



# Energy Costs Come First: A New Approach to Environmental Justice

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# Foreword

## **A FUTURE HELD HOSTAGE: BREAKING THE CYCLE OF ENERGY INJUSTICE**

For millions of children across the country, energy insecurity is not just a policy debate – it is their daily reality. These children, many of whom belong to families caught in the crossfire of ideological battles over the future of energy, wake up each morning in homes where the struggle to keep the lights on, the heat running, and the internet connected determines everything from whether they can complete their homework to whether they will have a warm meal before bed.

When families are forced to choose between paying the utility bill and putting food on the table, children bear the brunt of that impossible decision. High utility costs, driven by a combination of economic pressures and policy missteps, often mean service disruptions – no hot water to bathe before school, no power or gas to cook breakfast, no internet to keep up with class assignments. And when energy burdens push families into crisis, the disruption is even greater: eviction, homelessness, school transfers, and further instability that make learning nearly impossible.

The consequences are stark. Children living in energy-insecure households face higher rates of asthma, often exacerbated by exposure to pollutants when families rely on unsafe alternative heating methods. They arrive at school tired, hungry, and unprepared to engage in their education. And even when they do their best, the education system itself often fails to equip them with the skills they need – especially in science, technology, engineering, and math (STEM), fields that are essential to economic mobility in a changing energy landscape.

We cannot afford to let political dogma dictate policies that directly affect the well-being of one-third of our K-12 students. The extreme approaches from both the left and the right fail to recognize the fundamental truth: a just and sustainable energy future must work for everyone. Policies that drive up costs in the name of environmental progress without regard for affordability deepen economic injustice. Likewise, efforts to dismantle a growing clean energy economy in favor of short-term political wins leave communities vulnerable to economic stagnation and environmental harm.

If we continue to treat energy policy as a partisan battleground instead of a human imperative, we will fail the next generation before they even have a chance to compete. These children deserve better than political gridlock. They deserve solutions that

balance affordability, environmental responsibility, and economic opportunity. They deserve access to stable homes, well-funded schools, and the chance to pursue careers in the very industries shaping our future.

This report challenges us to rethink the status quo. It urges us to move beyond ideological posturing to address the real, lived experiences of families struggling with energy costs. If we fail to act, the cycle of hardship will continue, locking yet another generation out of the opportunities they deserve. But if we commit to pragmatic, people-centered solutions, we can create an energy economy that is not only sustainable but equitable — one that truly serves the children who depend on us to get this right.

**Ralph Cleveland**

President

American Association of Blacks in Energy

# Energy Costs Come First: A New Approach to Environmental Justice

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## EXECUTIVE SUMMARY

**Across the United States, too many communities of color lack access to reliable and affordable energy. Facing the dual problems of inadequate infrastructure serving their neighborhoods and being more likely to live in older, less energy-efficient housing on average, low-earning Black and Latino families are forced to spend higher shares of their smaller incomes on energy compared to wealthier and better-connected neighborhoods around them. As a consequence, they face painfully high energy bills and experience energy insecurity at double the level of white households.<sup>1</sup> This burden is a woeful legacy of poverty, discrimination, and underinvestment in poor urban neighborhoods.**

This legacy also includes aging energy and transportation systems like coal-fired power plants and highways that release disproportionate concentrations of harmful local pollution in disadvantaged communities, exacerbating health issues that compound with widespread financial and energy poverty. The clean energy transition offers a historic opportunity to relieve these burdens by replacing older and dirtier resources with new technologies and expanding electricity grids, transit systems, and dense urban housing to meet growing needs. Unfortunately, this opportunity has not yet been taken.

Instead, the green left has pursued a transition strategy that exposes vulnerable communities to higher, less predictable prices while obstructing reforms that would enable faster and wider deployment of clean energy projects. In the name of environmental justice and climate urgency, activists and decisionmakers have urged the abolition of all fossil fuels and used procedural barriers to obstruct new fossil infrastructure. But as explored in this paper, the strategy of procedural obstruction backfires when it adds interminable delays to clean energy projects and prolongs the life of coal- and oil-fired power plants.

Energy prices emerge from a complex mix of geography, markets, and policy choices, which are hard to isolate. This report focuses on Boston and the regional grid of New England more broadly as an initial case study of the special energy burdens

of low-income communities. Connected to the rest of the continental U.S. by the state of New York, elected leaders and green activists have combined to lock Boston and New England into a status quo energy system that cuts off access to renewable energy sources like wind, solar, and hydropower as well as domestic natural gas capacity. By opposing local substation upgrades, transmission lines for hydropower imports from Quebec, and pipelines bringing Appalachian shale gas across Pennsylvania and New York, politically powerful elites in one of America's most progressive regions are using federal laws like the National Environmental Policy Act (NEPA), the Clean Water Act, and state laws like the Massachusetts Environmental Policy Act (MEPA) to subject their lower-income neighbors to unnecessary price volatility and prolonging reliance on coal and oil. When global gas markets are disrupted, as in the 2022 Russian invasion of Ukraine, this import dependence exposes isolated New England to severe price spikes. To make up for the winter power shortfall, Boston and its surrounding areas are forced to use dirtier and more expensive energy resources, burning diesel and imported gas to power the grid and heating homes with fuel oil.

The cost of these spikes does not fall evenly on all New England communities. This paper tracks community impact using the metric of energy burden, or average monthly residential energy costs divided by median household income for a given location, to identify which people and places are hit hardest. According to data from the Census compiled by the Department of Energy's LEAD (Low-income Energy Affordability Data) tool, the rate of energy burden in a given Boston census tract rises in clear proportion to the share of households identifying as Black.<sup>2</sup> This paper includes an appendix with data for the energy burden in every district represented by a member of the Congressional Black Caucus for further examination. Future reports will examine energy burdens in other communities, starting with a

study of congressional districts with significant Latino populations.

The statistical relationship between Black population share and higher energy burdens holds true for Black communities across the country. LEAD's data definitively show that census tracts with high shares of Black households are more likely to experience higher energy burdens than their neighboring tracts even across states with wide variation in energy infrastructure, resource mix, and housing types in a remarkably strong pattern. These are the results when utopian demands of green activists and environmental groups for a rapid phase-out of fossil fuels — which still supply 83 percent of America's primary energy and vary in carbon intensity — take precedence over local families' struggles to pay their electricity and heat bills.<sup>3</sup>

Boston is exemplary, but not unique. National activist groups like the Sierra Club, 350.org, and the Center for Biological Diversity argue for the same policies regionally in New England as they do in policy debates across the country. This includes not just state and local fights over individual projects but also federal policy discussions in Washington, where they sent a joint letter to then-Majority Leader Senator Chuck Schumer (D-N.Y.) opposing federal energy permitting reforms in June 2024.<sup>4</sup> If these activist approaches continue to dominate the Democratic party's environmental justice and climate policy conversations, low-income voters who do not share their priorities may continue their exodus from the party.

The main challenge facing Democrats is to build broader public support for a more pragmatic energy transition. To win a new hearing among working-class voters, Democrats must discard the utopian visions of Green New Dealers and their failed strategy of trying to scare working-class voters into supporting the premature abolition of fossil fuels. As PPI polling shows, most

working-class voters are neither abolitionists nor climate deniers, with 54% majority support for a combination of old and new resources, including nuclear, wind, solar, geothermal, and natural gas, to power our growing economy while reducing greenhouse gases.

On the other extreme, Trump's so-called "energy dominance" agenda would devastate U.S. clean energy industries and dismantle crucial methane mitigation programs that incentivize oil and gas producers to prevent waste. Such an abrupt shift would not only cede ground to Chinese clean technology producers in global markets, counter to stated administration goals on trade and manufacturing, but would also hurt consumers by depriving them of access to the cheapest and cleanest resources available.

Instead, policymakers should embrace a pragmatic environmental justice vision that brings down costs and emissions by enabling wide and rapid deployment of clean energy technologies and the infrastructure needed to support them. This infrastructure push would include relieving regulatory bottlenecks on clean electricity development, transmission and distribution grid upgrades. It would also include the natural gas pipeline and generation capacity needed to support them, enabling the connection of significantly more clean energy resources to consumers and helping to bring down costs.

Pairing this shift with bolstered subsidies for low-income households and introducing innovative frameworks for community engagement hosted at newly established Community Energy Hubs (see PPI Policy Recommendations below) would ensure that disadvantaged Black households would stand to gain improved access, lower costs, and a more concrete sense that the energy transition is working for them. On top of changes to the federal energy policy landscape, state and local policies that remove barriers not just to the development

of clean energy infrastructure but also restrictions on dense housing, mass transit, and multimodal streets would help ensure that Black communities that face concentrated poverty and generations of infrastructural discrimination are not left exposed to the elements by inadequate insulation, higher utility bills on lower incomes, or lack of policy support.

## POLICY RECOMMENDATIONS IN BRIEF

- Congress, State legislatures, and local governments should enact all-of-the-above permitting reforms to accelerate the development of electricity grid expansion, clean energy generation, supply chains for clean energy technologies, low-carbon mass transit and dense housing construction, and the natural gas capacity needed to support the grid while displacing coal and fuel oil combustion.
- Congress must also maintain and strengthen LIHEAP and WAP to ensure that households can afford energy services in acute crises and gain access to efficiency upgrades
- State governments should establish pilot Community Energy Hubs that serve as a consumer-facing resource to ease transaction costs and close information gaps on available resources and technologies for homeowners, renters, landlords, workers, and small business owners.

## INTRODUCTION: POLITICAL AND POLICY CONTEXT

Thanks to the Inflation Reduction Act (IRA), Infrastructure Investment and Jobs Act (IIJA), and CHIPS and Science Act, investment is pouring into zero-carbon electricity generation from solar, wind, batteries, and newer technologies like geothermal, all of which are held back by the capacity of existing grid transmission lines and the drawn-out processes of planning and permitting new lines and interconnecting new generation. At the same time, energy demand is growing rapidly, propelled

by data center electricity needs, the transition from combustion to electrification for uses in transportation, heating, and manufacturing, and expectations about future needs for industrial applications in green hydrogen, direct-air capture, and other innovative technologies. A realistic energy and climate policy must address both needs — steadily reducing emissions of local pollutants and greenhouse gases while also meeting rising energy demand. Otherwise, supply constraints and spiking fuel prices will undercut public support for a clean energy transition — especially if it puts disproportionate burdens on low-income Black and Latino communities.

Democrats who support left-wing policies that exacerbate energy scarcity in low-income, working-class communities shouldn't be surprised if residents of those communities are then tempted to vote for Republicans. The biggest story of the 2024 presidential election was President Donald Trump's gains among working-class Black and Latino voters who traditionally favored Democrats. Like most voters nationally, they cited inflation and the high cost of living — including energy — as their top concern. The swing toward Trump shows up in the very same Black-majority neighborhoods of Boston that face higher energy burdens.<sup>5</sup> If Democrats are truly interested in environmental justice, they should drop the strategy of isolating poor communities from the best available energy sources. This approach exacerbates energy burdens and contributes to perceptions that the Democratic party ignores urgent, tangible problems in voters' lives in favor of unrealistic grand visions. Instead, they should embrace an all-of-the-above strategy that prioritizes investment in and deployment of clean energy, transportation, and dense housing that meets their material needs. This strategy would pair technology-neutral permitting reform with the defense of substantive environmental protections on clean air and water and fiscal policies that incentivize clean energy deployment from the threat of Trumpian repeal.

Meanwhile, President Trump is busy trying to obstruct clean energy development amidst a declared “energy emergency,” with conflicting promises to reduce regulatory barriers to energy investment while excluding from his definition of “energy” all wind, solar, and battery storage projects along with the transmission lines that transport electricity generated from them. The practical fallout of Trump's executive orders calling for revoking 1977 CEQ guidelines for the National Environmental Policy Act (NEPA) implementation and using a procedural tool to exempt fossil energy projects from Endangered Species Act reviews is yet unclear, with many unresolved legal questions both at the level of constitutional powers and in the eventual judicial treatment of litigation for projects developed under such untested, unlegislated regulatory changes. Trump also issued executive orders to try unilaterally blocking spending from IRA and even IIJA programs and to implement cynical new process barriers to halt all wind project permitting.

PPI strongly opposes Trump's undemocratic assault on clean energy innovation. Instead, we support a realistic clean energy transition that proceeds at a politically sustainable pace in a sequence that does not compound the considerable energy burdens of low-income communities. Meeting the needs of a growing economy with a shifting energy resource mix without skyrocketing costs for energy-burdened consumers requires a buildout of cheap and clean renewables along with a complementary power source that can make up for the limitations of wind and solar. These renewable resources vary with weather and supply alternating current to the grid through inverters, so they need a firm and dispatchable companion resource to ensure adequate voltage and frequency support.<sup>6, 7, 8</sup> <sup>9</sup> Natural gas is the best of the current options available for this role, especially when it is produced domestically with low levels of methane leakage upstream. New technologies like grid-scale

batteries are a growing contributor to grid stability as well, and innovation policy to support clean firm power alternatives will create other opportunities to bolster reliability at lower costs in the future.

By contrast, the green left gets the political sequence of climate and energy policies exactly backward by arguing for the immediate abolition of all fossil fuel use and simultaneously agitating for legislators and regulators to impose actively counterproductive layers of process to clean energy development through additional rounds of public engagement and expert study through NEPA and state equivalents like MEPA. The two critical mistakes of the green left are their failure to recognize the practical issues with public engagement and the failure to update strategies based on new technology. Activists' intense focus on preventing procedural injustice does not square with the way community input is solicited in the real world, where participants in official processes tend to be whiter, wealthier, and older than the communities at large.<sup>11, 12</sup> These forums simply do not serve busy workers, parents, and students, especially in communities that lack home-grown energy professional expertise. Second, the older strategic approach of adding process requirements that aid project opponents was developed at a time when clean energy technologies were unavailable and far too costly for mass deployment, leaving obstruction of new energy projects, all fossil-powered, as the dominant strategy to prevent emissions increases or disproportionate localized burdens. Now, though, the same framework has fallen into what scholar George Hoberg calls the "Resistance Dilemma" by creating a hamstrung regulatory state that penalizes clean energy projects relative to new fossil resources and limiting the speed at which new, cleaner resources can replace older ones.<sup>13</sup>

A paradigm shift to focus on the distributive impact of federal, state, and local permitting requirements would prioritize the benefits of

greater investment in clean energy that meets the affordability and reliability needs of disadvantaged communities by allowing for the retirement of energy assets that do emit local pollutants and unlocking new opportunities for economic growth, employment, and wage gains. Instead of a drawn-out process of community engagement that solicits unrepresentative feedback for every construction project in a district, this paradigm would ask the public, legislators, and regulators to work on establishing substantive requirements for new energy, housing, and transportation projects that meet the needs of local communities and apply generally across all projects of the same type, allowing by-right development for many projects or efficient approvals in cases where reviews and permits are required for site-specific reasons. A new type of local institution, the Community Energy Hub, would help connect neighborhood residents to programs that provide low-income energy assistance subsidies, trusted information about residential energy efficiency and appliances, and provide a link between local businesses and willing workers who need to train in employable skills for new technologies. Overcoming the environmentally unjust impacts of historical discrimination and contemporary energy cost burdens requires an ambitious and pragmatic shift from a strategy of obstruction to a framework of investment.

### **BLACK HOUSEHOLDS, ENERGY BURDENS, AND ENVIRONMENTAL INJUSTICE**

Black households face a double bind: on average, they earn and emit less than white households but face much higher energy costs as a share of their income and bear disproportionate local air pollution burdens and climate resilience risks in return.

The intersection of race, income, and energy access is a well-studied nexus, with ample scholarly literature and public data demonstrating an exacerbated burden that energy costs impose

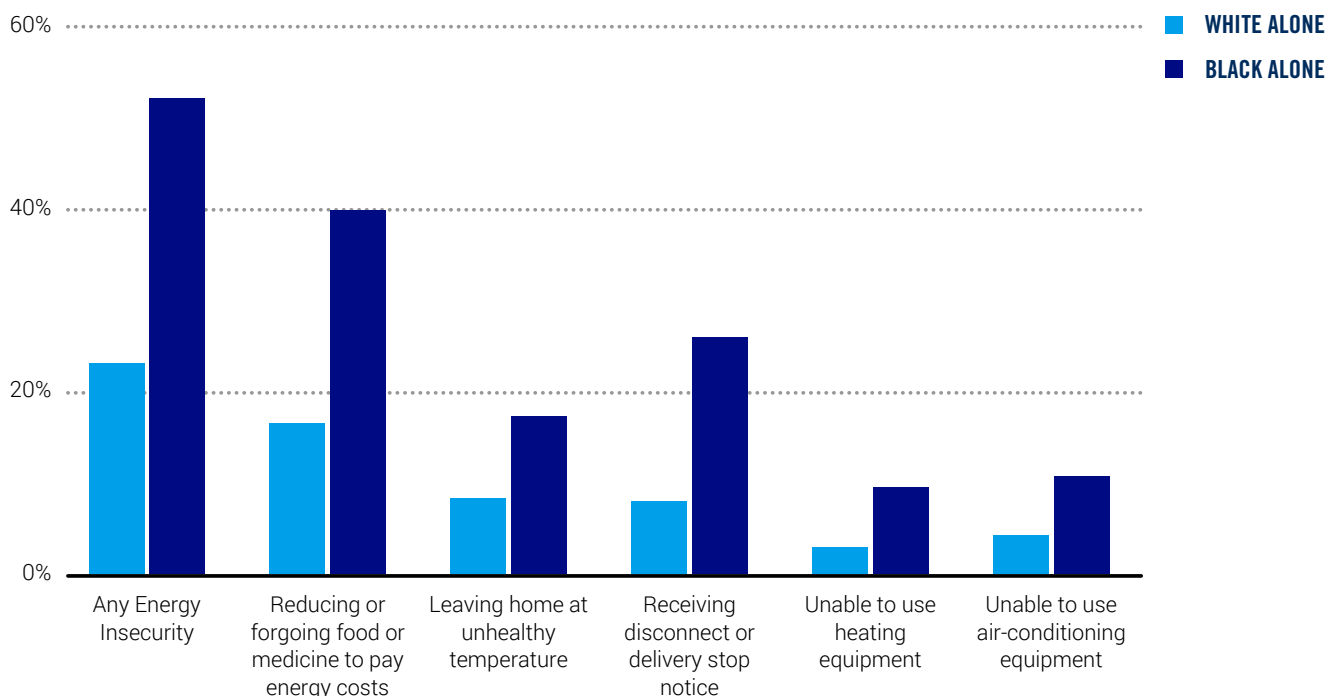


on African American communities.<sup>14, 15, 16, 17</sup> The legacy of racial discrimination and poverty in the United States has left Black communities with systemically lower incomes and wealth along with lower average education and health outcomes than the country at large. In turn, low-income black households living in neighborhoods with high concentrations of poverty and low levels of investment have struggled with the combined challenges of high energy costs relative to their earnings, living in older and less efficient housing stock, and possessing less technical expertise available to collaborate on policy or private-sector solutions. These factors also expose Black households to disproportionate climate resilience risk and extreme heat.<sup>18</sup>

Energy costs are easy to measure but hard to causally identify, as they emerge from a diverse

combination of factors, including geography and weather, infrastructure capacity, market structure, public policy, and broader macroeconomic and geopolitical developments.<sup>19</sup> This complexity is reflected in the wide range of metrics used to measure the impact of energy costs on consumers.<sup>20, 21</sup> This report uses the measure of “energy burden” in low-income communities based on reported electricity, natural gas, and other utility costs as a share of median household income for each census tract. It also examines “energy insecurity” as measured by the EIA’s Residential Energy Consumption Survey (RECS), which tracks household vulnerability to the negative impacts of unaffordable energy. Aligning with results from past surveys, the latest RECS conducted in 2020 offers a stark display of the racial gap in energy insecurity:

**FIGURE 1: SHARE OF HOUSEHOLDS FACING ENERGY INSECURITY**



More than double the share of Black households experienced some form of energy insecurity compared to white households, and though the survey was conducted during a COVID-19 pandemic that affects the magnitude of responses, the results are in line with previous surveys as well. The causal drivers of Black energy insecurity are

multilayered. This summary from the Oak Ridge National Laboratory's literature review by Brown et al. (2020) shows the overwhelming extent to which low-income, urban Black communities living in older housing that is disproportionately rented are multiply exposed to energy burden risk:

**TABLE 1: CAUSES AND CORRELATES OF HIGH ENERGY BURDEN**

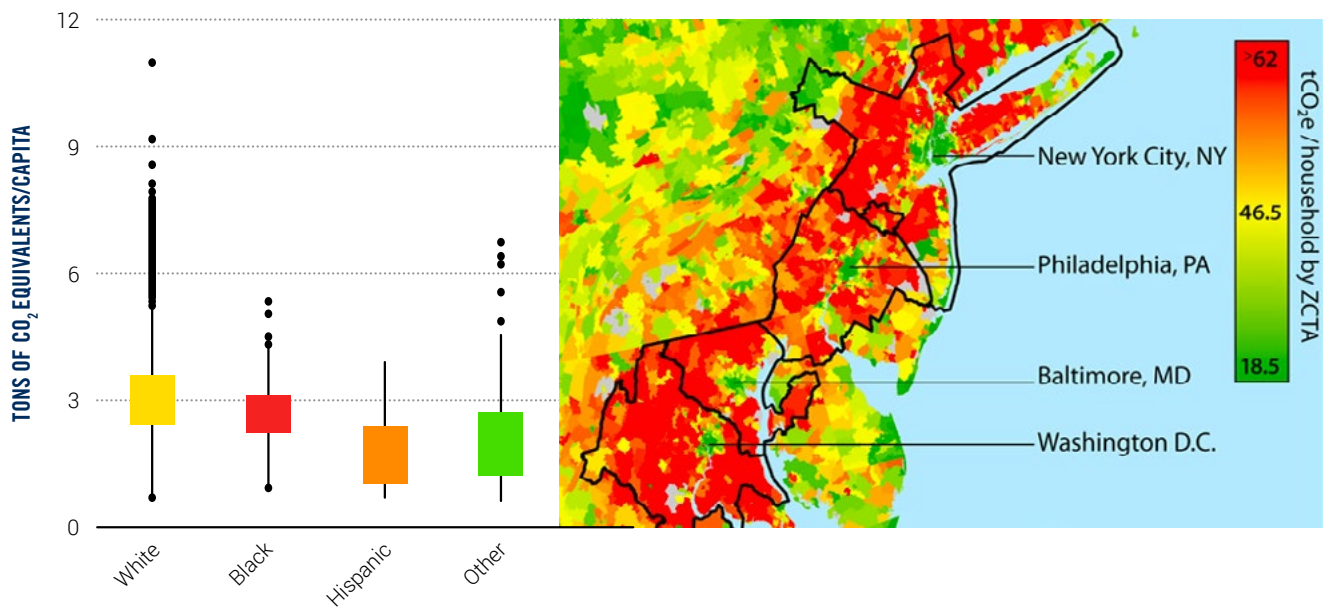
LOCATION AND GEOGRAPHY	HOUSING CHARACTERISTICS	SOCIO-ECONOMIC SITUATION	ENERGY PRICES AND POLICIES	BEHAVIORAL FACTORS
<ul style="list-style-type: none"> <li>Rural, urban, Native American remote community, island territory</li> <li>Climate</li> <li>Population density</li> <li>Urban morphology (affecting access to jobs and efficient appliances)</li> </ul>	<ul style="list-style-type: none"> <li>Thermal integrity of building</li> <li>Type, age and size: (single-family, manufactured, multifamily)</li> <li>Owner-occupied vs. rental and public housing</li> <li>Age and type of appliances</li> <li>Type of thermostat: WiFi, smart, programmable, touch screen</li> </ul>	<ul style="list-style-type: none"> <li>Income</li> <li>Ethnicity/Racial background</li> <li>Immigrant vs. native-born</li> <li>Number of occupants, children, elderly and handicapped</li> </ul>	<ul style="list-style-type: none"> <li>Energy prices</li> <li>Energy rate designs</li> <li>Energy mix and access to natural gas</li> <li>Availability and effectiveness of low-income energy programs and appliances</li> </ul>	<ul style="list-style-type: none"> <li>Lack of knowledge</li> <li>Misplaced incentives/principal-agent problems (especially in multi-family homes)</li> <li>Lifestyle cultural factors</li> <li>Lack of control over energy bills</li> <li>High non-monetary costs</li> </ul>

Source: Oak Ridge National Laboratory<sup>22</sup>

Perhaps surprisingly, these same factors have led to a paradoxical low-carbon profile for low-income Black households living in dense cities relative to the country at large. Cities are thought of in the popular imagination as concentrated hubs of pollution surrounded by greener and cleaner areas, but residents of dense cities in fact emit less GHGs than residents of suburbs because of advantages inherent to the urban form.<sup>23</sup> These advantages do not stem solely from the effect

of lower-income households consuming less energy, but also from the efficiencies that arise from housing formats that share walls, including multifamily apartment buildings and single-family rowhouses, and from access to more carbon-efficient modes of transportation such as rail, bus, and e-biking.

**FIGURE 2: PER CAPITA EMISSIONS**

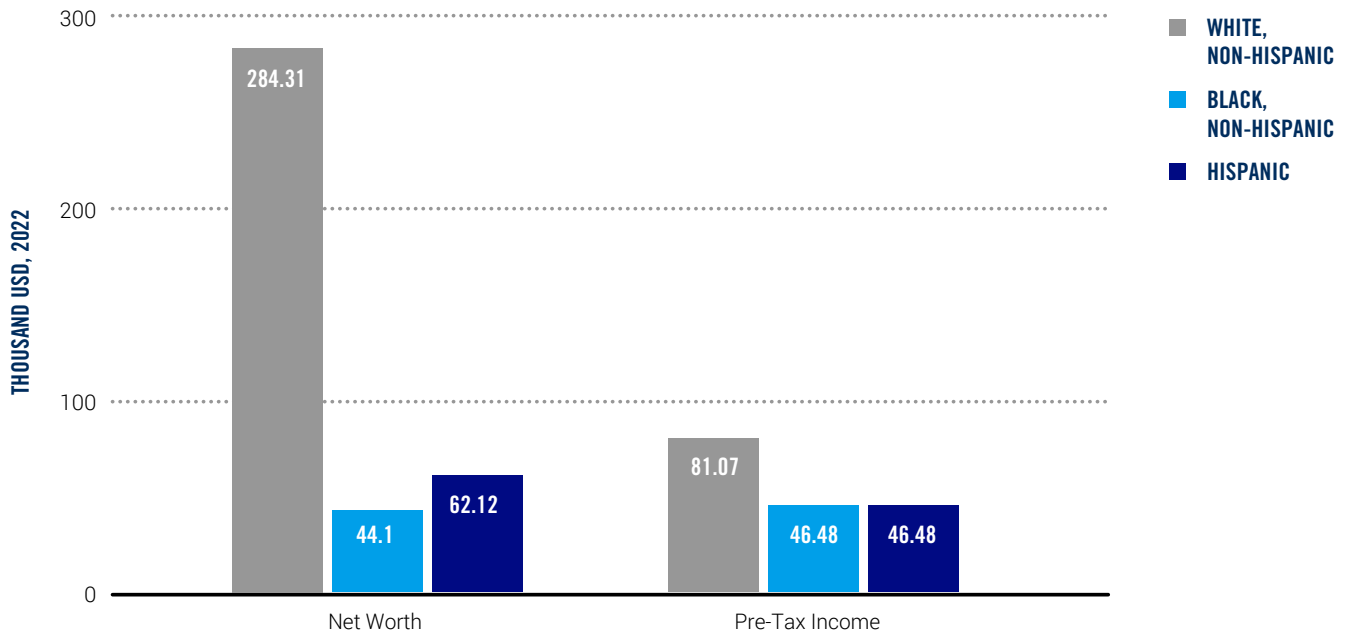


Source: *Energy Research & Social Science and Environmental Science & Technology*<sup>24</sup>

Unfortunately, the popular imagination about dirty cities is more accurate for the case of localized air pollutants. Empirical studies repeatedly show that disproportionately high particulate matter emissions concentrate in neighborhoods with more Black residents.<sup>25</sup> This intersection has given rise to umbrella terms like environmental or energy justice.<sup>26, 27, 28, 29, 30, 31, 32</sup> Environmentally unjust processes involve exclusion of disadvantaged people from environmental policymaking, while environmentally unjust outcomes include higher exposure to local pollutants and climate impact risks. The interlocking set of energy systems, infrastructure, and housing patterns of the United States today were constructed without care for either form of environmental justice, and Black households today face the burdens of high energy costs and high particulate emissions as a result.

Like any large grouping of disparate individuals and households, America’s Black population is not monolithic. The combination of rising educational attainment, suburbanization, and increased immigration from Africa has certainly improved opportunities and living conditions for African Americans in the aggregate.<sup>33, 34, 35</sup> Nonetheless, the legacy of Jim Crow and residential redlining has left too many with lower average incomes and net worths, more exposed to air pollution, and likelier to live in housing types more vulnerable to energy poverty than white households. Below is a demonstrative graph displaying results from the Federal Reserve’s 2022 Survey of Consumer Finances<sup>36, 37</sup> with stark results:

**FIGURE 3: PERSISTENT RACIAL DISPARITIES IN NET WORTH AND INCOME**



Source: Survey of Consumer Finances, Federal Reserve

Lower incomes and net worth mean that the average Black consumer has less room in their budget for price fluctuations and less access to credit that would help pay off the high upfront costs associated with efficiency or early adoption of innovative technology. These constraints limit the benefits that low-income households receive from incentives like the 30D electric vehicle credit or 25C residential energy credits. On top of household-level affordability and credit access issues, infrastructure access issues can directly limit policy benefits, as in the case of grid inadequacy and unreliability in disadvantaged Californian neighborhoods that prevent households from fully taking advantage of rooftop solar subsidies.<sup>38, 39</sup>

For energy insecure Black families, the health and economic impacts of a spike in energy prices may mean the choice between food or medicine and paying a utility bill, or facing a shutoff and

damaging their ability to procure energy in the future. By encouraging resistance to new energy infrastructure, groups claiming the mantle of environmental justice make it harder for clean energy developers to build the wave of new projects required to bring down emissions and serve consumers at low costs — proactively placing roadblocks in the pathway to better distributively-environmentally just outcomes.

Modern electricity grids are extremely capital-intensive and constrained by physical characteristics like voltage and frequency requirements, inadequate infrastructure capacity, and a complex web of stakeholders that includes landowners, utilities, policymakers, and grid operators. Transitioning to a decarbonized future will require not just replacing existing fossil generation capacity with equivalent renewable capacity but also the expansion of available energy supplies and the development of new technologies

that allow the incorporation of progressively higher shares of intermittent, inverter-based resources like wind and solar.

Because any electricity grid needs to perpetually match electricity supply with demand near-perfectly, a larger grid will always be able to better serve consumers than smaller grids due to their ability to connect consumers with a wider geographic range of resources (which becomes especially important for resources that vary output with local weather) while requiring a smaller and therefore cheaper reserve margin of resources that must be kept online or quickly dispatched to make up shortfalls.<sup>40</sup>

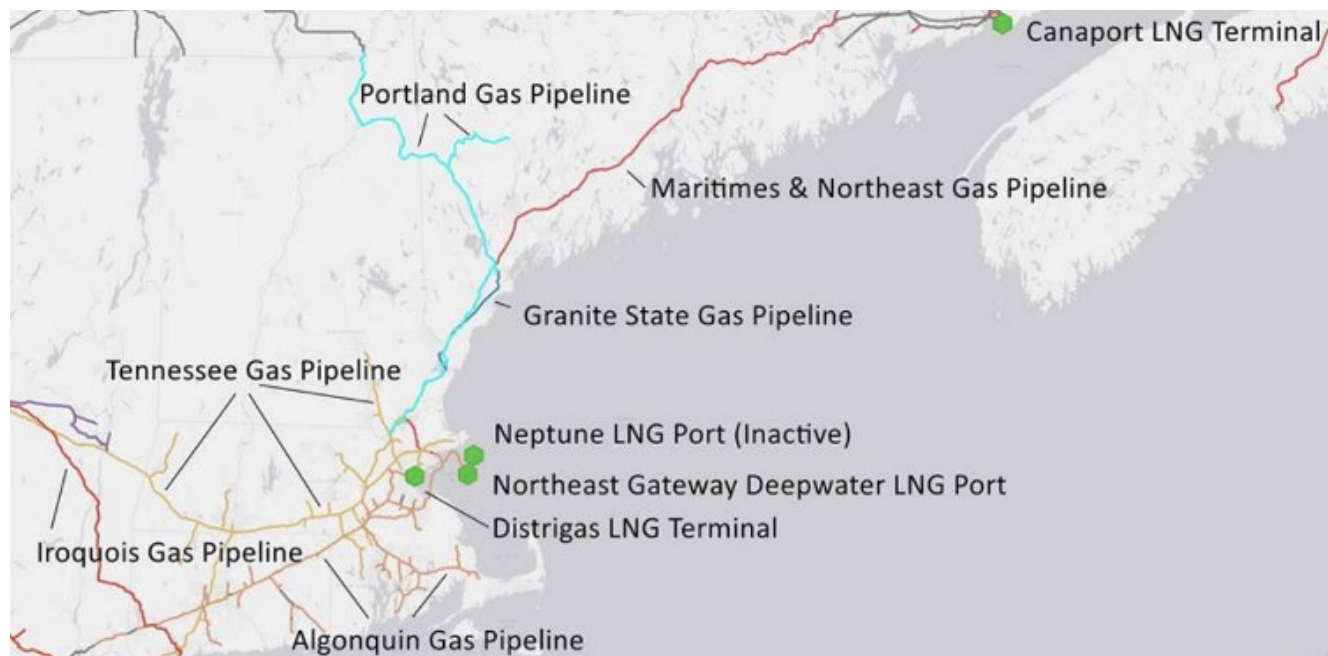
Expanding the nation's long-distance transmission lines and investing in the reliability of local distribution systems is the only way to successfully retire the remainder of the coal generation fleet and limit the dispatch of older gas-fired peaker plants.<sup>41, 42</sup> In order to ensure reliability and an adequate generation mix, variable renewables need to be complemented not just with batteries and smart-grid technologies but also with an adequate supply of firm, dispatchable power with sufficient inertia of spinning mass to maintain frequency.<sup>43, 44</sup> While any mix of innovative solutions, including geothermal, clean hydrogen, and carbon capture, may succeed in this role eventually, the only near-term resource that can play this role is natural gas-fired power.

The energy transition is a necessity if the world wishes to prevent the global population from experiencing the disastrous effects of unmitigated

greenhouse gas emissions, but the fact of its necessity does not in itself produce the popular support, political will, institutional capacity, or fiscal ability to enact the entire process. A slow-moving, capital intensive sector like electricity or high-temperature manufacturing replacing all of their capital with entirely different materials, processes, and constraints cannot happen without adequate policy to develop new technologies, incorporate them into the broader energy system, and encourage mass adoption. Democrats should be honest about this reality and develop policies that reduce emissions without selling a false dream that would raise costs for those least able to bear them.

### CASE STUDY: BOSTON

Boston is an exemplary case study for the impacts of restricting energy supply on Black Bostonians' energy burdens. Old, cold, and yet isolated from energy resources, Massachusetts offers a unique view into the impacts of constrained infrastructure. As explored above, energy prices emerge from a complex set of geographic, policy, and market factors, so the separation of New England from regions with abundant solar, onshore wind, and domestic natural gas allows for a much clearer picture of the impact of infrastructure development patterns on consumers. Boston's Black population is not as large as those of New York or Los Angeles, but the communities of Black Bostonians concentrated in Roxbury and Dorchester by the history of residential segregation offer a clear picture of how infrastructure inadequacy and legacy discrimination combine to create disproportionate energy burdens.

**FIGURE 4: MAP OF NATURAL GAS INFRASTRUCTURE SERVING NEW ENGLAND**

Source: 2019 S&P Global Market Intelligence

New England's supply of natural gas comes through a set of six pipelines over land and via ship in the form of Liquefied Natural Gas (LNG). Boston's LNG must be imported from abroad rather than shipped in from domestic terminals because of requirements in the Merchant Marine Act of 1920 (the Jones Act) that internal shipping trade must be conducted on U.S.-made ships, and the U.S. no longer constructs LNG tankers. Boston imports gas from around the world mainly from Trinidad and Tobago but also in small quantities from other suppliers that in the past even included Russia for one cargo in 2018.<sup>46</sup>

Despite shortages during the 2013-2014 polar vortex and perpetually high prices, New England has been unable to expand its natural gas pipeline capacity in four different attempts due to obstruction from New York state in the name of environmental activism.<sup>47, 48</sup> These imports would have allowed Boston to wean off expensive foreign LNG imports and reduced the

combustion of carbon-intensive fuel oil for home heating across the region, but arguments in the obstruction-abolitionist vein stopped the projects from going through. Meanwhile, opposition has also constrained the development of infrastructure that would have enabled more clean energy deployment in New England. Repeated efforts to bring zero-carbon hydropower down from Quebec through New Hampshire and Maine over the last decade have struggled to navigate the thicket of grid planning, environmental review, and permits that project opponents leverage to slow or stop these clean projects in the name of environmental protection.<sup>49, 50, 51, 52</sup>

Massachusetts and Boston are liberal bastions, but the mechanisms by which Massachusetts and Boston solicit input from the public have exacerbated the procedural injustices they intend to prevent, according to case studies by sociologist Jeremy Levine in "Constructing Community" and "Neighborhood Defenders" by political scientists

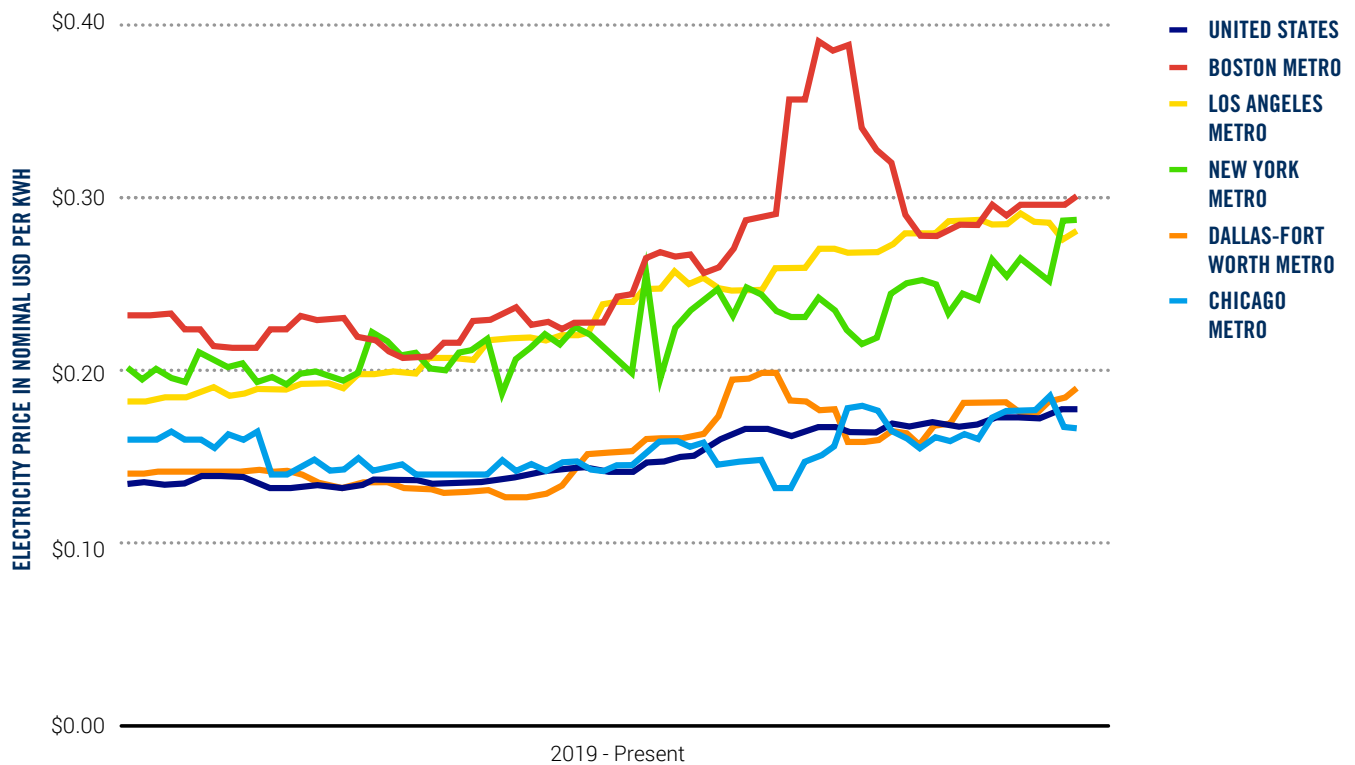
Katherine Einstein, David Glick, and Maxwell Palmer.<sup>53, 54</sup> Policymakers concerned about the burden of energy prices and the just transition need to grapple with these tensions and the constraints they place on clean energy, housing, and transportation development.

These constraints were already contributing to high seasonal electricity prices in Boston when Russia invaded Ukraine in February 2022. With Russian pipeline shutoffs that decimated European energy supply, spot prices for LNG on global

markets skyrocketed. This would matter less for New Englanders if the region had been allowed to add pipeline capacity from Pennsylvania through New York or import LNG from domestic sources in the Gulf of Mexico, but instead, Boston was exposed to the very same global shortage as the European Union and other large-volume importers from the U.S. like Japan and South Korea.

The impact of these global developments on Boston's energy prices in 2022 is easy to see:

**FIGURE 5: BOSTON'S ELECTRICITY PRICES IN CONTEXT**



Source: Bureau of Labor Statistics

This chart shows the price of electricity in Boston compared to the U.S. average and the prices in Chicago, Dallas, Los Angeles, and New York and reveals Boston's dramatic contrast against a set of cities that all host significant Black populations but vary widely in geography, climate, and energy resource mix.

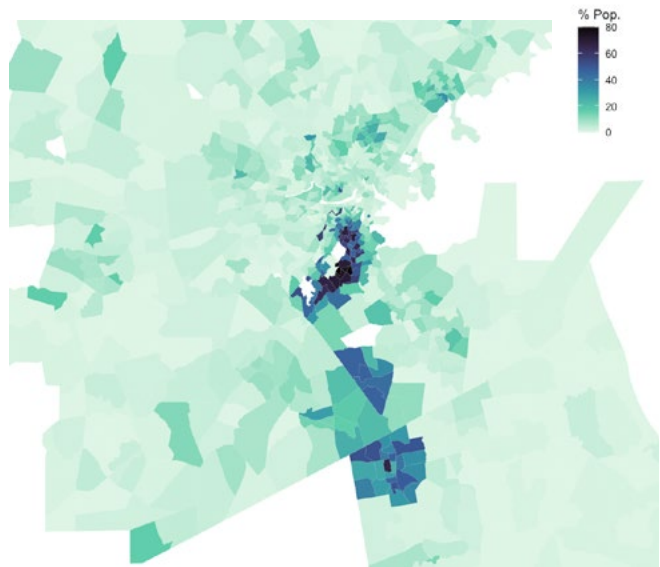
Next, examine the maps of Boston's census tracts displaying neighborhoods with high proportions of energy burden and Black households. Unsurprisingly, they look the same:

**FIGURE 6: ENERGY BURDEN AND BLACK POPULATION SHARE IN BOSTON**

ENERGY BURDENS BOSTON



BLACK POPULATION SHARE



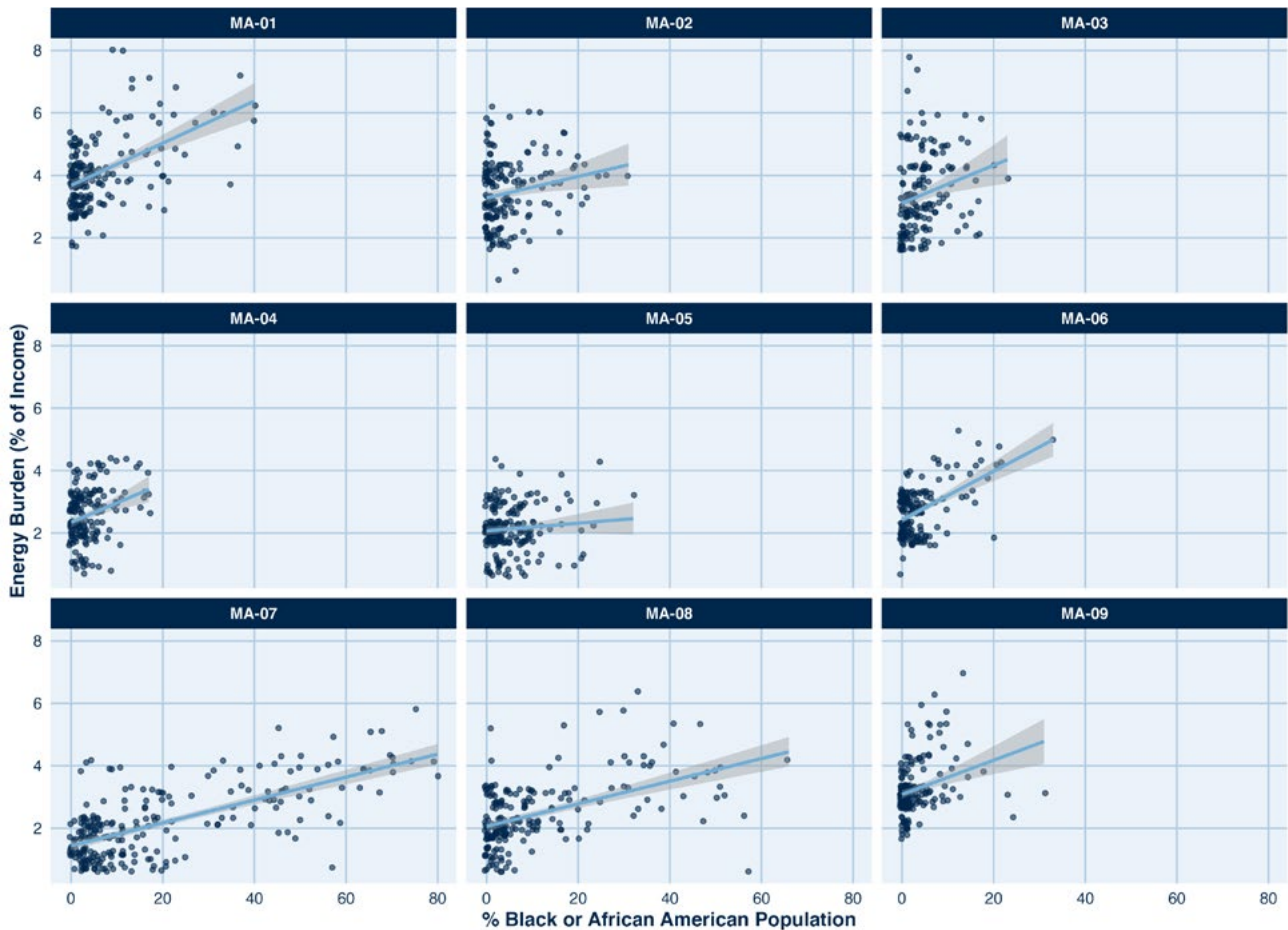
Source: Data from U.S. Census via tigris and DOE LEAD Tool

Paired with the knowledge of New England's infrastructure constraints and their impact on Boston's electricity prices, this map reveals the painful reality that even a liberal bastion like Massachusetts cannot wish away the distributive impacts of an abolition-and-obstruction strategy to the energy transition. For Black Bostonians, the most tangible impact of opposition to transmission and natural gas projects from nearby New York, Maine, and New Hampshire is the burden of higher electricity prices.

Zooming out to look at LEAD data for the whole state of Massachusetts also allows for a cross-comparison between districts with high Black populations and others:



**FIGURE 7: ENERGY BURDEN VS. BLACK POPULATION SHARE ACROSS MASSACHUSETTS CONGRESSIONAL DISTRICTS**



Source: DOE LEAD Data

In these plots, every panel reflects the relationship between Black population and energy burdens in one Congressional District. Within each district's panel, one dot represents each census tract in that district. The slope of each panel's light blue line reflects the correlation between higher black population and higher energy burdens for that district, with confidence interval shown in gray (so a wider gray shading represents a looser fit for that panel's blue line).

Plotting each census tract for each district and comparing across the entire Massachusetts delegation reveals several interesting patterns. First, the 7th and 8th are the only two districts host to tracts with populations more than 50% Black, and only the 7th is represented by a CBC member,

Representative Ayanna Pressley. Energy burdens are higher in high-Black-population tracts in both of these districts, though the relationship is tighter and clearer in the 7th.

Second, plotting each district side by side demonstrates that energy burdens as measured by LEAD are not an exclusively Black problem, as the rural white communities in the 1st, 2nd, and 3rd districts also display high rates of energy burden. By contrast, the wealthier suburban communities of the 4th and 5th districts have neither large Black populations nor high energy burdens.

Importantly, these estimations are not causal and only reflect the statistical level of similarity between the two characteristics across the range

of census tracts in each district. Additionally, the underlying data report values for energy burden calculated from area median income and average annual energy costs and so do not capture varying levels of energy burden within each tract or microdata like individual household burden. But even if this correlation does not allow for direct causal claims, the simplicity of this comparison still provides significant insight when paired with the broader analysis of sources like the EIA RECS and wealth of academic literature.

Applying this case study to the broader questions of distributive environmental justice outcomes and policy strategies for the energy transition will be critical. If obstruction-and-abolition activists dominate the climate policymaking process, the U.S. risks slowing down the transition and eroding grid reliability while increasing energy burdens on disadvantaged Black neighborhoods. In time, those high prices and worse reliability would risk undermining voter perceptions of the viability of the transition itself and thus stopping it before it even gets underway.

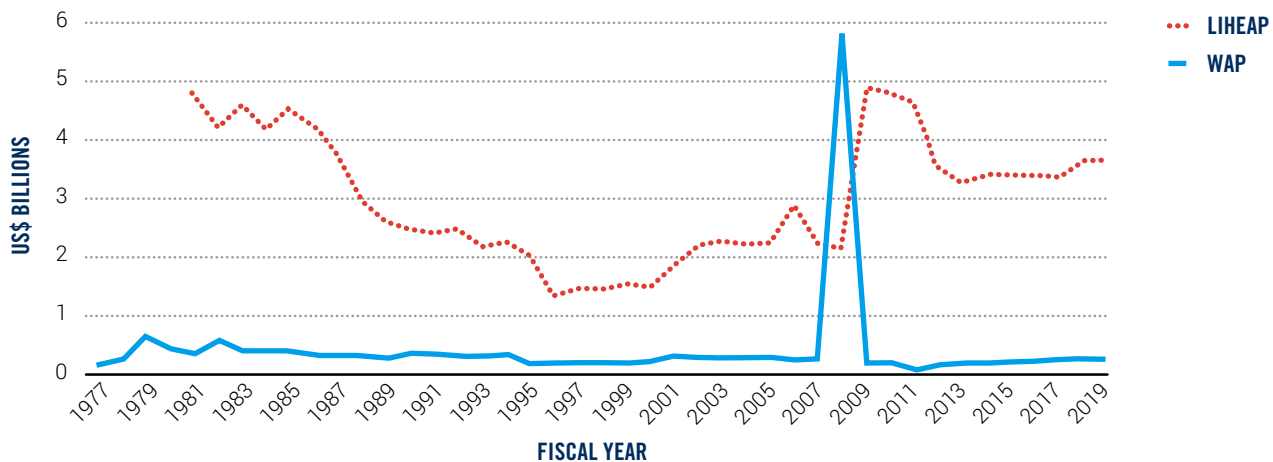
Over the course of early 2025, PPI will meet with every willing office of the CBC to examine this data for their state and district-specific comparisons of

energy burdens and available energy infrastructure. Recognizing the importance of careful, granular analysis and appreciation of local context is crucial for ensuring that the recommendations contained in this paper serve the country’s mostoverburdened communities. An appendix attached below includes equivalent maps plots for each State.

**Current Policy for Low-Income Energy Assistance**

Existing federal policies help ease energy burdens, but are insufficient in isolation and risk repeal under the Trump administration. The Low Income Home Energy Assistance Program (LIHEAP) funds low-income household energy costs.<sup>55</sup> LIHEAP received \$4.025 billion in funding for FY2024, for which States and tribes apply and then dispense to low-income residents.<sup>56</sup> The majority of funds are allocated for heating, although weatherization, natural disaster response, crisis assistance, and cooling can also be covered. Unfortunately, LIHEAP is subject to funding fluctuations that leave millions at risk of losing federal aid<sup>57</sup> when the program’s budget is reduced.<sup>58</sup> Further, some hot States like Nevada and Florida ban or limit LIHEAP use for cooling bills, a restriction that will especially impact vulnerable and heat-exposed residents of poorly insulated older homes during increasingly frequent life-threatening heat waves.

**FIGURE 8: LIHEAP AND WAP FUNDING VARY WIDELY OVER TIME**



Note: Nominal values. Source: Nature Energy<sup>69</sup>

The Weatherization Assistance Program<sup>60</sup> (WAP) supports energy efficiency in low-income households by replacing aging energy equipment, installing insulation, or other efficiency measures. WAP receives around \$300mm and weatherizes an average of 35,000 homes per year,<sup>61</sup> and the IIJA added \$3.5B to weatherize an additional 450,000 homes over the coming years.

Less than 2% of eligible households participate in WAP.<sup>62</sup> This figure can be bolstered by minimizing paperwork burdens and improving awareness. Another obstacle for WAP uptake is homeowner delay of weatherization due to disrepair caused by structural issues, mold, and other problems.<sup>63</sup> Weatherization investment in housing that faces severe maintenance issues can be difficult to justify, so a combination of nationwide housing construction and pre-WAP repair programs may be needed to solve problems with the residential building stock.

The Inflation Reduction Act also includes provisions for low-income energy assistance. The IRA created the Low-Income Communities Bonus Credit Program,<sup>64</sup> which provides tax credits for renewable energy development in low-income neighborhoods. The largest portion of the program's funds go to facilities that directly benefit low-income residents, with other significant incentives for renewable development on tribal lands. While overall IRA benefits are spread broadly,<sup>65</sup> Treasury data on the uptake of tax incentives for home energy efficiency and clean energy shows significantly more benefits to wealthy households than low-income filers.<sup>66</sup>

The IRA also created the EPA's Greenhouse Gas Reduction Fund (GGRF), which allocates \$27B to fund community clean energy.<sup>67</sup> The GGRF creates financing institutions to fund clean energy development nationwide, an initiative to enhance the adoption of solar energy, and community lender support to increase clean energy access

in disadvantaged neighborhoods. 70% of the program's funds are expected to flow into low-income and disadvantaged communities.<sup>68</sup>

All of these programs risk reduction, repeal, or incompetent administration by the Trump executive branch. Additionally, attacks on broadly applicable policies that would bring new clean energy online at lower cost, like the Inflation Reduction Act's 45Y clean energy generation tax credit and the IIJA-funded Building a Better Grid Initiative, would also harm low-income consumers by directly raising the cost of deploying clean energy and limiting the growth of economic opportunities for workers in new manufacturing sectors.<sup>69</sup>

## POLICY RECOMMENDATIONS

This paper recommends a policy approach that rejects counterproductive calls to impose tighter restrictions on all forms of energy development and is instead centered on three themes: supply increases, demand support, and reducing friction from information gaps and transaction costs.

**Supply increase** policy is crucial for expanding access to the cheapest and cleanest available sources of energy. The delays posed by the regulatory regime of environmental review and permitting across federal, state, and local governments artificially restrict new energy technology deployment, encourage the extended use and delayed retirement of especially dirty aging fossil assets, and raise costs. Instead of using disadvantaged communities as a test-case for expensive policy experiments and calling to protect poor families by preventing investment in the infrastructure that serves those same families, Environmental Justice advocates should break out of the "Resistance Dilemma" and embrace a new paradigm of green growth to better serve the most vulnerable populations.

A permitting reform package that speeds up the deployment of electricity transmission and distribution grids, zero-carbon renewable energy generation, and dispatchable grid-forming power from low-methane natural gas would bring significant benefits to disadvantaged communities by connecting consumers with the cheapest available power sources, limiting price volatility, allowing the retirement of especially carbon-intensive technologies like coal-fired electricity and fuel-oil home heating, and reducing the reserve margin and inertial resources necessary to ensure reliable electricity service. In order to benefit frontline communities, this approach would require keeping in place methane mitigation policy and maintaining strong substantive protections for air quality standards, clean water, and pipeline safety. As the economy grows and new sources of energy demand come online, from innovative business applications like AI, direct-air capture, and clean hydrogen to newly electrified end-use technologies for consumers like heat pumps and electric vehicles, ensuring that cheap and clean new sources of energy can reliably serve disadvantaged populations and connect to new demand centers without raising costs.

Regulatory barriers also hinder low-carbon transportation and housing solutions. Updated local and state zoning, permitting, and other housing regulations that allow for wider construction of dense new housing can help reduce vulnerable Black communities' exposure to the issues with older, inefficient homes and also counteract the displacement of lower-income renters from high-demand cities and poor neighborhoods served by transit. Housing scarcity forces poor families to live in less structurally sound and well-insulated homes, as well as limiting access to homeownership; families who rent their homes also face split incentive issues over choices of building materials and appliances. Retrofits like those subsidized by the WAP are critical for protecting residents who want to stay

in their homes, but homes in a state of disrepair are ineligible. Further, each individual home retrofit is a labor-intensive custom job so the process of home energy retrofits will face inherent obstacles to scaling up at the pace necessary to alleviate widespread energy insecurity and housing shortages. Easing the permitting burden on climate resilience investments, including street trees, shaded bus stops, and passive cooling infrastructure, would also ensure that poor residents of increasingly hot cities do not suffer from lack of access to air conditioning.

Low-carbon transportation policy for vulnerable Black communities should include reforms at the federal, state, and local levels to speed up planning, procurement, and permitting for mass transit projects and micromobility solutions alongside the more expensive track of encouraging electric vehicle purchases. For communities overburdened by road-based air pollution, finding politically viable ways to expand non-car personal transport and lighter freight vehicles has the potential to reduce harmful particulate emissions without impacting reliable electricity supply.

Shifting stakeholder and public engagement for permitting projects from operating exclusively through time-intensive public meetings and the post-permit litigation process to a new focus on the use of more accessible and representative means of collecting feedback including sampled surveys and canvassing. While litigation over environmental review documents offers a potential veto point to fight against bad projects, the only solution to preventing bad projects and enabling good projects that can work at scale involves elected officials and agency staff delineating clear substantive rules for project development and wider use of faster review types including Categorical Exclusions and Programmatic Reviews to limit project-by-project fighting.

None of these measures involve sacrificing protections against local environmental harms in communities with high levels of legacy local pollution. Only by breaking out of the counterproductive paradigm of “supporting” communities by placing additional obstacles to investment in those communities can the Environmental Justice movement succeed in its stated goals and begin to replace the old systems that produced current injustices.

**Demand support** for low-income Black communities starts with protecting LIHEAP and WAP against Republican spending cuts, but includes fiscal support for a wider set of clean energy technologies as well. Despite their importance to recipients, the second Trump Administration and Republican-controlled 119th Congress may target LIHEAP and WAP in the name of “government efficiency.” Such a move would be mistaken, since these programs are a rounding error compared with the spending behemoths of Social Security, Medicare, Medicaid, and national defense. Supply-side measures to boost energy deployment are this paper’s top recommendation for reducing cost burdens, but some households suffering from extreme poverty and acute short-term financial distress require additional support beyond what the market could provide even with expanded supply infrastructure. Thus, LIHEAP and WAP provide critical support to fill gaps in the private-sector market and prevent energy burdens from spiraling into energy insecurity and risk of shutoffs, evictions, and poverty traps.

In addition to low-income subsidies, demand support must serve as a key component in the broader Democratic strategy for an energy transition that garners positive consumer perceptions. Across technologies, the shift from fossil fuels to clean energy requires the expansion of new supply chains in materials, manufacturing capacity, and human capital alongside new needs for infrastructure development. For clean energy

to materially impact the lives of disadvantaged consumers, these supply chains must rapidly scale up and bend cost curves down. Technology-neutral incentives like the 45Y Clean Electricity Generation tax credit and supply chain incentives like the 45X advanced manufacturing credit provide crucial resources to project developers and technology producers who need them. In turn, these growing sectors will allow the U.S. to decarbonize our energy systems, ensure U.S. competitiveness in innovative technologies, and better meet the needs of Black low-income communities.

**Reducing friction** between market participants is difficult when those participants struggle with information asymmetries and uncertainties like those present in the energy transition. Upgrades and replacements for appliances like refrigerators, water heaters, and air conditioners are rare, complicated, and expensive upfront investments — such an opaque decision would be difficult for even the richest or most highly educated consumer segments, let alone busy and less-resourced working-class Black families.

These complicated, rare decisions are understandably hard for working-class households, and are also difficult for policymakers to address directly. Instead of imposing mandates, however, one innovative solution to lowering transaction costs, uncertainties, and information gaps is a new proposed government institution, **the Community Energy Hub**. Modeled on the Department of Labor’s American Job Centers, public libraries, and agricultural extension agencies, Community Energy Hubs would serve as the DOE’s “eyes on the ground” and a resource for local residents, workers, and small business owners to hear about available tax credits and grant opportunities, local energy projects under development in the area, connections to skill and career development services in the sector, and exchange information about innovative new technological solutions. Local contractors and workers in HVAC, electrician,

plumbing, and construction businesses are on the “front line” of the energy transition, and they should be able to access trusted information on current best practices in energy efficiency, materials, appliances, and local permitting regulations.

At the same time, implementing a massive clean energy policy platform like the IRA, IIJA, CHIPS, and whatever follows will require additional new state capacity if the U.S. government is to implement solutions effectively. When the federal government is tasked with implementing a set of programs as vast and varied as the outgoing Democratic energy and climate policy suite, certain sub-programs will inevitably fail to accomplish all of their intended outcomes. Under the current approach, government agencies only explicitly seek feedback through rare public comment requests, “community” funding provided to local nonprofits is sent out into the world without much subsequent policy evaluation, and elections provide voters with a sort of referendum on elected officials’ overall performance. Under the Community Energy Hub model, all of these channels for feedback and

funding would remain open, but a new channel would open that provides insight directly into the ground-level, granular experience of local community members. In turn, the users’ issues would provide insight into the community’s overall economic and climate progress and identify opportunities for iterative improvement.

A future standalone PPI paper will lay out the vision for Community Energy Hubs in greater detail.

## CONCLUSION

Black households face disproportionate energy insecurity and climate impacts, demanding policies that address these urgent challenges. Instead of accepting activist suggestions that make these problems worse and erode support for an equally necessary energy transition, the elected leadership of Black communities should embrace a pragmatic path forward that reduces emissions through rapid clean energy deployment that reduces supply constraints, spurs growth, and uplifts the most vulnerable among us.

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## ABOUT THE AUTHOR

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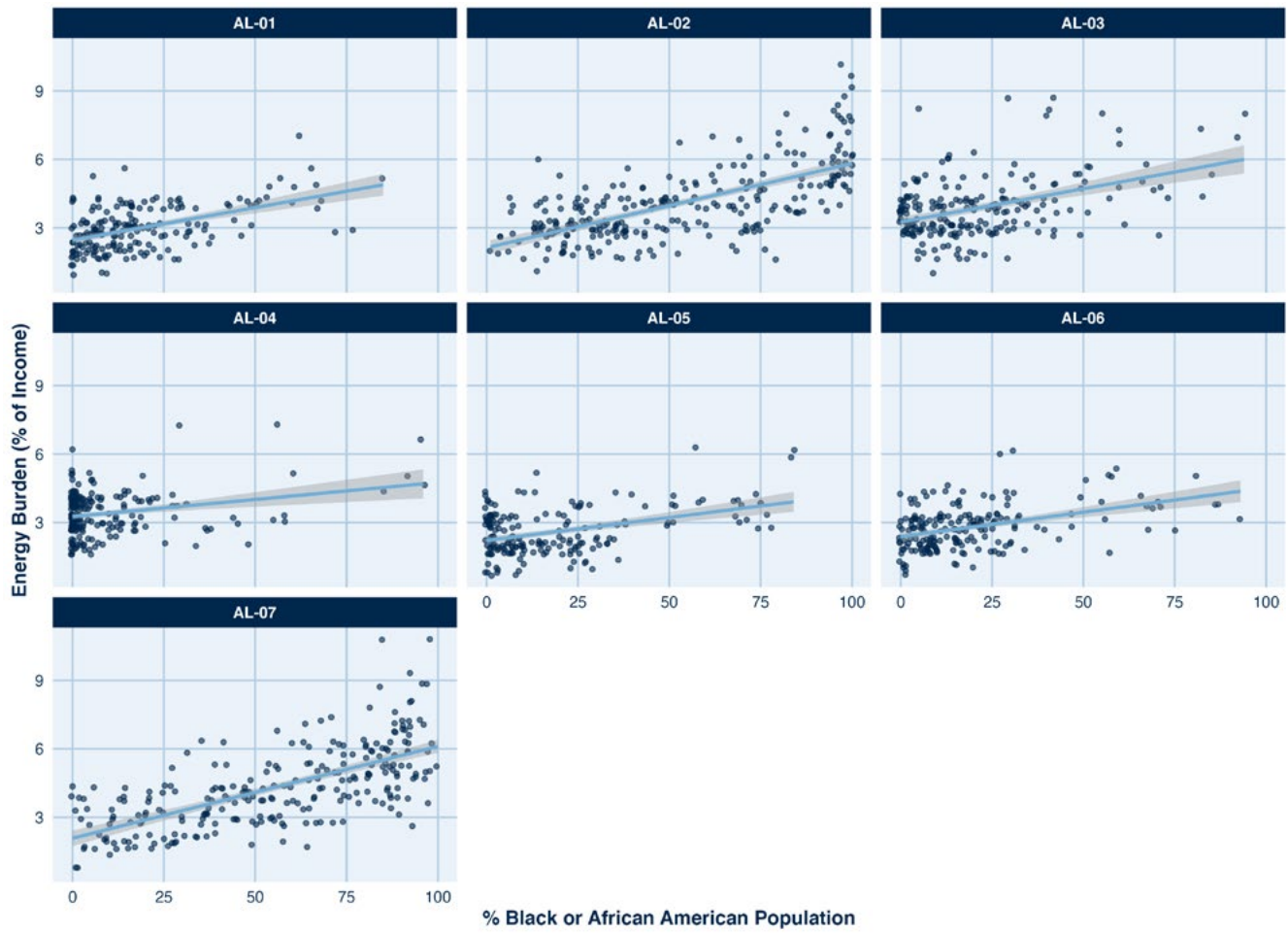
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- 64 "Low-Income Communities Bonus Credit Program," Department of Energy, accessed December 2024, <https://web.archive.org/web/20241205180038/https://www.energy.gov/justice/low-income-communities-bonus-credit-program>.
- 65 Eric Van Nostrand and Matthew Ashenfarb, "The Inflation Reduction Act: A Place-Based Analysis," U.S. Department of Treasury, November 29, 2023, <https://home.treasury.gov/news/featured-stories/the-inflation-reduction-act-a-place-based-analysis>.
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- 68 Adam Kent and Jessica Russo, "On IRA's 1-year Anniversary, Toasting a Game-Changing Finance Program," Natural Resources Defense Council, August 16, 2023, <https://www.nrdc.org/bio/adam-kent/iras-1-year-anniversary-toasting-game-changing-finance-program>.
- 69 "Building a Better Grid Initiative," U.S. Department of Energy," accessed December 2024, <https://www.energy.gov/gdo/building-better-grid-initiative>.

# Appendix

## ALABAMA

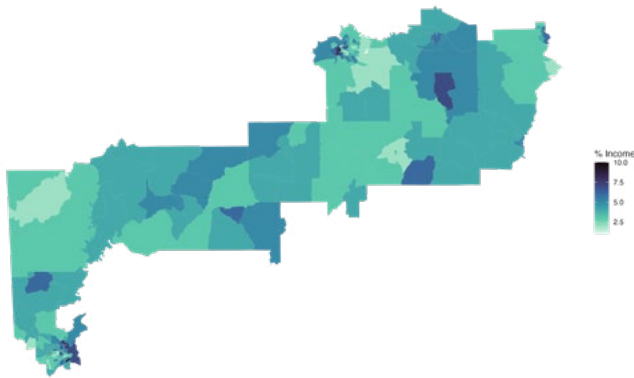
### BLACK POPULATION SHARE AND ENERGY BURDENS IN ALABAMA CONGRESSIONAL DISTRICTS



Source: DOE LEAD Data

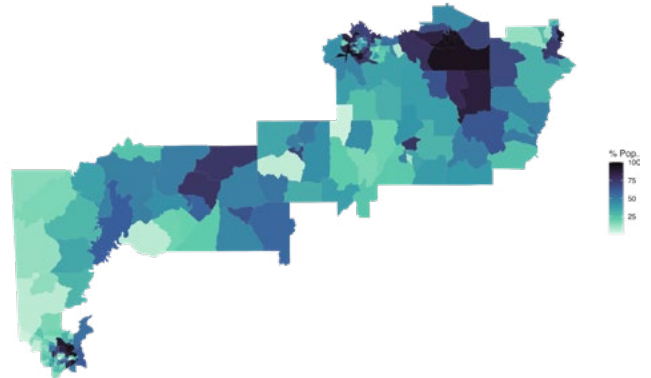
# ALABAMA DISTRICT 02

## ENERGY BURDENS IN ALABAMA CONGRESSIONAL DISTRICT 02



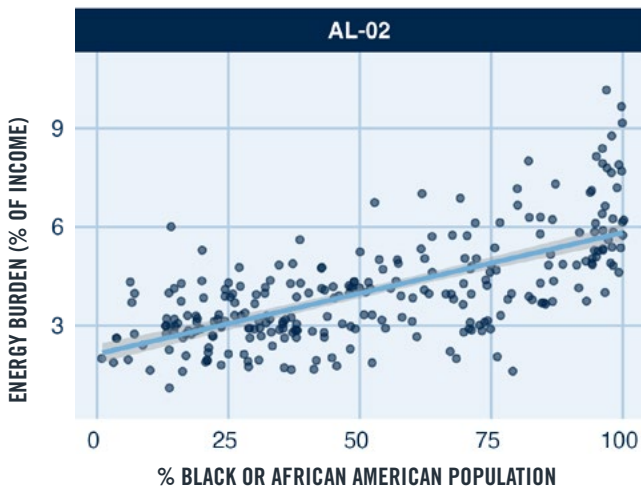
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN ALABAMA CONGRESSIONAL DISTRICT 02



Source: Data from US Census via tigris and DOE LEAD Tool

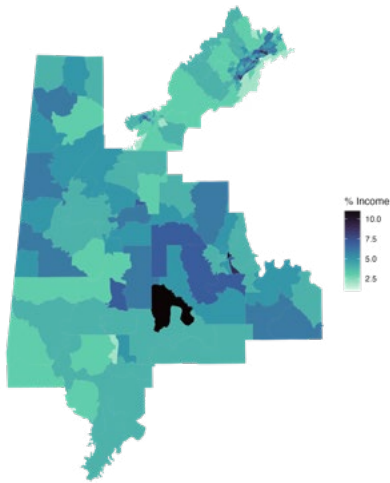
## BLACK POPULATION SHARE AND ENERGY BURDENS IN ALABAMA CONGRESSIONAL DISTRICT 02



Source: DOE LEAD Data

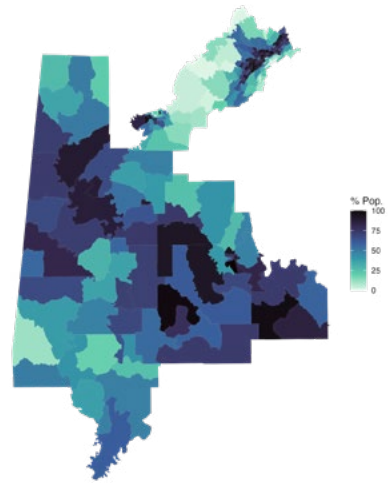
# ALABAMA DISTRICT 07

## ENERGY BURDENS IN ALABAMA CONGRESSIONAL DISTRICT 07



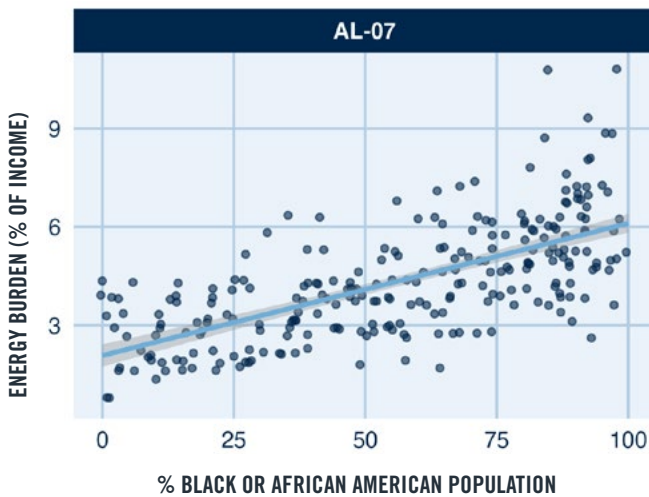
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN ALABAMA CONGRESSIONAL DISTRICT 07



Source: Data from US Census via tigris and DOE LEAD Tool

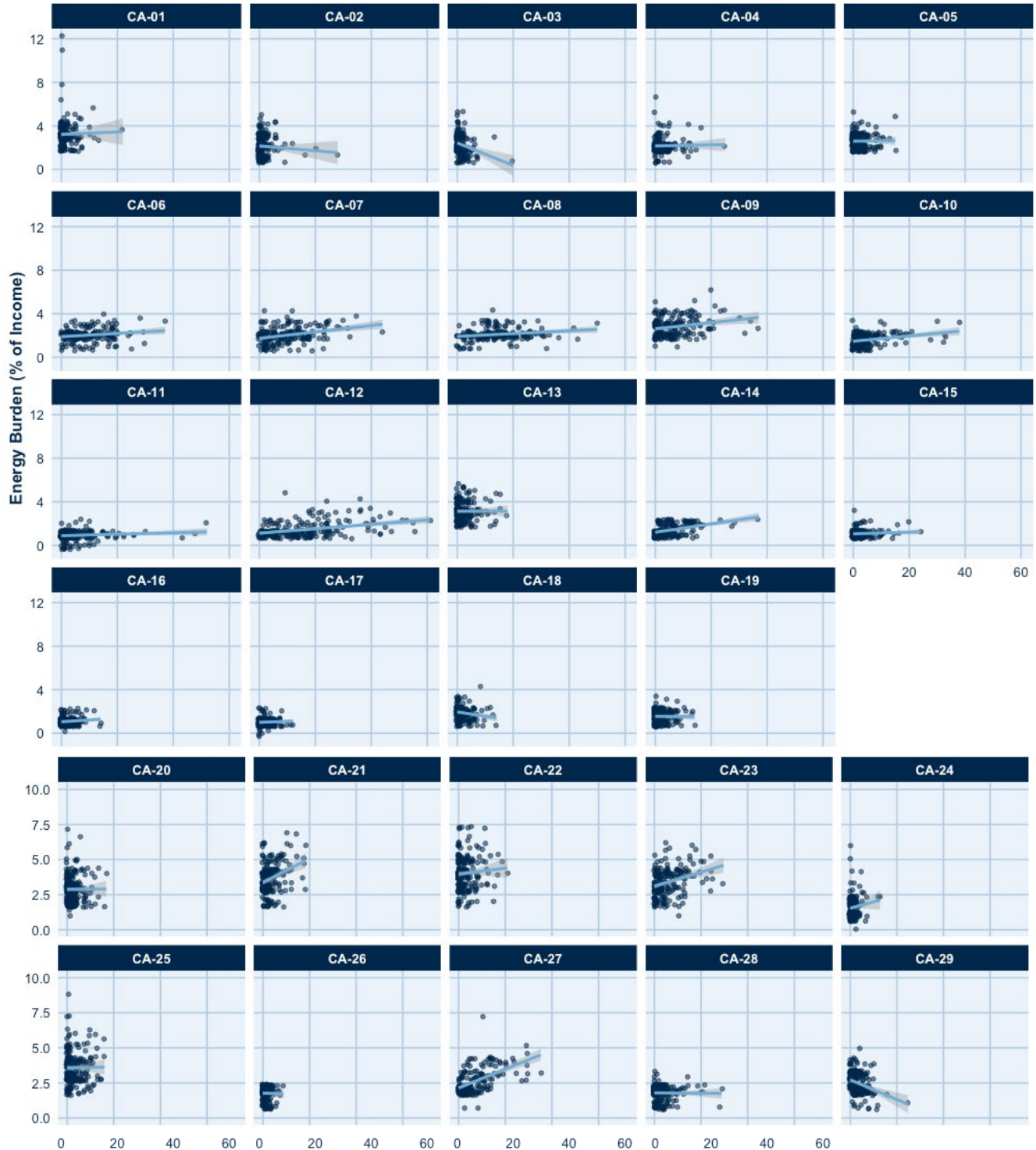
## BLACK POPULATION SHARE AND ENERGY BURDENS IN ALABAMA CONGRESSIONAL DISTRICT 07

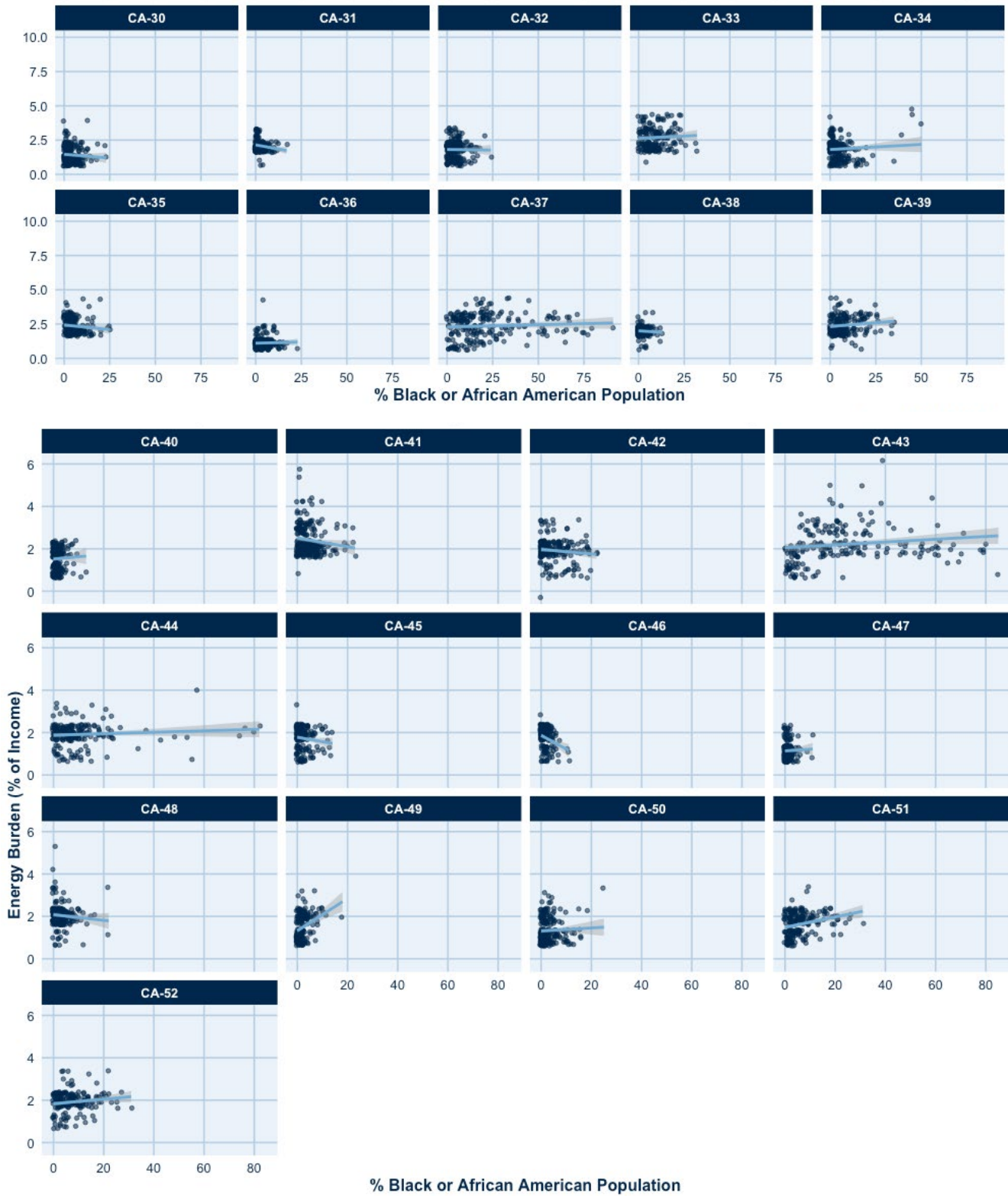


Source: DOE LEAD Data

# CALIFORNIA

## BLACK POPULATION SHARE AND ENERGY BURDENS IN CALIFORNIA CONGRESSIONAL DISTRICTS



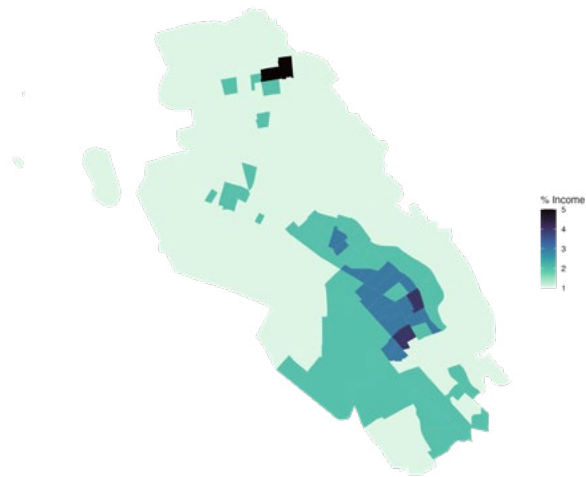


Source: DOE LEAD Data



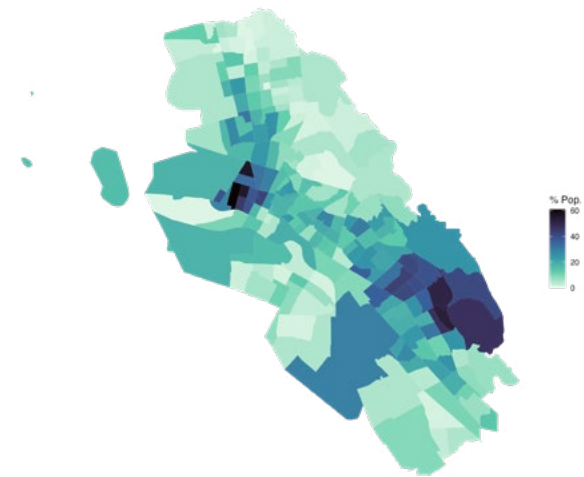
# CALIFORNIA DISTRICT 12

## ENERGY BURDENS IN CALIFORNIA CONGRESSIONAL DISTRICT 12



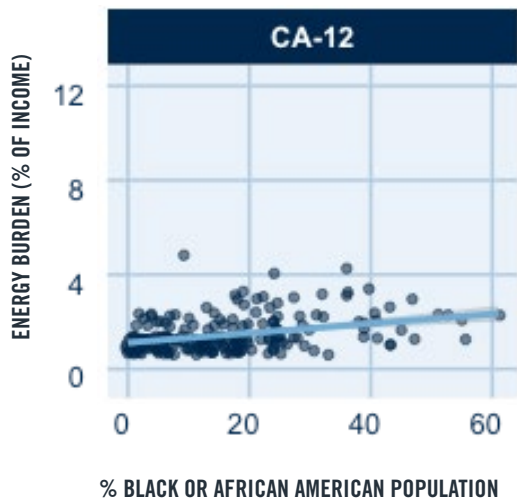
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN CALIFORNIA CONGRESSIONAL DISTRICT 12



Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE AND ENERGY BURDENS IN CALIFORNIA CONGRESSIONAL DISTRICT 12



Source: DOE LEAD Data

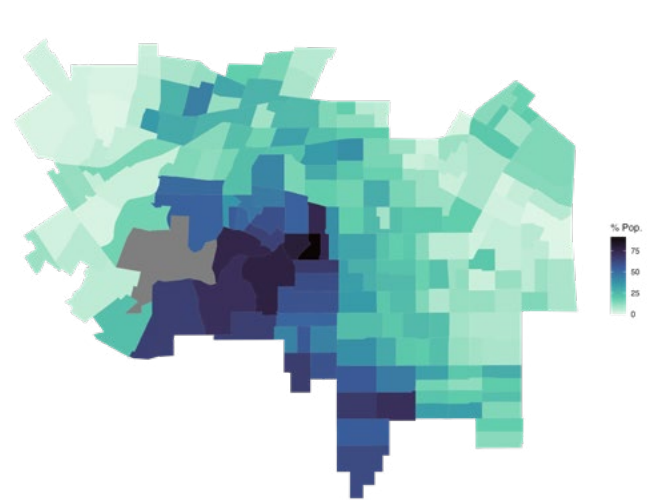
# CALIFORNIA DISTRICT 37

## ENERGY BURDENS IN CALIFORNIA CONGRESSIONAL DISTRICT 37



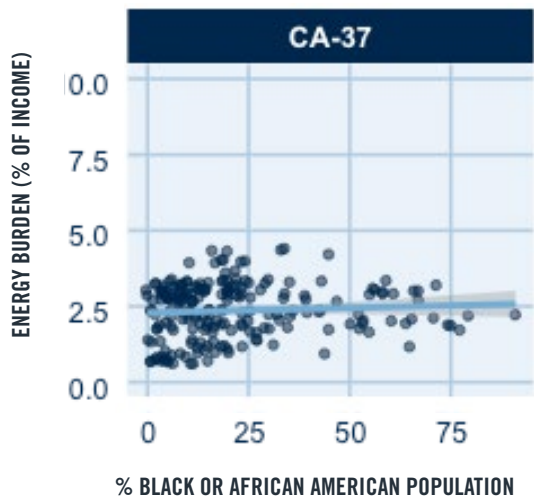
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN CALIFORNIA CONGRESSIONAL DISTRICT 37



Source: Data from US Census via tigris and DOE LEAD Tool

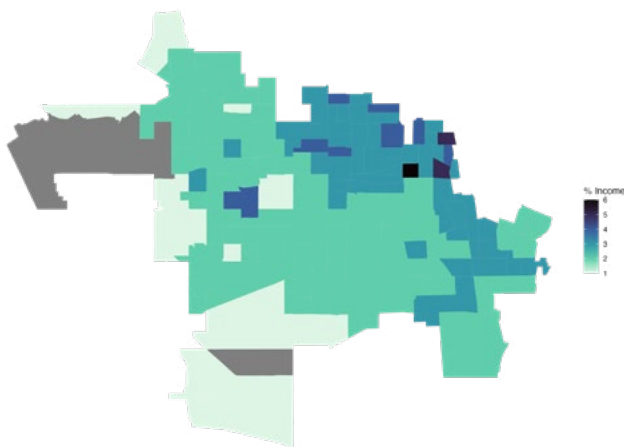
## BLACK POPULATION SHARE AND ENERGY BURDENS IN CALIFORNIA CONGRESSIONAL DISTRICT 37



Source: DOE LEAD Data

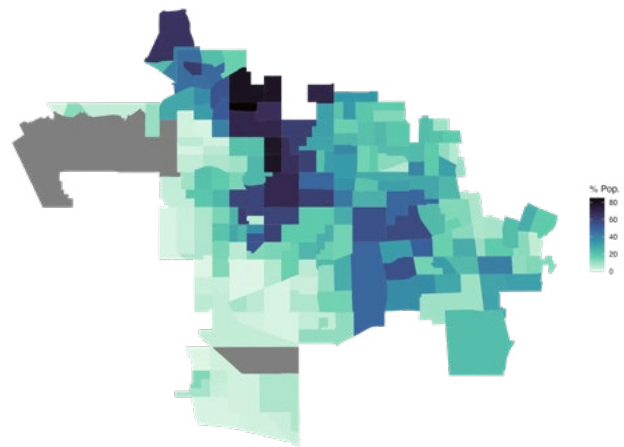
# CALIFORNIA DISTRICT 43

## ENERGY BURDENS IN CALIFORNIA CONGRESSIONAL DISTRICT 43



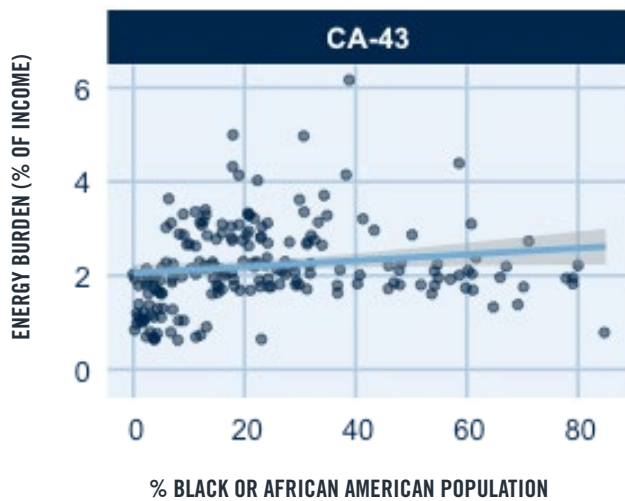
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN CALIFORNIA CONGRESSIONAL DISTRICT 43



Source: Data from US Census via tigris and DOE LEAD Tool

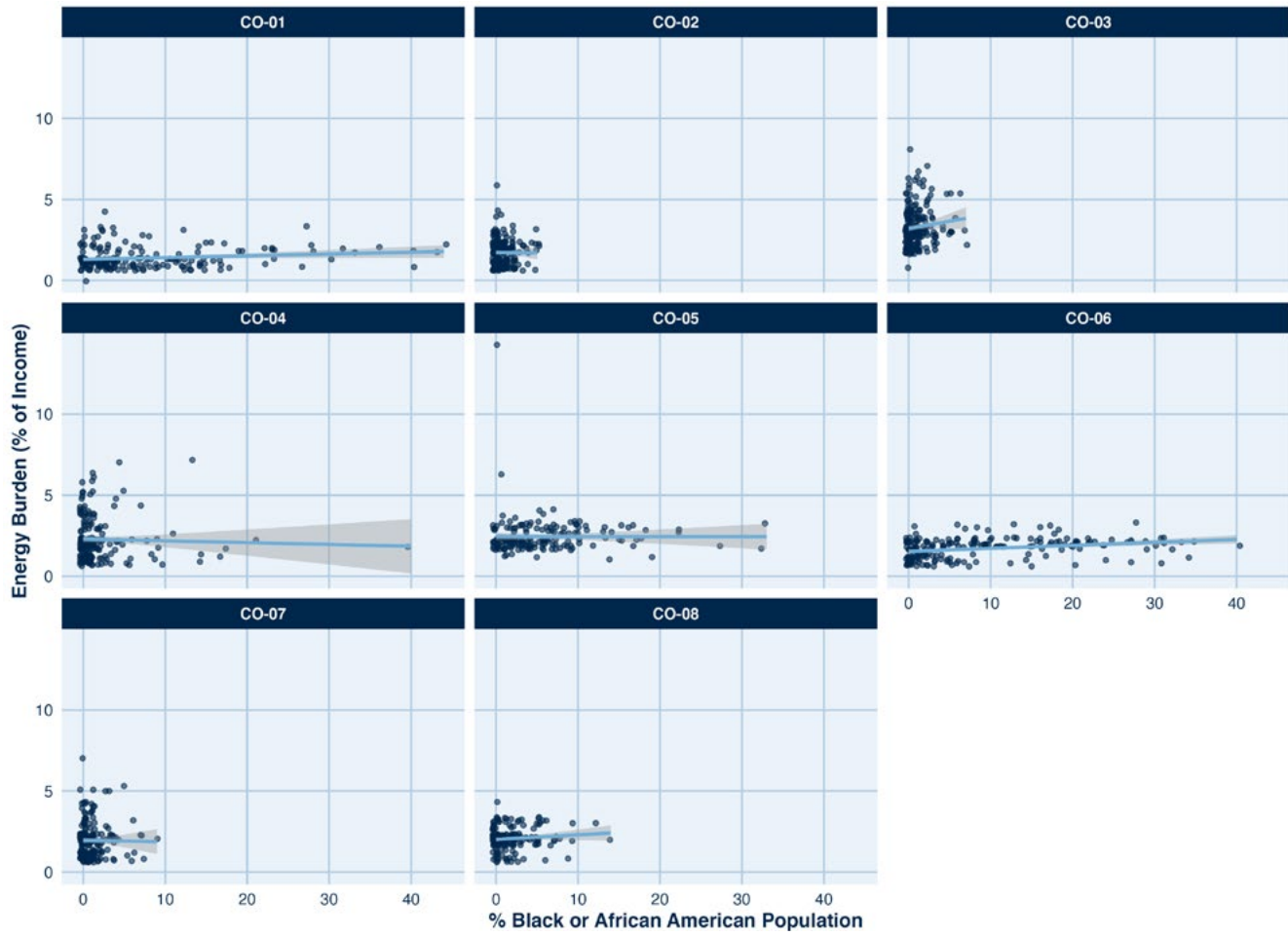
## BLACK POPULATION SHARE AND ENERGY BURDENS IN CALIFORNIA CONGRESSIONAL DISTRICT 43



Source: DOE LEAD Data

# COLORADO

## BLACK POPULATION SHARE AND ENERGY BURDENS IN COLORADO CONGRESSIONAL DISTRICTS



Source: DOE LEAD Data

# COLORADO DISTRICT 02

## ENERGY BURDENS IN COLORADO CONGRESSIONAL DISTRICT 02



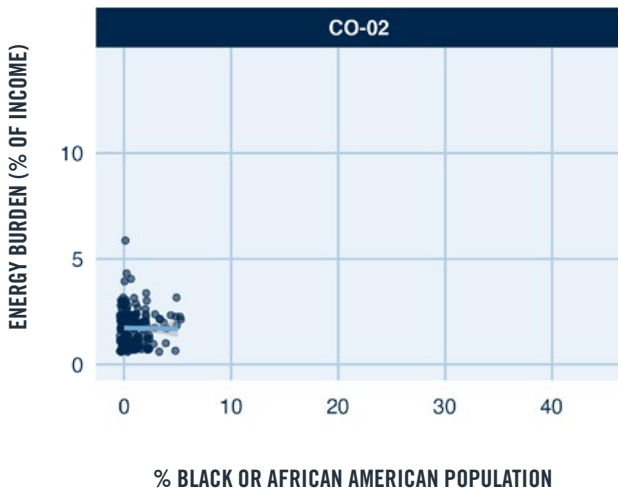
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN COLORADO CONGRESSIONAL DISTRICT 02



Source: Data from US Census via tigris and DOE LEAD Tool

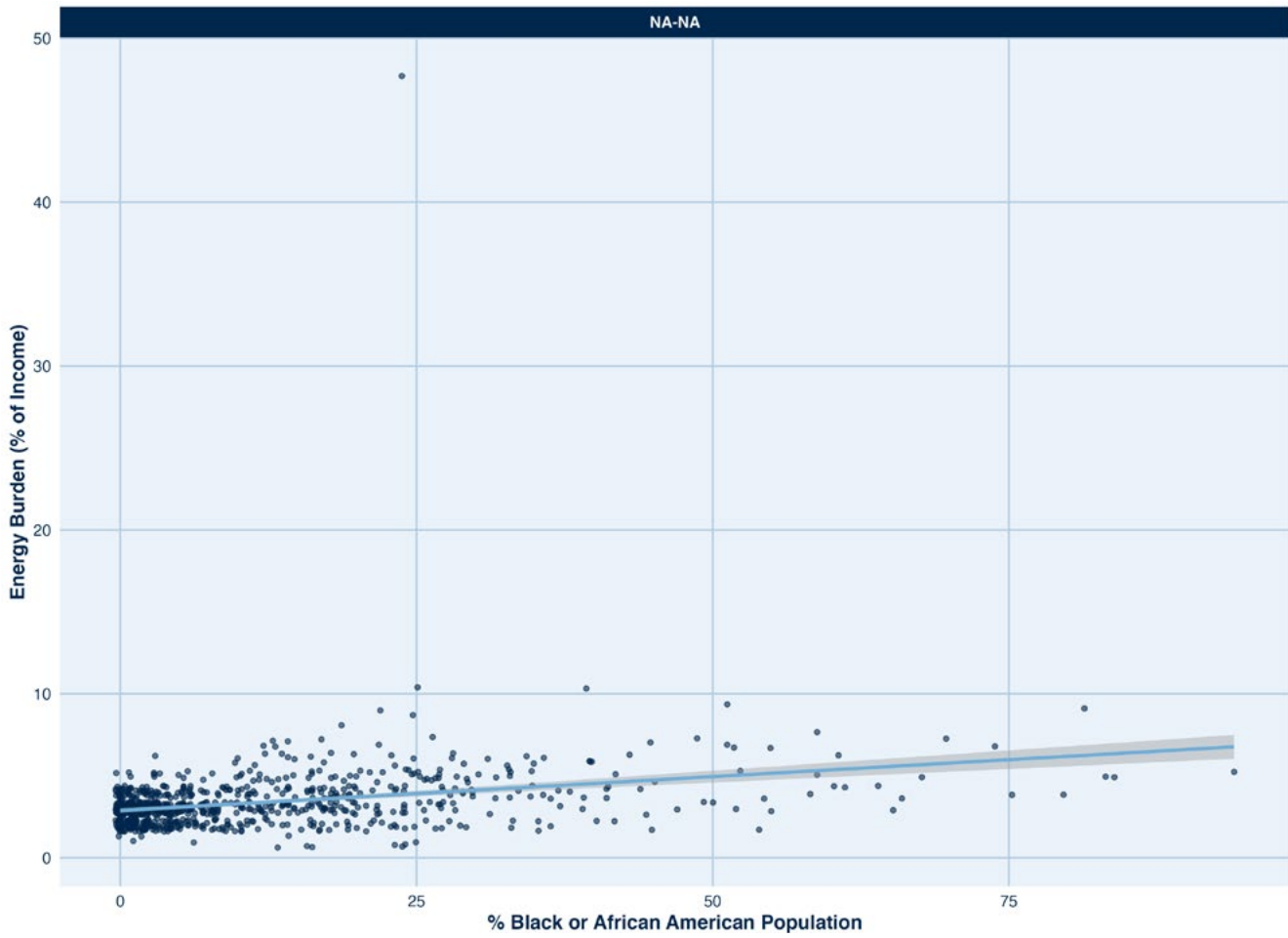
## BLACK POPULATION SHARE AND ENERGY BURDENS IN COLORADO DISTRICT 02



Source: DOE LEAD Data

# CONNECTICUT

## BLACK POPULATION SHARE AND ENERGY BURDENS IN CONNECTICUT CONGRESSIONAL DISTRICTS

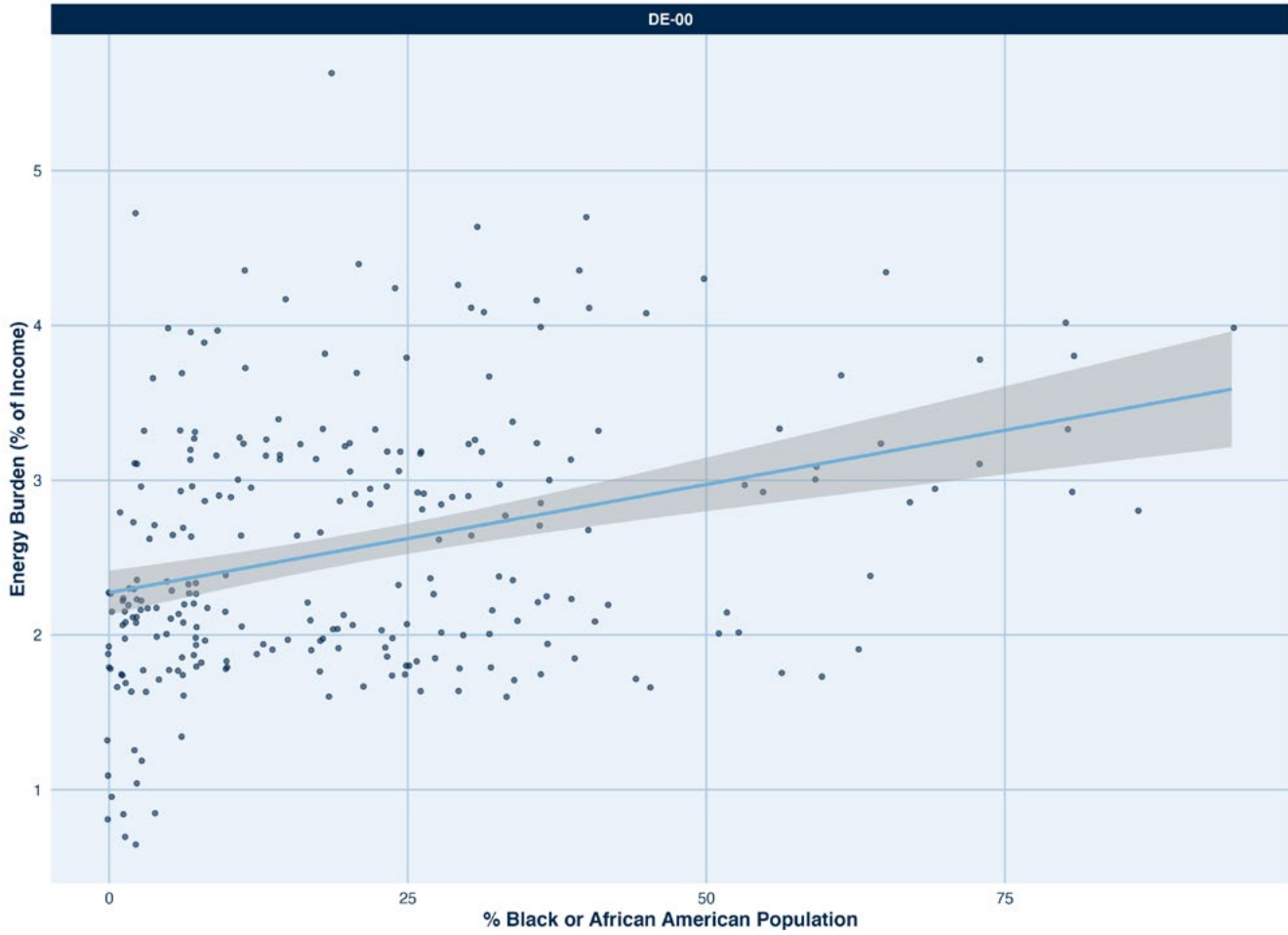


Source: DOE LEAD Data

Note: Connecticut is unmapped due to dataset limitations.

# DELAWARE

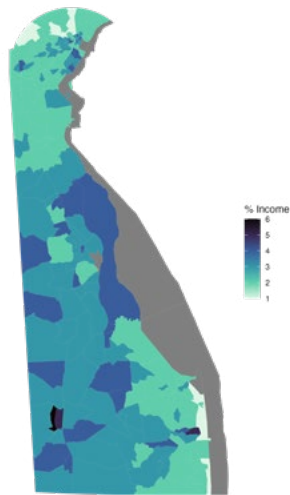
## BLACK POPULATION SHARE AND ENERGY BURDENS IN DELAWARE CONGRESSIONAL DISTRICT AT LARGE



Source: DOE LEAD Data

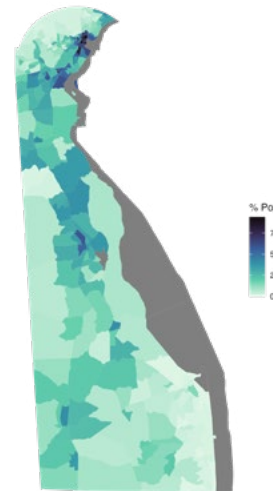
# DELAWARE DISTRICT AT LARGE

## ENERGY BURDENS IN DELAWARE CONGRESSIONAL DISTRICT AT LARGE



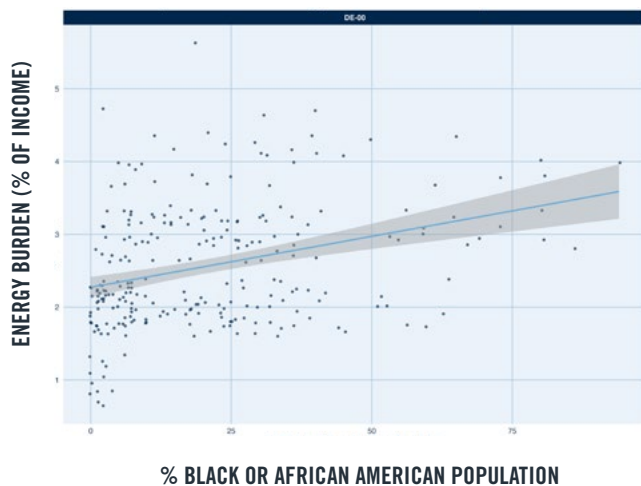
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN DELAWARE CONGRESSIONAL DISTRICT AT LARGE



Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE AND ENERGY BURDENS IN DELAWARE CONGRESSIONAL DISTRICT AT LARGE

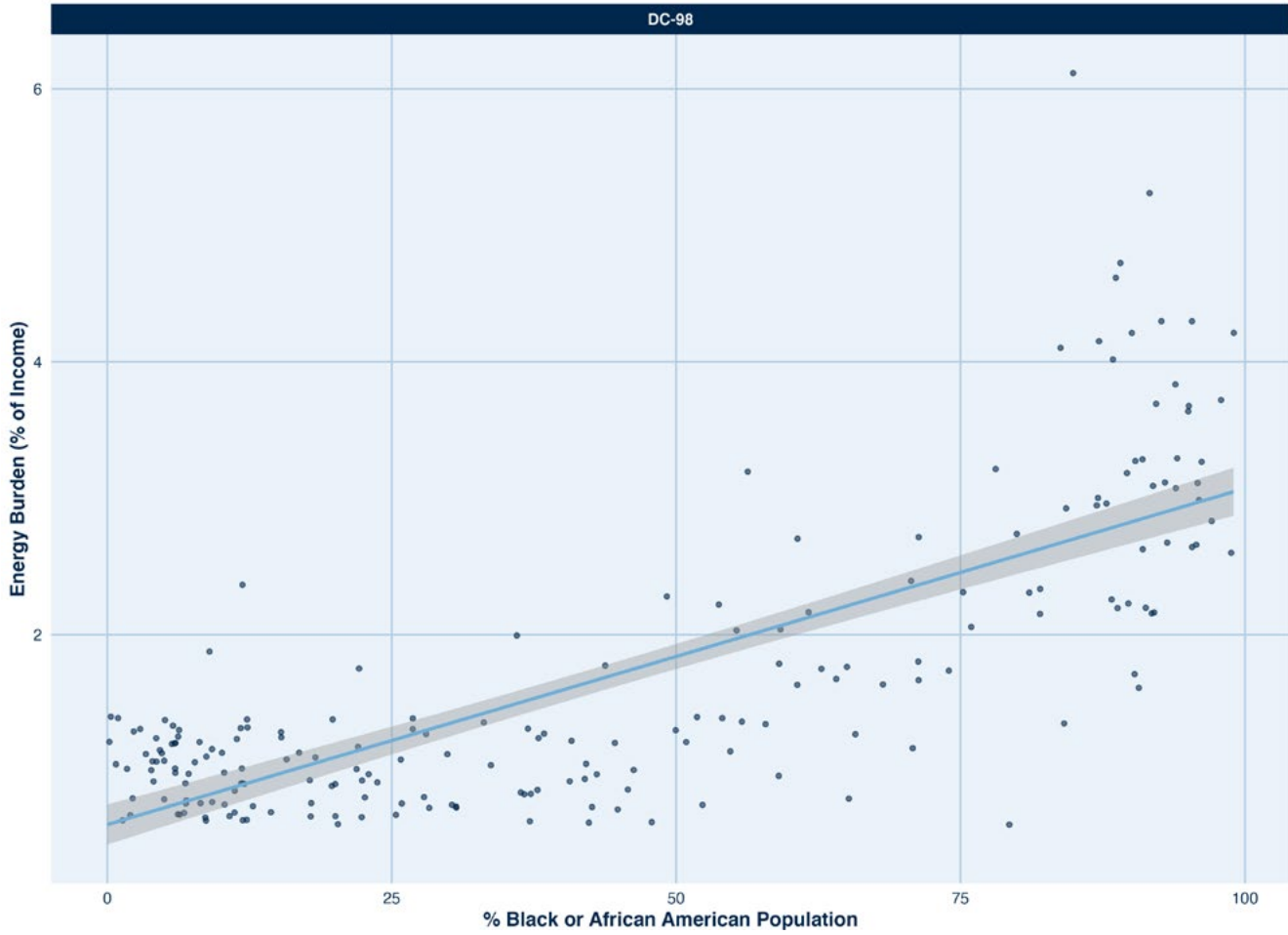


Source: DOE LEAD Data



# DISTRICT OF COLUMBIA

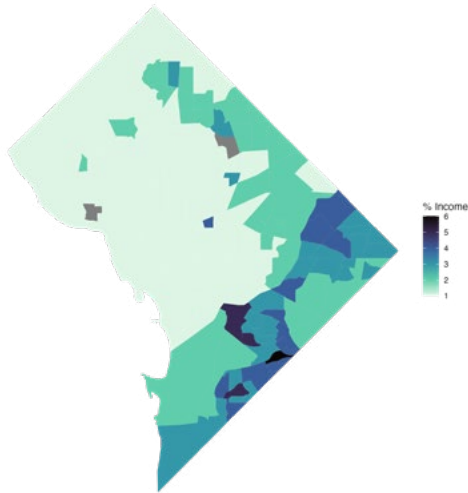
## BLACK POPULATION SHARE AND ENERGY BURDENS IN DISTRICT OF COLUMBIA CONGRESSIONAL DISTRICTS



Source: DOE LEAD Data

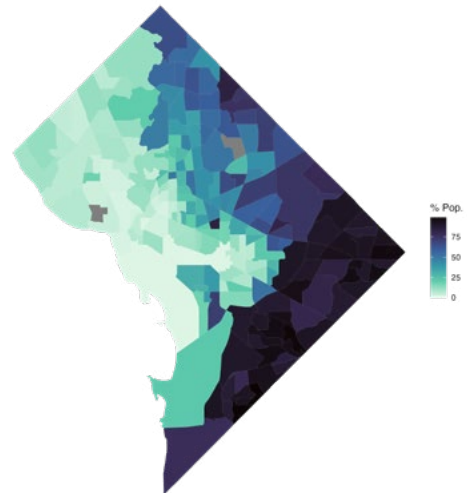
# DISTRICT OF COLUMBIA

## ENERGY BURDENS IN DISTRICT OF COLUMBIA



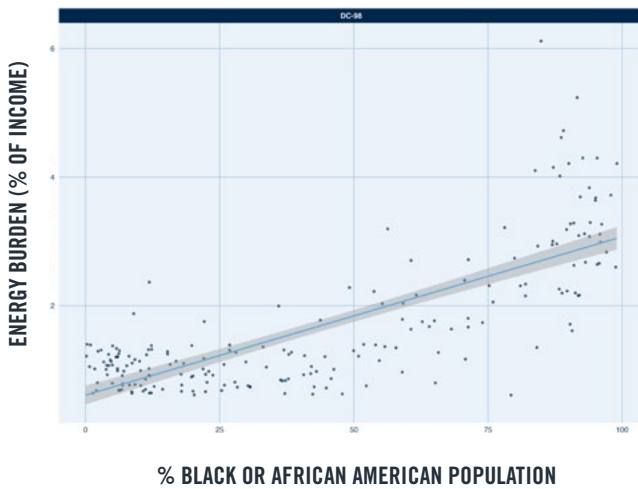
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN DISTRICT OF COLUMBIA



Source: Data from US Census via tigris and DOE LEAD Tool

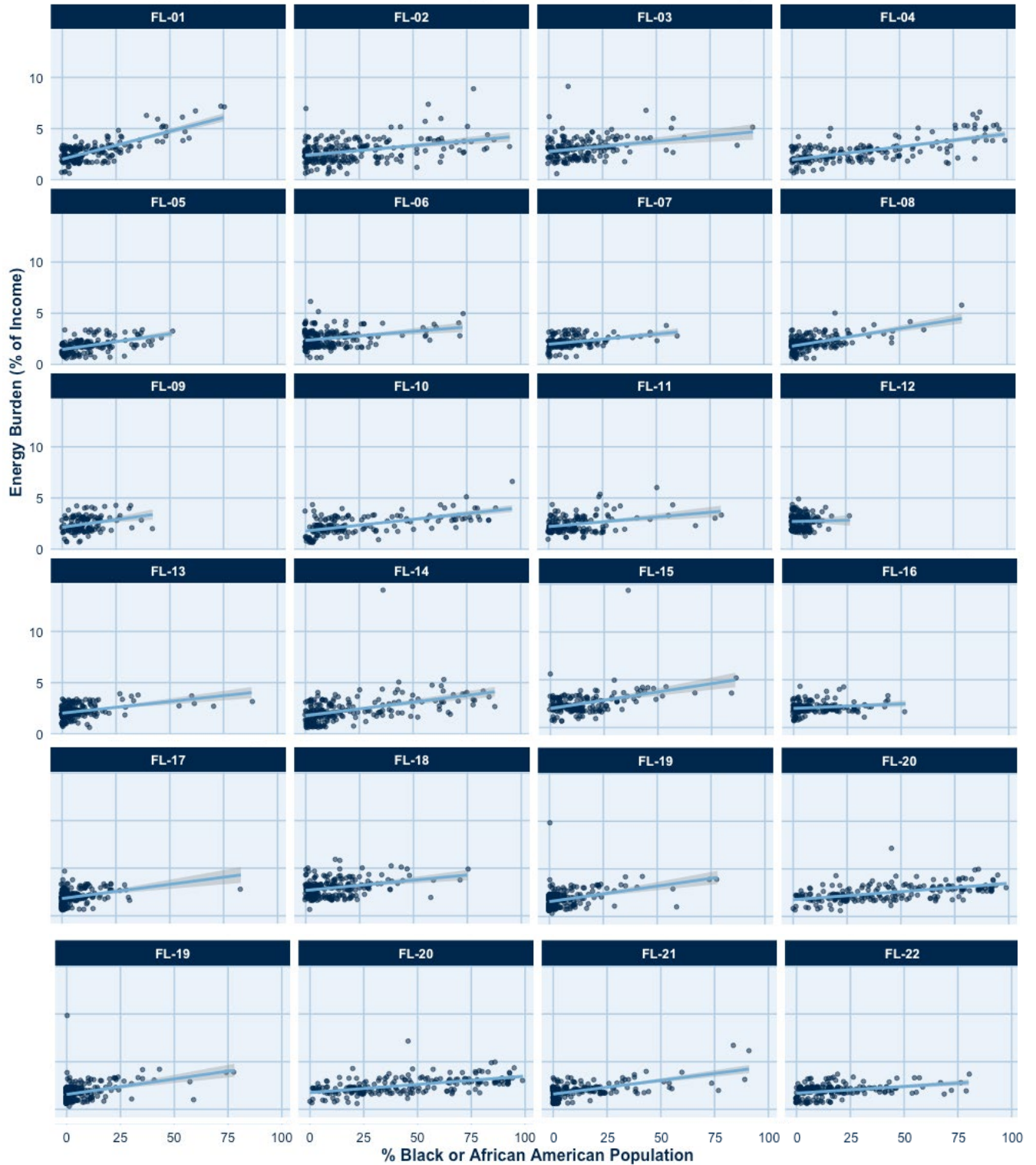
## BLACK POPULATION SHARE AND ENERGY BURDENS IN DISTRICT OF COLUMBIA

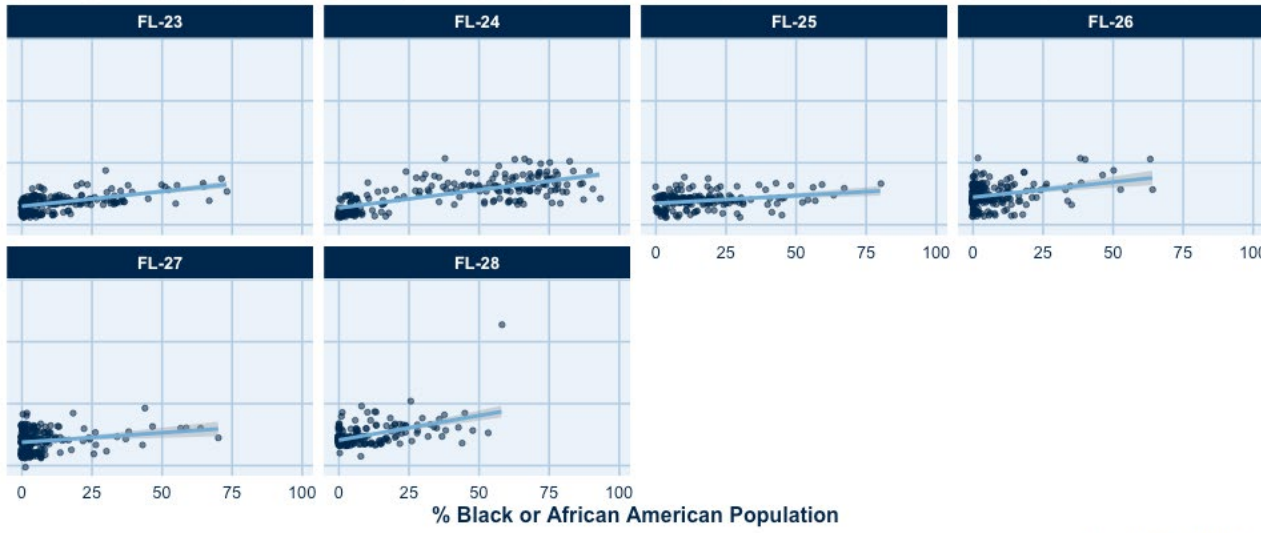


Source: DOE LEAD Data

# FLORIDA

## BLACK POPULATION SHARE AND ENERGY BURDENS IN FLORIDA CONGRESSIONAL DISTRICTS





Source: DOE LEAD Data

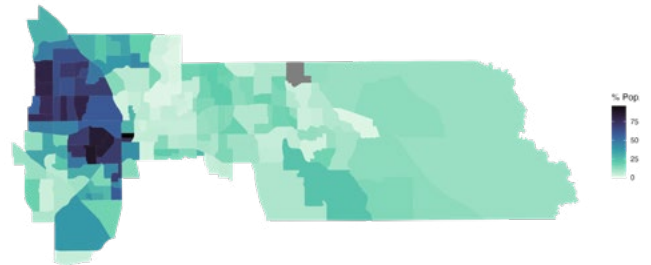
# FLORIDA DISTRICT 10

## ENERGY BURDENS IN FLORIDA CONGRESSIONAL DISTRICT 10



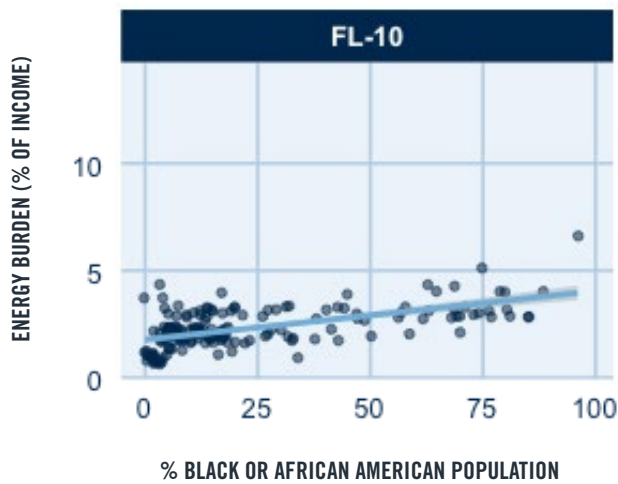
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN FLORIDA CONGRESSIONAL DISTRICT 10



Source: Data from US Census via tigris and DOE LEAD Tool

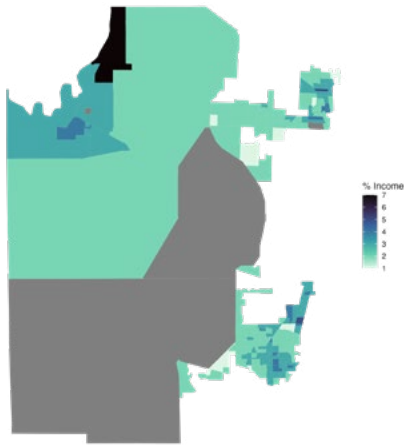
## BLACK POPULATION SHARE AND ENERGY BURDENS IN FLORIDA CONGRESSIONAL DISTRICT 10



Source: DOE LEAD Data

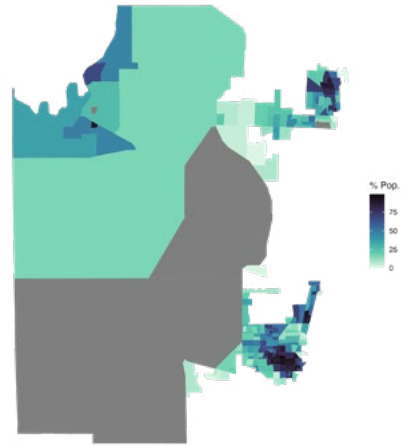
# FLORIDA DISTRICT 20

## ENERGY BURDENS IN FLORIDA CONGRESSIONAL DISTRICT 20



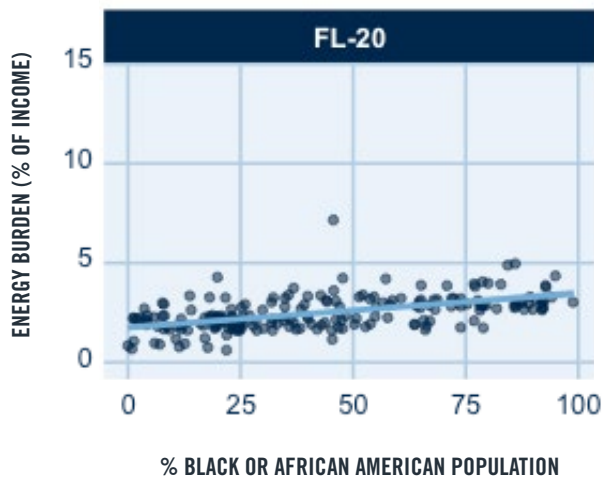
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN FLORIDA CONGRESSIONAL DISTRICT 20



Source: Data from US Census via tigris and DOE LEAD Tool

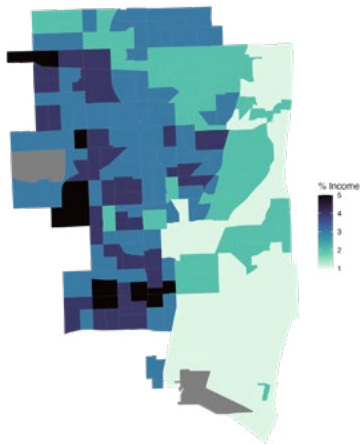
## BLACK POPULATION SHARE AND ENERGY BURDENS IN FLORIDA CONGRESSIONAL DISTRICT 20



Source: DOE LEAD Data

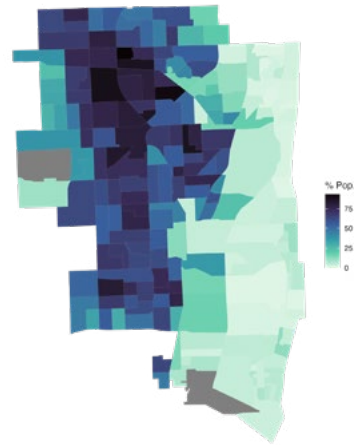
# FLORIDA DISTRICT 24

## ENERGY BURDENS IN FLORIDA CONGRESSIONAL DISTRICT 24



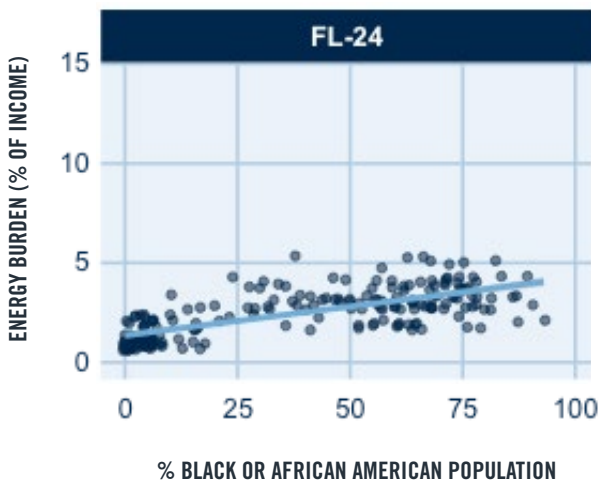
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN FLORIDA CONGRESSIONAL DISTRICT 24



Source: Data from US Census via tigris and DOE LEAD Tool

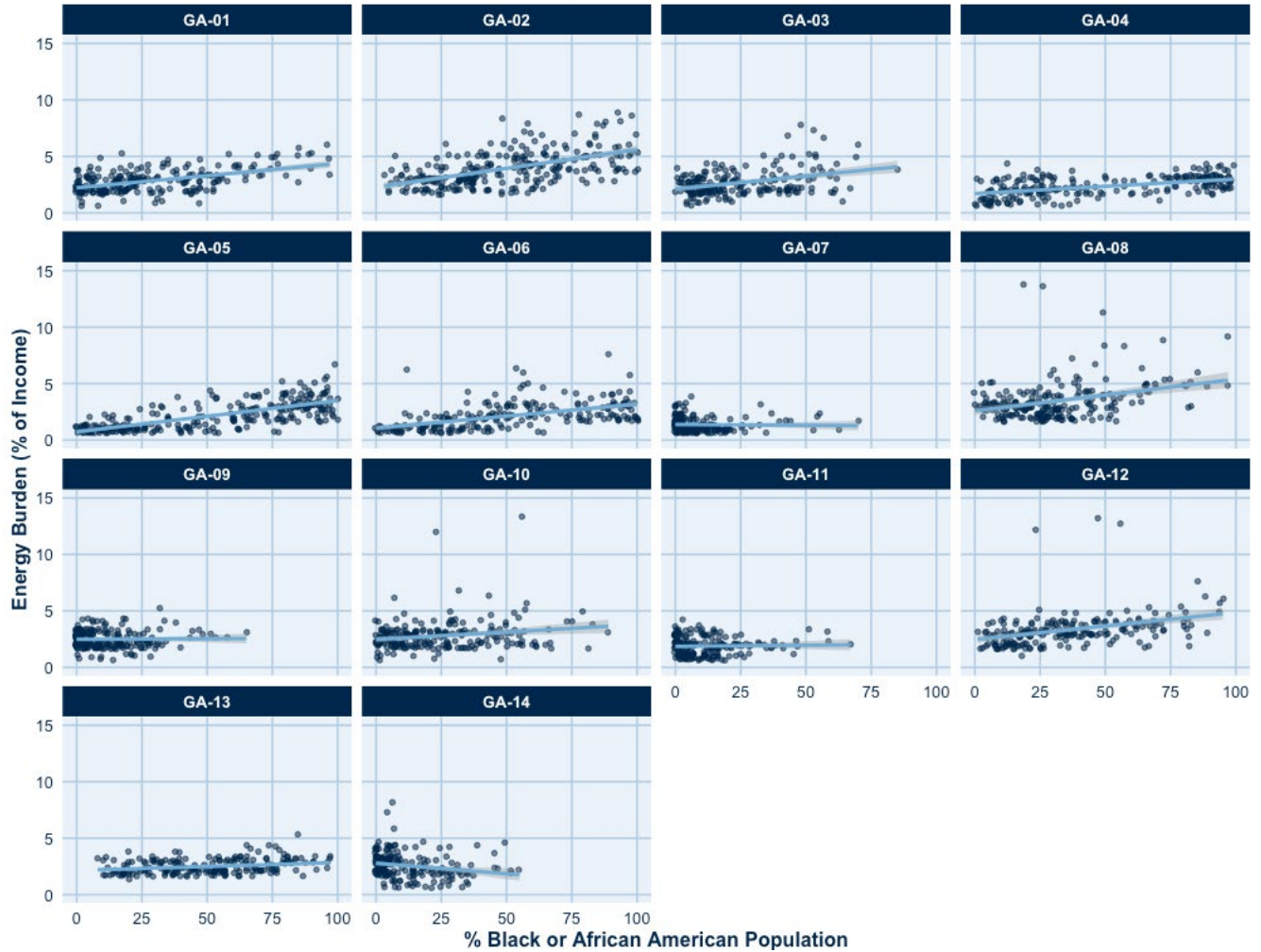
## BLACK POPULATION SHARE AND ENERGY BURDENS IN FLORIDA CONGRESSIONAL DISTRICT 24



Source: DOE LEAD Data

# GEORGIA

## BLACK POPULATION SHARE AND ENERGY BURDENS IN GEORGIA CONGRESSIONAL DISTRICTS

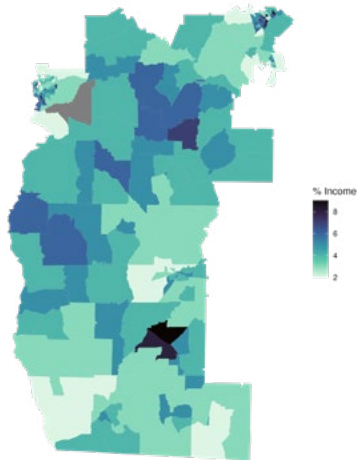


Source: DOE LEAD Data



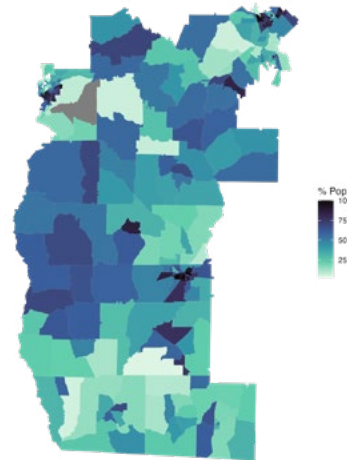
# GEORGIA DISTRICT 02

## ENERGY BURDENS IN GEORGIA CONGRESSIONAL DISTRICT 02



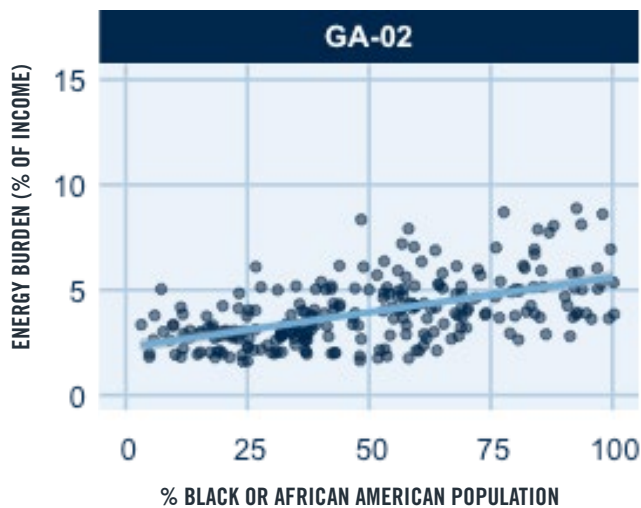
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN GEORGIA CONGRESSIONAL DISTRICT 02



Source: Data from US Census via tigris and DOE LEAD Tool

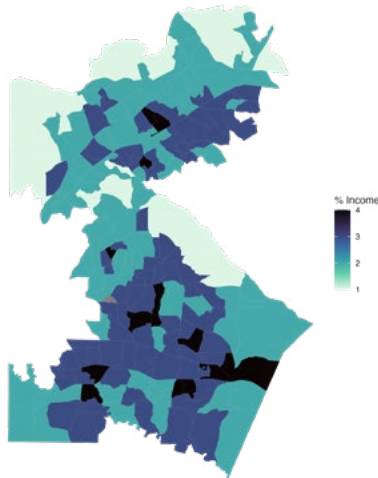
## BLACK POPULATION SHARE AND ENERGY BURDENS IN GEORGIA CONGRESSIONAL DISTRICT 02



Source: DOE LEAD Data

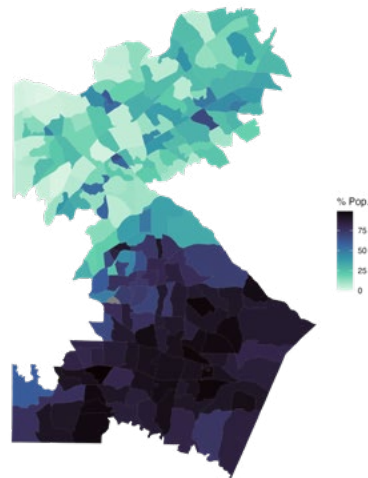
# GEORGIA DISTRICT 04

## ENERGY BURDENS IN GEORGIA CONGRESSIONAL DISTRICT 04



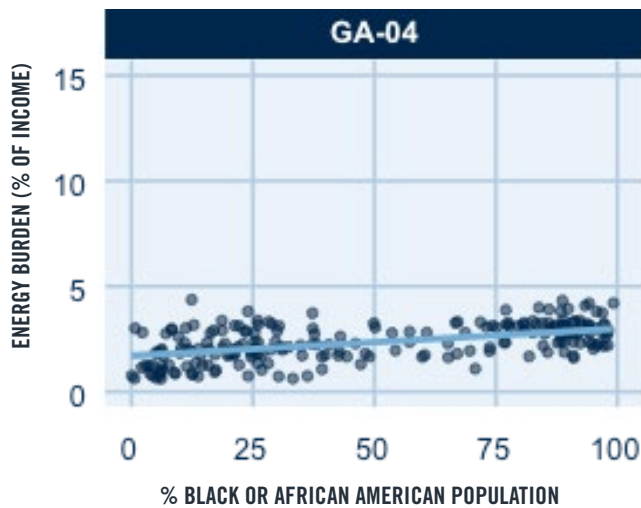
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN GEORGIA CONGRESSIONAL DISTRICT 04



Source: Data from US Census via tigris and DOE LEAD Tool

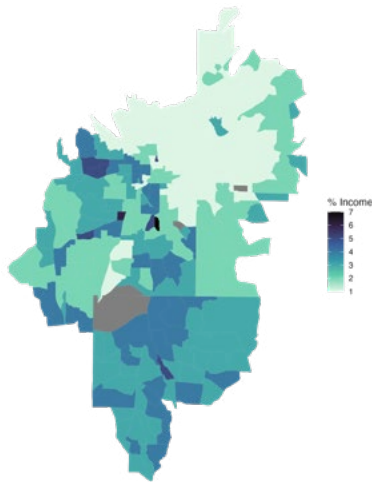
## BLACK POPULATION SHARE AND ENERGY BURDENS IN GEORGIA CONGRESSIONAL DISTRICT 04



Source: DOE LEAD Data

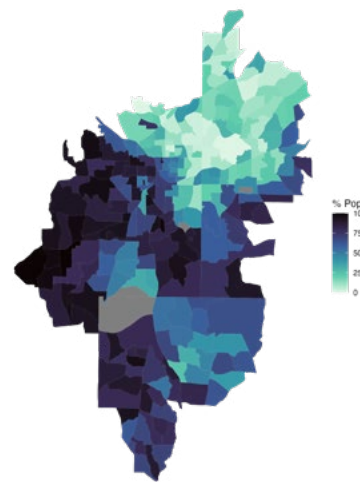
# GEORGIA DISTRICT 05

## ENERGY BURDENS IN GEORGIA CONGRESSIONAL DISTRICT 05



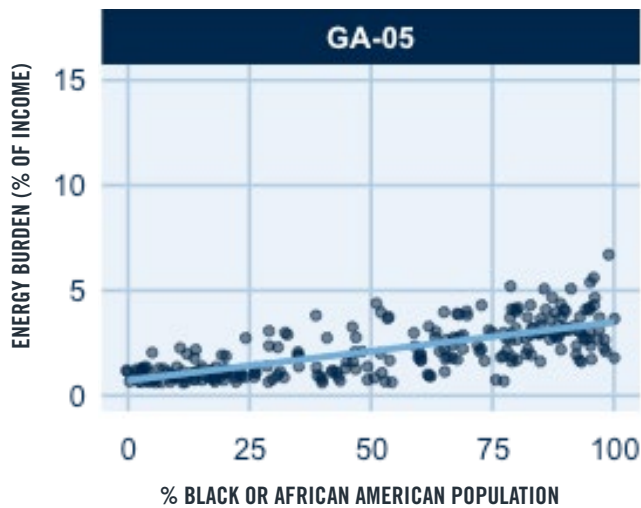
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN GEORGIA CONGRESSIONAL DISTRICT 05



Source: Data from US Census via tigris and DOE LEAD Tool

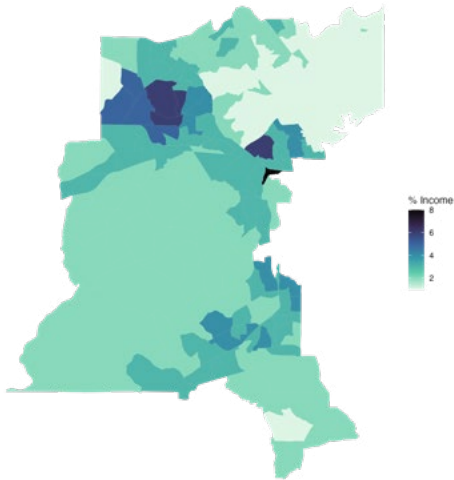
## BLACK POPULATION SHARE AND ENERGY BURDENS IN GEORGIA CONGRESSIONAL DISTRICT 05



Source: DOE LEAD Data

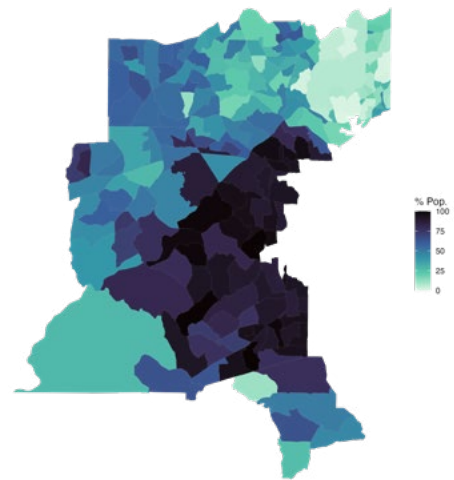
# GEORGIA DISTRICT 06

## ENERGY BURDENS IN GEORGIA CONGRESSIONAL DISTRICT 06



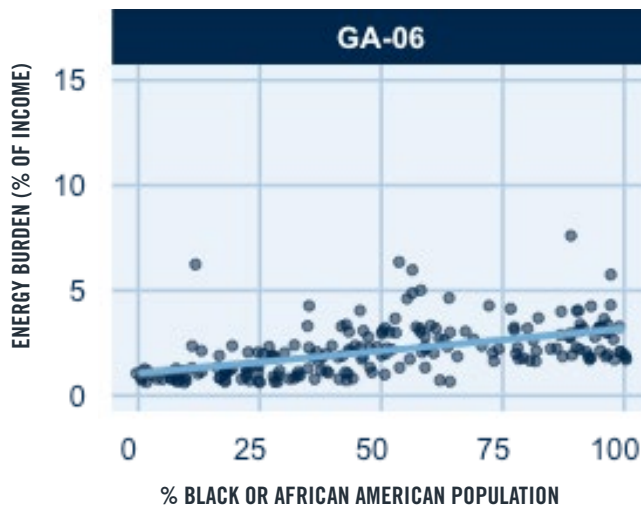
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN GEORGIA CONGRESSIONAL DISTRICT 06



Source: Data from US Census via tigris and DOE LEAD Tool

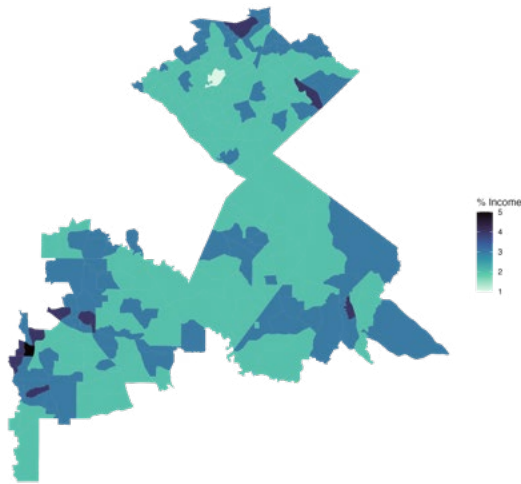
## BLACK POPULATION SHARE AND ENERGY BURDENS IN GEORGIA CONGRESSIONAL DISTRICT 06



Source: DOE LEAD Data

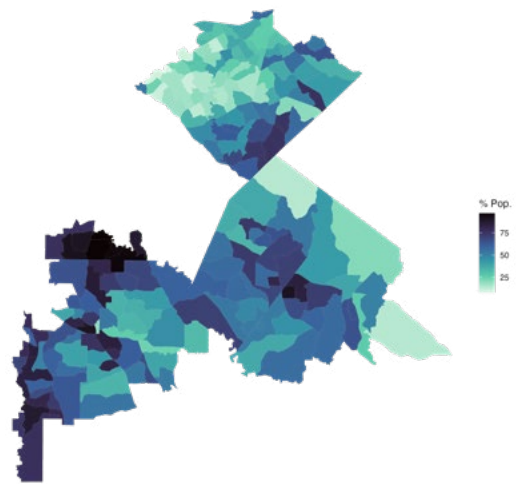
# GEORGIA DISTRICT 13

## ENERGY BURDENS IN GEORGIA CONGRESSIONAL DISTRICT 13



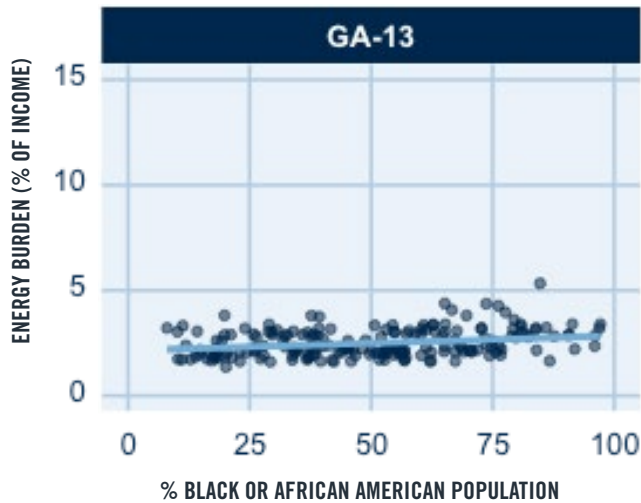
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN GEORGIA CONGRESSIONAL DISTRICT 13



Source: Data from US Census via tigris and DOE LEAD Tool

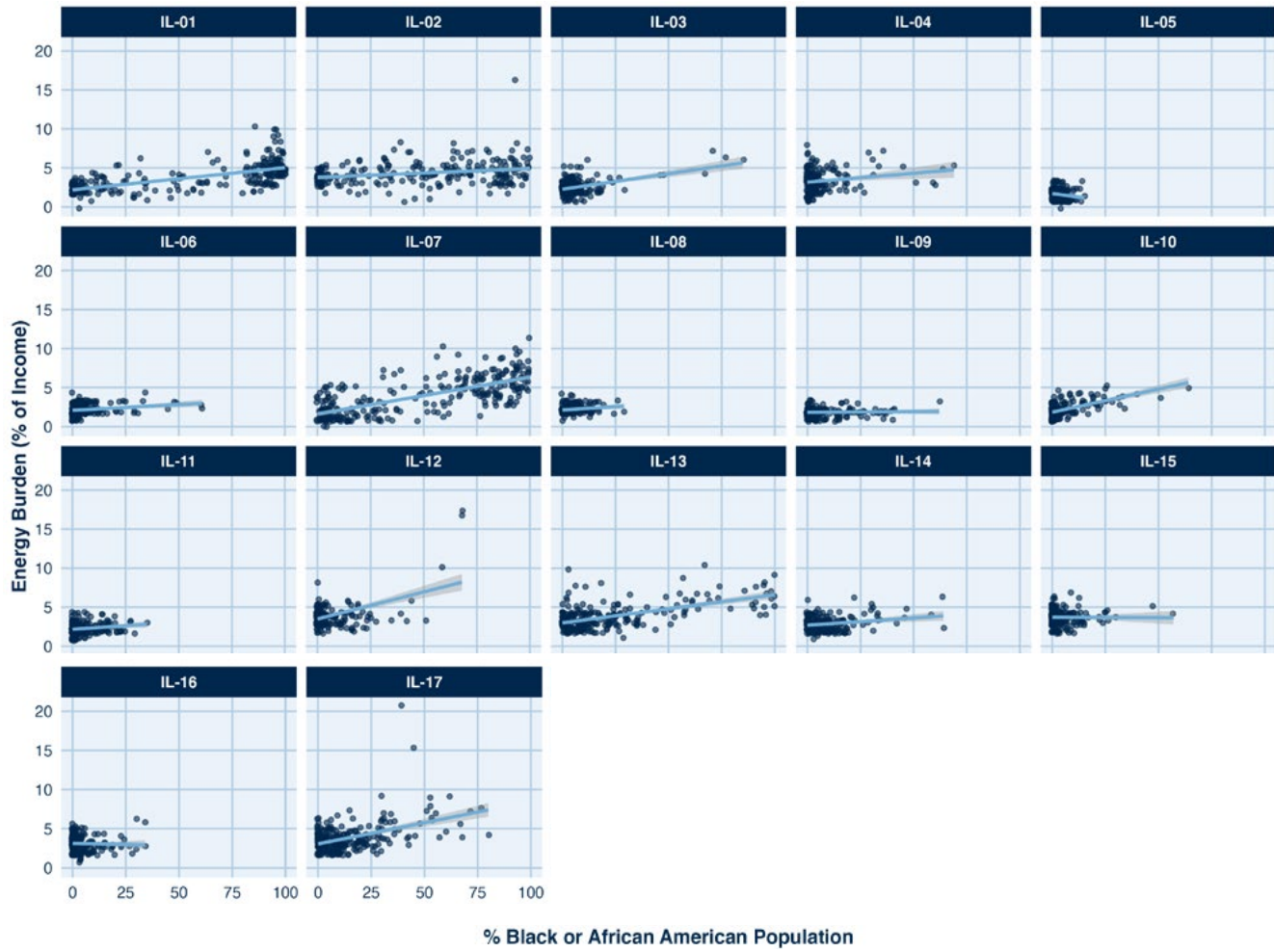
## BLACK POPULATION SHARE AND ENERGY BURDENS IN GEORGIA CONGRESSIONAL DISTRICT 13



Source: DOE LEAD Data

# ILLINOIS

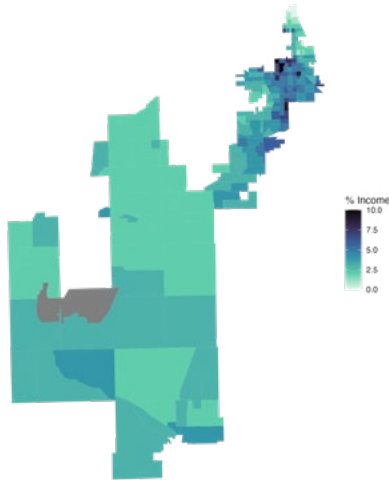
## BLACK POPULATION SHARE AND ENERGY BURDENS IN ILLINOIS CONGRESSIONAL DISTRICTS



Source: DOE LEAD Data

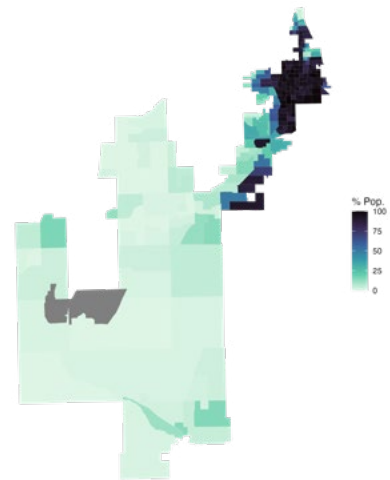
# ILLINOIS DISTRICT 01

## ENERGY BURDENS IN ILLINOIS CONGRESSIONAL DISTRICT 01



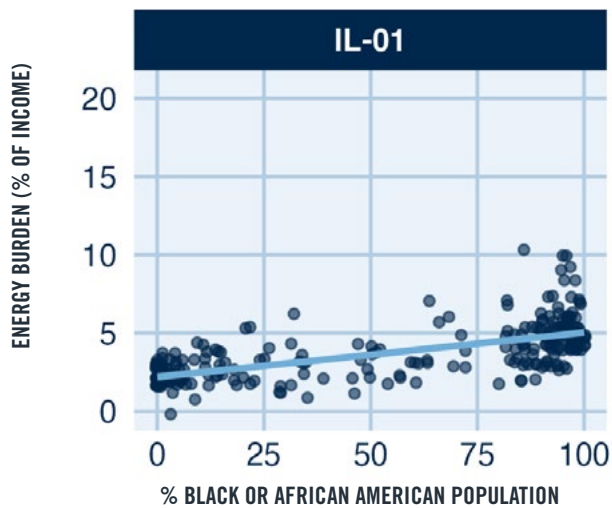
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN ILLINOIS CONGRESSIONAL DISTRICT 01



Source: Data from US Census via tigris and DOE LEAD Tool

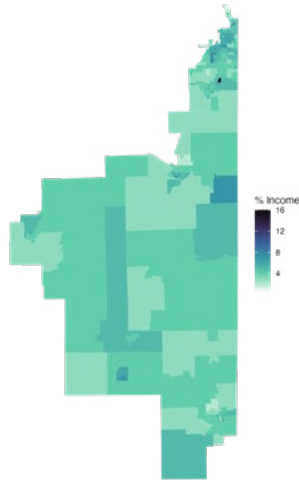
## BLACK POPULATION SHARE AND ENERGY BURDENS IN ILLINOIS CONGRESSIONAL DISTRICT 01



Source: DOE LEAD Data

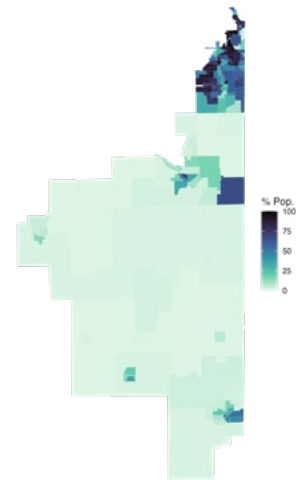
# ILLINOIS DISTRICT 02

## ENERGY BURDENS IN ILLINOIS CONGRESSIONAL DISTRICT 02



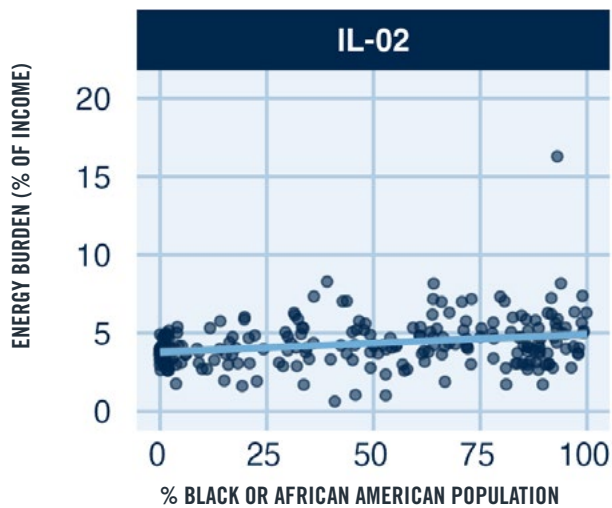
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN ILLINOIS CONGRESSIONAL DISTRICT 02



Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE AND ENERGY BURDENS IN ILLINOIS CONGRESSIONAL DISTRICT 02

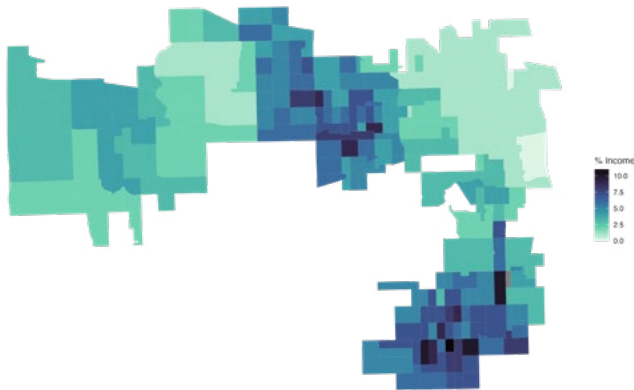


Source: DOE LEAD Data



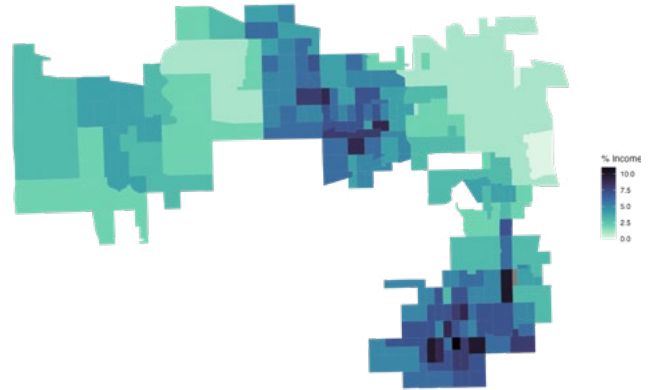
# ILLINOIS DISTRICT 07

## ENERGY BURDENS IN ILLINOIS CONGRESSIONAL DISTRICT 07



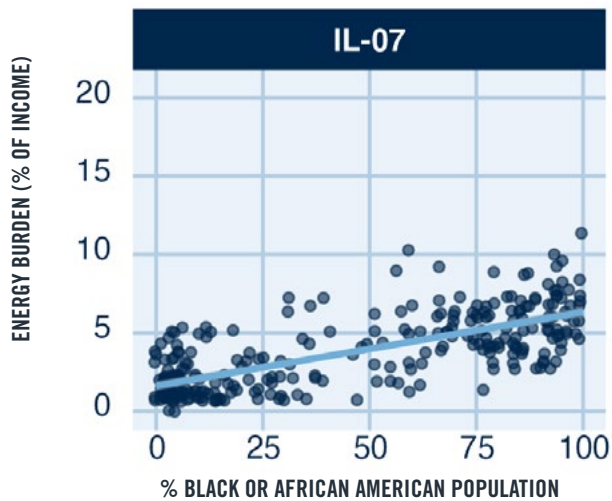
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN ILLINOIS CONGRESSIONAL DISTRICT 07



Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE AND ENERGY BURDENS IN ILLINOIS CONGRESSIONAL DISTRICT 07



Source: DOE LEAD Data

# ILLINOIS DISTRICT 14

## ENERGY BURDENS IN ILLINOIS CONGRESSIONAL DISTRICT 14



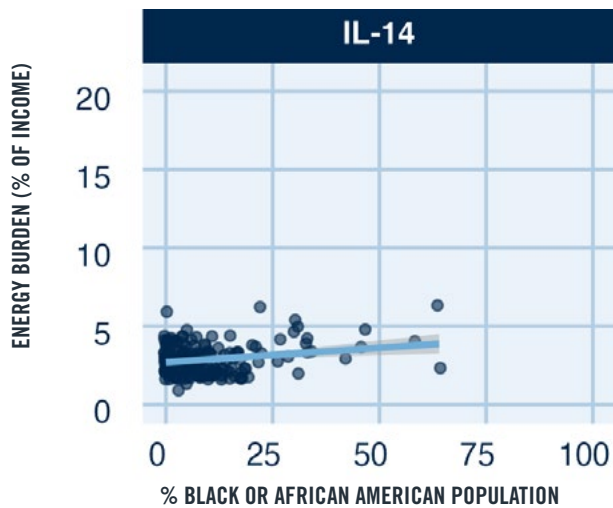
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN ILLINOIS CONGRESSIONAL DISTRICT 14



Source: Data from US Census via tigris and DOE LEAD Tool

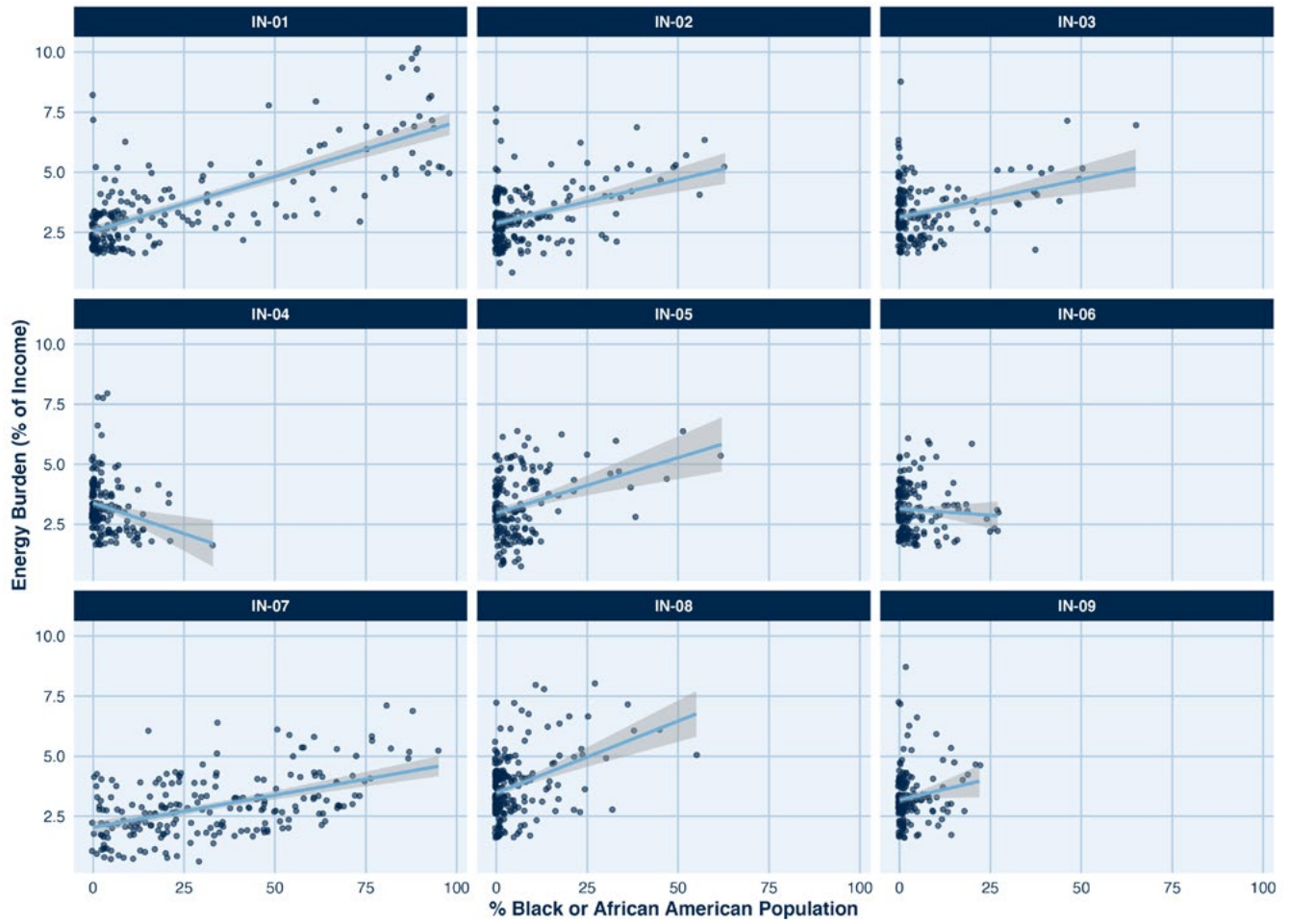
## BLACK POPULATION SHARE AND ENERGY BURDENS IN ILLINOIS CONGRESSIONAL DISTRICT 14



Source: DOE LEAD Data

# INDIANA

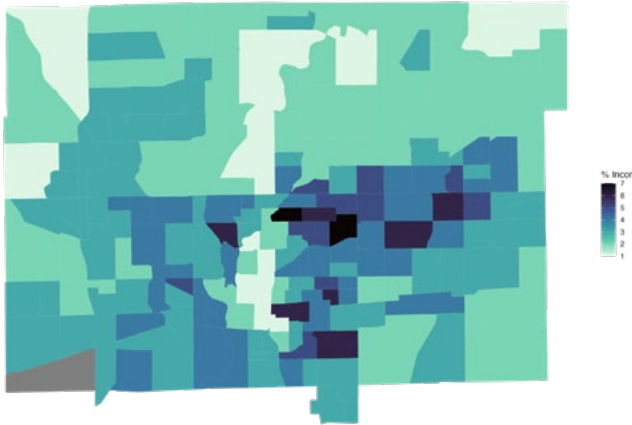
## BLACK POPULATION SHARE AND ENERGY BURDENS IN INDIANA CONGRESSIONAL DISTRICTS



Source: DOE LEAD Data

# INDIANA DISTRICT 07

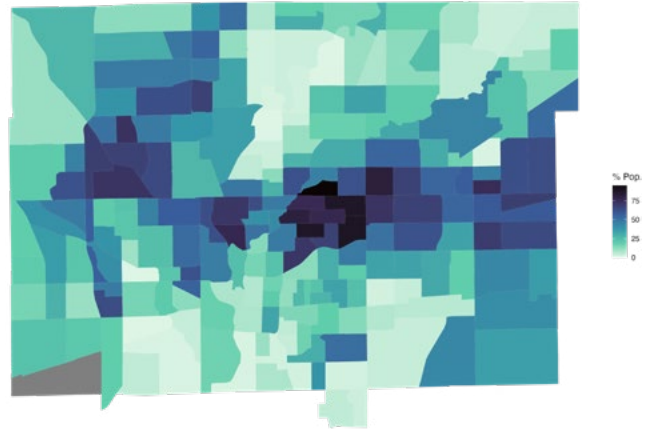
## ENERGY BURDENS IN INDIANA CONGRESSIONAL DISTRICT 07



Data from US Census via tigris and DOE LEAD Tool

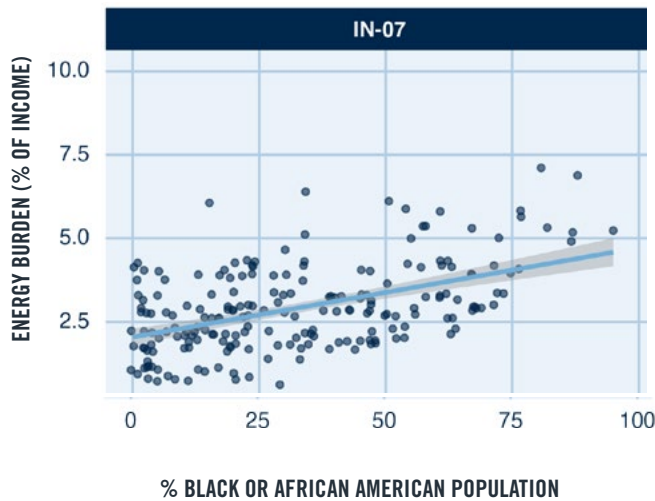
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN INDIANA CONGRESSIONAL DISTRICT 07



Source: Data from US Census via tigris and DOE LEAD Tool

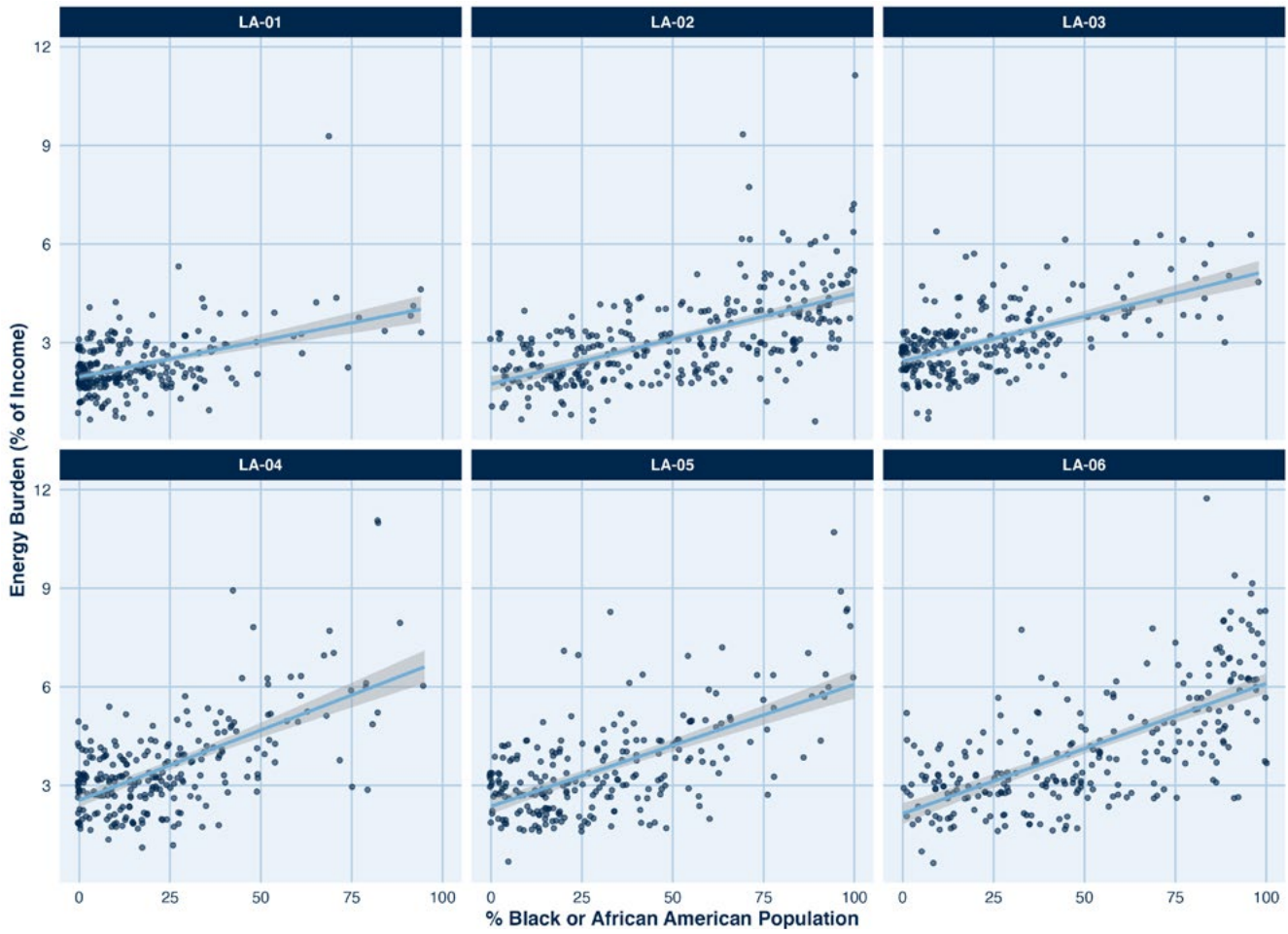
## BLACK POPULATION SHARE AND ENERGY BURDENS IN INDIANA CONGRESSIONAL DISTRICT 07



Source: DOE LEAD Data

# LOUISIANA

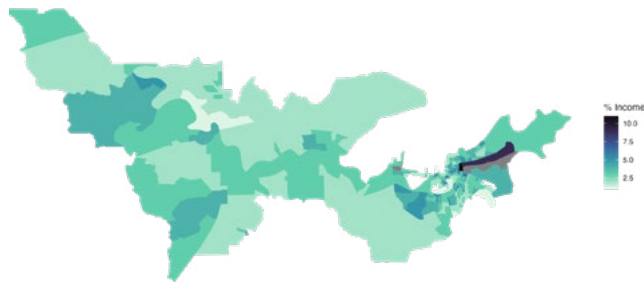
## BLACK POPULATION SHARE AND ENERGY BURDENS IN LOUISIANA CONGRESSIONAL DISTRICTS



Source: DOE LEAD Data

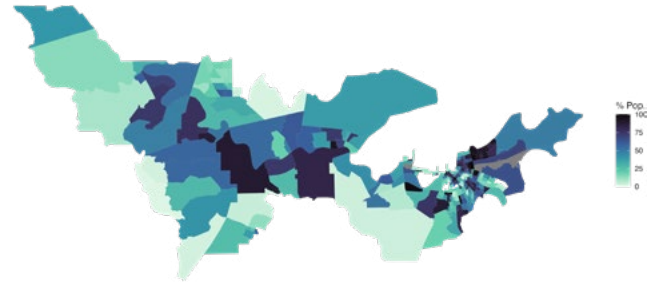
# LOUISIANA DISTRICT 02

## ENERGY BURDENS IN LOUISIANA CONGRESSIONAL DISTRICT 02



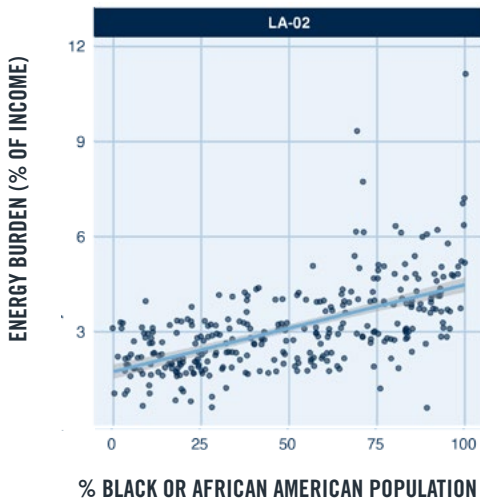
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN LOUISIANA CONGRESSIONAL DISTRICT 02



Source: Data from US Census via tigris and DOE LEAD Tool

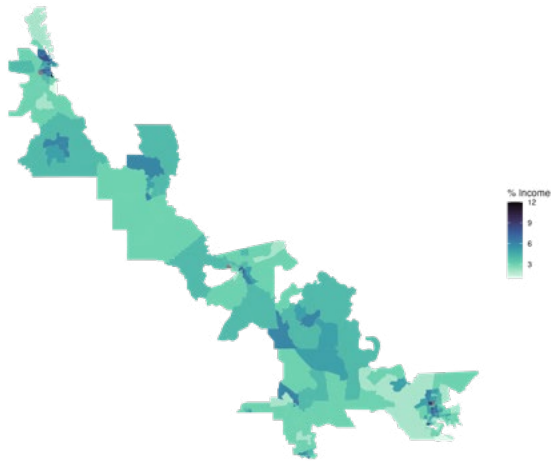
## BLACK POPULATION SHARE AND ENERGY BURDENS IN LOUISIANA CONGRESSIONAL DISTRICT 02



Source: DOE LEAD Data

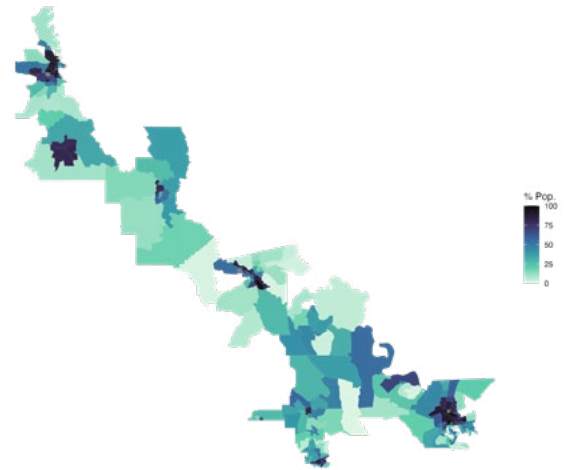
# LOUISIANA DISTRICT 06

## ENERGY BURDENS IN LOUISIANA CONGRESSIONAL DISTRICT 06



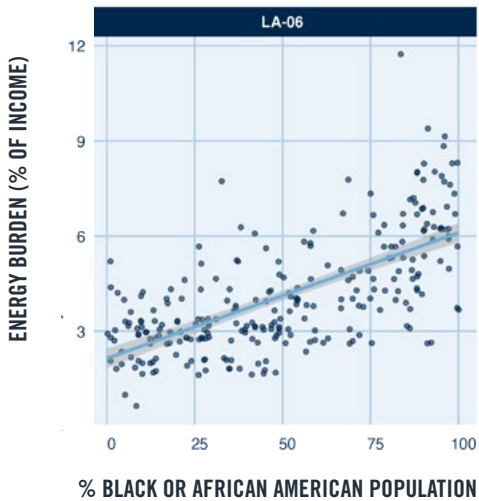
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN LOUISIANA CONGRESSIONAL DISTRICT 06



Source: Data from US Census via tigris and DOE LEAD Tool

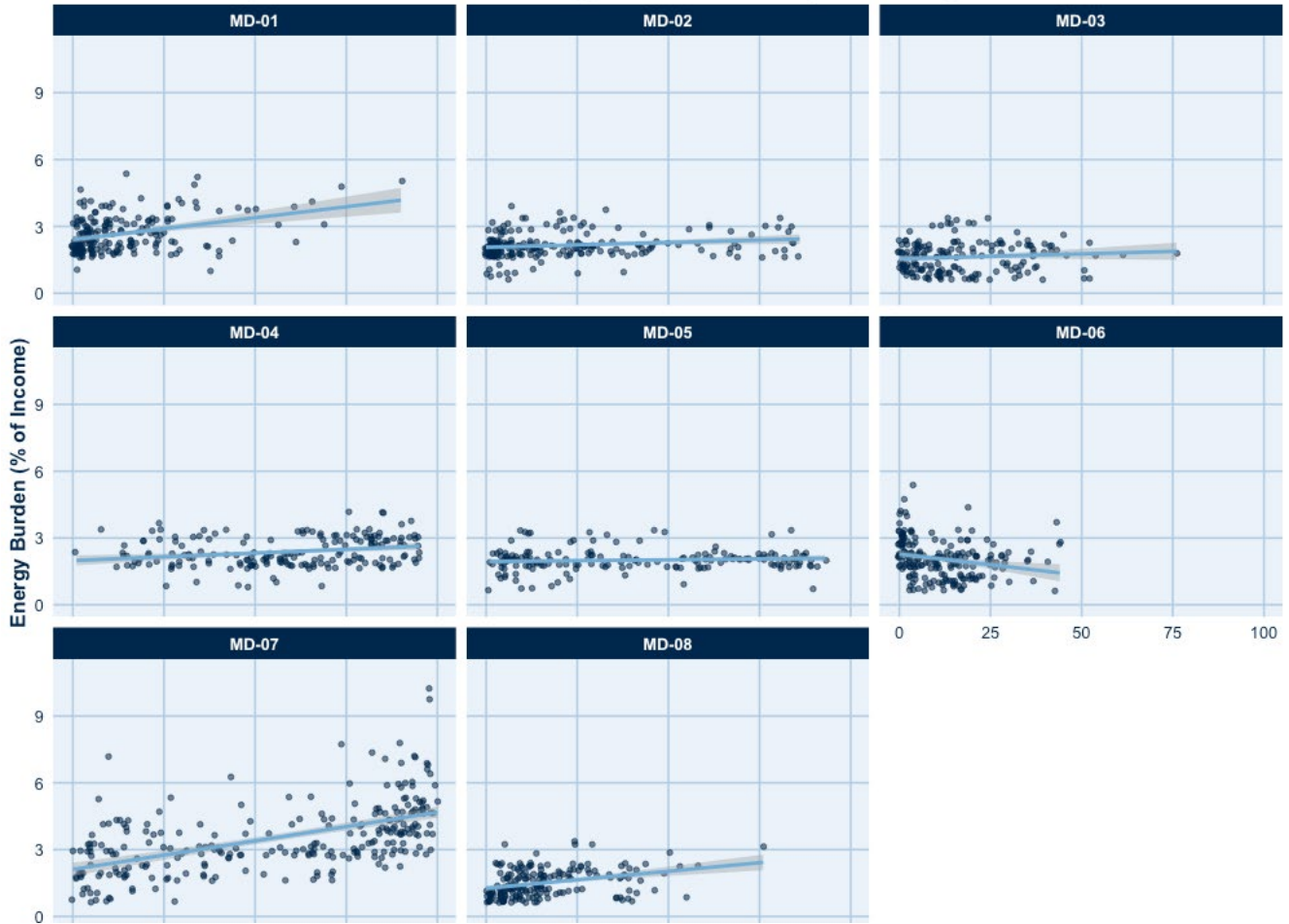
## BLACK POPULATION SHARE AND ENERGY BURDENS IN LOUISIANA CONGRESSIONAL DISTRICT 06



Source: DOE LEAD Data

# MARYLAND

## BLACK POPULATION SHARE AND ENERGY BURDENS IN MARYLAND CONGRESSIONAL DISTRICTS

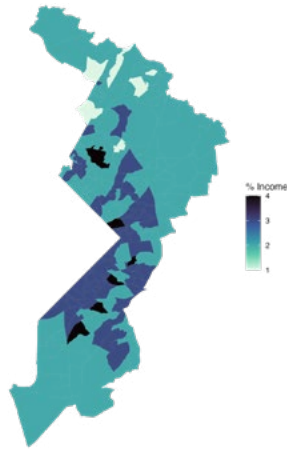


Source: DOE LEAD Data



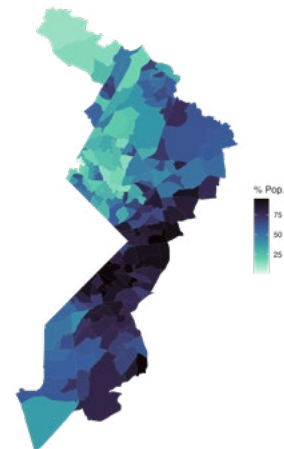
# MARYLAND DISTRICT 04

## ENERGY BURDENS IN MARYLAND CONGRESSIONAL DISTRICT 04



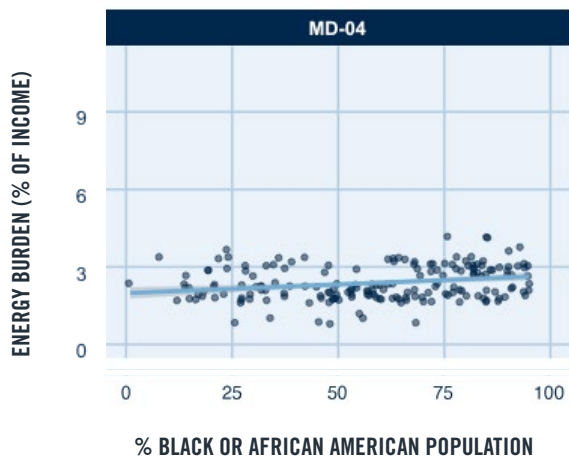
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN MARYLAND CONGRESSIONAL DISTRICT 04



Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE AND ENERGY BURDENS IN MARYLAND CONGRESSIONAL DISTRICT 04



Source: DOE LEAD Data

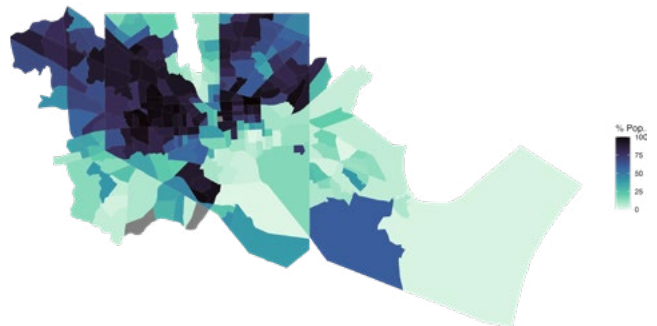
# MARYLAND DISTRICT 07

## ENERGY BURDENS IN MARYLAND CONGRESSIONAL DISTRICT 07



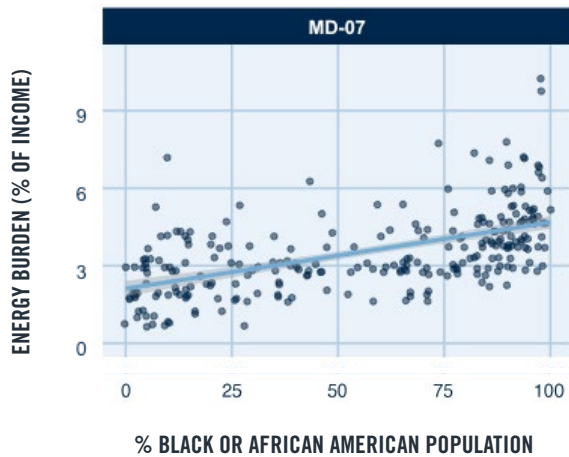
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN MARYLAND CONGRESSIONAL DISTRICT 07



Source: Data from US Census via tigris and DOE LEAD Tool

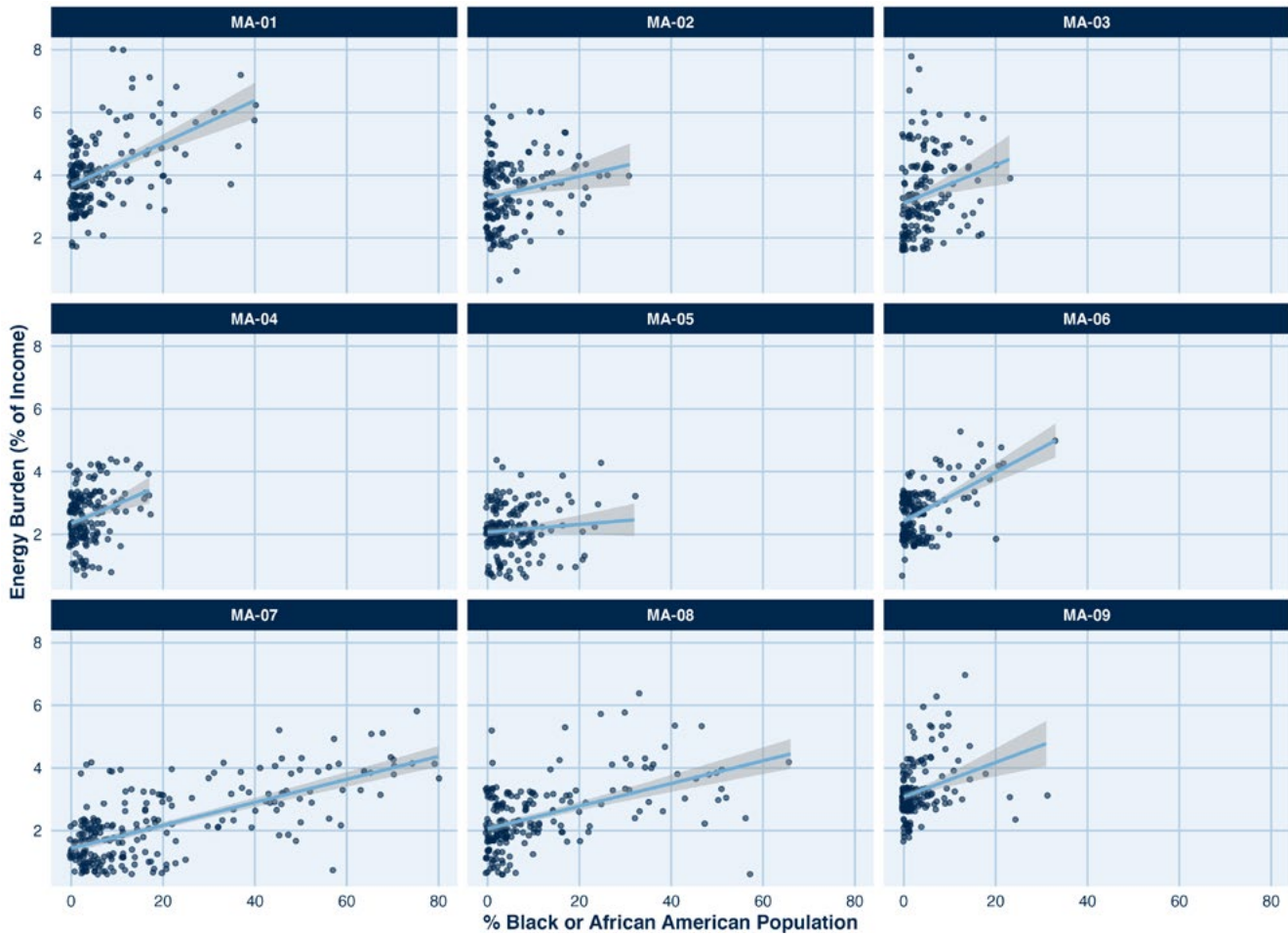
## BLACK POPULATION SHARE AND ENERGY BURDENS IN MARYLAND CONGRESSIONAL DISTRICT 07



Source: DOE LEAD Data

# MASSACHUSETTS

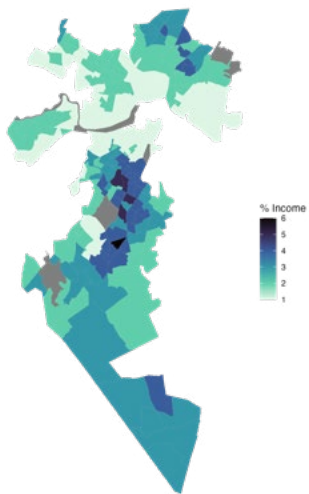
## BLACK POPULATION SHARE AND ENERGY BURDENS IN MASSACHUSETTS CONGRESSIONAL DISTRICTS



Source: DOE LEAD Data

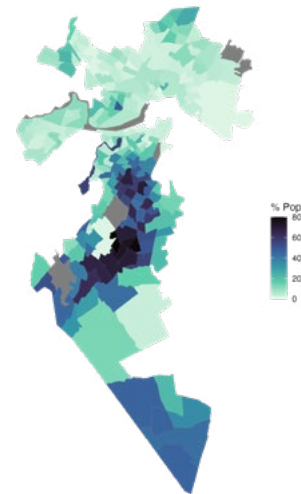
# MASSACHUSETTS DISTRICT 07

## ENERGY BURDENS IN MASSACHUSETTS CONGRESSIONAL DISTRICT 07



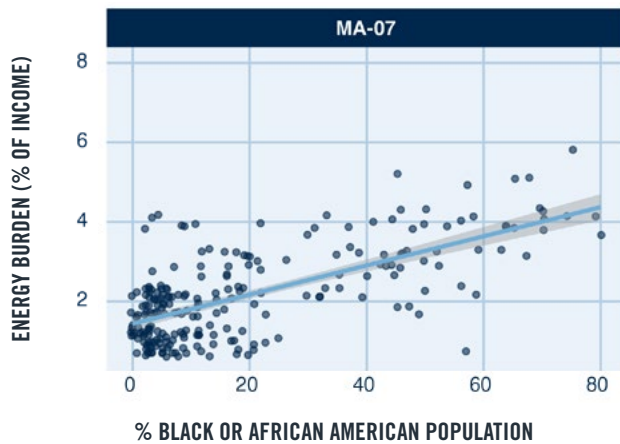
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN MASSACHUSETTS CONGRESSIONAL DISTRICT 07



Source: Data from US Census via tigris and DOE LEAD Tool

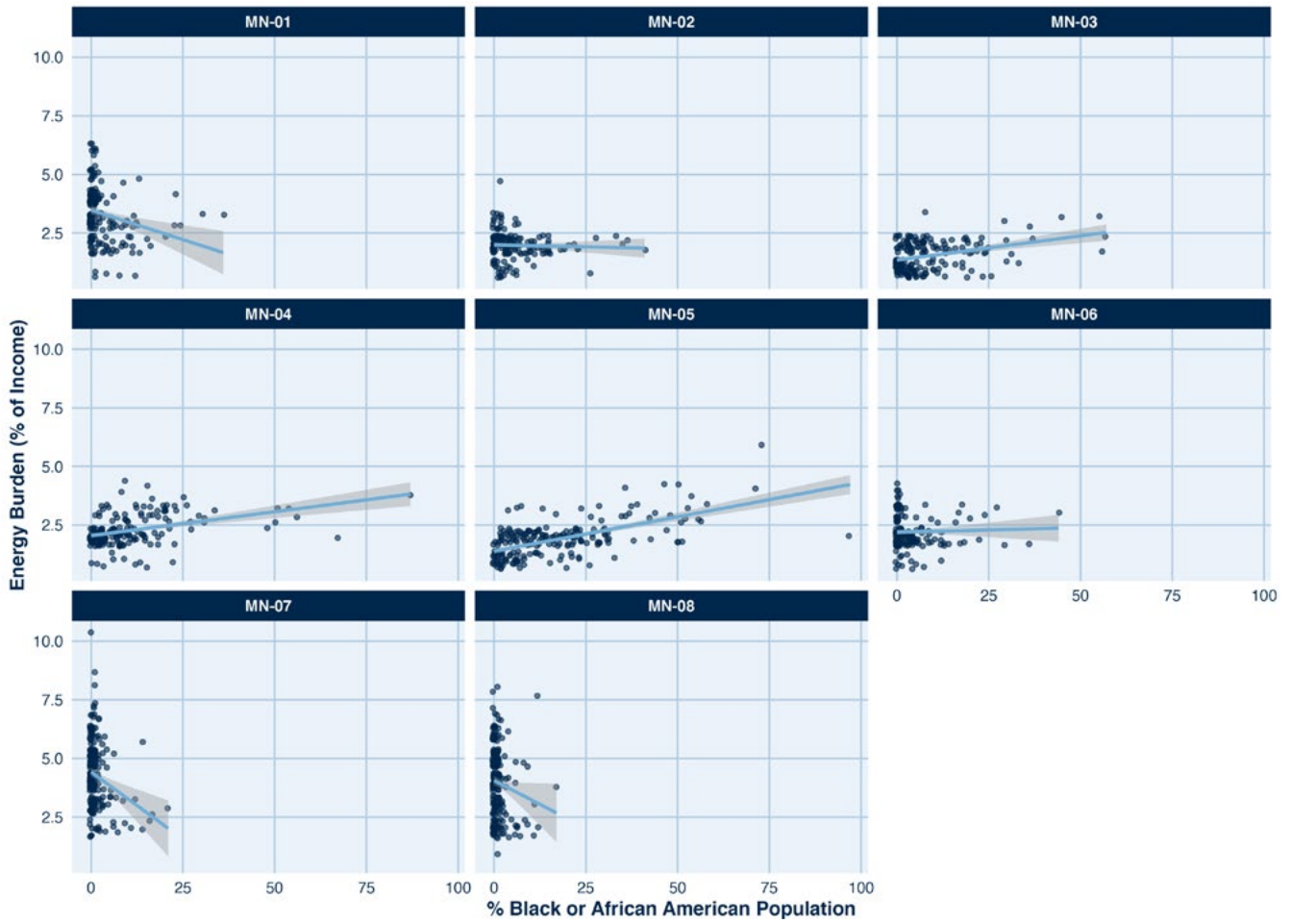
## BLACK POPULATION SHARE AND ENERGY BURDENS IN MASSACHUSETTS CONGRESSIONAL DISTRICT 07



Source: DOE LEAD Data

# MINNESOTA

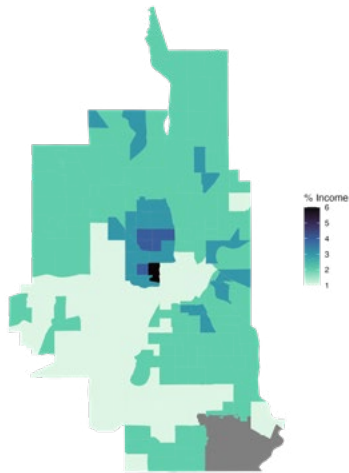
## BLACK POPULATION SHARE AND ENERGY BURDENS IN MINNESOTA CONGRESSIONAL DISTRICTS



Source: DOE LEAD Data

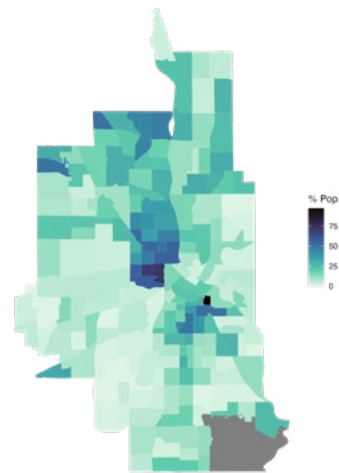
# MINNESOTA DISTRICT 05

## ENERGY BURDENS IN MINNESOTA CONGRESSIONAL DISTRICT 05



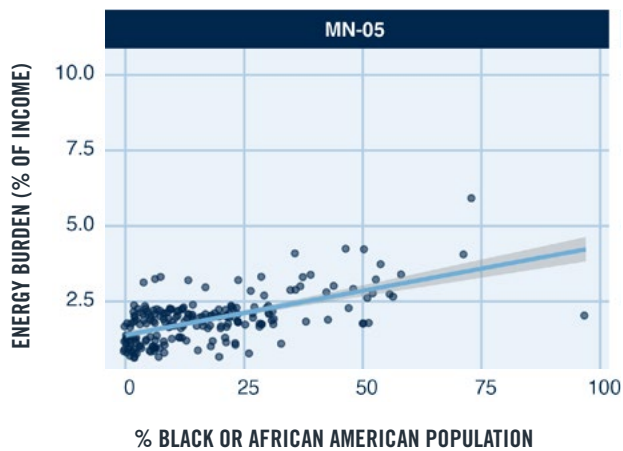
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN MINNESOTA CONGRESSIONAL DISTRICT 05



Source: Data from US Census via tigris and DOE LEAD Tool

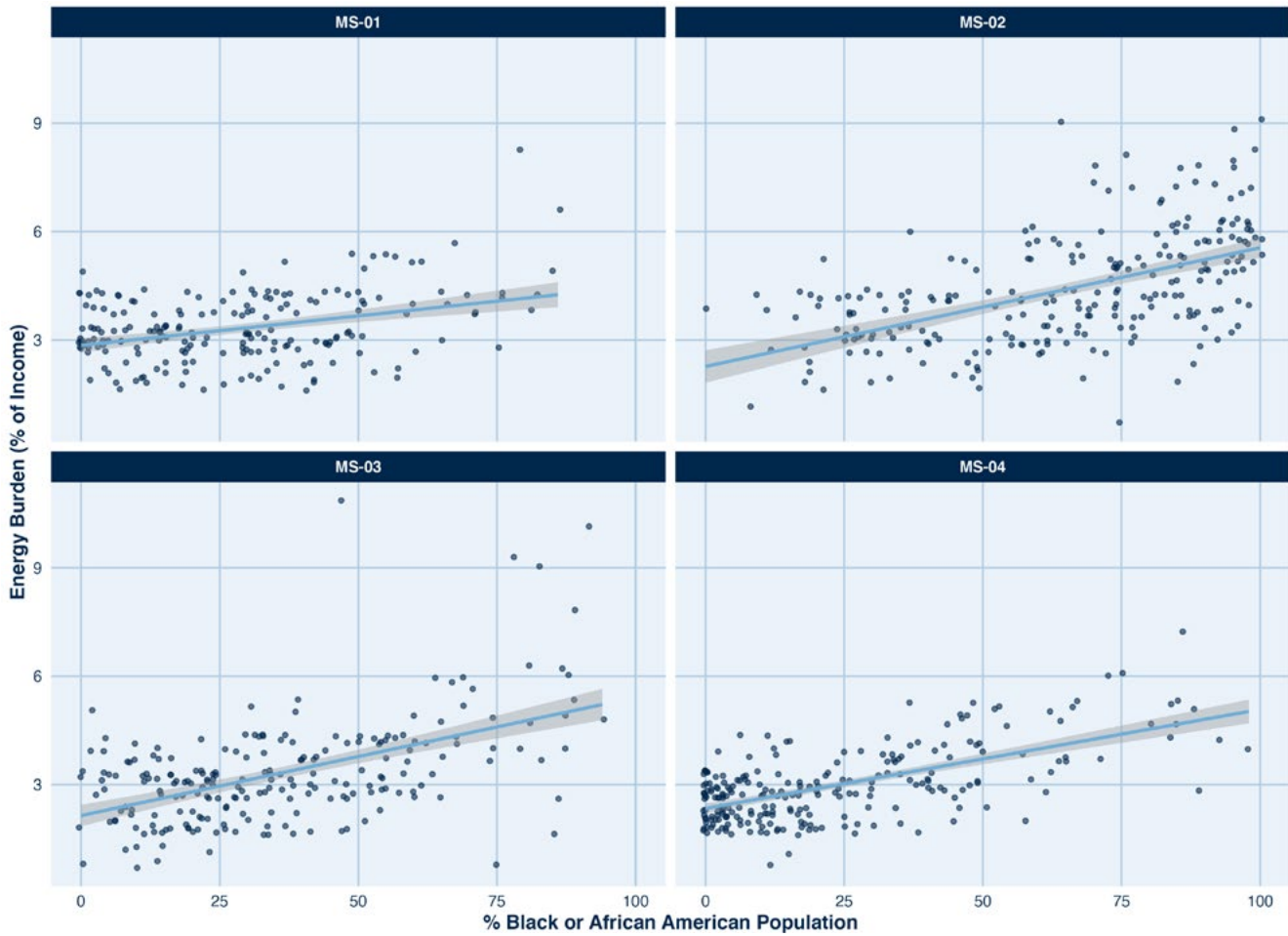
## BLACK POPULATION SHARE AND ENERGY BURDENS IN MINNESOTA CONGRESSIONAL DISTRICT 05



Source: DOE LEAD Data

# MISSISSIPPI

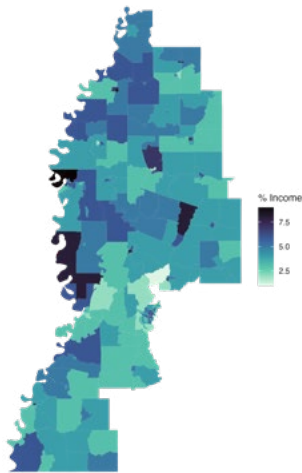
## BLACK POPULATION SHARE AND ENERGY BURDENS IN MISSISSIPPI CONGRESSIONAL DISTRICTS



Source: DOE LEAD Data

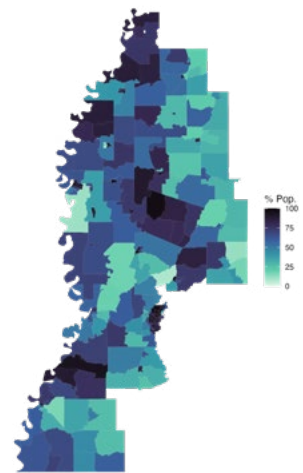
# MISSISSIPPI DISTRICT 02

## ENERGY BURDENS IN MISSISSIPPI CONGRESSIONAL DISTRICT 02



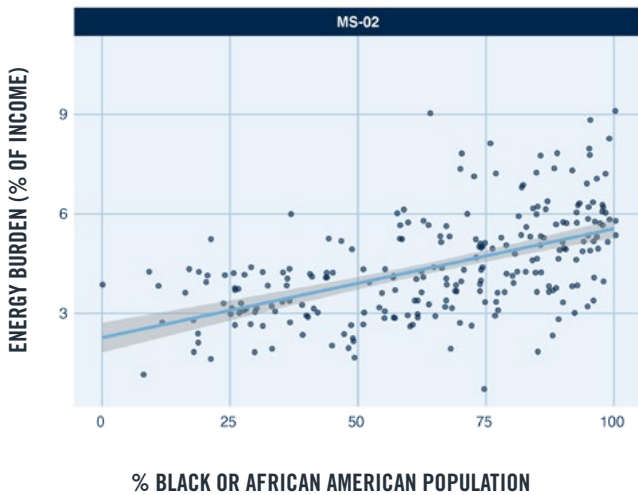
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN MISSISSIPPI CONGRESSIONAL DISTRICT 02



Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE AND ENERGY BURDENS IN MISSISSIPPI CONGRESSIONAL DISTRICT 02

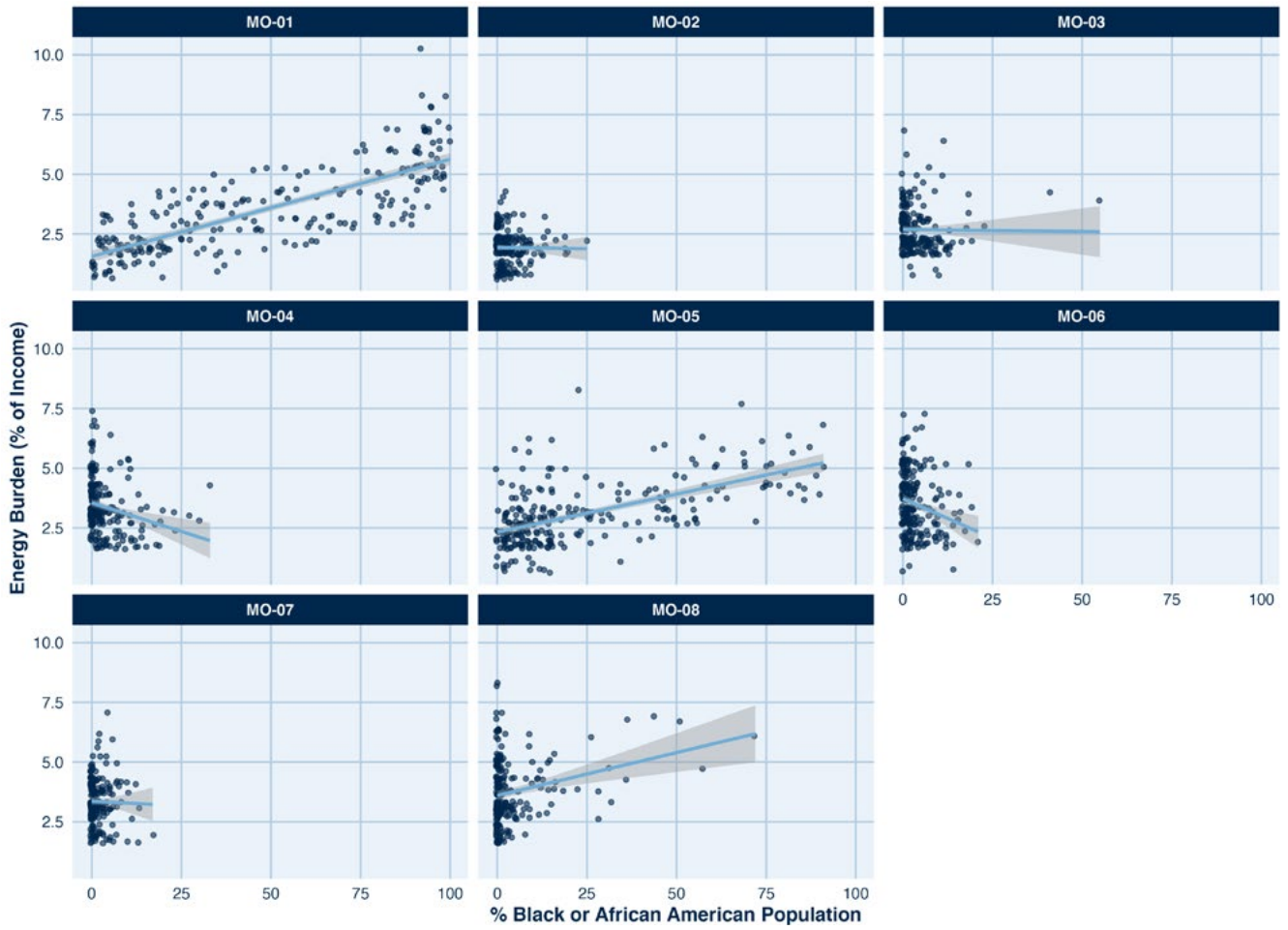


Source: DOE LEAD Data



# MISSOURI

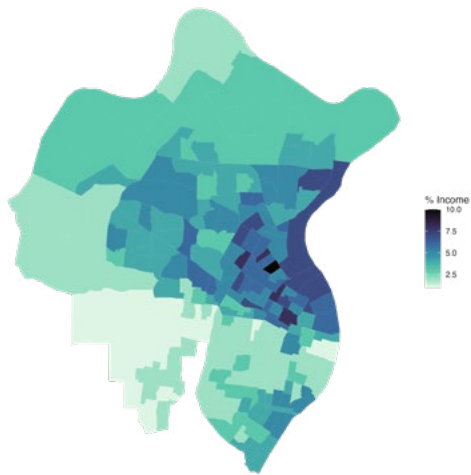
## BLACK POPULATION SHARE AND ENERGY BURDENS IN MISSOURI CONGRESSIONAL DISTRICTS



Source: DOE LEAD Data

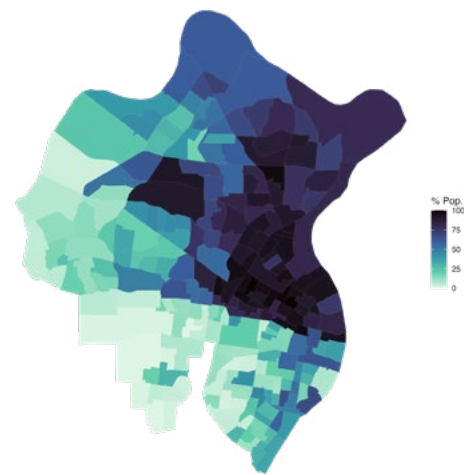
# MISSOURI DISTRICT 01

## ENERGY BURDENS IN MISSOURI CONGRESSIONAL DISTRICT 01



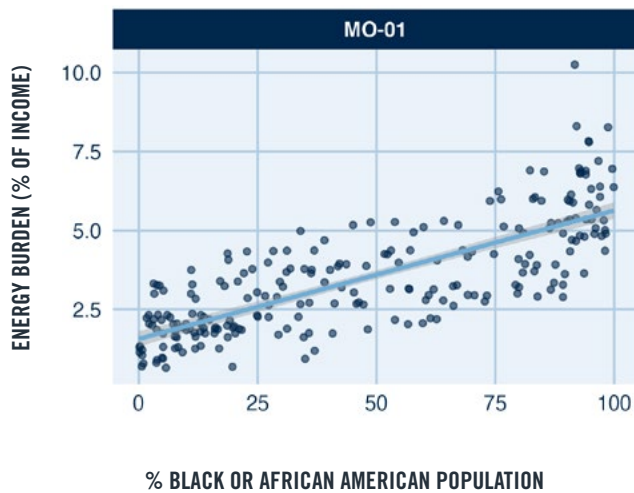
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN MISSOURI CONGRESSIONAL DISTRICT 01



Source: Data from US Census via tigris and DOE LEAD Tool

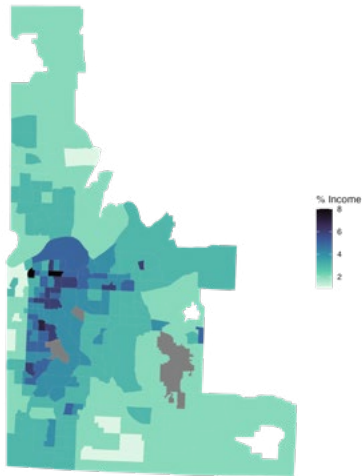
## BLACK POPULATION SHARE AND ENERGY BURDENS IN MISSOURI CONGRESSIONAL DISTRICT 01



Source: DOE LEAD Data

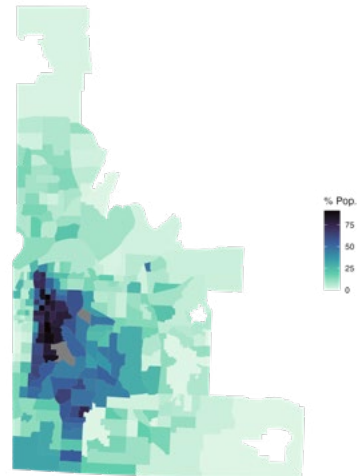
# MISSOURI DISTRICT 05

## ENERGY BURDENS IN MISSOURI CONGRESSIONAL DISTRICT 05



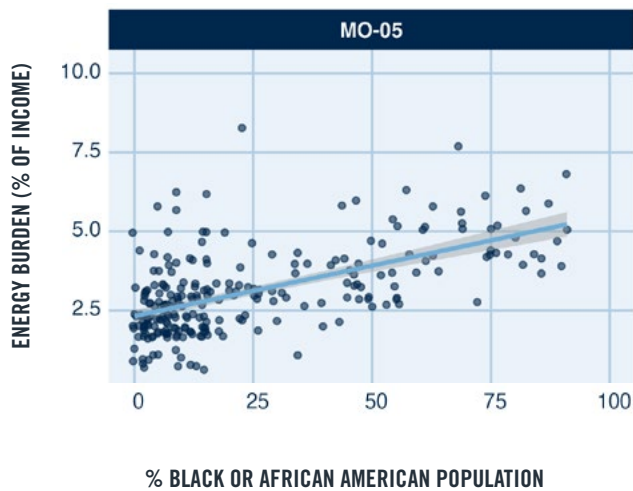
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN MISSOURI CONGRESSIONAL DISTRICT 05



Source: Data from US Census via tigris and DOE LEAD Tool

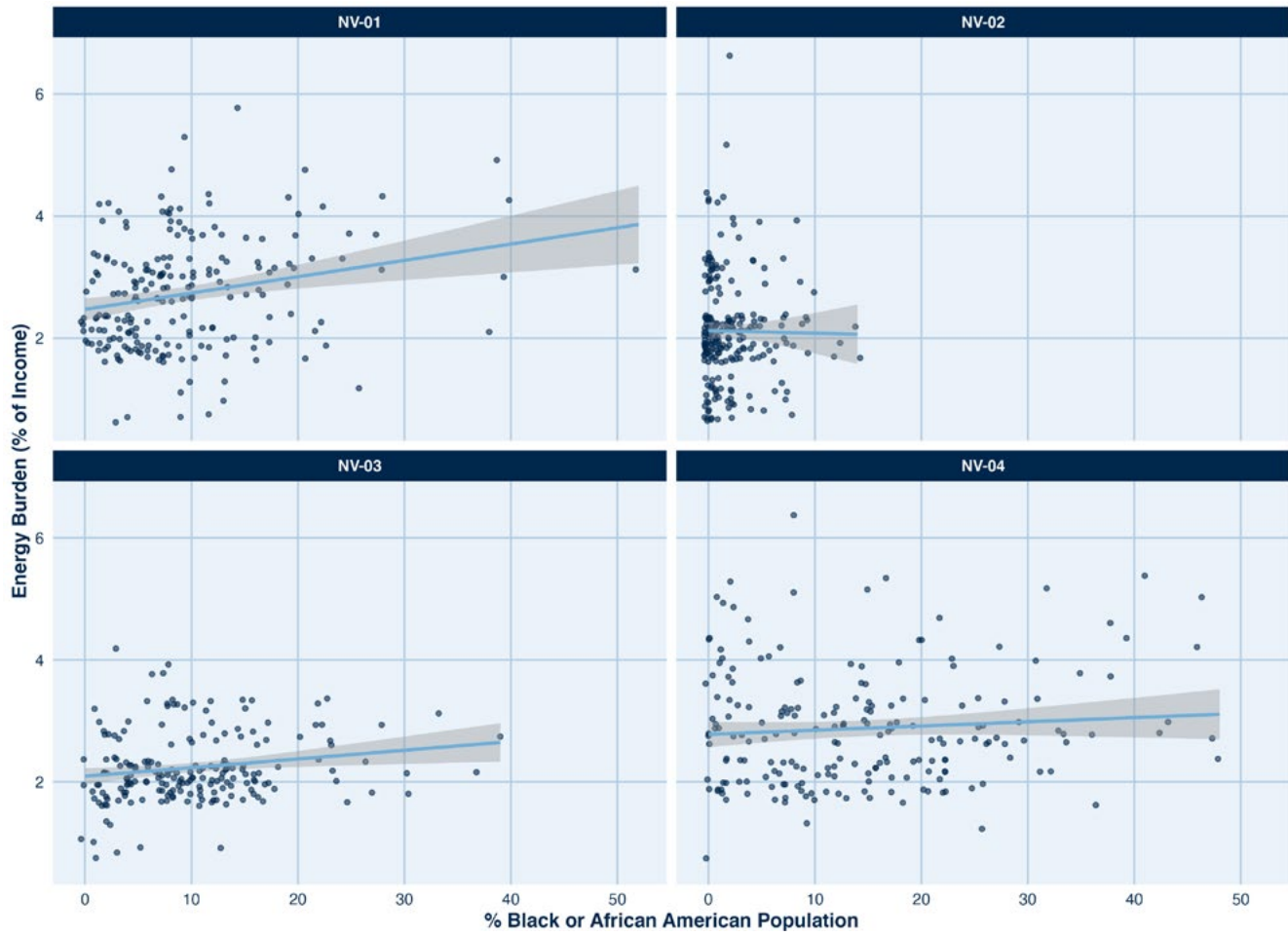
## BLACK POPULATION SHARE AND ENERGY BURDENS IN MISSOURI CONGRESSIONAL DISTRICT 05



Source: DOE LEAD Data

# NEVADA

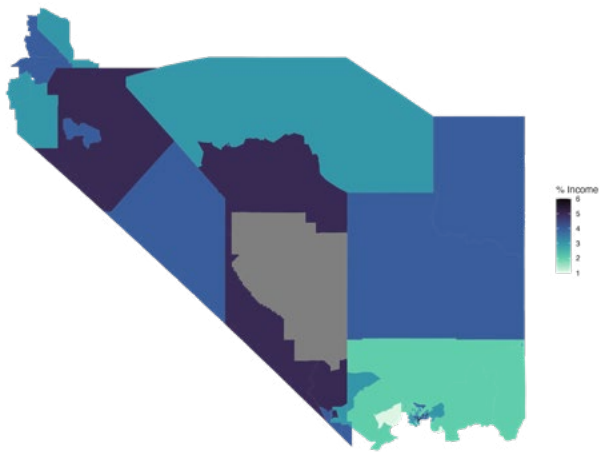
## BLACK POPULATION SHARE AND ENERGY BURDENS IN NEVADA CONGRESSIONAL DISTRICTS



Source: DOE LEAD Data

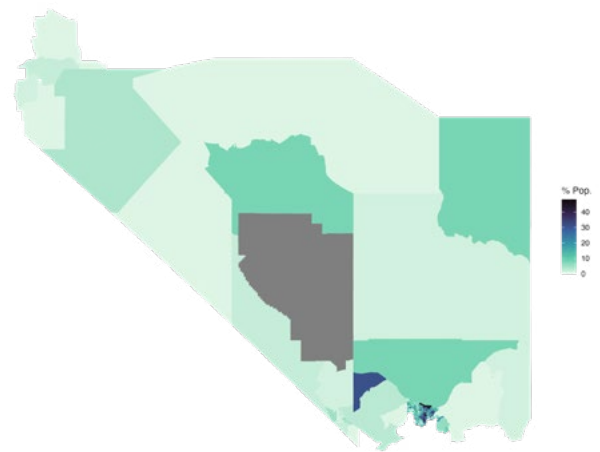
# NEVADA DISTRICT 04

## ENERGY BURDENS IN NEVADA CONGRESSIONAL DISTRICT 04



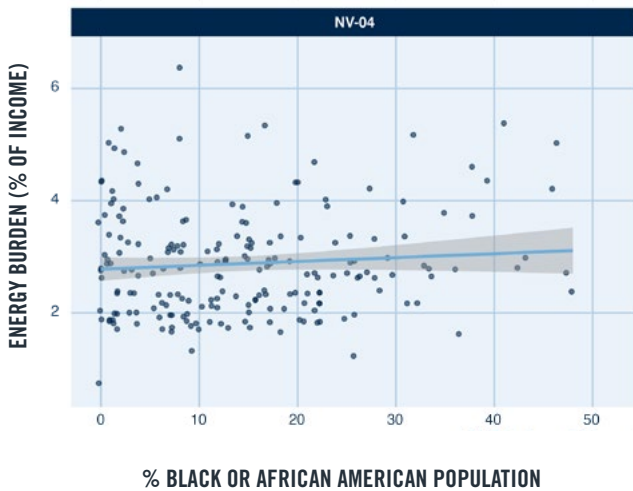
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN NEVADA CONGRESSIONAL DISTRICT 04



Source: Data from US Census via tigris and DOE LEAD Tool

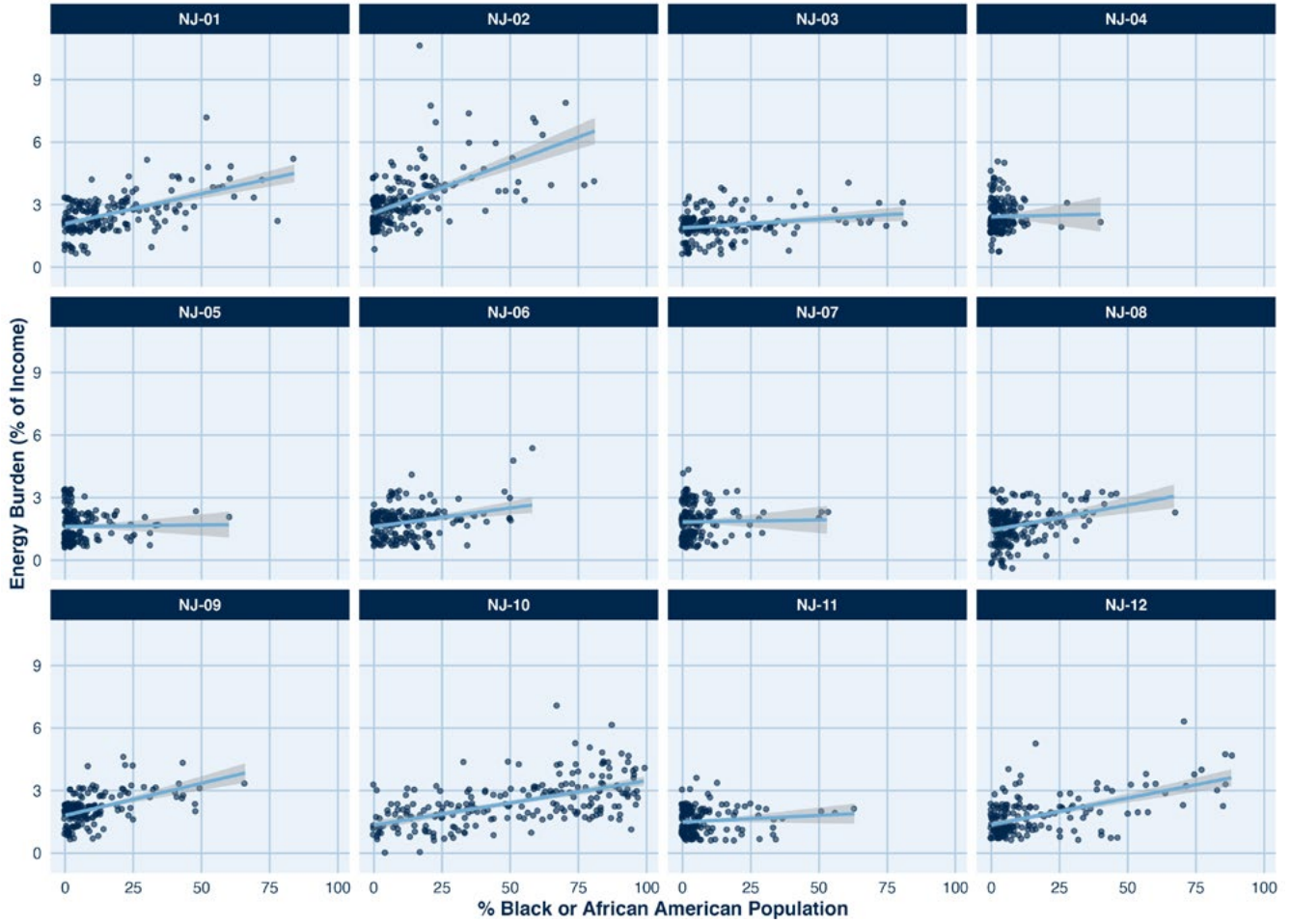
## BLACK POPULATION SHARE AND ENERGY BURDENS IN NEVADA CONGRESSIONAL DISTRICT 04



Source: DOE LEAD Data

# NEW JERSEY

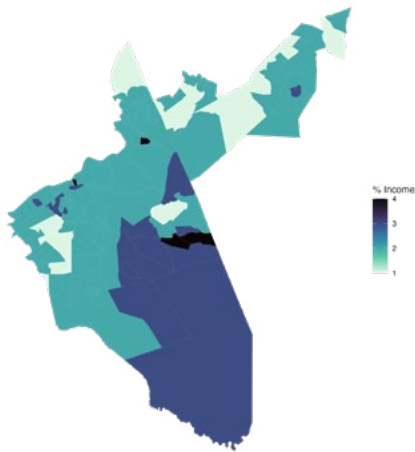
## BLACK POPULATION SHARE AND ENERGY BURDENS IN NEW JERSEY CONGRESSIONAL DISTRICTS



Source: DOE LEAD Data

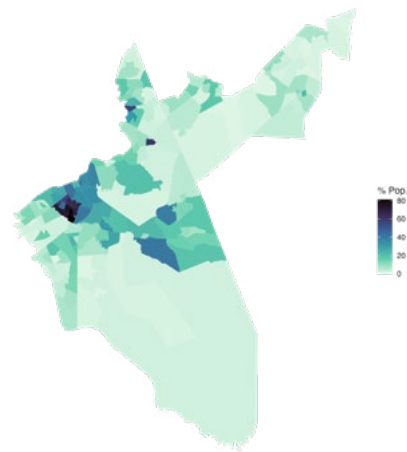
# NEW JERSEY DISTRICT 03

## ENERGY BURDENS IN NEW JERSEY CONGRESSIONAL DISTRICT 03



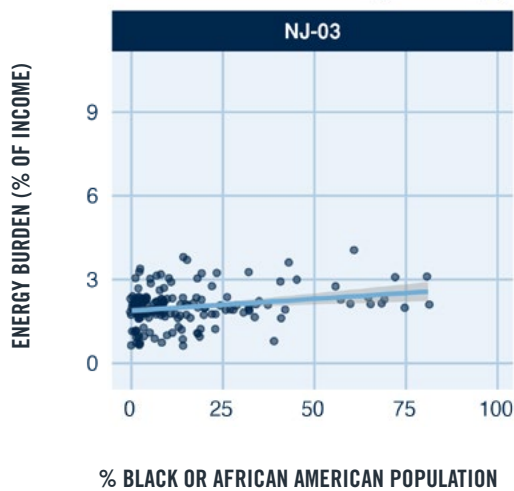
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN NEW JERSEY CONGRESSIONAL DISTRICT 03



Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE AND ENERGY BURDENS IN NEW JERSEY CONGRESSIONAL DISTRICT 03



Source: DOE LEAD Data

# NEW JERSEY DISTRICT 10

## ENERGY BURDENS IN NEW JERSEY CONGRESSIONAL DISTRICT 10



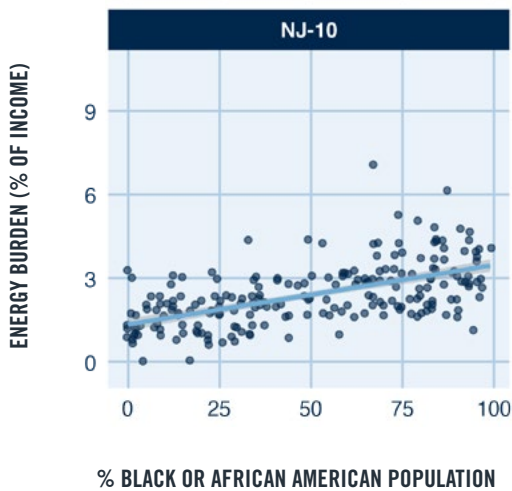
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN NEW JERSEY CONGRESSIONAL DISTRICT 10



Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE AND ENERGY BURDENS IN NEW JERSEY CONGRESSIONAL DISTRICT 10

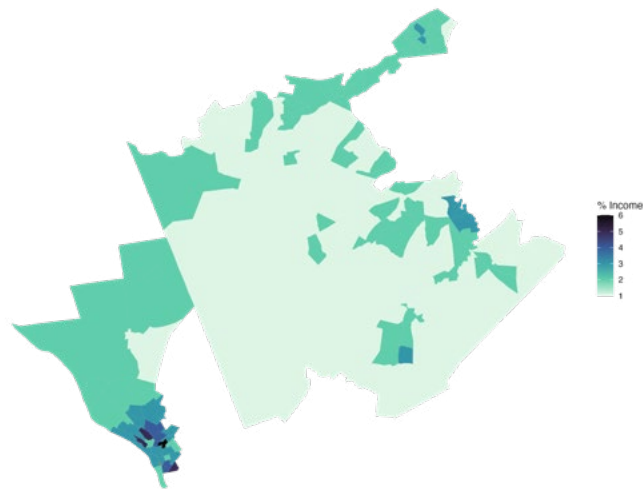


Source: DOE LEAD Data



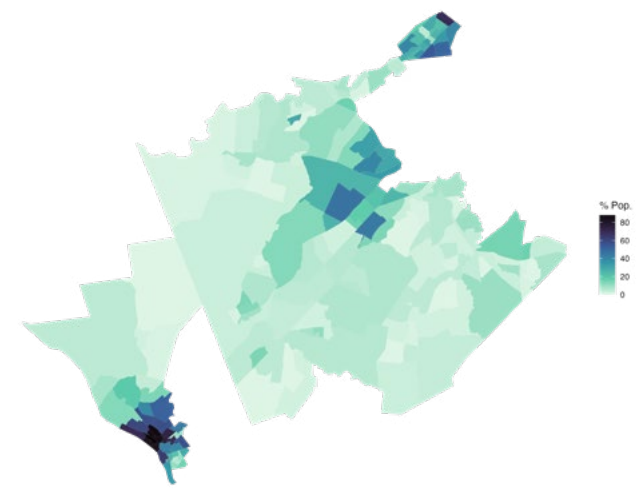
# NEW JERSEY DISTRICT 12

## ENERGY BURDENS IN NEW JERSEY CONGRESSIONAL DISTRICT 12



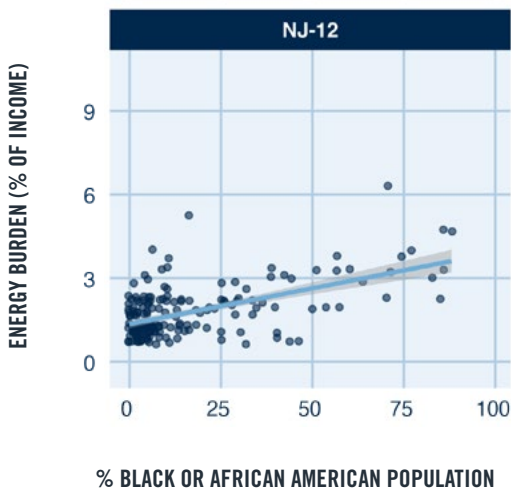
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN NEW JERSEY CONGRESSIONAL DISTRICT 12



Source: Data from US Census via tigris and DOE LEAD Tool

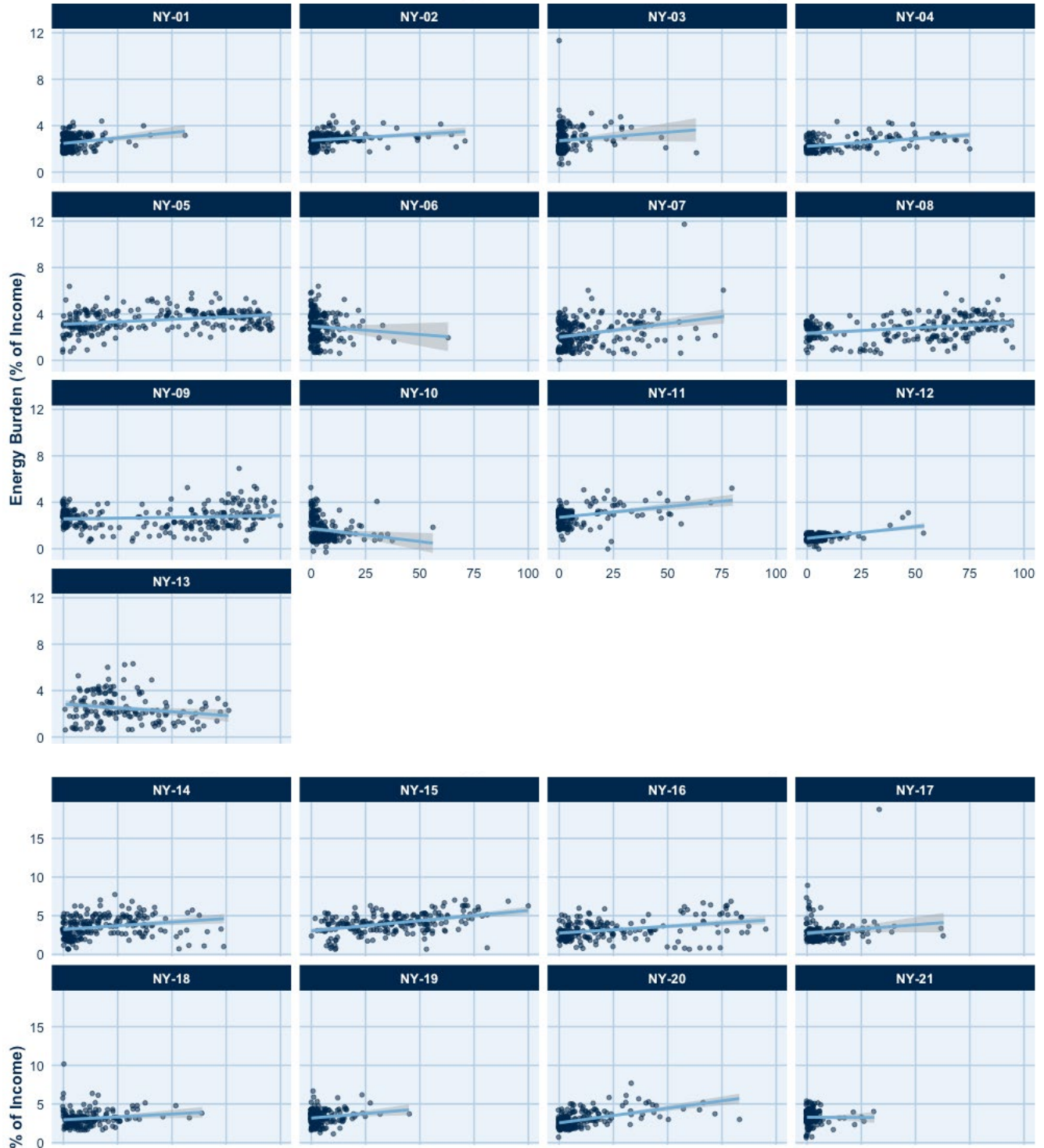
## BLACK POPULATION SHARE AND ENERGY BURDENS IN NEW JERSEY CONGRESSIONAL DISTRICT 12

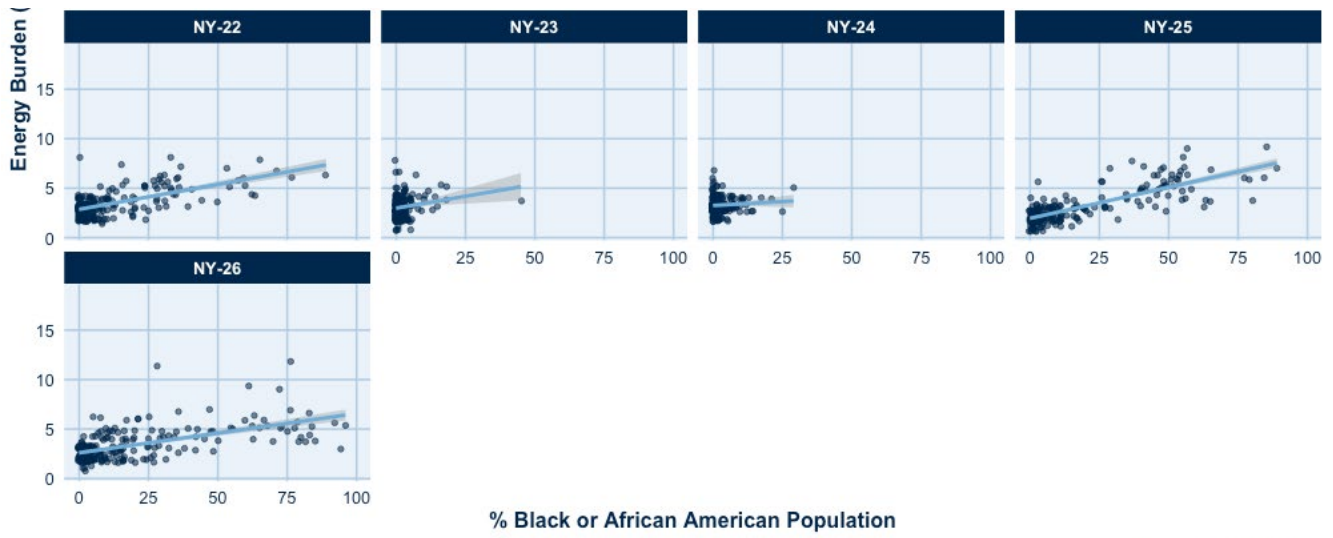


Source: DOE LEAD Data

# NEW YORK

## BLACK POPULATION SHARE AND ENERGY BURDENS IN NEW YORK CONGRESSIONAL DISTRICTS

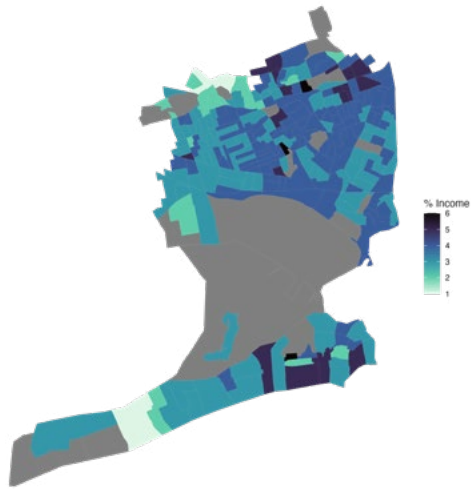




Source: DOE LEAD Data

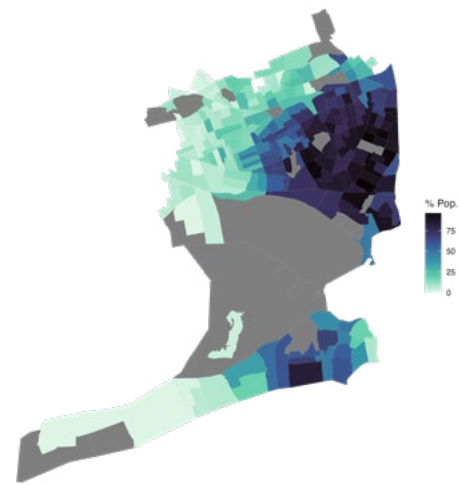
# NEW YORK DISTRICT 05

## ENERGY BURDENS IN NEW YORK CONGRESSIONAL DISTRICT 05



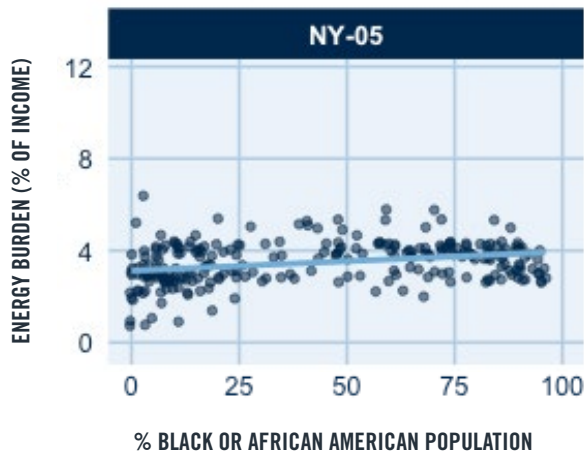
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN NEW YORK CONGRESSIONAL DISTRICT 05



Source: Data from US Census via tigris and DOE LEAD Tool

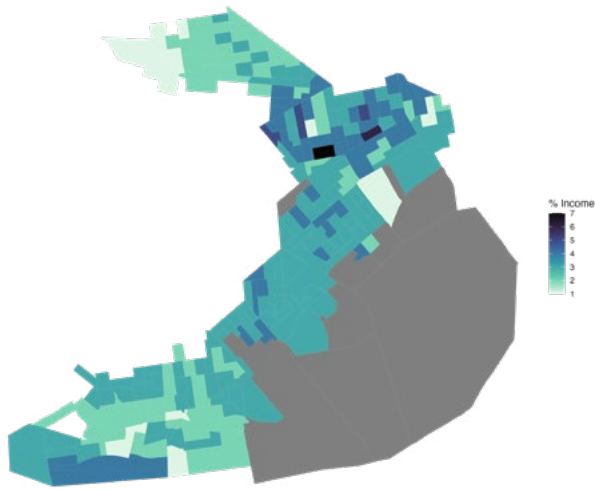
## BLACK POPULATION SHARE AND ENERGY BURDENS IN NEW YORK CONGRESSIONAL DISTRICT 05



Source: DOE LEAD Data

# NEW YORK DISTRICT 08

## ENERGY BURDENS IN NEW YORK CONGRESSIONAL DISTRICT 08



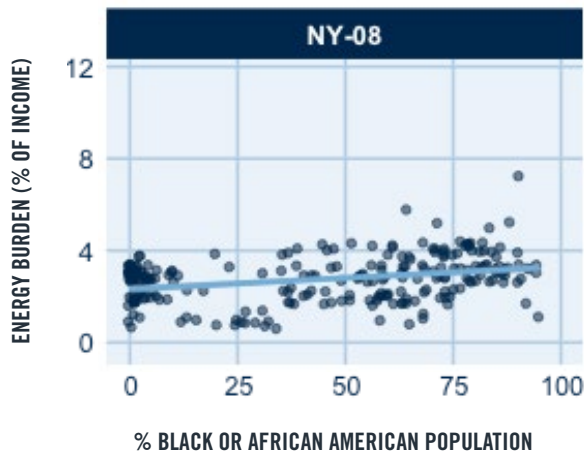
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN NEW YORK CONGRESSIONAL DISTRICT 08



Source: Data from US Census via tigris and DOE LEAD Tool

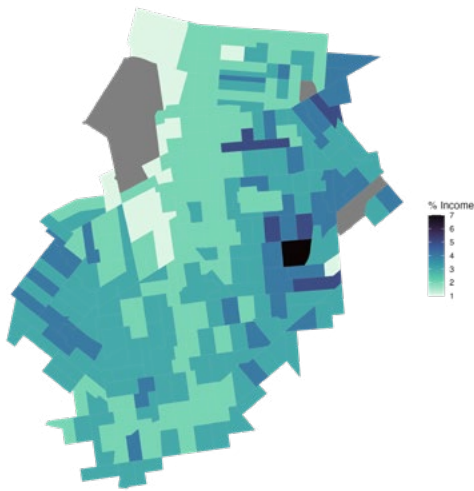
## BLACK POPULATION SHARE AND ENERGY BURDENS IN NEW YORK CONGRESSIONAL DISTRICT 08



Source: DOE LEAD Data

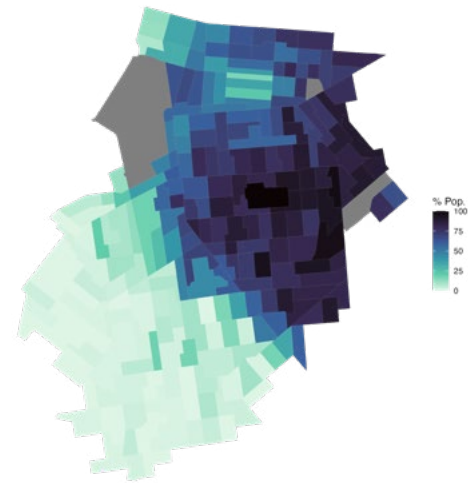
# NEW YORK DISTRICT 09

## ENERGY BURDENS IN NEW YORK CONGRESSIONAL DISTRICT 09



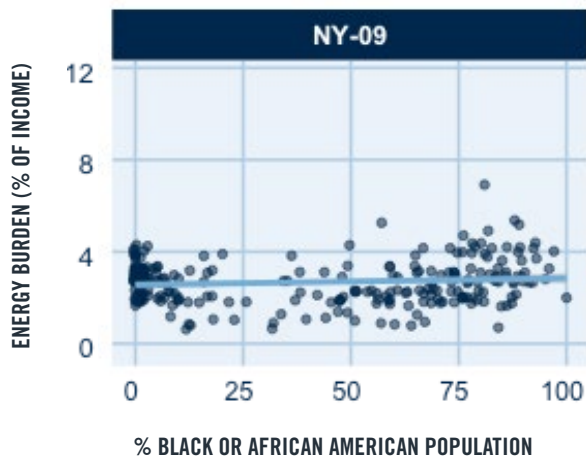
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN NEW YORK CONGRESSIONAL DISTRICT 09



Source: Data from US Census via tigris and DOE LEAD Tool

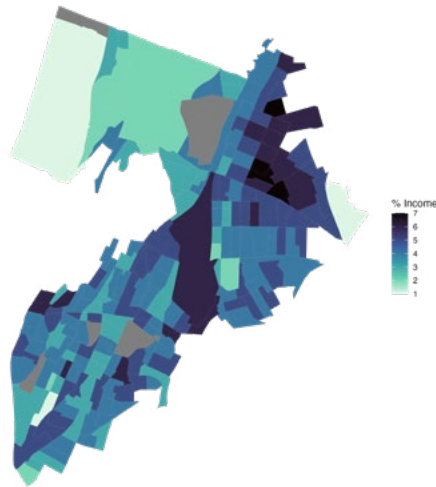
## BLACK POPULATION SHARE AND ENERGY BURDENS IN NEW YORK CONGRESSIONAL DISTRICT 09



Source: DOE LEAD Data

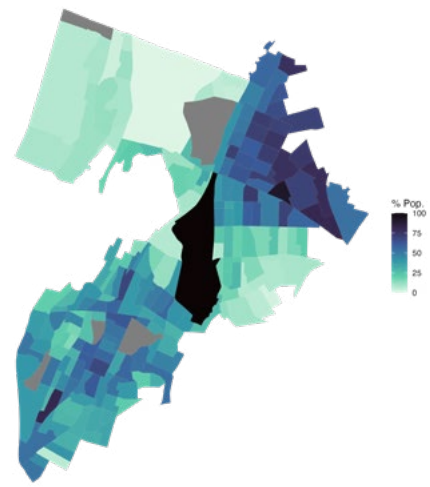
# NEW YORK DISTRICT 15

## ENERGY BURDENS IN NEW YORK CONGRESSIONAL DISTRICT 15



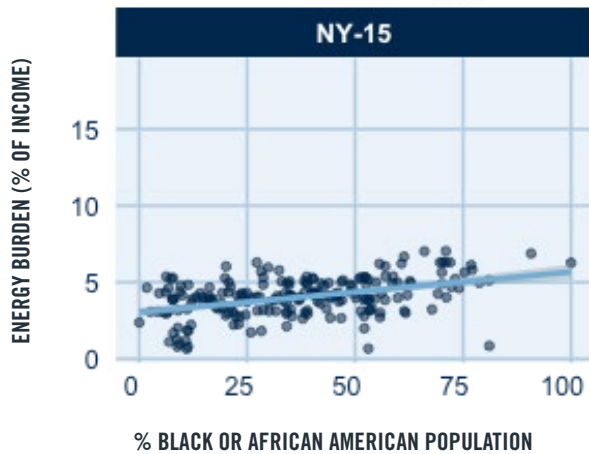
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN NEW YORK CONGRESSIONAL DISTRICT 15



Source: Data from US Census via tigris and DOE LEAD Tool

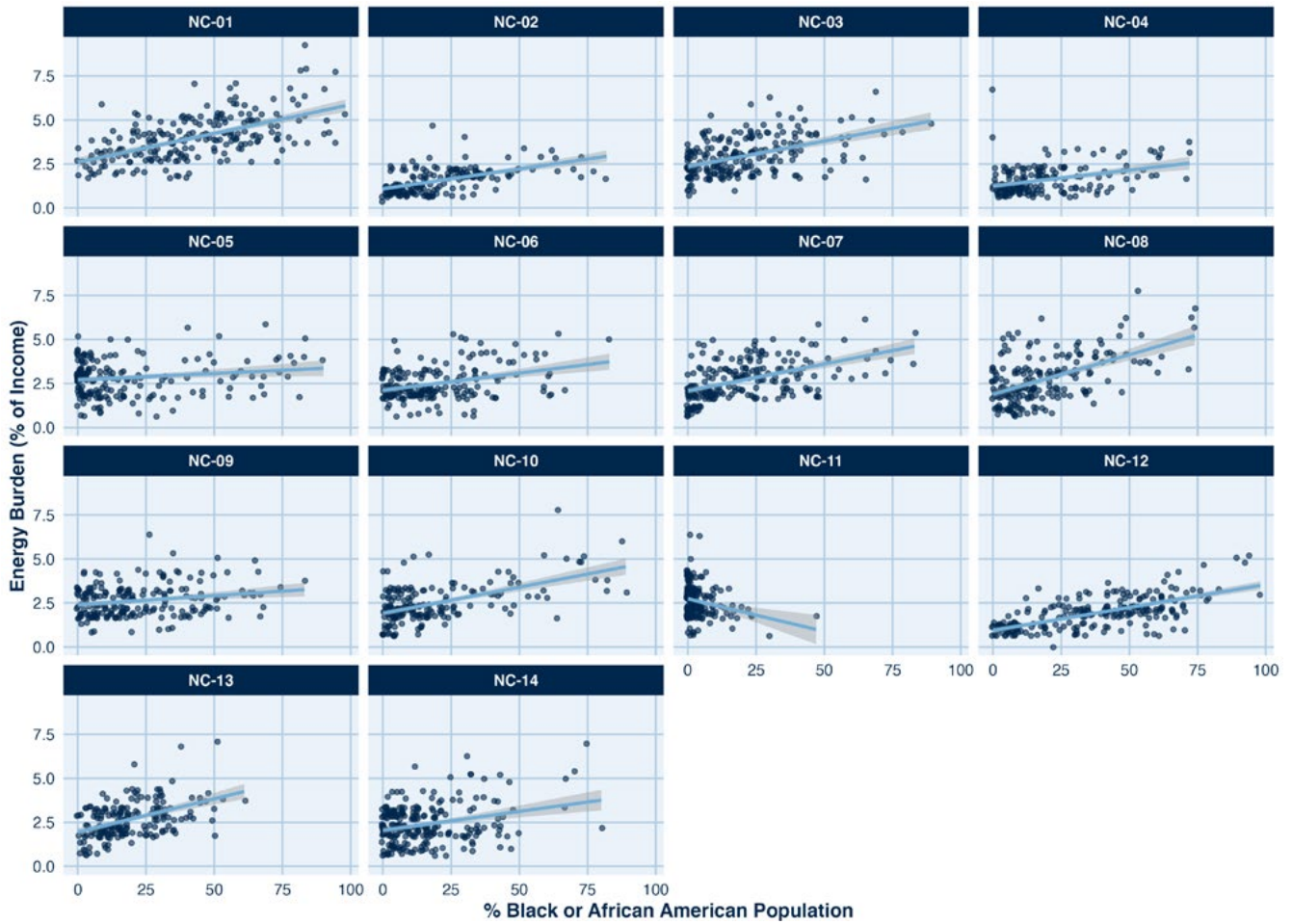
## BLACK POPULATION SHARE AND ENERGY BURDENS IN NEW YORK CONGRESSIONAL DISTRICT 15



Source: DOE LEAD Data

# NORTH CAROLINA

## BLACK POPULATION SHARE AND ENERGY BURDENS IN NORTH CAROLINA CONGRESSIONAL DISTRICTS

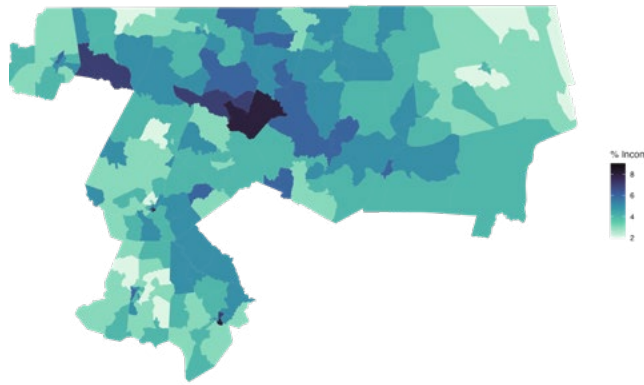


Source: DOE LEAD Data



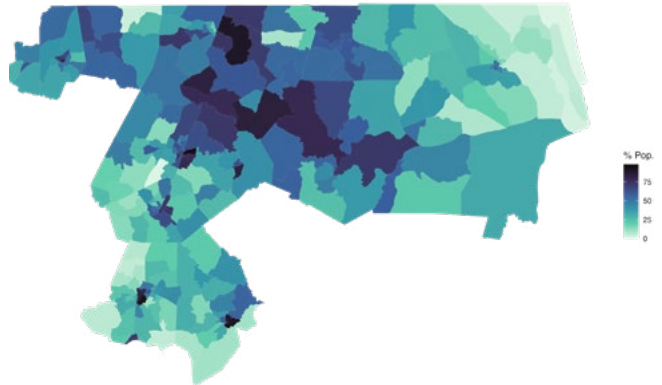
# NORTH CAROLINA DISTRICT 01

## ENERGY BURDENS IN NORTH CAROLINA CONGRESSIONAL DISTRICT 01



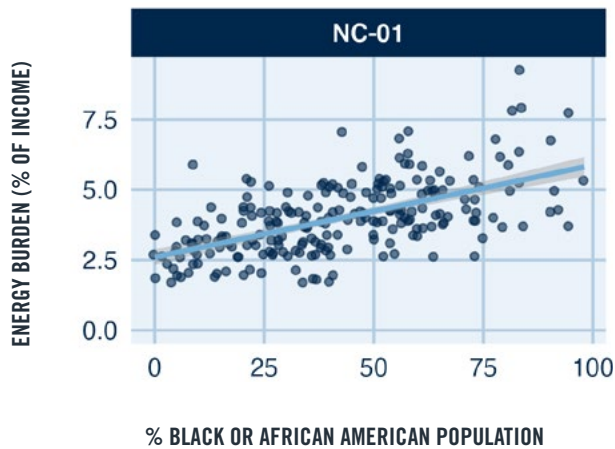
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN NORTH CAROLINA CONGRESSIONAL DISTRICT 01



Source: Data from US Census via tigris and DOE LEAD Tool

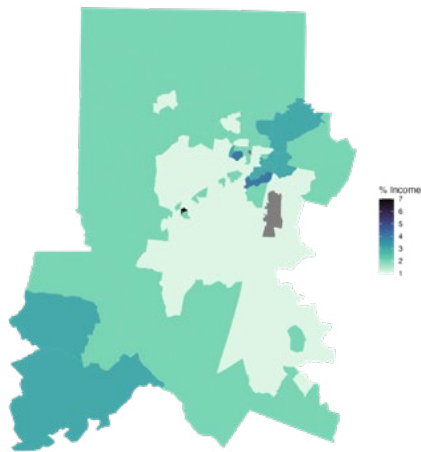
## BLACK POPULATION SHARE AND ENERGY BURDENS IN NORTH CAROLINA CONGRESSIONAL DISTRICT 01



Source: DOE LEAD Data

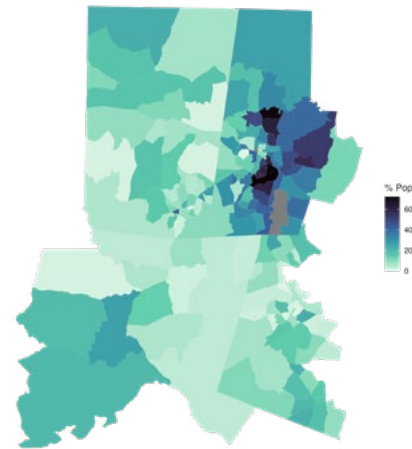
# NORTH CAROLINA DISTRICT 04

## ENERGY BURDENS IN NORTH CAROLINA CONGRESSIONAL DISTRICT 04



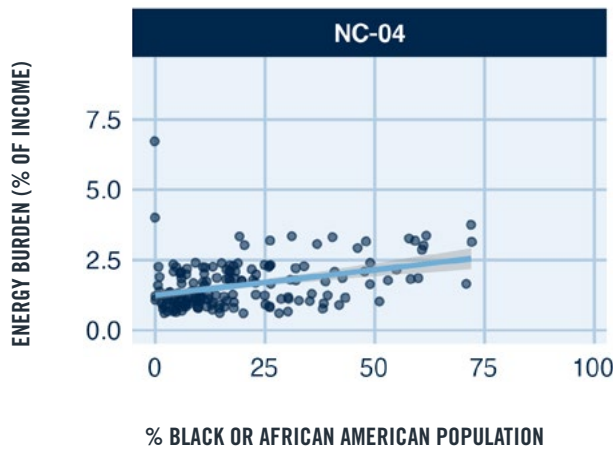
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN NORTH CAROLINA CONGRESSIONAL DISTRICT 04



Source: Data from US Census via tigris and DOE LEAD Tool

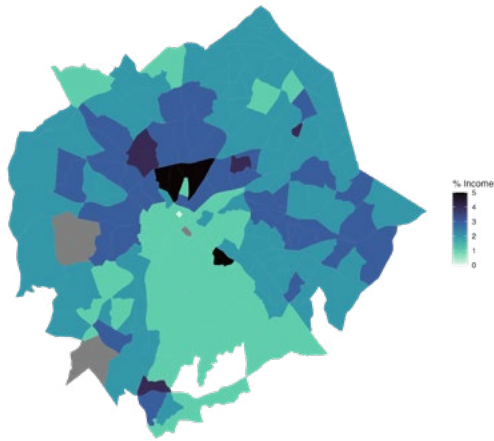
## BLACK POPULATION SHARE AND ENERGY BURDENS IN NORTH CAROLINA CONGRESSIONAL DISTRICT 04



Source: DOE LEAD Data

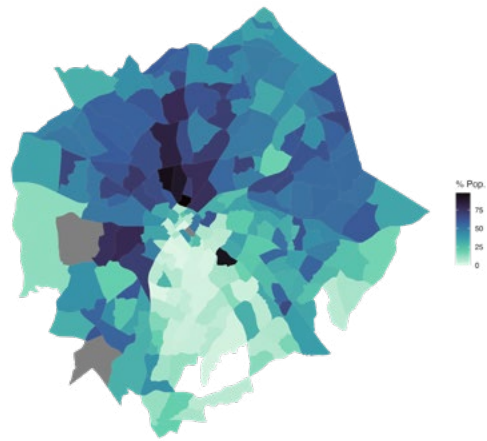
# NORTH CAROLINA DISTRICT 12

## ENERGY BURDENS IN NORTH CAROLINA CONGRESSIONAL DISTRICT 12



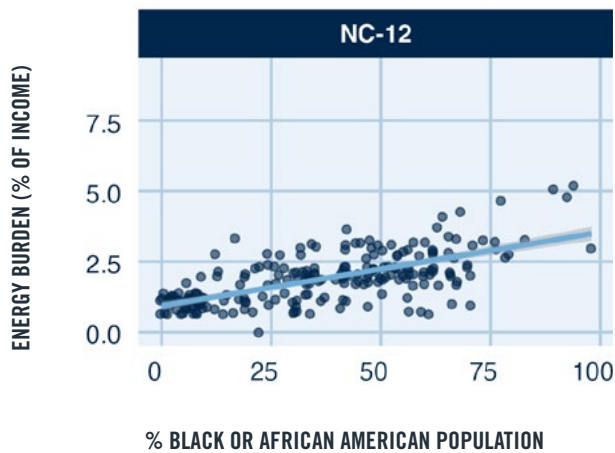
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN NORTH CAROLINA CONGRESSIONAL DISTRICT 12



Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE AND ENERGY BURDENS IN NORTH CAROLINA CONGRESSIONAL DISTRICT 12



Source: DOE LEAD Data

# OHIO

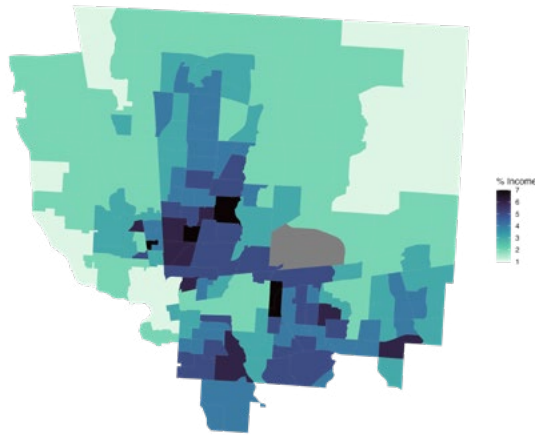
## BLACK POPULATION SHARE AND ENERGY BURDENS IN OHIO CONGRESSIONAL DISTRICTS



Source: DOE LEAD Data

# OHIO DISTRICT 03

## ENERGY BURDENS IN OHIO CONGRESSIONAL DISTRICT 03



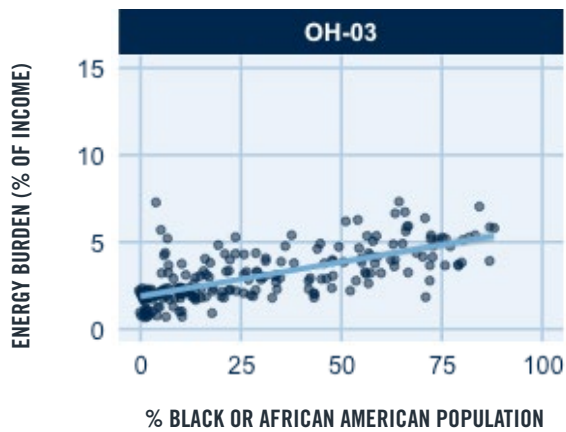
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN OHIO CONGRESSIONAL DISTRICT 03



Source: Data from US Census via tigris and DOE LEAD Tool

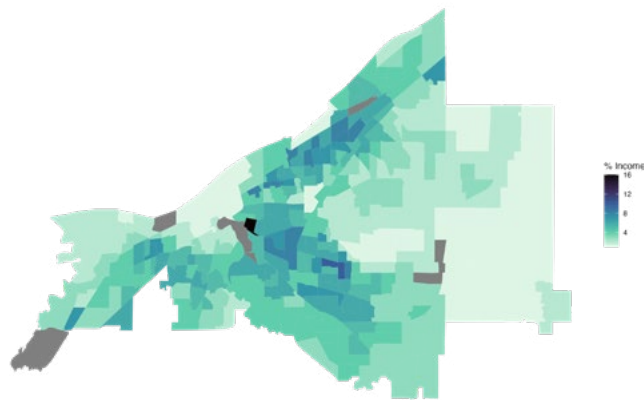
## BLACK POPULATION SHARE AND ENERGY BURDENS IN OHIO CONGRESSIONAL DISTRICT 03



Source: DOE LEAD Data

# OHIO DISTRICT 11

## ENERGY BURDENS IN OHIO CONGRESSIONAL DISTRICT 11



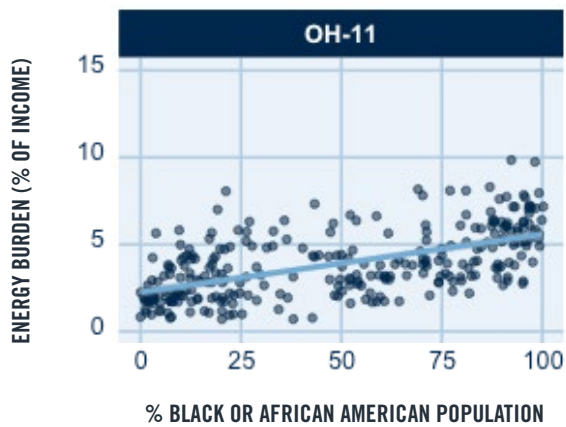
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN OHIO CONGRESSIONAL DISTRICT 11



Source: Data from US Census via tigris and DOE LEAD Tool

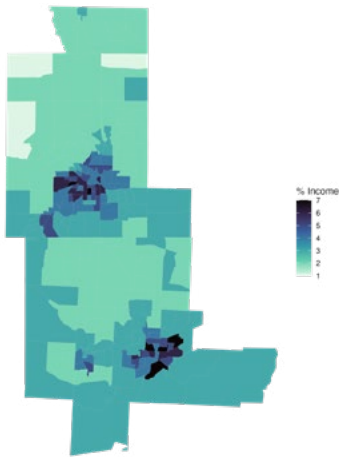
## BLACK POPULATION SHARE AND ENERGY BURDENS IN OHIO CONGRESSIONAL DISTRICT 11



Source: DOE LEAD Data

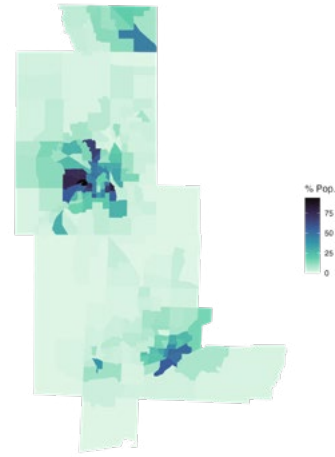
# OHIO DISTRICT 13

## ENERGY BURDENS IN OHIO CONGRESSIONAL DISTRICT 13



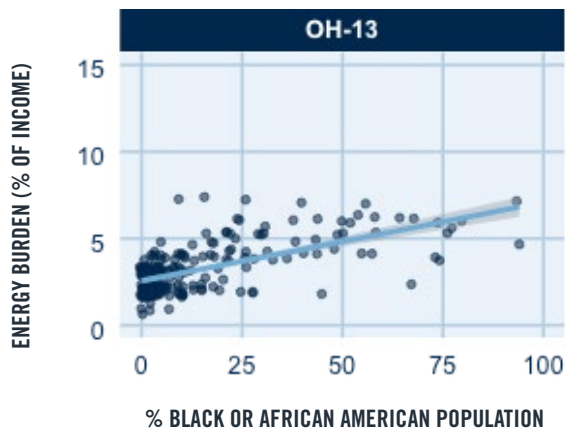
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN OHIO CONGRESSIONAL DISTRICT 13



Source: Data from US Census via tigris and DOE LEAD Tool

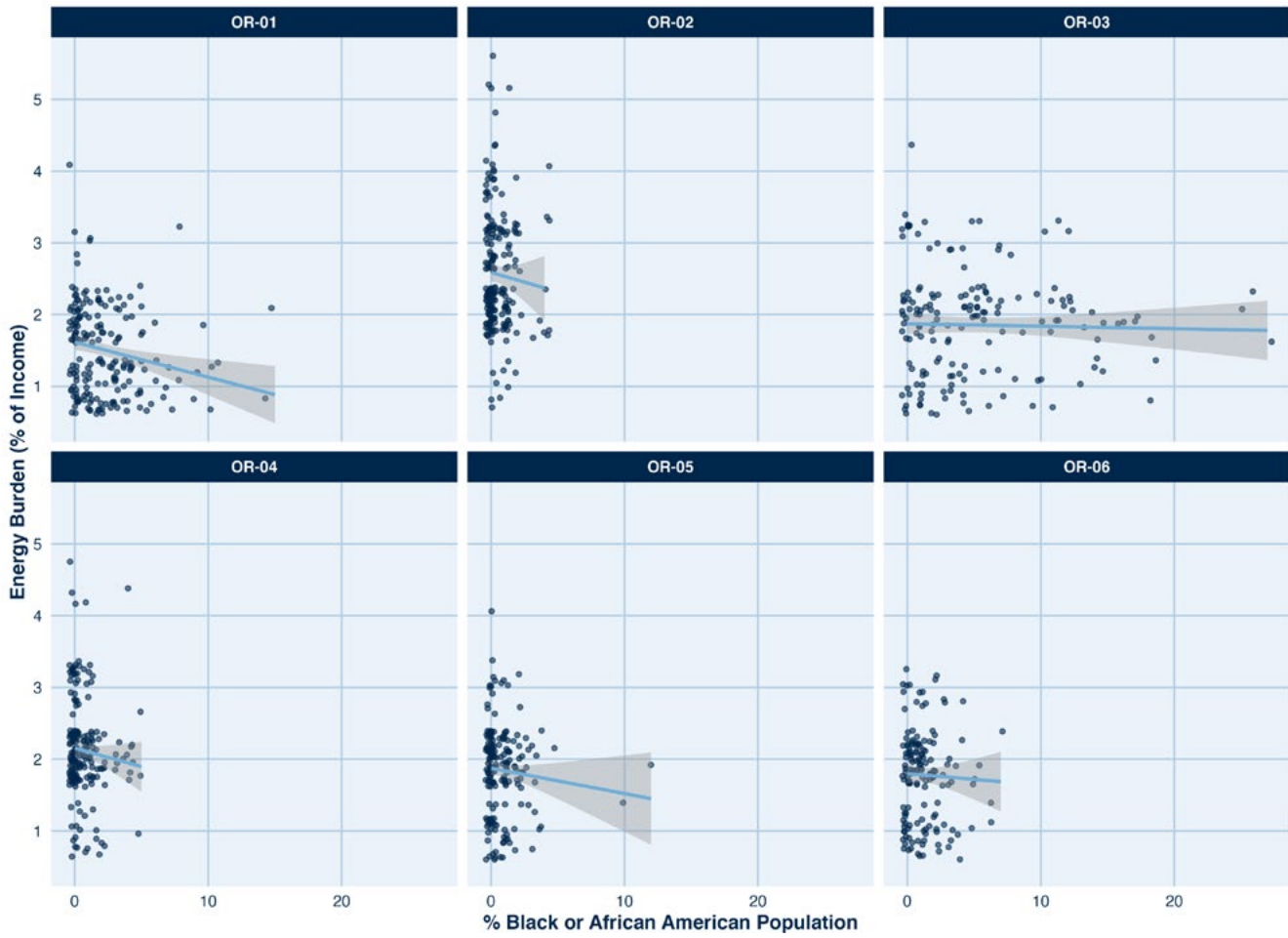
## BLACK POPULATION SHARE AND ENERGY BURDENS IN OHIO CONGRESSIONAL DISTRICT 13



Source: DOE LEAD Data

# OREGON

## BLACK POPULATION SHARE AND ENERGY BURDENS IN OREGON CONGRESSIONAL DISTRICTS

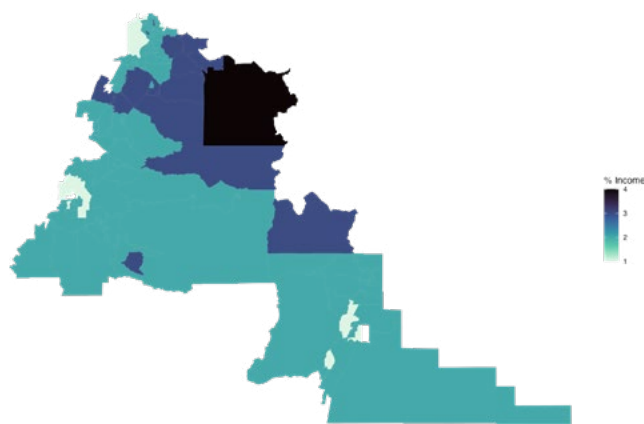


Source: DOE LEAD Data



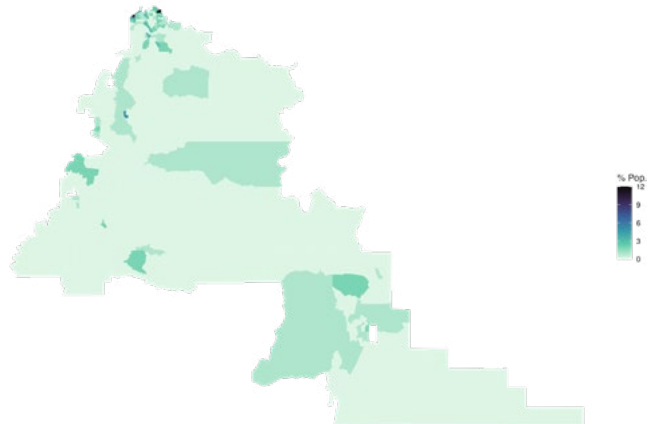
# OREGON DISTRICT 05

## ENERGY BURDENS IN OREGON CONGRESSIONAL DISTRICT 05



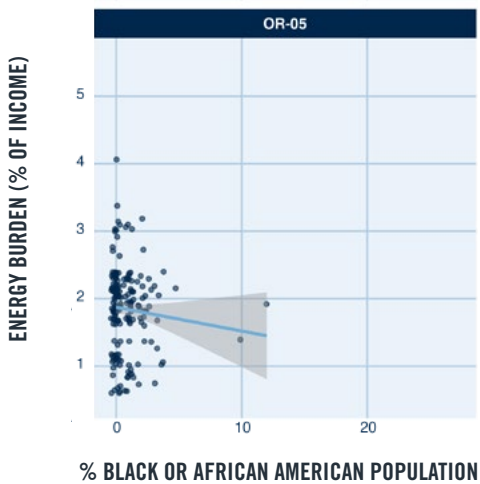
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN OREGON CONGRESSIONAL DISTRICT 05



Source: Data from US Census via tigris and DOE LEAD Tool

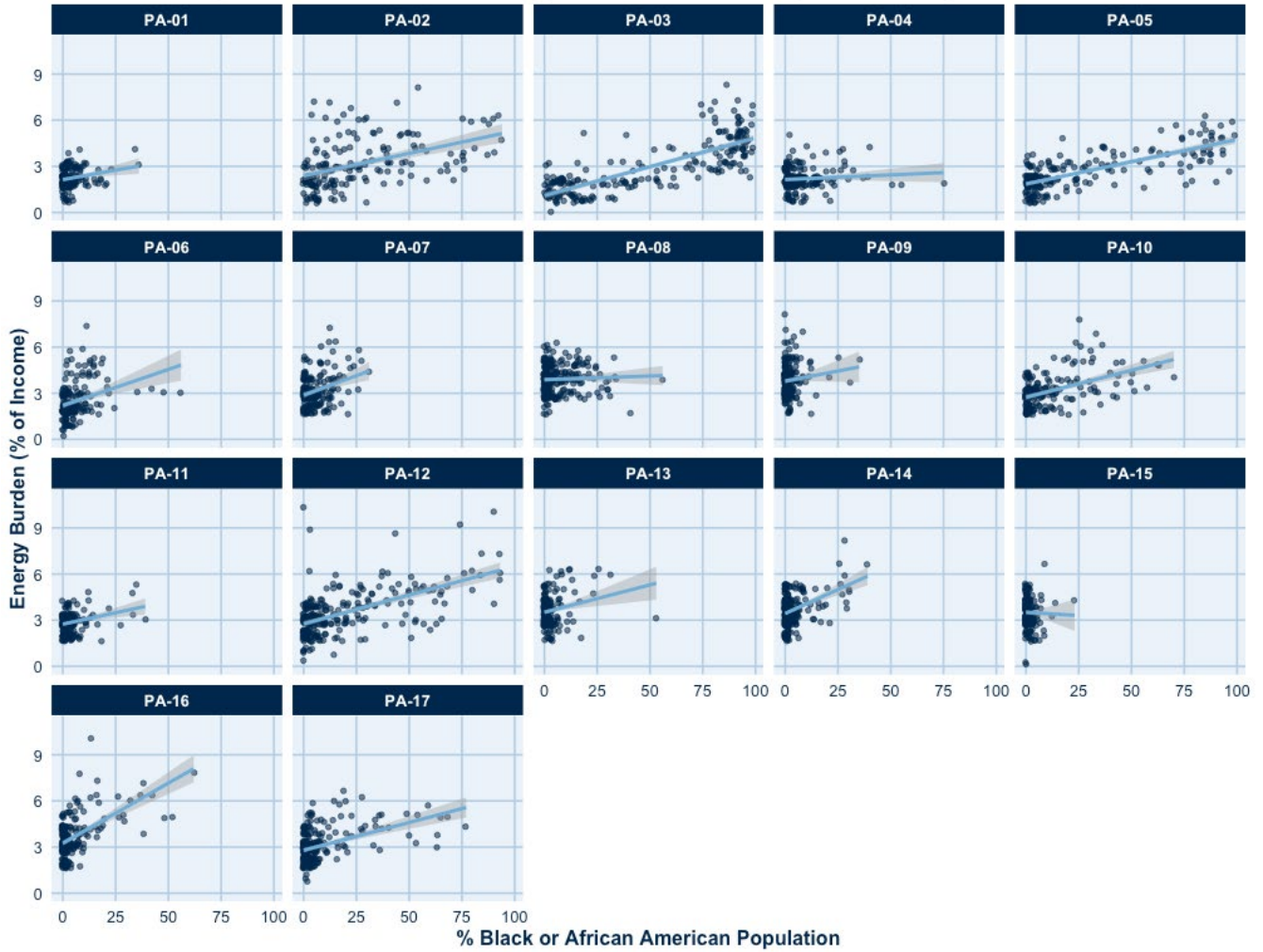
## BLACK POPULATION SHARE AND ENERGY BURDENS IN OREGON CONGRESSIONAL DISTRICT 05



Source: DOE LEAD Data

# PENNSYLVANIA

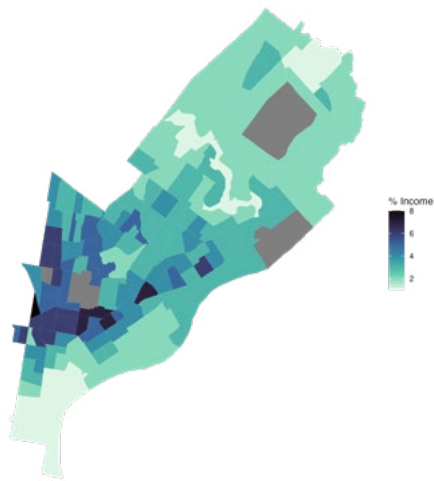
## BLACK POPULATION SHARE AND ENERGY BURDENS IN PENNSYLVANIA CONGRESSIONAL DISTRICTS



Source: DOE LEAD Data

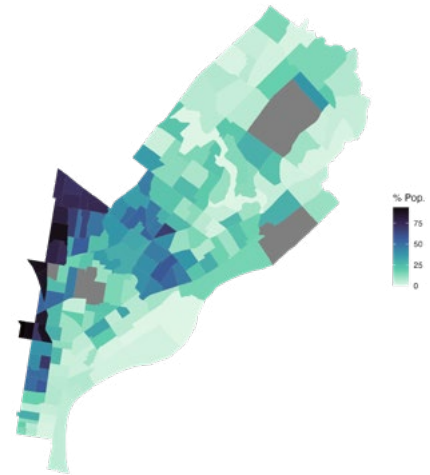
# PENNSYLVANIA DISTRICT 02

## ENERGY BURDENS IN PENNSYLVANIA CONGRESSIONAL DISTRICT 02



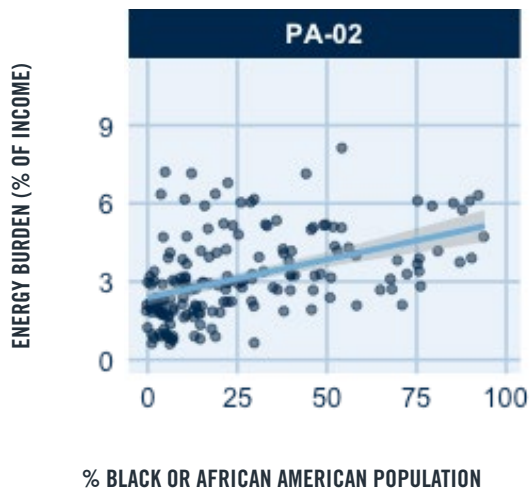
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN PENNSYLVANIA CONGRESSIONAL DISTRICT 02



Source: Data from US Census via tigris and DOE LEAD Tool

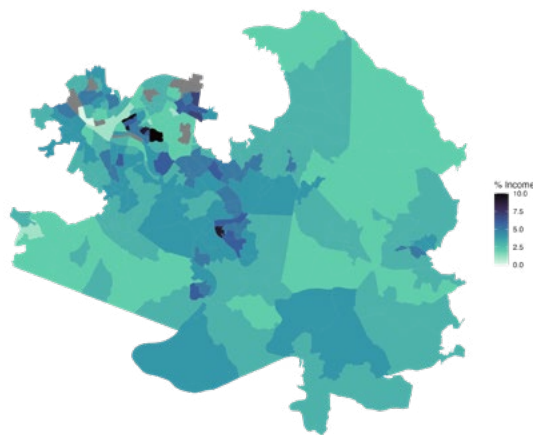
## BLACK POPULATION SHARE AND ENERGY BURDENS IN PENNSYLVANIA CONGRESSIONAL DISTRICT 02



Source: DOE LEAD Data

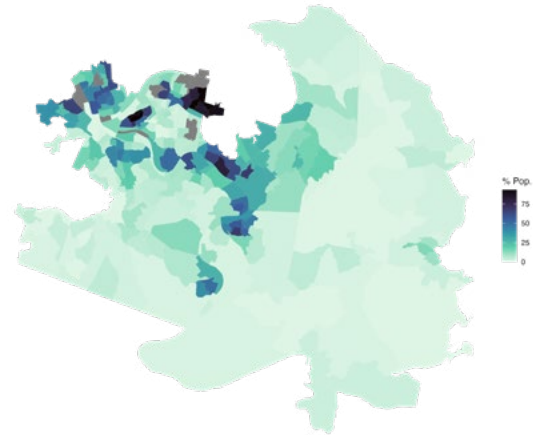
# PENNSYLVANIA DISTRICT 12

## ENERGY BURDENS IN PENNSYLVANIA CONGRESSIONAL DISTRICT 12



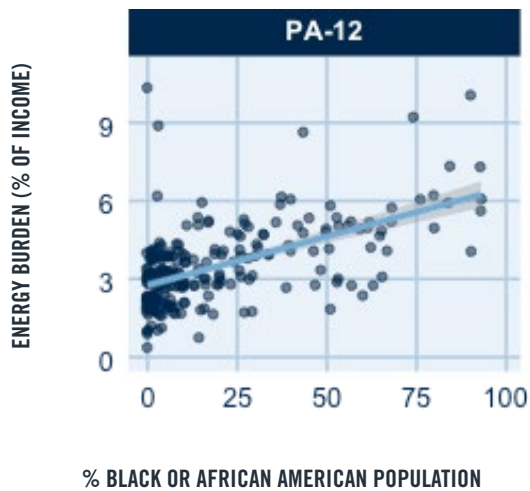
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN PENNSYLVANIA CONGRESSIONAL DISTRICT 12



Source: Data from US Census via tigris and DOE LEAD Tool

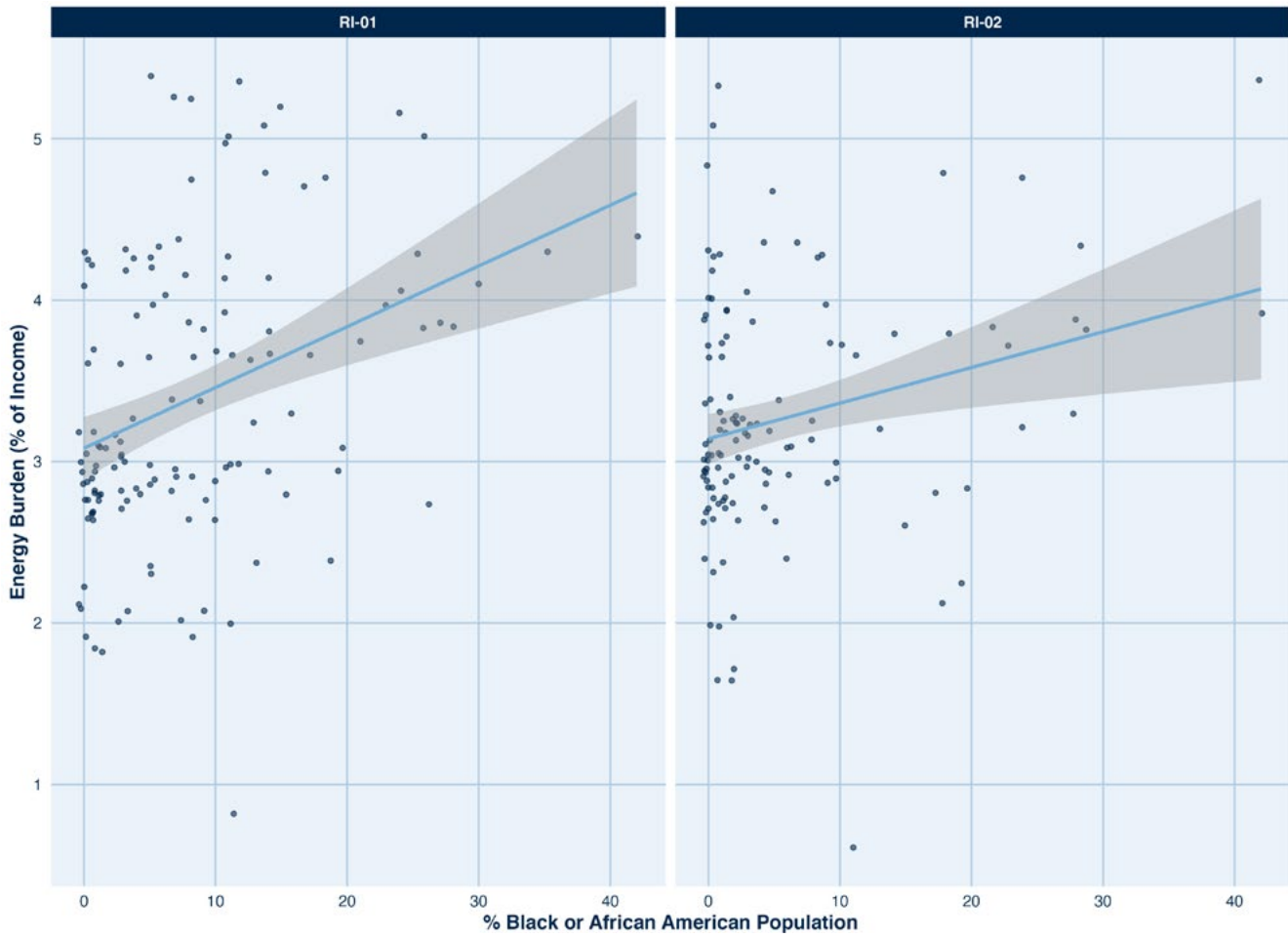
## BLACK POPULATION SHARE AND ENERGY BURDENS IN PENNSYLVANIA CONGRESSIONAL DISTRICT 12



Source: DOE LEAD Data

# RHODE ISLAND

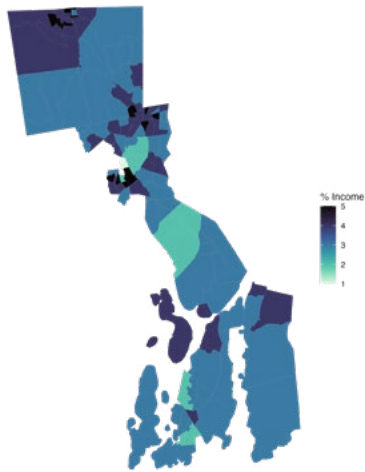
## BLACK POPULATION SHARE AND ENERGY BURDENS IN RHODE ISLAND CONGRESSIONAL DISTRICTS



Source: DOE LEAD Data

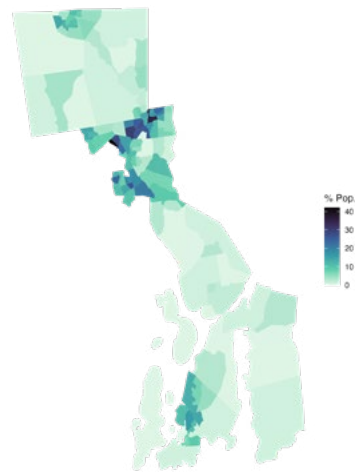
# RHODE ISLAND DISTRICT 01

## ENERGY BURDENS IN RHODE ISLAND CONGRESSIONAL DISTRICT 01



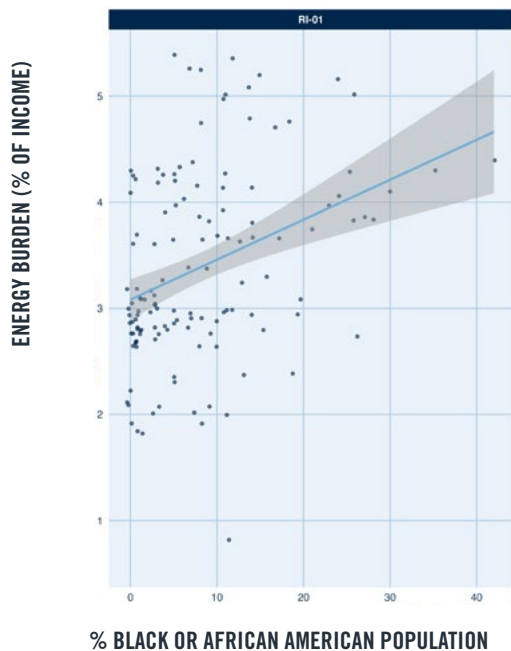
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN RHODE ISLAND CONGRESSIONAL DISTRICT 01



Source: Data from US Census via tigris and DOE LEAD Tool

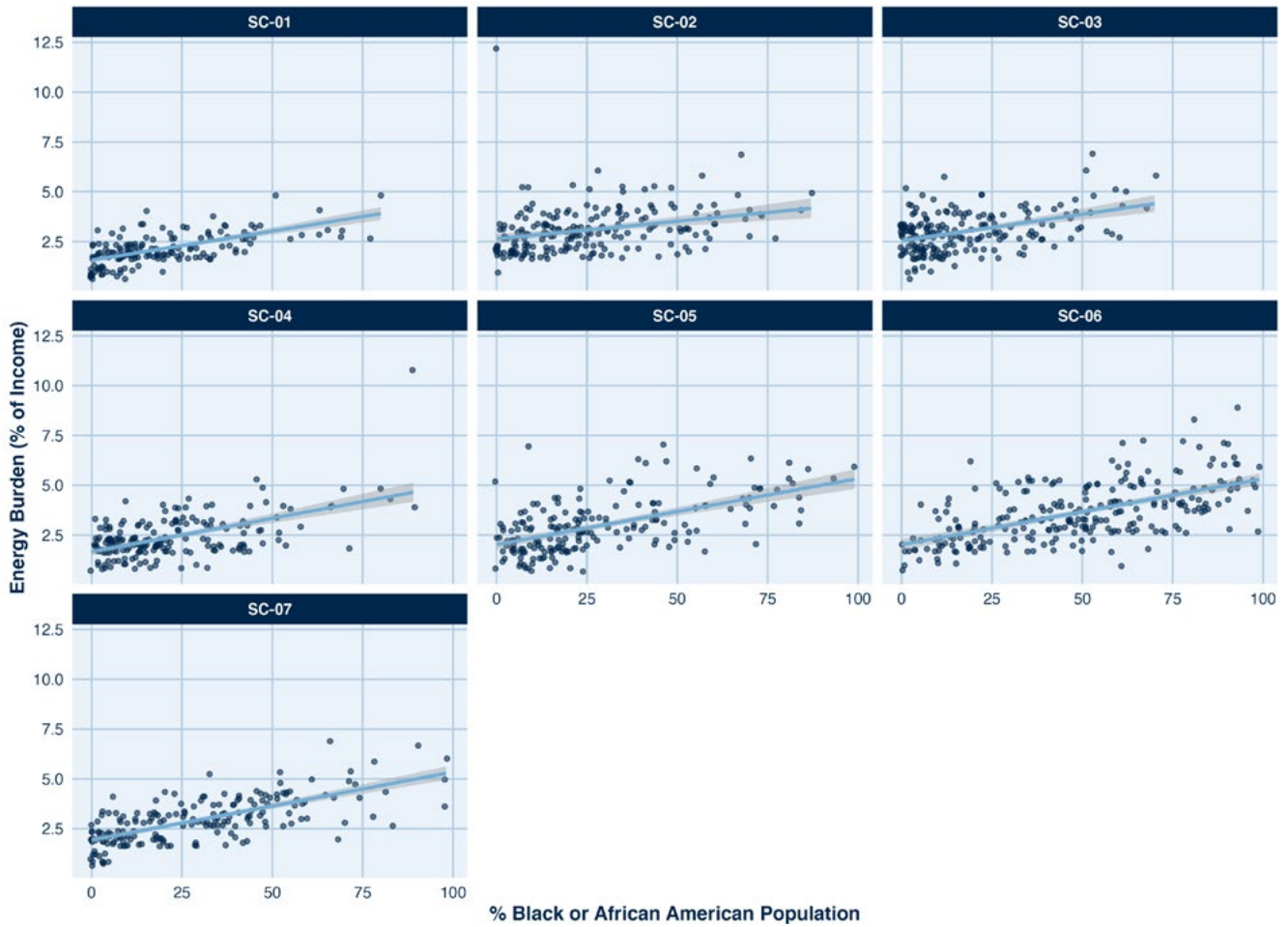
## BLACK POPULATION SHARE AND ENERGY BURDENS IN RHODE ISLAND CONGRESSIONAL DISTRICT 01



Source: DOE LEAD Data

# SOUTH CAROLINA

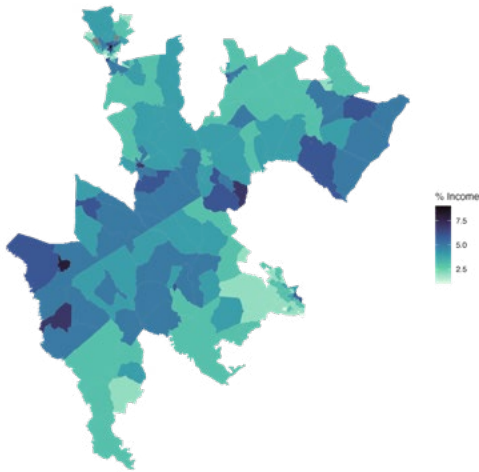
## BLACK POPULATION SHARE AND ENERGY BURDENS IN SOUTH CAROLINA CONGRESSIONAL DISTRICTS



Source: DOE LEAD Data

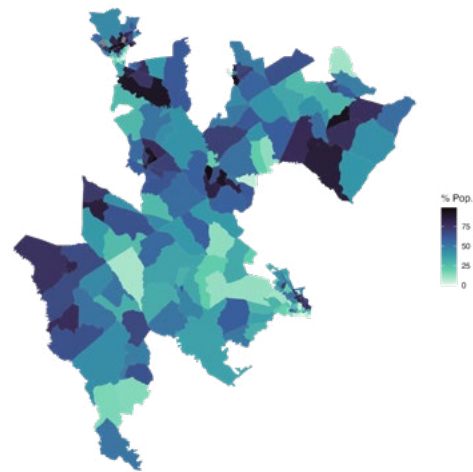
# SOUTH CAROLINA DISTRICT 06

## ENERGY BURDENS IN SOUTH CAROLINA CONGRESSIONAL DISTRICT 06



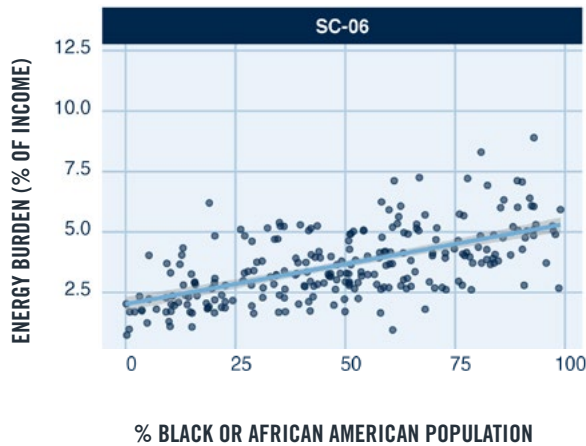
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN SOUTH CAROLINA CONGRESSIONAL DISTRICT 06



Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE AND ENERGY BURDENS IN SOUTH CAROLINA CONGRESSIONAL DISTRICT 06



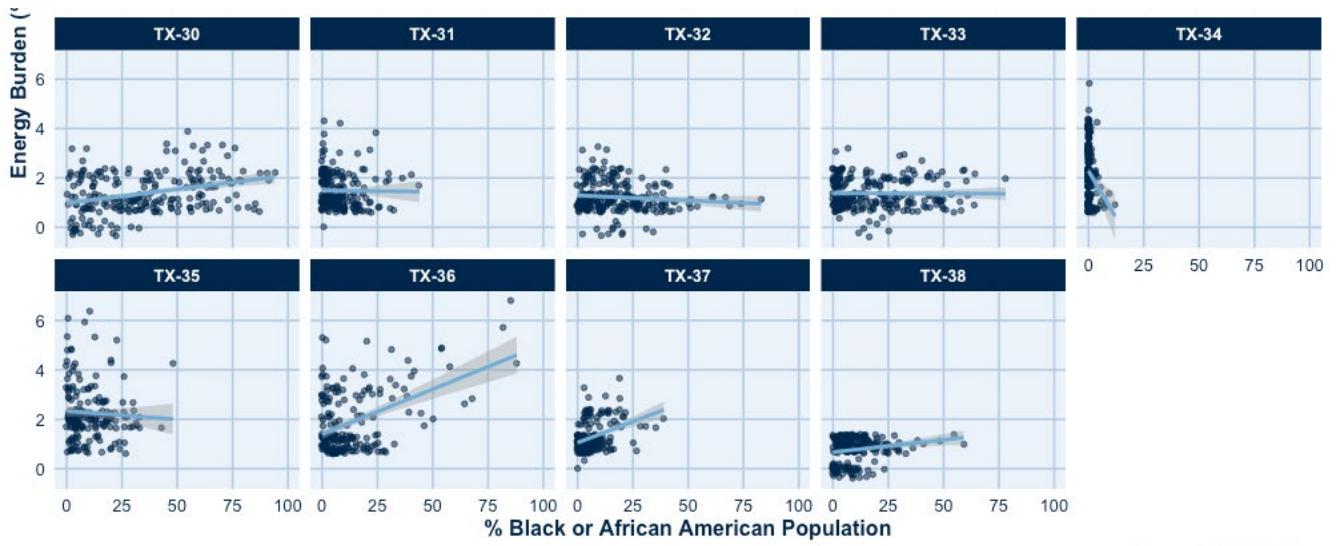
Source: DOE LEAD Data



# TEXAS

## BLACK POPULATION SHARE AND ENERGY BURDENS IN TEXAS CONGRESSIONAL DISTRICTS

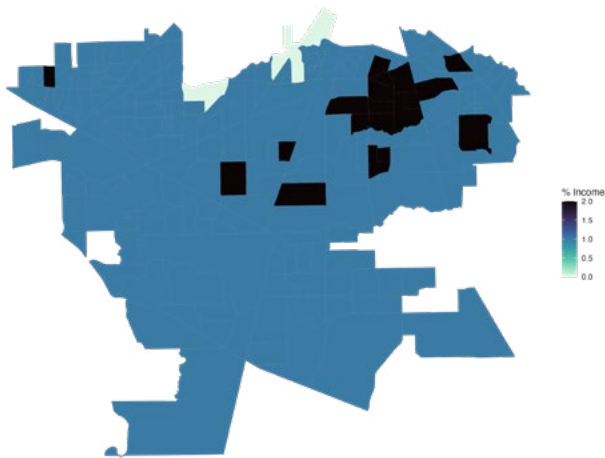




Source: DOE LEAD Data

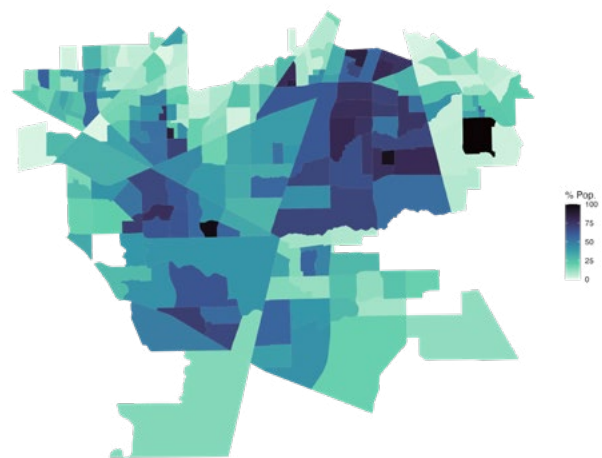
# TEXAS DISTRICT 09

## ENERGY BURDENS IN TEXAS CONGRESSIONAL DISTRICT 09



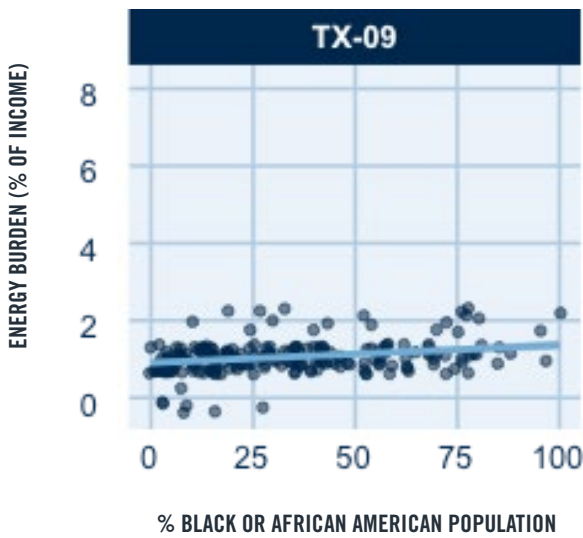
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN TEXAS CONGRESSIONAL DISTRICT 09



Source: Data from US Census via tigris and DOE LEAD Tool

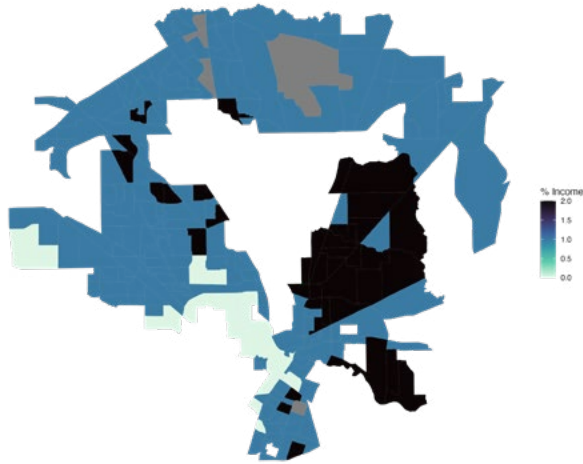
## BLACK POPULATION SHARE AND ENERGY BURDENS IN TEXAS CONGRESSIONAL DISTRICT 09



Source: DOE LEAD Data

# TEXAS DISTRICT 18

## ENERGY BURDENS IN TEXAS CONGRESSIONAL DISTRICT 18



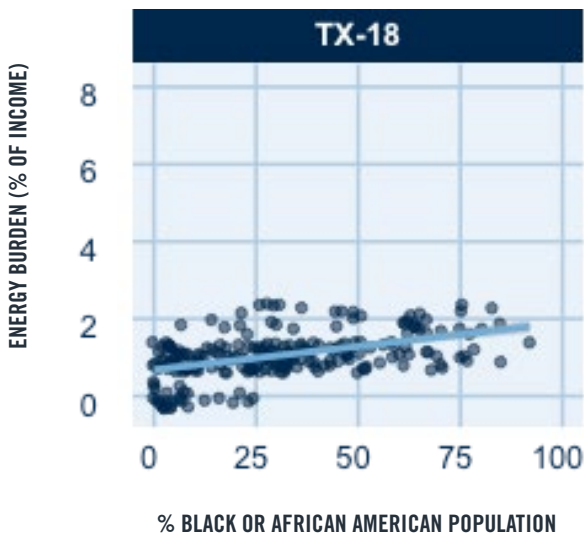
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN TEXAS CONGRESSIONAL DISTRICT 18



Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE AND ENERGY BURDENS IN TEXAS CONGRESSIONAL DISTRICT 18



Source: DOE LEAD Data

# TEXAS DISTRICT 30

## ENERGY BURDENS IN TEXAS CONGRESSIONAL DISTRICT 30



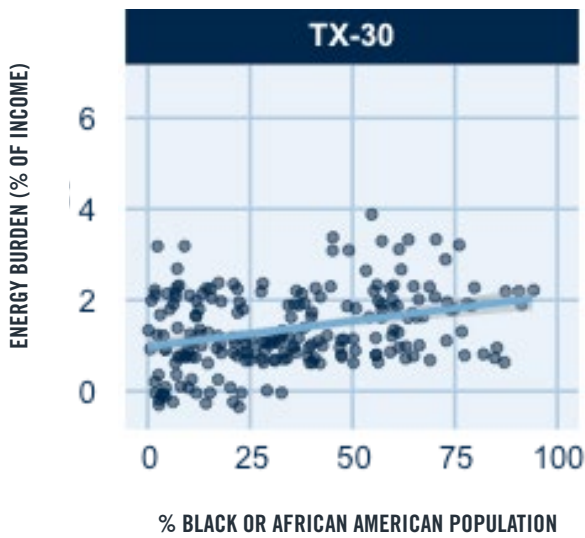
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN TEXAS CONGRESSIONAL DISTRICT 30



Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE AND ENERGY BURDENS IN TEXAS CONGRESSIONAL DISTRICT 30



Source: DOE LEAD Data

# TEXAS DISTRICT 33

## ENERGY BURDENS IN TEXAS CONGRESSIONAL DISTRICT 33



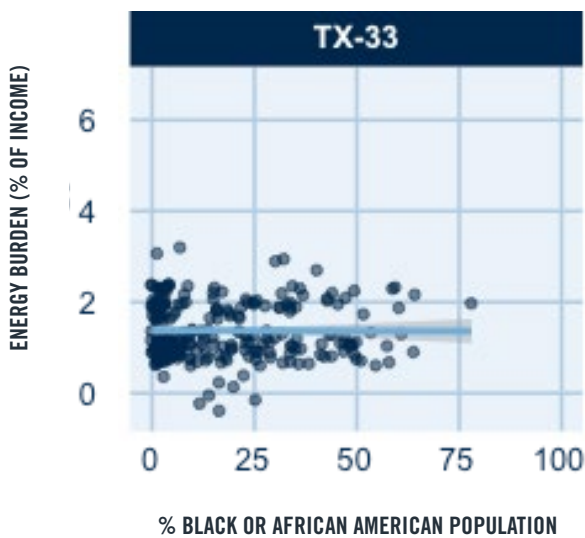
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN TEXAS CONGRESSIONAL DISTRICT 33



Source: Data from US Census via tigris and DOE LEAD Tool

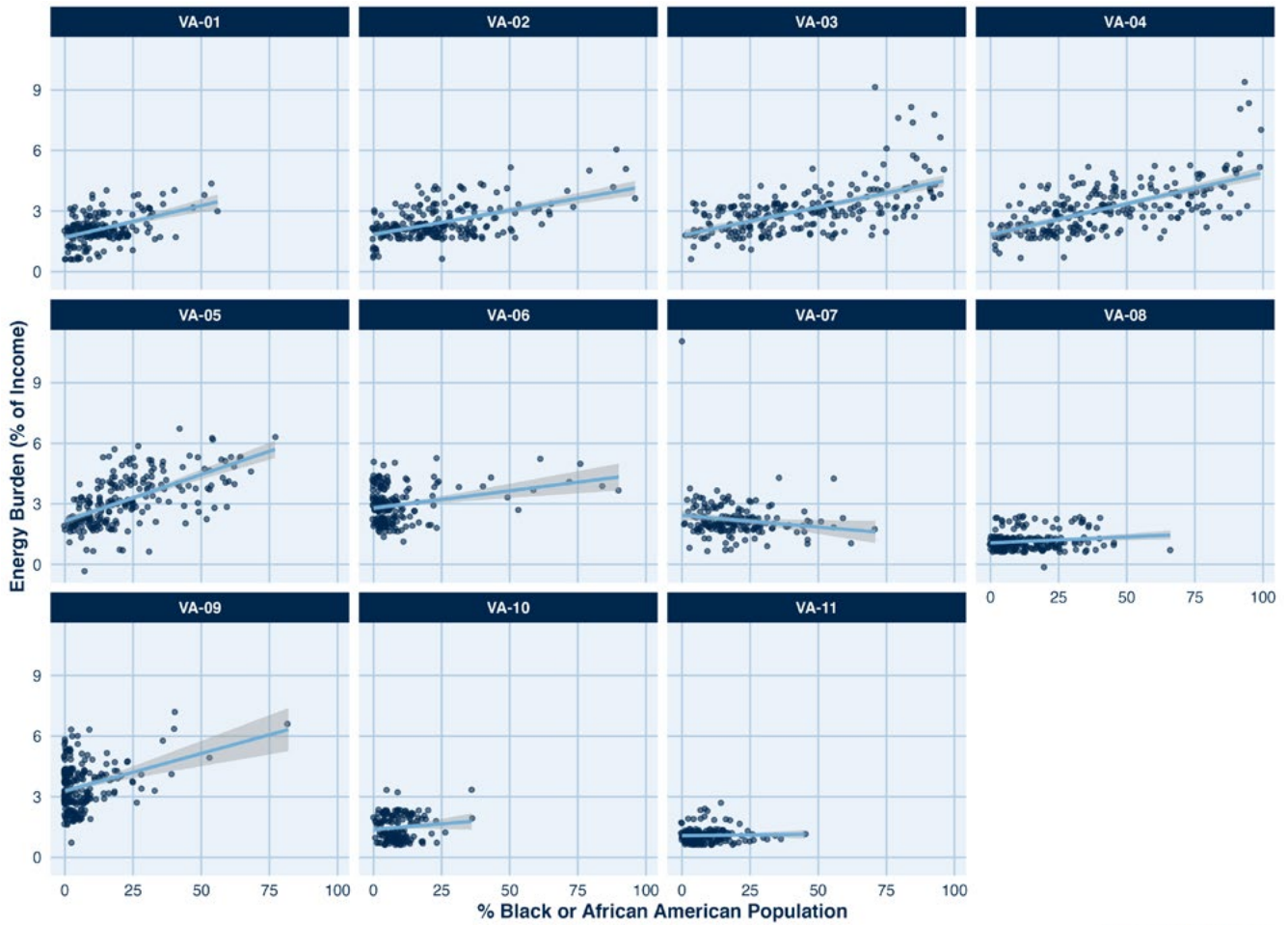
## BLACK POPULATION SHARE AND ENERGY BURDENS IN TEXAS CONGRESSIONAL DISTRICT 33



Source: DOE LEAD Data

# VIRGINIA

## BLACK POPULATION SHARE AND ENERGY BURDENS IN VIRGINIA CONGRESSIONAL DISTRICTS

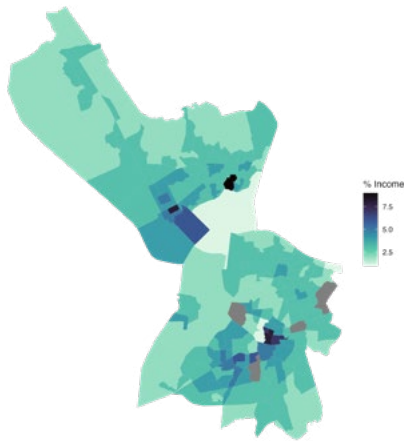


Source: DOE LEAD Data

Source: DOE LEAD Data

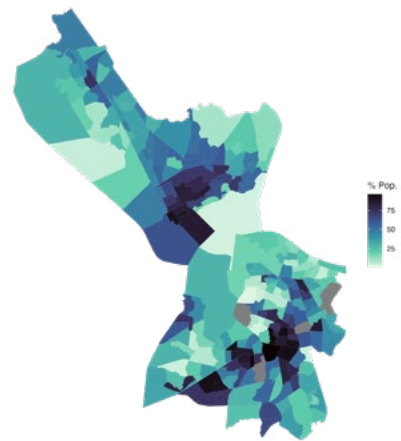
# VIRGINIA DISTRICT 03

## ENERGY BURDENS IN VIRGINIA CONGRESSIONAL DISTRICT 03



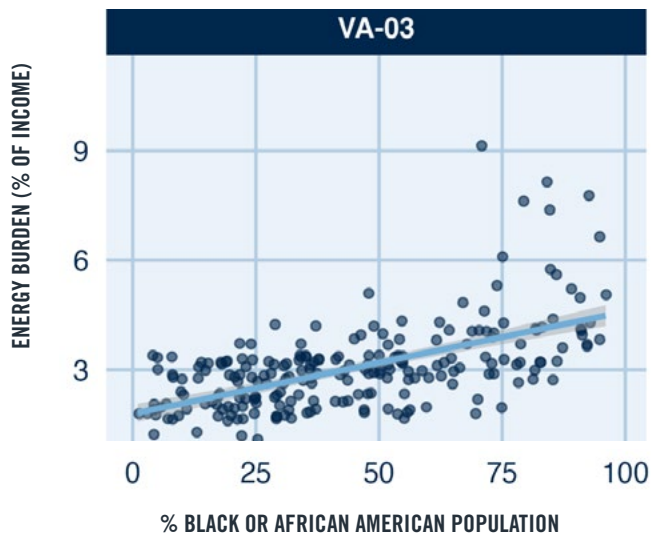
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN VIRGINIA CONGRESSIONAL DISTRICT 03



Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE AND ENERGY BURDENS IN VIRGINIA CONGRESSIONAL DISTRICT 03

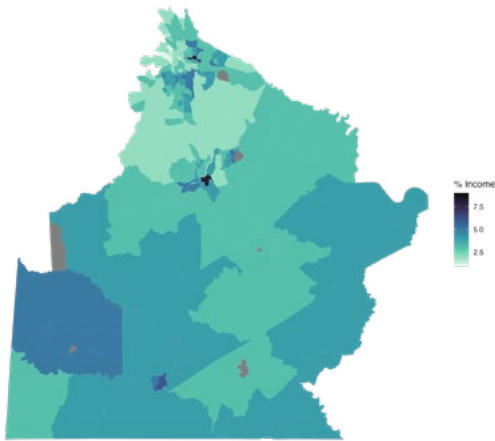


Source: DOE LEAD Data



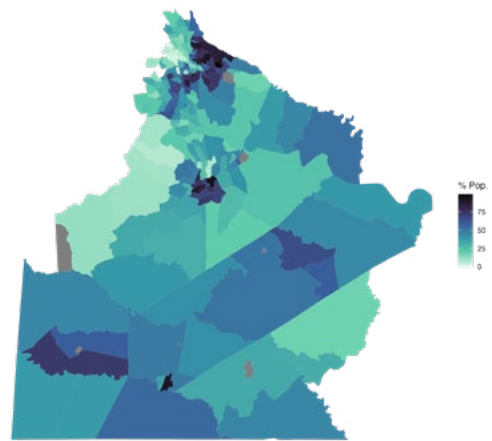
# VIRGINIA DISTRICT 04

## ENERGY BURDENS IN VIRGINIA CONGRESSIONAL DISTRICT 04



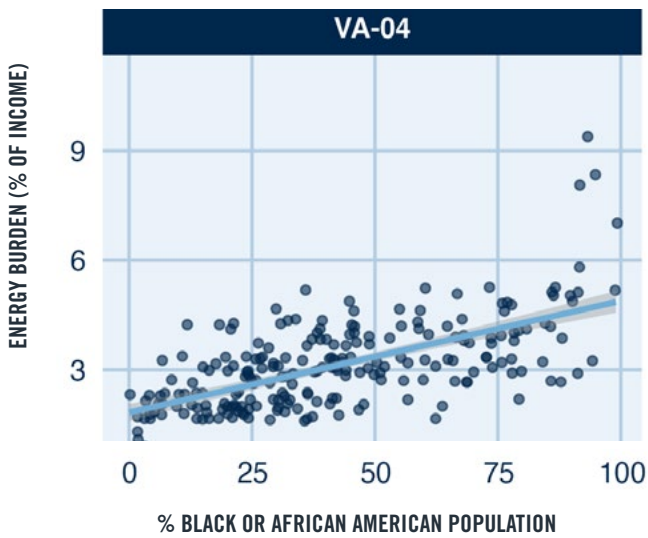
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN VIRGINIA CONGRESSIONAL DISTRICT 04



Source: Data from US Census via tigris and DOE LEAD Tool

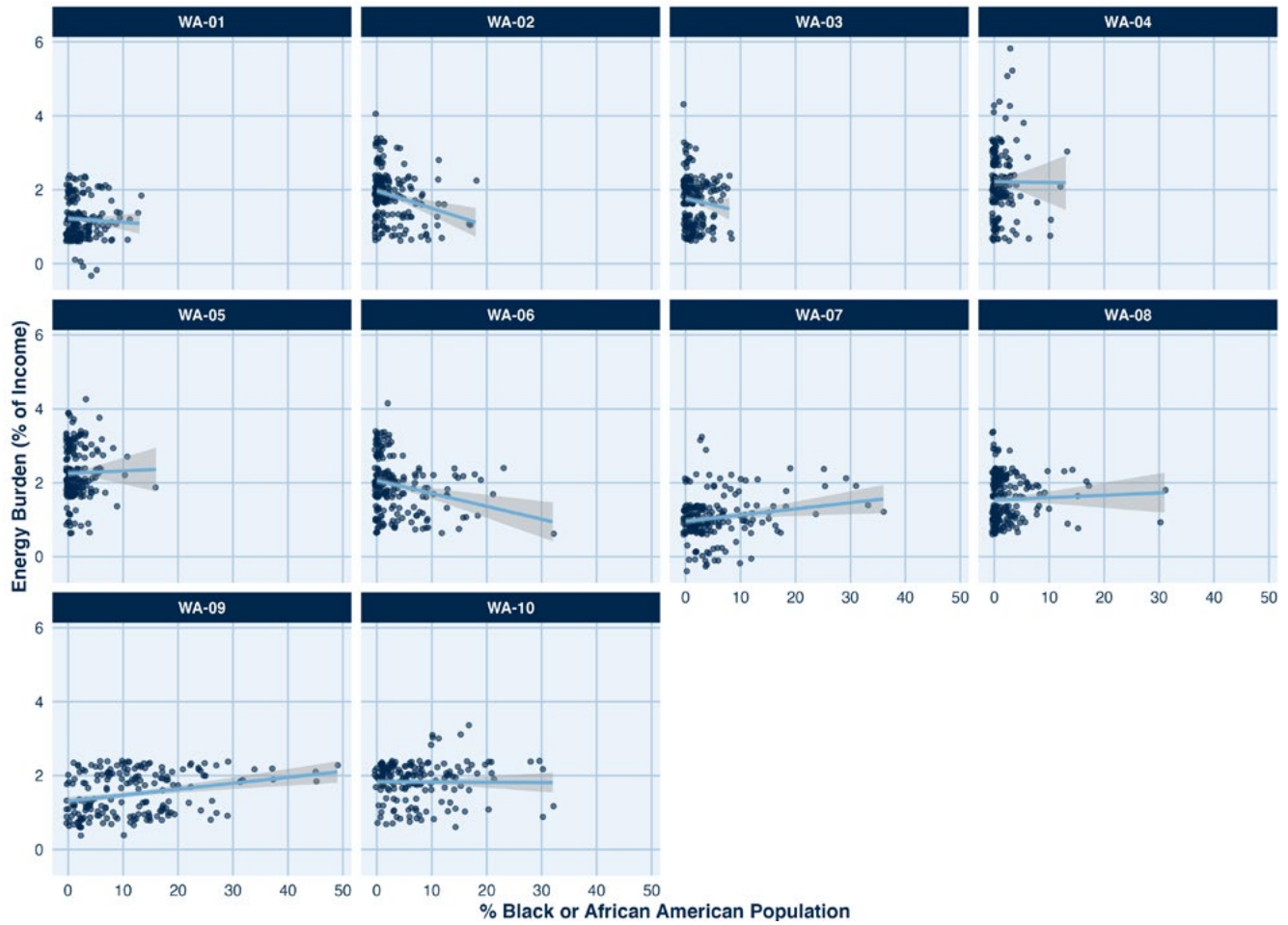
## BLACK POPULATION SHARE AND ENERGY BURDENS IN VIRGINIA CONGRESSIONAL DISTRICT 04



Source: DOE LEAD Data

# WASHINGTON

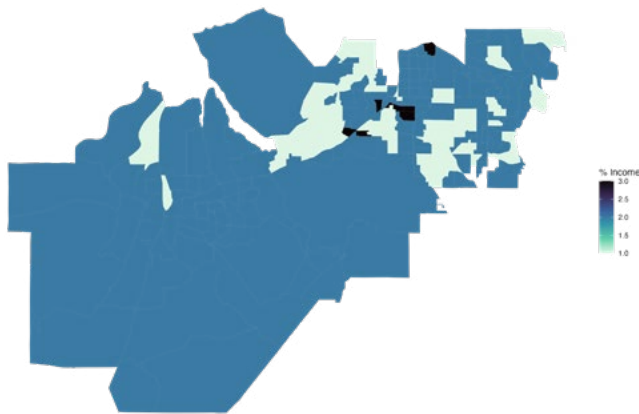
## BLACK POPULATION SHARE AND ENERGY BURDENS IN WASHINGTON CONGRESSIONAL DISTRICTS



Source: DOE LEAD Data

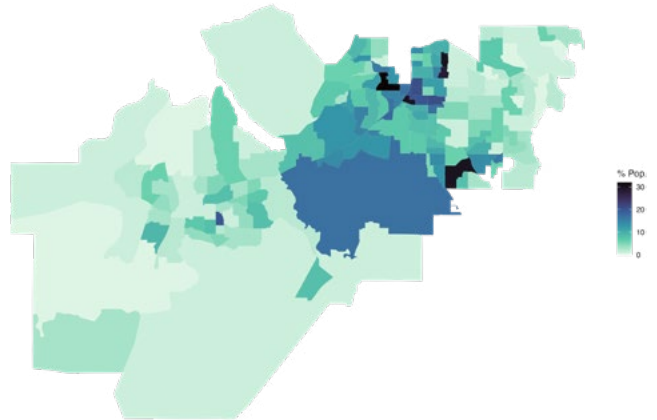
# WASHINGTON DISTRICT 10

## ENERGY BURDENS IN WASHINGTON CONGRESSIONAL DISTRICT 10



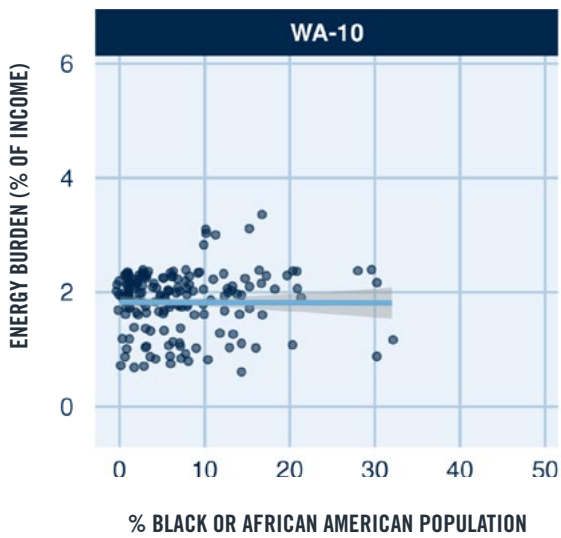
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN WASHINGTON CONGRESSIONAL DISTRICT 10



Source: Data from US Census via tigris and DOE LEAD Tool

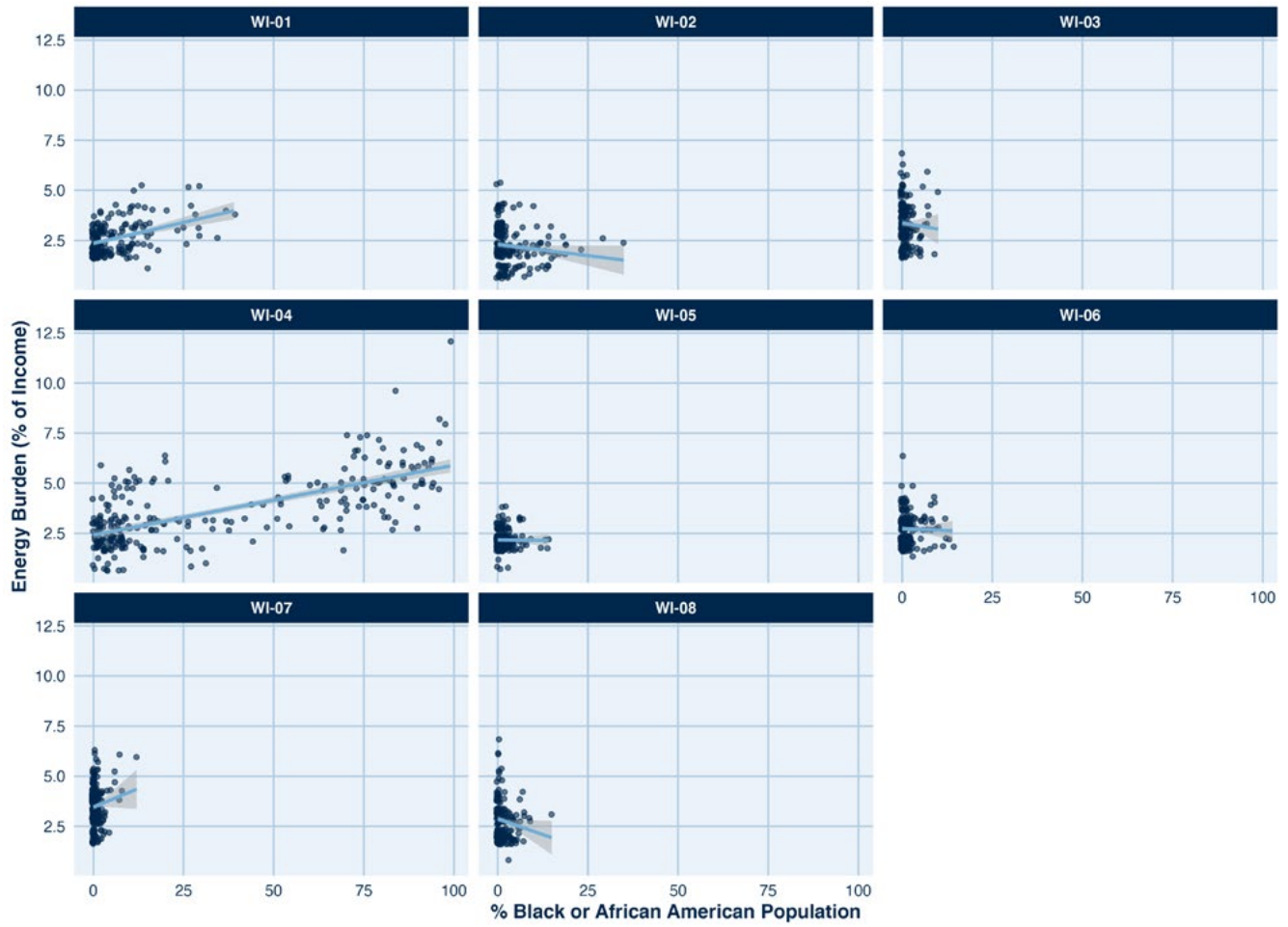
## BLACK POPULATION SHARE AND ENERGY BURDENS IN WASHINGTON CONGRESSIONAL DISTRICT 10



Source: DOE LEAD Data

# WISCONSIN

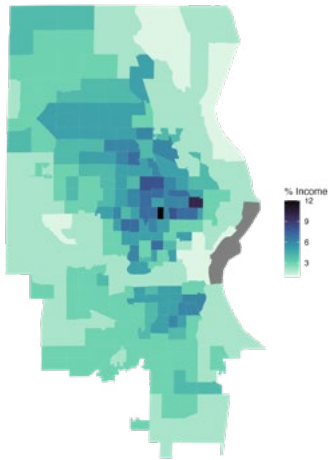
## BLACK POPULATION SHARE AND ENERGY BURDENS IN WISCONSIN CONGRESSIONAL DISTRICTS



Source: DOE LEAD Data

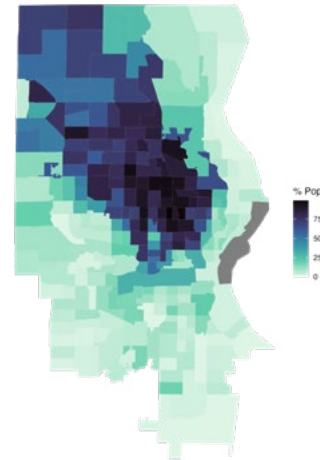
# WISCONSIN DISTRICT 04

## ENERGY BURDENS IN WISCONSIN CONGRESSIONAL DISTRICT 04



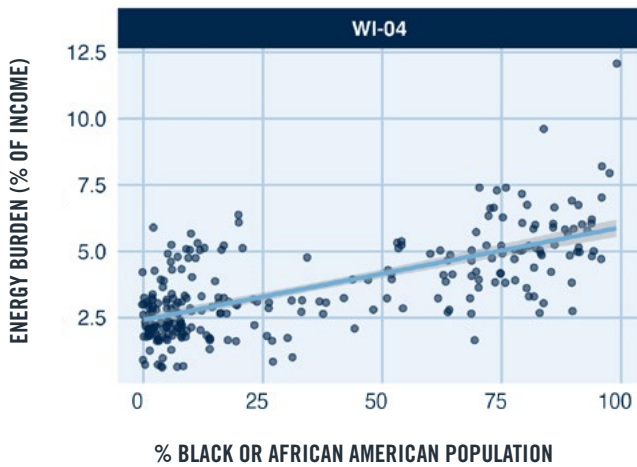
Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE IN WISCONSIN CONGRESSIONAL DISTRICT 04



Source: Data from US Census via tigris and DOE LEAD Tool

## BLACK POPULATION SHARE AND ENERGY BURDENS IN WISCONSIN CONGRESSIONAL DISTRICT 04



Source: DOE LEAD Data



The Progressive Policy Institute is a catalyst for policy innovation and political reform based in Washington, D.C. Its mission is to create radically pragmatic ideas for moving America beyond ideological and partisan deadlock.

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