

UNEQUAL LANDSCAPES

Race, Ethnicity, and Environmental Equity in Metro Milwaukee



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EXECUTIVE SUMMARY

This study examines environmental equity in the Milwaukee metro area, which we define as the four-county region of Milwaukee, Waukesha, Ozaukee, and Washington counties. While there are several ways of looking at and measuring environmental equity in metropolitan areas, our principal lens is that of race and ethnicity. In particular, we seek to determine whether neighborhoods that are predominantly Black or Hispanic face the same degree of environmental risks and enjoy the same access to environmental amenities as neighborhoods that are mostly White. Our approach is informed by an extensive body of literature on the topic of environmental justice, much of which finds evidence of significant disparities in the distribution of environmental benefits and burdens along racial and ethnic lines in cities and states around the country. Our goal with this research was to determine whether the Milwaukee region fits this pattern.

The empirical chapters of this report are broken into four separate themes: housing and lead exposure, climate change and environmental amenities, industrial pollution, and motor vehicle emissions. Our findings are mixed. We identified many instances of environmental inequities, as expected. In our chapters on housing and lead exposure and climate change in particular, we find strong evidence that environmental benefits and burdens are not equitably shared among the region's racial and ethnic groups. In other cases, however, we found that disparities either do not exist, or that they have faded over time. In the case of industrial emissions, for example, disproportionately high toxic emissions in mostly Black and Hispanic Milwaukee neighborhoods as recently as 1990 have dropped significantly as manufacturing has left these areas during the past three decades.

Environmental risk in metro Milwaukee has in some respects evolved. Certain longstanding environmental problems have faded in significance as newer ones, especially those associated with the planet's warming climate, grow increasingly pronounced. With little discretionary income for such luxuries as air conditioning and a preponderance of medical conditions exacerbated by extreme heat, many neighborhoods of color face growing vulnerabilities to heat-related health risks. Such concerns, along with additional hazards posed by climate change, can be expected to increase over time.

Key study findings are as follows:

Housing and Lead Exposure

- The percentage of Milwaukee area children testing positive for lead has declined significantly since the 1990s. However, the percentage of Black children testing positive today is five times higher than that of White children, while the percentage of Hispanic children is three times higher.
- Census tracts that are predominantly Black or Latino have significant concentrations of older rental housing in which owners are less likely to have undertaken lead abatement measures.

- Predominantly Hispanic census tracts contain 13 percent of the city of Milwaukee’s housing units, but 24 percent of the share of all housing units with lead service lines. White census tracts contain 41 percent of housing units, but only 34 percent of units with lead service lines.

Climate Change and Environmental Amenities

- On average, predominantly White census tracts have 221 square meters of tree canopy coverage per person, while mostly Black tracts have 110 square meters and mostly Hispanic tracts have just 64.
- Census tracts that are predominantly White average 250 acres of park space, while those that are mainly Black average 140 acres and those that are chiefly Hispanic average just 91 acres.
- Low poverty tracts (representing less than 10 percent of residents) have more than three times as much park space as census tracts with the highest rates of poverty (representing more than 30 percent of residents).
- City of Milwaukee temperature readings indicate that summer temperatures for individual census tracts may vary by as much as 10 degrees. In temperature data collected in July 2022, seventeen of the city’s 25 hottest census tracts were predominantly Black or Hispanic. Eighteen of the city’s 25 coolest census tracts were predominantly White.
- Compared with the coolest census tracts, the 25 hottest tracts have household incomes of \$20,000 less and poverty rates more than double those of the coolest tracts.

Industrial Pollution

- Toxic chemical releases have declined significantly across the region since 1990. In 1990, the 50 most adversely impacted census tracts had release levels nearly 15 times higher than those in 2020.
- In 1990, the largest concentrations of the region’s highest risk industrial pollutants were located chiefly in or adjacent to the city of Milwaukee. By 2020, city of Milwaukee census tracts that had previously been hot spots of toxicity concentrations were testing at levels below those of portions of Waukesha County and south Milwaukee County.
- In 1990, 35 of the 50 most adversely impacted census tracts were predominantly non-White. By 2020, predominantly White tracts accounted for 33 of the 50 most impacted tracts.
- Fabricated metal establishments, the region’s largest source of toxic chemical releases, have declined since 1990 in both majority White and majority non-White census tracts, reducing chemical emissions. However, the EPA’s risk scores for fabricated metals are approximately 14 times higher for non-White census tracts as they are for predominantly White tracts.

Motor Vehicle Emissions

- Motor vehicle emissions may pose significant health risks for residents along major highway corridors. Research shows that in many urban areas, non-White and lower-income populations are more likely to live in close proximity to highways than White and higher-income residents. The

Milwaukee region does not appear to conform to this pattern.

- Of 74 regional highway segments meeting the Federal Highway Administration’s definition of high-volume segments, 64 run through neighborhood areas that are mostly White.
- Only 14 percent of high-volume highway segments run through residential areas in which residents are mostly non-White.
- Predominantly White residential areas located near highest-volume highway segments are not, for the most part, lower-income. All but two such areas have poverty rates below 20 percent.
- Milwaukee’s pronounced patterns of residential segregation, with few Black residents living in suburban areas where many high-volume highway segments are located, may help explain why Milwaukee differs from other metro areas in which neighborhoods along highway corridors are more likely to be non-White.

Policy Recommendations

- The State of Wisconsin should consider adopting blood lead testing requirements for children, particularly for cities where known lead hazards persist.
- The City of Milwaukee should require that owners of rental properties built before 1978 test for the presence of lead-based paint and complete any needed lead abatement before renting a property.
- Public resources should be aligned to ensure that urban greening programs such as the City of Milwaukee’s Growing Milwaukee’s Tree Canopy and Community Resilience program have ongoing support.
- City and county officials should consider using targeted incentives such as developer tax credits, property tax abatements, or density bonuses to encourage the use of green roofs, especially in the city’s hottest locations.
- Heat response plans should identify and publicize the locations of cooling centers, particularly in communities with the highest heat-related health risks. Orienting transit routes to maximize the accessibility of vulnerable populations to cooling centers should also be considered.
- The Wisconsin Department of Natural Resources (DNR) should have the authority to independently test for the presence of contaminants when redevelopment is proposed on former industrial sites, without requiring the permission of the current owner, as the law presently states.
- State legislators should ensure that regulators have sufficient funds for effective oversight and enforcement to better ensure that the redevelopment of brownfield properties is carried out in ways that do not pose unacceptable risks to public health.
- Investing state and federal infrastructure funds in the expansion of highways without parallel efforts to improve public transit is an unsustainable strategy that will ultimately worsen the region’s already significant air quality problems. State and regional transportation planners should proactively identify opportunities for major investments in public transit so that when funds become available plans are already in place that state and local political leaders can seek to advance.

- Sound walls and vegetation along highway corridors, commonly used to mitigate noise from passing vehicles, can also reduce exposure to vehicle emissions for populations downwind from highways. City and county officials should work with state and federal transportation officials on the I-94 East-West rebuilding project to place noise barriers or densely planted trees and shrubs in areas of high residential density to reduce air pollution.



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