, Noel Keeney, Sean O'Brien, & Garrett Till

### **THE CENTER FOR BUSINESS AND ECONOMIC RESEARCH AT THE UNIVERSITY OF ALABAMA**

The primary roles of the Center for Business and Economic Research (CBER) are in research and service to the State and people of Alabama and the nation at large. The Center, established in 1930, is committed to promoting economic development throughout Alabama. CBER's research spans economic and fiscal policy analysis, business, environmental, economic and workforce development studies. CBER also collects, maintains, analyzes, and releases business and socioeconomic data. CBER clientele include federal, state, and local government agencies, private companies, other academic institutions, financial institutions, individuals, and the media. As a resource for in-depth studies/analysis/forecasts, CBER provides insight and information with the aim of improving the quality of decision-making by our clientele. CBER is an outreach/research center of the Culverhouse College of Business, one of the leading business schools in the country.

**Associate Dean for Economic Development & Senior Research Economist:** Samuel Addy, Ph.D.

**Executive Director:** Ahmad Ijaz **Associate Director of Research & Outreach:** Morgan Cordle

**Director of Socioeconomic Analysis & Demographics:** Nyesha Black, Ph.D.

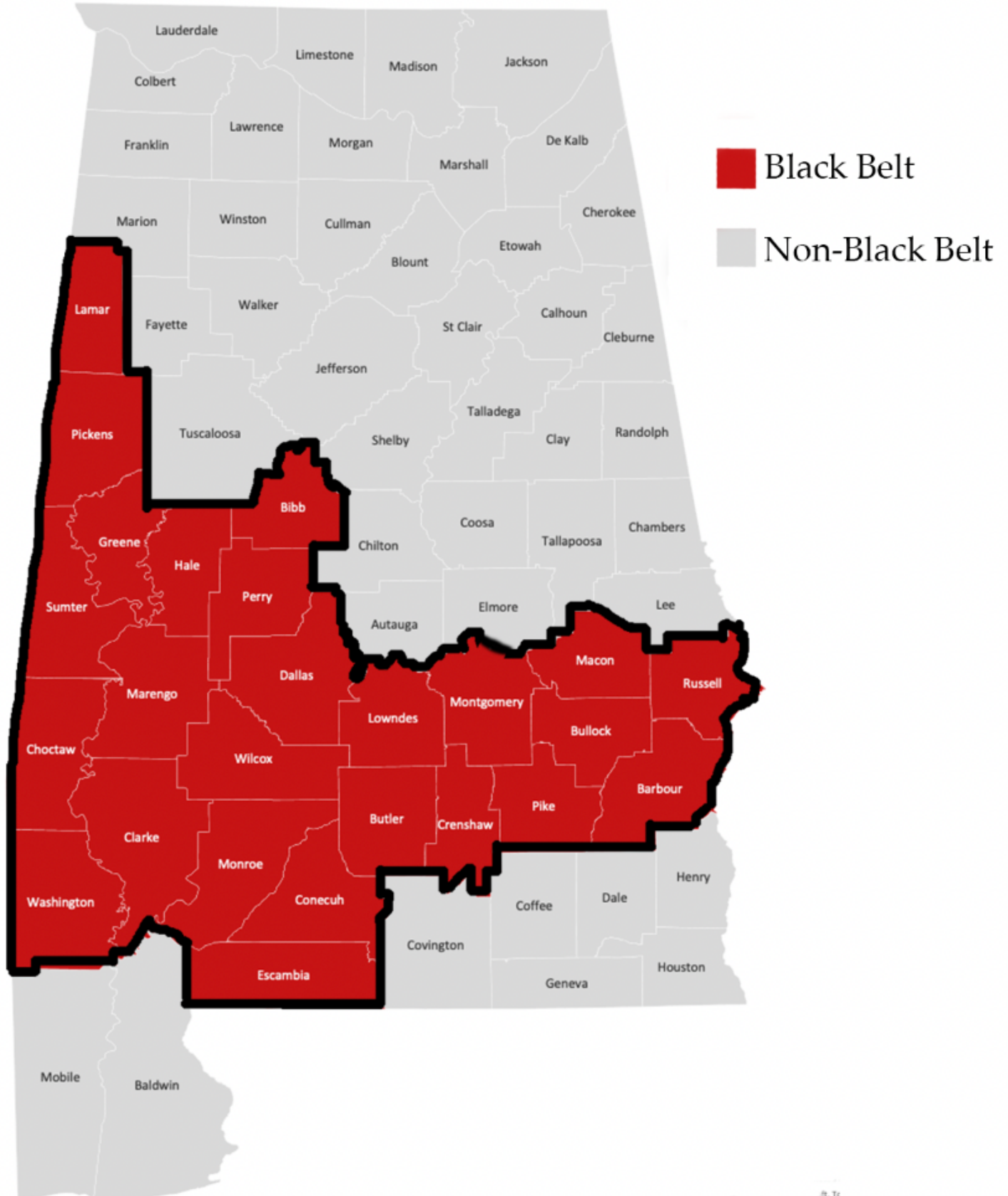
**Assistant Research Economist:** Kilungu Nzaku, Ph.D.

**Socioeconomic Analyst:** Susannah Robichaux **Economic Forecaster:** Stephanie Normanyo

1500 Greensboro Avenue, Suite 1 Box 870221, Tuscaloosa, Alabama 35401 •

Telephone: (205) 348-6191 • <https://cber.culverhouse.ua.edu>

## Appendix 1. Black Belt counties vs. Non-Black Belt counties





---

<sup>1</sup> Katsinas, S.G., Keeney, N.E., Jacobs, E., and Whann, H. (2020, October). "Defining Alabama's Black Belt Region," Tuscaloosa, AL: Education Policy Center, The University of Alabama, Issue Brief No. 48, [http://edpolicy.ua.edu/wp-content/uploads/2020/10/201009\\_defining-al-black-belt.pdf](http://edpolicy.ua.edu/wp-content/uploads/2020/10/201009_defining-al-black-belt.pdf).

In our extensive review of state and federal reports, including the Appalachian Regional Commission and the Delta Regional Authority, we found no generally accepted definition of which Alabama counties are included or excluded from the Black Belt. For this reason, Black Belt 2022 uses the inclusive, 25-county definition denoted in Chart 1.

<sup>2</sup> Economic Research Service, U.S. Department of Agriculture. (2022, n.d.) "Rural counties with high and persistent poverty in 2019 were mostly located in the South" <https://www.ers.usda.gov/data-products/chart-gallery/gallery/chart-detail/?chartId=101781>

<sup>3</sup> Ibid, ERS, 2022.

<sup>4</sup> Marema, T. (2021, December 20). *Analysis: Rural Covid-19 Deaths in Four Graphs*. The Daily Yonder. <https://dailyyonder.com/analysis-the-rural-death-rate-in-four-charts/2021/12/20/>

<sup>5</sup> Alabama Department of Public Health. *Alabama's COVID-19 Data and Surveillance Dashboard*. <https://alpublichealth.maps.arcgis.com/apps/dashboards/6d2771faa9da4a2786a509d82c8cf0f7>

<sup>6</sup> Archibald, R. (2020, June 19). *Black Belt Hit Hard as Coronavirus Cases Surge in Rural Alabama*. AL.com. <https://www.al.com/news/2020/06/black-belt-hit-hard-as-coronavirus-cases-surge-in-rural-alabama.html>

<sup>7</sup> Ibid, Archibald (2020).

<sup>8</sup> Katsinas, S.G., Keeney, N.E., Jacobs, E.M., & Whann, H. (2020, August 25). *The Black Belt's Population Decline Explains Why Alabama May Lose a Congressional Seat in the 2020 Census*. Education Policy Center. The University of Alabama. [http://edpolicy.ua.edu/wp-content/uploads/2020/10/201009\\_defining-al-black-belt.pdf](http://edpolicy.ua.edu/wp-content/uploads/2020/10/201009_defining-al-black-belt.pdf)

<sup>9</sup> Carey, L., Marema, T. (2021, December 20). *Why are Rural Americans Dying Twice as Fast From Covid-19?*. The Daily Yonder. <https://dailyyonder.com/why-are-rural-americans-dying-twice-as-fast-from-covid-19/2021/12/20/>

<sup>10</sup> J. McGraw. (2022, February 8). Personal communication.

<sup>11</sup> McClure, S.M., Lichtenstein, B., Oths, K., Payne-Foster, P., & Ross, L. (2021, September). *From Equitable Crisis Response to Healthy Populace: CommuniVax Alabama, Final Local Report*. CommuniVax. Johns Hopkins Bloomberg School of Public Health, Center for Health Security. <https://www.centerforhealthsecurity.org/our-work/Center-projects/communivax/local-reports/210915-CommuniVax-Local-Report-Alabama.pdf>

<sup>12</sup> Ibid, McClure (2021).

<sup>13</sup> Alabama Department of Public Health. (2022). *Alabama's COVID-19 Vaccine Distribution Dashboard*. Accessed February 8, 2022. <https://alpublichealth.maps.arcgis.com/apps/dashboards/e4a232feb1344ce0afd9ac162f3ac4ba>

<sup>14</sup> Ibid, Carey (2021).

<sup>15</sup> Ibid, McClure (2021).

<sup>16</sup> Ibid, ADPH (2022).

- 
- <sup>17</sup> Archibald, R. (2022, January 22). *Omicron Wave Now Hitting Rural Alabama, State Still Setting New Records: Week in Review*. AL.com. <https://www.al.com/news/2022/01/omicron-wave-now-hitting-rural-alabama-state-still-setting-new-records-week-in-review.html>
- <sup>18</sup> Ibid. ADPH (2022).
- <sup>19</sup> Kates, J., Tolbert, J., & Orgera, K. (2021, September 14). *The Red/Blue Divide in COVID-19 Vaccination Rates*. Kaiser Family Foundation. <https://www.kff.org/policy-watch/the-red-blue-divide-in-covid-19-vaccination-rates/>
- <sup>20</sup> *Election Results 2020: How Alabama Voted in the Presidential Election*. (2020, December 11). WVTM 13 Digital. <https://www.wvtm13.com/article/alabama-election-results-2020-county-map/34935044>
- <sup>21</sup> Jacobs, E.M., Whann, H., Corley, E.G., Bowen, J.R., & Keeney, N.E. (2020, October 13). *Healthcare: A Key Challenge in Alabama's Black Belt*. Education Policy Center. The University of Alabama. [http://edpolicy.ua.edu/wp-content/uploads/2020/10/201014\\_healthcare-challenge-al-black-belt.pdf](http://edpolicy.ua.edu/wp-content/uploads/2020/10/201014_healthcare-challenge-al-black-belt.pdf)
- <sup>22</sup> *Alabama, Primary Care Physicians*. (2021). County Health Rankings and Roadmaps. University of Wisconsin Population Health Institute. <https://www.countyhealthrankings.org/app/alabama/2021/measure/factors/4/description>
- <sup>23</sup> United States Department of Agriculture, Economic Research Service. (Last Updated 2020, December 10). *Rural-Urban Continuum Codes*. <https://www.ers.usda.gov/data-products/rural-urban-continuum-codes.aspx>
- The other non-Black Belt metro counties as classified by the USDA-ERS are Autauga, Baldwin, Blount, Calhoun, Chilton, Colbert, Elmore, Etowah, Geneva, Henry, Houston, Lauderdale, Lawrence, Lee, Limestone, Morgan, Shelby, St. Clair, Walker.
- <sup>24</sup> *News Release, Bureau of Labor Statistics*. U.S. Bureau of Labor Statistics. U.S. Bureau of Labor Statistics, Nov. 4, 2021. <https://www.bls.gov/bls/newsrels.htm>.
- <sup>25</sup> Yurkanin, A., & Archibald, R. (2020, June 16). *Hospitals in Several Alabama Cities Now Seeing All-Time Highs in Coronavirus Patients*. AL.com. <https://www.al.com/news/2020/06/hospitals-in-several-alabama-cities-now-seeing-all-time-highs-in-coronavirus-patients.html>
- <sup>26</sup> L. Wilson. (2022, February 11). Personal communication.
- <sup>27</sup> Ibid, McGraw (2022).
- <sup>28</sup> Ibid, Wilson (2022).