

Energy Burden in Milwaukee: Study Reveals Major Disparities & Links to Redlined Areas

Energy burden of households in predominantly Black and Hispanic/Latinx neighborhoods is roughly double that of households in predominantly white neighborhoods.

Energy burden = annual energy utility bills ÷ annual household income

“Energy burden” is the percentage of household income that goes toward energy costs. For example: If your household spends \$2,000 annually on energy bills, and your annual household income is \$20,000, your energy burden is 10%. High energy burden is considered 6% or more.

The average energy burden is 2.1% for majority white neighborhoods, compared to 5.0% for majority Black neighborhoods and 5.3% for majority Hispanic/Latinx neighborhoods.

Average energy burden at the neighborhood level doesn't tell the full story, and when you look across individual households the picture is even more stark. According to a [2016 ACEEE report](#) which references household-level data, one in four Black families in Milwaukee has an energy burden at or above 15.5 percent, while one in four Hispanic/Latinx families has an energy burden of at least 7.9 percent.

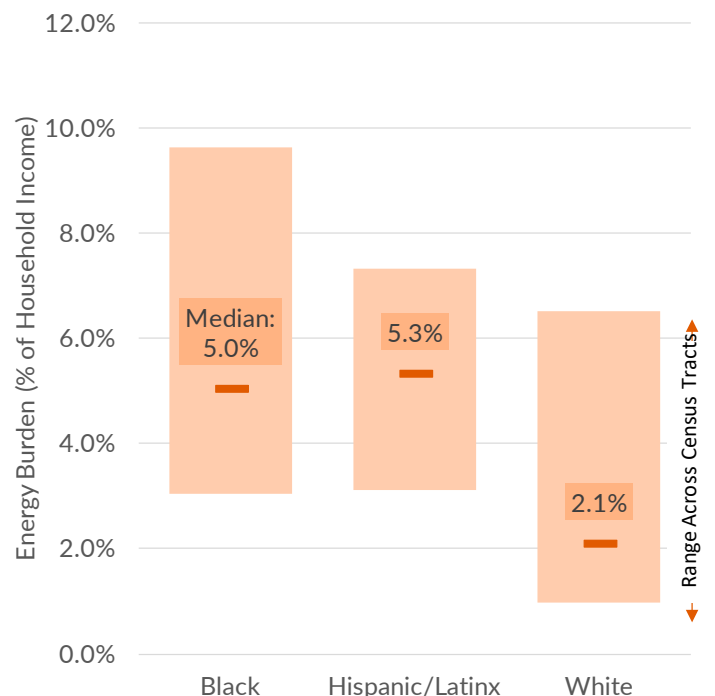
HOW MANY PEOPLE EXPERIENCE HIGH ENERGY BURDEN?

85,000 people, or roughly 6% of the Milwaukee metro population, live in high energy burden census tracts with an average energy burden of at least 6%. However, areas with high energy burden are disproportionately

Black and Hispanic/Latinx communities. While 16% of Milwaukee's metro population is Black, 65% of residents of high-burden neighborhoods are Black. 11% of the metro area population is Hispanic or Latinx, but 21% of the population in high-burden neighborhoods is Hispanic/Latinx. While the Milwaukee metro area's white population is two thirds of the total population, white residents only account for 9% of the population in high-burden neighborhoods.

Many Milwaukee neighborhoods that were **“redlined”** (discriminatory, race-based home lending restrictions through the mid-1900s), face some of the highest energy burdens in the metro area today. In some Black

Figure 1 Who is Affected

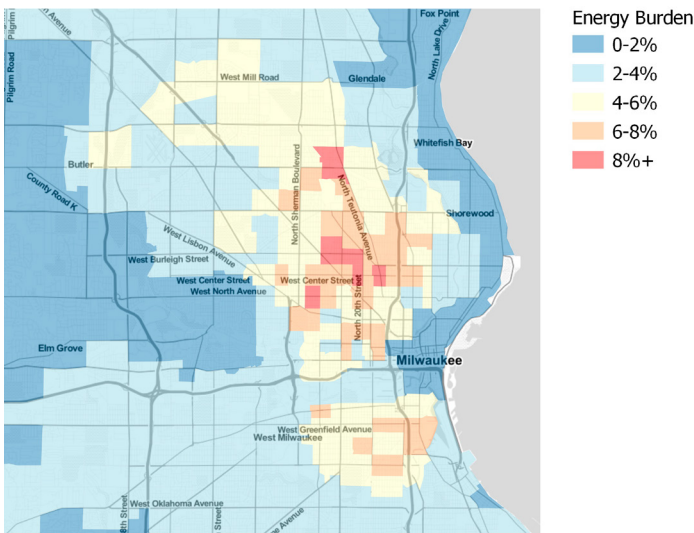


Note on Methodology

For this study analysts examined energy burden in each census tract in the Milwaukee metro area, and categorized each tract based on the racial or ethnic group that accounts for the majority of the population. This approach generalizes a census district by the predominant racial makeup. Since data for this analysis was only available at the census tract level, there are limits to highlighting how each racial group is impacted by energy burden. There are no majority Asian census tracts in Milwaukee, for example, so this approach does not surface the energy burden experienced by Asian households.

However, data maps of Milwaukee may indicate higher energy burdens for other communities of color, based on historically, informally, and systemically segregated neighborhoods. So we would expect that Asian, Indigenous, multi-racial and other identifying groups also experience higher and concerning rates of energy burden if they tend to live in these higher burden tracts/neighborhoods.

Figure 2 Energy Burden by Census Tract



and Hispanic/Latinx neighborhoods, the average household spends as much as 7-10% of household income on energy bills, and households below 1.5 times the Federal Poverty Line spend as much as 15-20% of their income on energy bills.

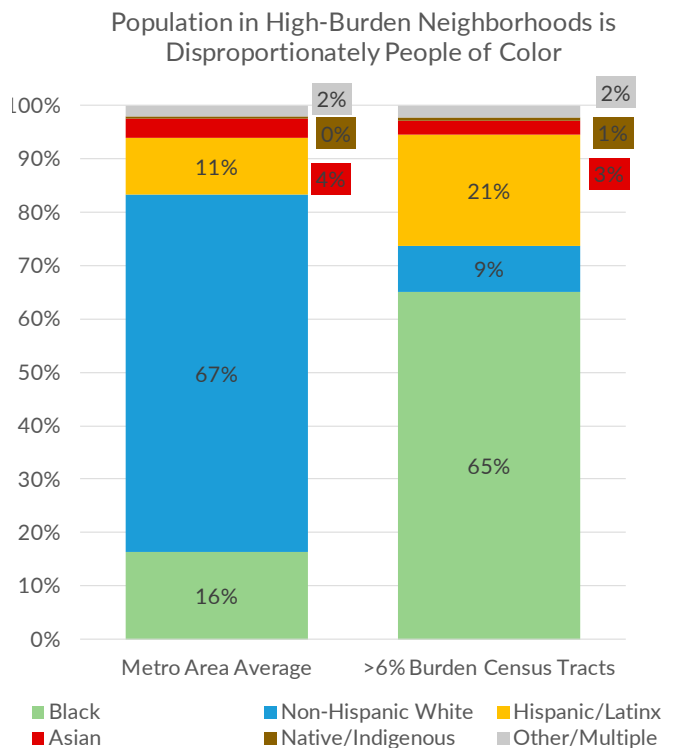
WHY WE SHOULD CARE: EQUITY

Energy in the form of electricity and heating is necessary to survive and prosper today, especially in Wisconsin's climate. We need it for lighting, food storage, cooking and cleaning, communications, education, and heating and cooling. Yet the burden of paying for this basic necessity puts some people at risk - a risk that in Milwaukee is especially borne by many Black,

Indigenous and People of Color (BIPOC) families, and adds to other already existing disparities.

High energy burdens can threaten a household's ability to pay for energy - risking disconnections, and forcing tough choices between paying energy bills and buying food, covering rent or mortgage payments, obtaining medical treatment and medicine, and accessing other

Figure 3



Real impacts: Nikki, North Side resident

Nikki is a full-time nursing student who lives with her 4 year old great-nephew in a 2-bedroom apartment on Milwaukee's North Side. She also provides care and support for her mother who lives downstairs in her own apartment in the same duplex. Nikki has been on a rollercoaster of intensely high bills from We Energies and while she uses fewer appliances and uses them less often than her mother does downstairs, her mothers' bills are much lower and more stable. "I want to know why my bill is so high. I'm not using that much for my bill to be as high as it is. It's always \$300 or more each month."

Nikki's mother applied for an energy audit through a local organization, and the inspector also viewed Nikki's living space. The inspector told them that there's no insulation in the home, so when the temperatures fluctuate, the heat costs jump up. The inspector planned to inform the landlords, who live out of state, that they could insulate the house for free if they give their approval, but Nikki hasn't heard whether there was follow up.

"All I want to know is where is the problem in my energy usage. My bill says one thing and I'm not

understanding what this high amount is because I feel like I'm not using what they're saying I'm using." Nikki hasn't asked We Energies about her usage because she feels that they would not tell her the truth. "They are making a lot of money off of people. They might just blame me and tell me to unplug things when I leave. I do all that."

Nikki says that people she knows don't trust We Energies, and that the company needs to begin developing good rapport especially in the inner city community. She said this kind of issue wouldn't happen in the suburbs because people there have a less stressful lifestyle and better living conditions - and even if they have high energy bills, they can probably afford them.

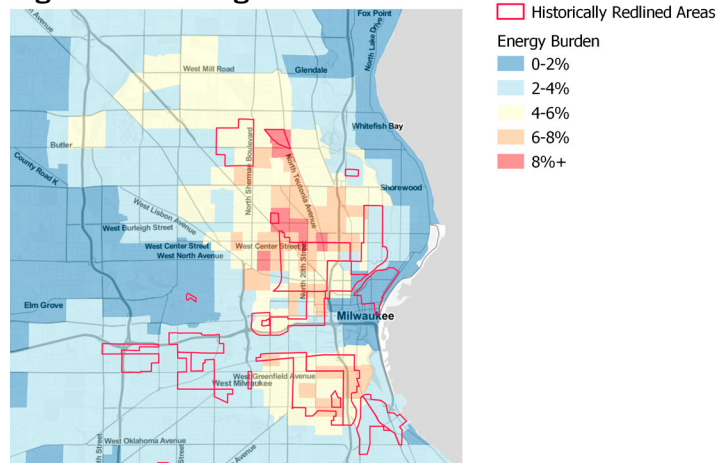
Nikki calls upon politicians and other local leaders to be part of the solution. "I really think that a lot of people that are in positions to help, are not helping. We the people can say, 'you really need to give me a reason to vote for you.' I want to know that you're for the cause and you don't want to be part of the problem - you want to fix it. After not seeing change in your community, you pretty much give up hope."

essentials. Households with high energy burdens experience many negative long-term effects on health and well-being including a greater risk for respiratory diseases and increased stress.

Specific factors impacting overall energy burdens include the energy efficiency of the home, appliances and lighting, along with the amount of use, number of people, and income level. Factors influencing the ability to mitigate energy use include ownership of the residence, cost of efficiency upgrades and awareness about and availability of support programs.

Systemic racism, such as the legacy of racist housing policies, and job and income discrimination, contributes to more BIPOC families living in inefficient homes and having higher energy costs than white families, which forces these families to make trade offs between utility payments and other necessities, and to navigate

Figure 4 Redlining in Milwaukee



even more cumbersome and disenfranchising system hurdles. Meanwhile, energy efficiency improvements to alleviate the cost burdens are largely inaccessible to low-income families, and awareness of programs is often low. In addition, the high energy use contributes to

Real impacts: Lady T, South Side resident

Lady T and her family of 6 have had an especially grueling year amidst the difficulties of the COVID-19 pandemic. In August, they found out that a resident in their building had illegally routed electricity to an attic, and the city of Milwaukee quickly condemned the property, boarded it up, and put their belongings out on the grass. When Lady T, her boyfriend, and their four school-aged children were finally able to move into housing again, they were met with a large utility bill from We Energies. At that time, they were just getting reestablished, and had to pay multiple rental application processing fees and juggle a lot of expenses. How were they going to pay \$500 up front to We Energies? Thankfully they were able to apply for energy assistance through a community organization, and within a few weeks, after various paperwork and eligibility hurdles, the balance was paid.

This isn't the first time that Lady T has been mistreated by We Energies, though. A few years ago, the family fell behind on utility payments and their energy was cut off for about two weeks. Lady T had unexpectedly lost a job after seven years with the company and was pregnant at the time. We Energies demanded what they call a "down payment" of about \$600 that she couldn't pay, and then disconnected the electricity. "We don't have another company to choose from for electric or gas service, and they [We

Energies] can be very mean. People do have real life situations that they can't control; circumstances where they can't pay. I won't live that again." Lady T was lighting candles, and an upstairs neighbor ran a cord down to the apartment so they could have a small refrigerator. "The kids couldn't believe what was happening. We never experienced that before. It was such a shock that the lights were gone. Two of my young children now need daily breathing treatments on a machine we have to plug in. What do people do?"

Lady T asks that, given the pandemic, We Energies cease the down payments and let people catch up and pay their monthly amount. There is funding that could go to the utility to cover the down payments, she says. "People who have walked this walk, lost their job, can't work, lost income, quit jobs because of virtual learning - for whatever reason - it causes a domino effect. What do you expect them to do? Think of the actual people and what they're living. We Energies isn't looking at people's income situation. They don't understand. Really empathize - It would help people and give people hope. When I got the energy assistance, I felt so good with that burden off my back. That feeling of cutting people off, or threatening with the high, up-front payment - no one should feel that feeling."

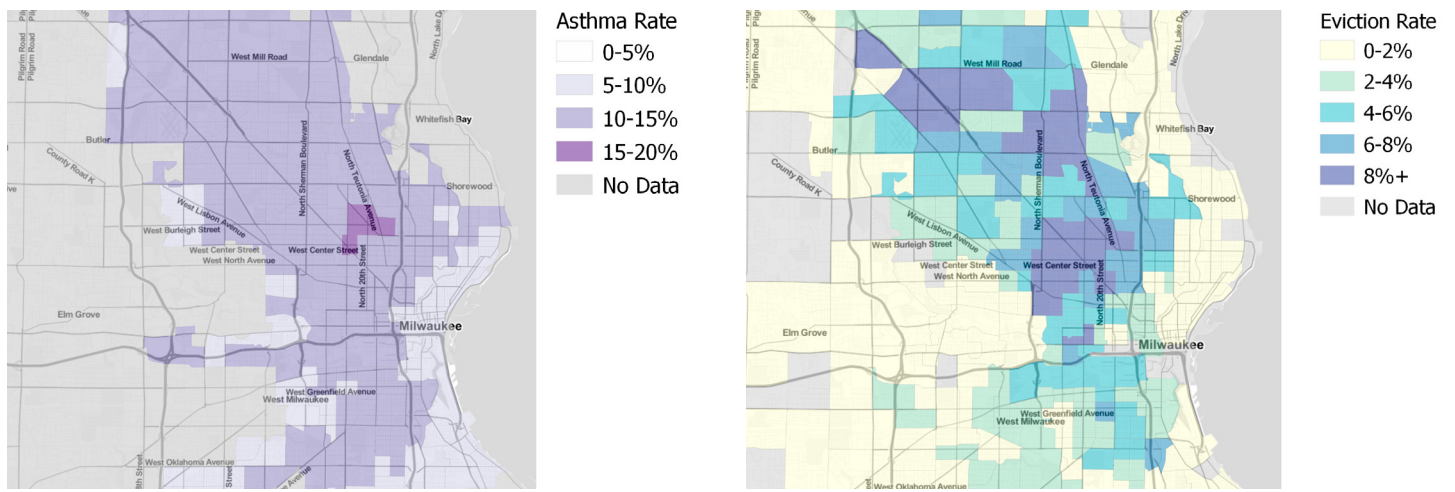
carbon emissions, climate change, and more pollution from burning fossil fuels to create electricity. BIPOC communities disproportionately suffer the impacts of these pollution and climate impacts.

In Milwaukee, we see that higher energy burdens disproportionately impact predominantly Black and Latinx/Hispanic and lower-income neighborhoods. Some contributing factors are the history of discriminatory housing policy (redlining), racial segregation and differences in quality of housing stock in Milwaukee. In the discussion about clean energy and affordable

housing in America, what often gets left out of the conversation are the ways in which energy insecurity and racist housing practices intersect. The long, shameful history of discriminatory housing policies and racial segregation in our country is part of the reason why BIPOC families are more likely to live in older, energy-inefficient homes that burden them with higher energy costs.

Many of Milwaukee's Hispanic and Latinx residents are newer to the city and sometimes new to the country. Many immigrants or children of immigrants

Figure 5 Milwaukee Asthma Rate, Milwaukee Eviction Rate



do not have access to historical wealth like established white American families do, making it more likely for immigrant families to rent their homes instead of purchasing them. People new to the United States also have no credit history, which adds another obstacle to purchasing a house, forcing many new residents to be dependent on the housing conditions provided to them by their landlords. As a result, many of Milwaukee’s Latinx and Hispanic residents, as well as other immigrant families, reside in homes without efficient energy saving technology, and see much higher rates of energy burden compared to white Milwaukee households. For residents who are undocumented and particularly vulnerable, there are often barriers to supports like energy assistance, and risks in navigating services and programs, as well.

Looking at the racial equity gap in the United States, we see that children who live in households with a high

energy burden (disproportionately children of color) are more likely to experience food insecurity, hospitalizations, poor schools, disruptions in their lives, and developmental delays compared to children in energy secure homes. These impacts carry on through their lives and perpetuate racial disparities in this country - something often clearly evidenced in communities such as Milwaukee, with racial and generational poverty and health impacts.

HOW CAN MILWAUKEE ADDRESS ENERGY BURDEN DISPARITIES?

Addressing the energy burden issue requires a cooperative approach among public and private sector decision makers, led by those most impacted to address their direct needs and concerns.

Increasing investments in energy efficiency and affordability programs and targeting these initiatives to the

Table: Energy Expenditures and Incomes in High-Burden Neighborhoods

	High Burden Census Tracts (>6% Burden)	All Other Census Tracts (<6% Burden)
Average Energy Expenditure (\$)	\$2,240	\$1,930
Average Household Income (\$)	\$32,000	\$80,000

many BIPOC and other low income customers. These fee structures need to be changed to increase equity, including eliminating high reconnection fees that result in keeping people behind on their bills, especially as low-income residents only begin to face the long road of economic recovery from the COVID-19 pandemic.

The transition to affordable clean energy sources reduces costs to customers and reduces pollution, as well. Latest reported figures show that We Energies' fleet in Wisconsin operates on 73% dirty, harmful fossil fuels, with its largest plant burning 5.9 million tons of coal each year (nearly 60,000 railcars) just south of Milwaukee. We Energies' parent company, WEC Energy Group's Executive Chair skeptically referred to President Biden's goal of a carbon-free power sector by 2035 as a "moonshot," and stated his intentions to run the Oak Creek coal plant "through mid-century." WEC needs five-to-ten times as much clean energy as they have now to address the climate crisis which disproportionately harms communities of color, and to save lower-income customers money.

The 2020 ACEEE scorecard ranked We Energies as 23rd in energy efficiency among the country's 52 largest utilities.

If Milwaukee is to address its racial disparities through equitable means, dealing with undue and discriminatory energy burdens must be part of it. There are many facets and underlying issues that are a part of this problem, but there are steps that can and must be taken on a number of fronts to provide a safe and welcoming environment for all to thrive. It is being done elsewhere, and Wisconsin and Milwaukee can do the same.

Email us for more information and ways to get involved in advocacy efforts at

wisconsin.chapter@sierraclub.org

Methodology: Analysts referenced census tract level energy burden data from the US Department of Energy's (DOE) Low Income Energy Affordability Data (LEAD) Tool which they've combined with Census American Community Survey data on race by census tract. Analysts applied a population-weighted average, considering that while most census tracts are a similar size, there are some large ones that can shift the rankings.

Data Sources:

- Energy Burden - DOE Low Income Energy Affordability Data Tool
- Racial Demographics - Census American Community Survey 2018
- Asthma Rate - CDC 500 Cities Database
- Eviction Rate - EvictionLab
- Redlining - University of Richmond Mapping Inequality Project



APPENDIX

Figure 1 Who is Affected

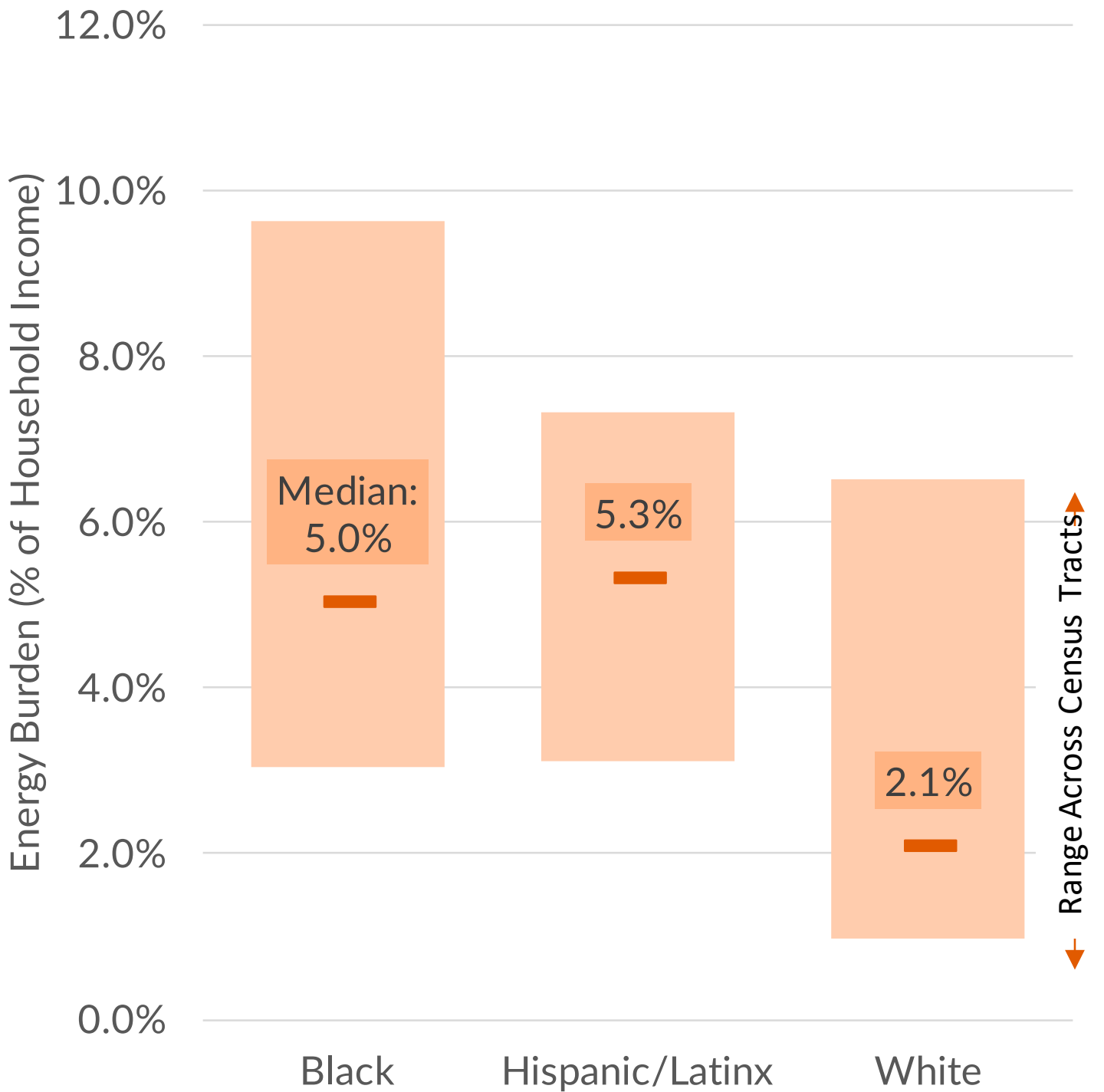
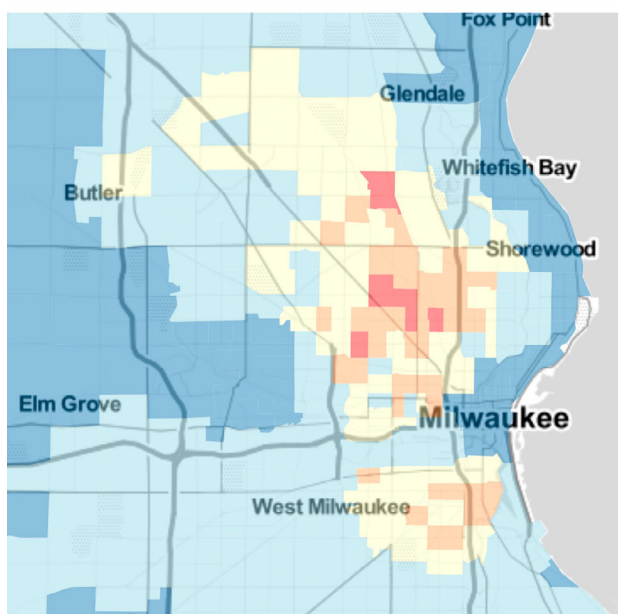
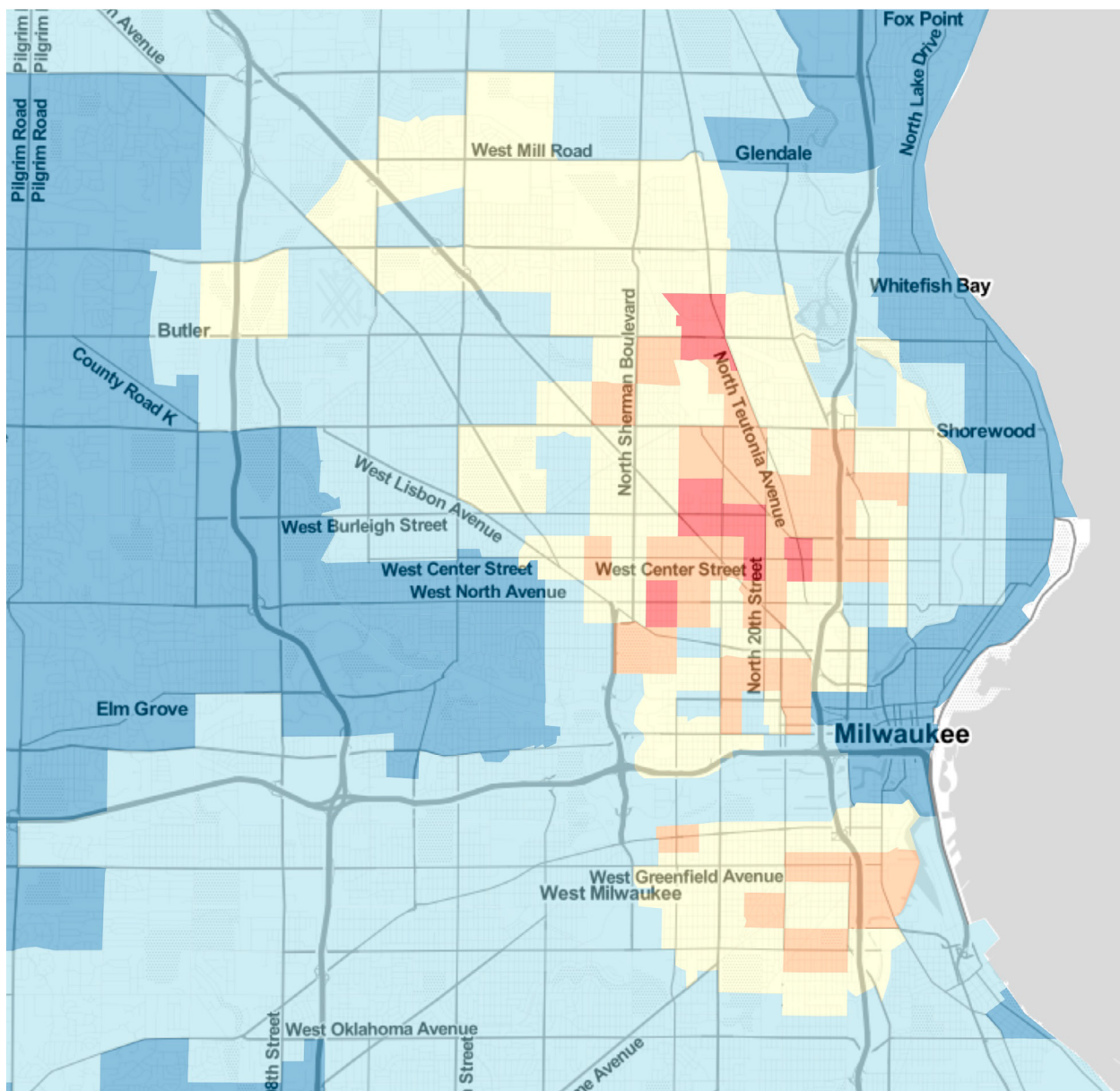


Figure 2 Energy Burden by Census Tract



Energy Burden

- 0-2%
- 2-4%
- 4-6%
- 6-8%
- 8%+

Figure 3

Population in High-Burden Neighborhoods is Disproportionately People of Color

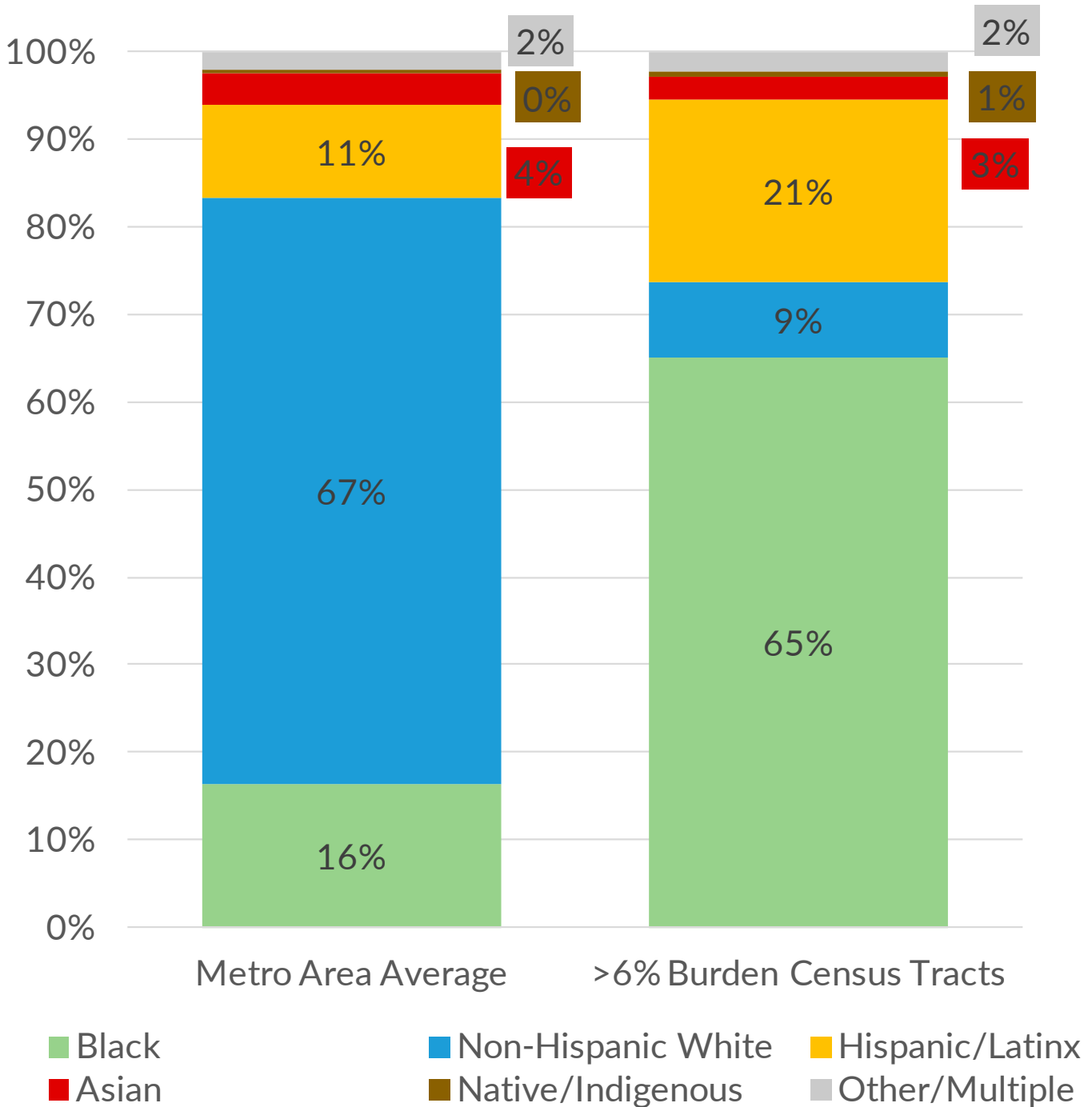
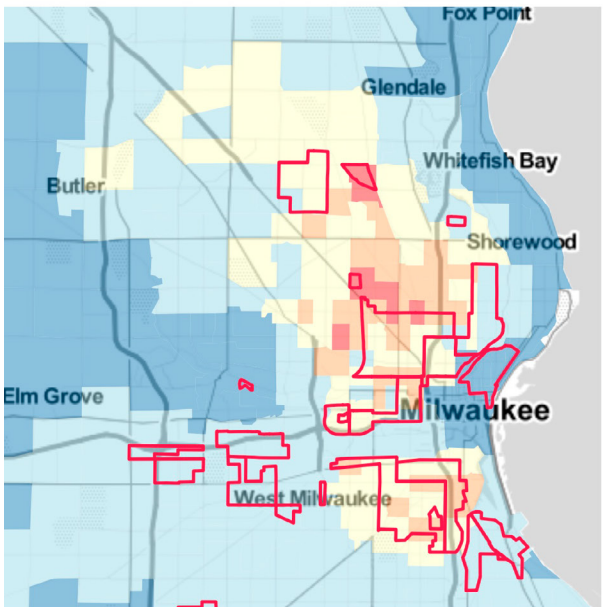
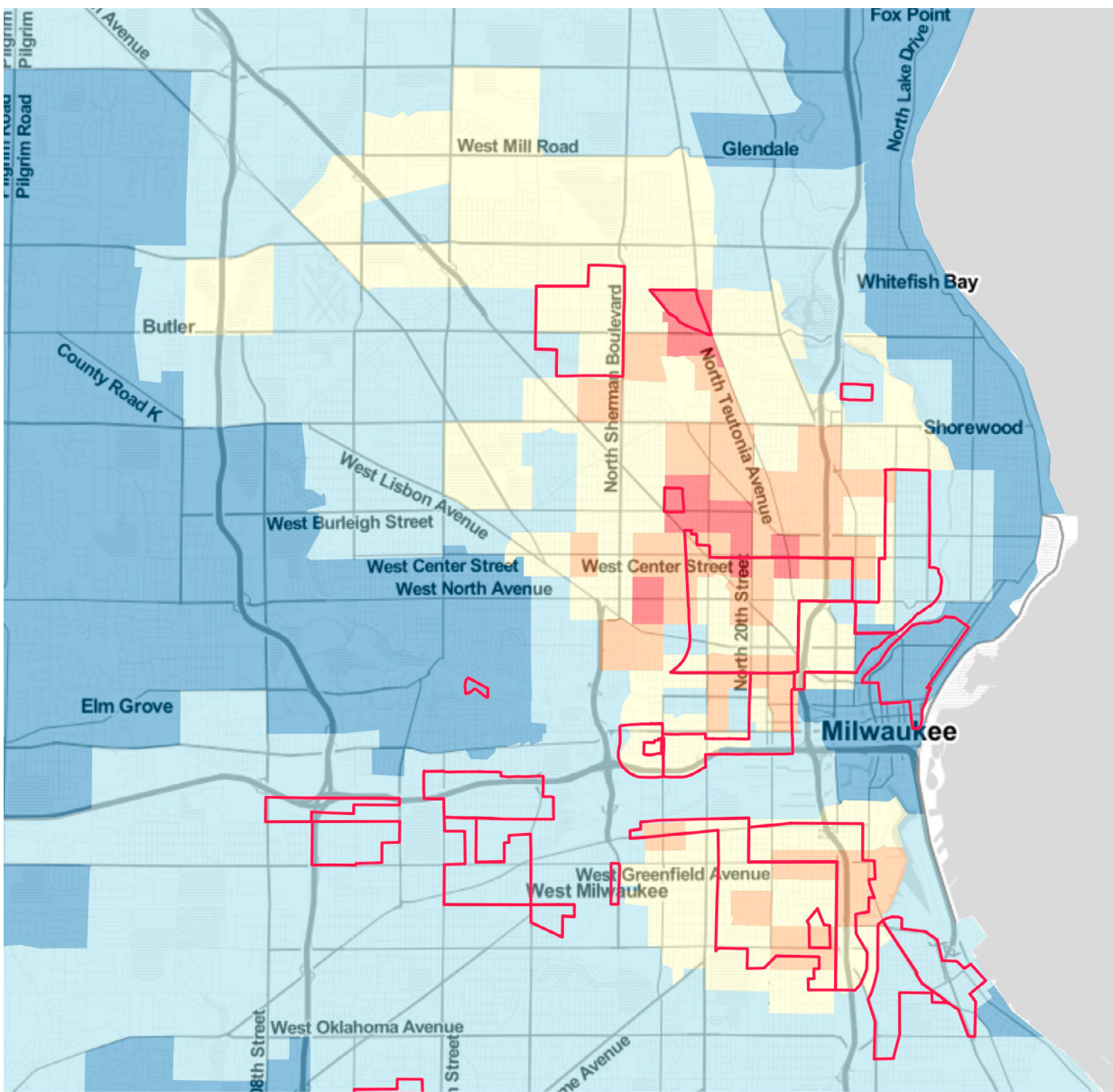


Figure 4 Redlining in Milwaukee



- Historically Redlined Areas
- Energy Burden**
- 0-2%
- 2-4%
- 4-6%
- 6-8%
- 8%+

Figure 5 Milwaukee Asthma Rate, Milwaukee Eviction Rate

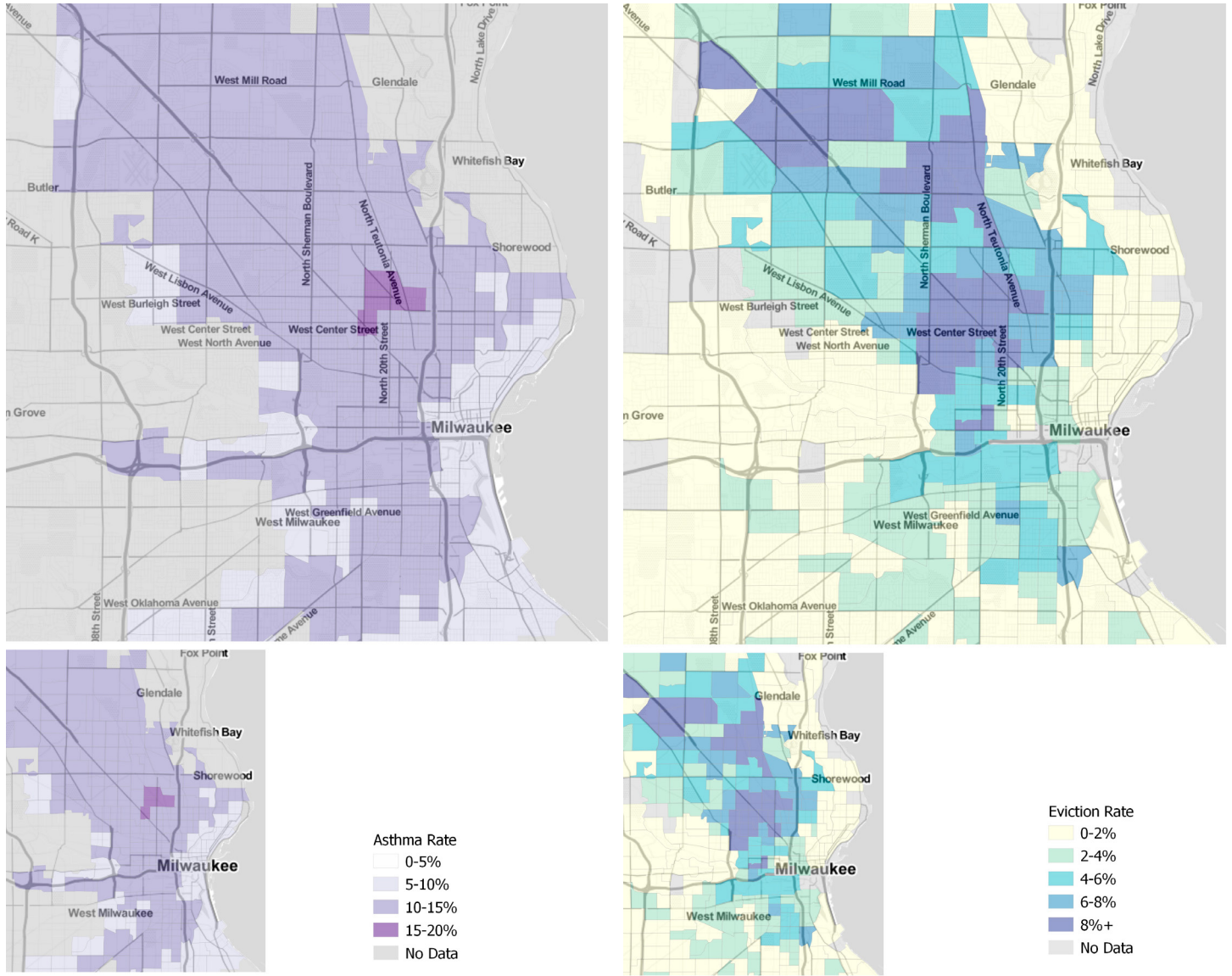


Figure 6 Milwaukee Demographics

