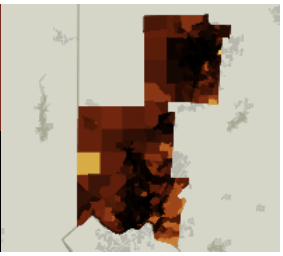
Industrial Equity Mapper: Stories of industrial pollution in Southwest Ohio



A legacy of manufacturing and defense leaves deep scars and new visions for renewal

Southwestern Ohio has long been an industrial powerhouse. From GE Aerospace facilities across Butler and Hamilton Counties to massive steel and coke plants in Middletown, the region's economy grew around heavy industry, defense, aerospace, and manufacturing. The state's overall manufacturing GDP is fourth in the nation,[1] with 40% of its manufacturing facilities in the Southwest counties.[2]

But like many industrial zones, the costs and benefits are unevenly shared.

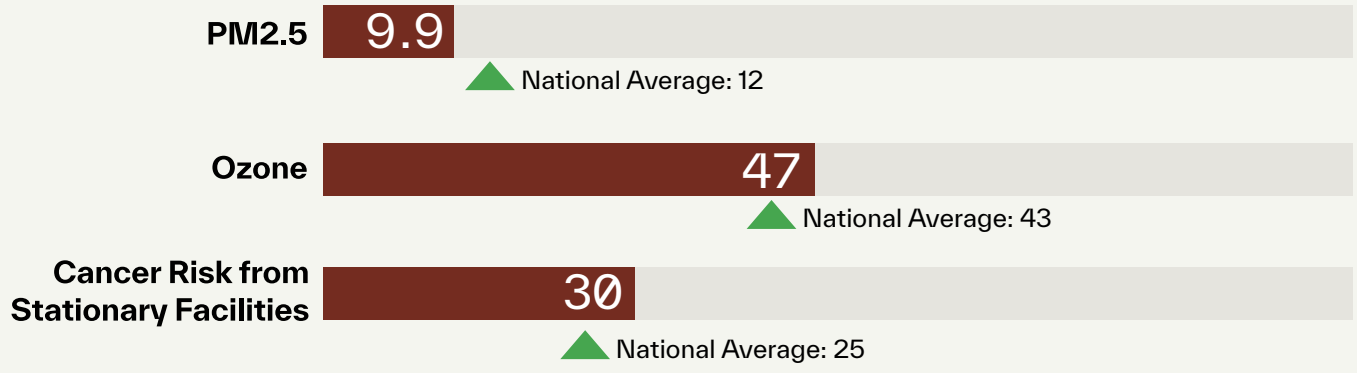
Take for example, GE Aviation (now GE Aerospace). In the 1940s, the firm located a major facility near what would become Lincoln Heights. Despite being one of the first self-governing Black municipalities, the town was not allowed to incorporate the GE facility, taking tens of millions of dollars of tax revenue off the table.[3] This left Lincoln Heights underfunded and without basic services despite composing much of GE's Black workforce.

> "I wish that Cincinnati could be a place of home for anyone, regardless of race, gender, nationality, background, immigration status, and that outdoor space was more of a right than a luxury."
>
> — Sierra Hayden, executive director of We Outside

The lucrative industrial tax base was redirected to neighboring white communities like Evendale, which, in 2019, earned more just from the interest on its tax revenue than Lincoln Heights collected in total tax revenue in the entire year. Residents feel this deliberate divestment to this day, through gaps

Industrial Impacts: Southwest Ohio

Count of Facilities	Tons CO_2e	Residents
14	4.6M	1.8M



in community infrastructure like grocery stores and funding for public safety.

The working-class community of Middletown long relied on union jobs at facilities like AK Steel (now Cleveland Cliffs). But these plants emit constant noise, odors, and soot. Residents often wake up to black dust or metallic fragments on their cars and homes. Today, people feel trapped between exposure to health hazards and the economic need to stay.

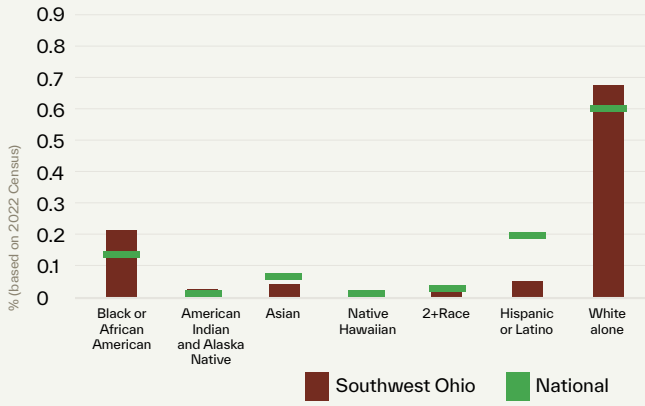
The Ohio River is one of the most polluted rivers in America.[4,5] Yet residents are determined to turn over a new leaf. Recent community-driven efforts — local water monitoring campaigns, park restorations, and advocacy to restore and maintain stronger pollution controls — are part of the fight to reclaim and heal these waterways for future generations.[6,7] Despite decades of divestment and environmental harm, the region's resilience shines through.

New investments promise growth but repeat old patterns of exclusion

Today, Southwestern Ohio is seeing a boom in logistics, advanced manufacturing, and clean energy infrastructure. From corporate warehouse expansions around Cincinnati to high-tech manufacturing facilities in Butler and Warren counties, these industries promise new jobs and tax revenue.

However, many residents point out that these benefits do not reach historically marginalized Black communities. Redlining and discriminatory zoning impact life to this day in Southwestern Ohio. In Cincinnati, these policies forced Black residents to live in specific neighborhoods such as Avondale and the West End, often located near heavy industrial sites or highways.[8,9]

As industrial jobs boomed in the mid-20th century, Black workers could only get the most dangerous or lowest-paying roles while union leadership and higher-wage positions were overwhelmingly white. Deindustrialization through outsourcing, automation, and the collapse of local manufacturing hit these same communities the hardest. As a resident shared, "The Black community ... were the first fired, last hired. And when those jobs left, we were left with nothing — no tax base, no services."



Of the 1.7 million residents living in Southwest Ohio, 33% identify as Black, indigenous, or other people of color.

Across the region today, poverty rates remain higher than the state average, particularly in historically redlined or disinvested neighborhoods. In Cincinnati, 27% of residents lived below the poverty line and some neighborhoods had a rate as high as 75% in 2022.[10] Food security is a persistent problem. As many as one out of five children were food insecure in 2023, and about 30% of Hamilton County residents qualify for food bank services.[11]

Developments promising good jobs often occur in suburban industrial parks or wealthier neighborhoods. Meanwhile, frontline communities — the same neighborhoods that bore the brunt of past industrial pollution and job loss — see little reinvestment. Hiring practices, lack of accessible job training, and persistent discrimination continue to exclude Black workers from stable, high-wage positions, echoing the patterns of the past.[12,13]

For one resident, Cincinnati's economic diversification and redevelopment brings mixed results. "I definitely feel like Cincinnati has gone through massive gentrification," she shared. "There was a displacement of community members who had been within the downtown area for a long time ... they kind of pushed them out, brought new people in." New green spaces and revitalized

business corridors have improved the city's image, but they often come at the cost of displacing long-time Black and low-income residents.

Without intentional policies focused on equity such as targeted local hiring, community benefit agreements, and strong anti-displacement measures, these new industries threaten to deepen racial and economic divides.

Industry and pollution are a daily, deadly burden

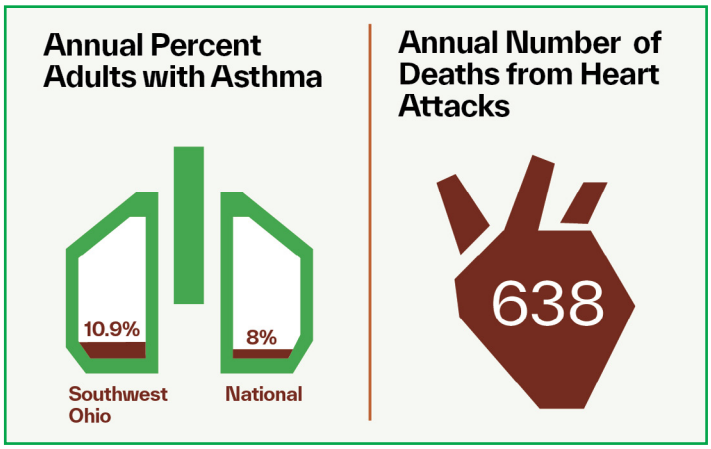
Generations after redlining, places like Avondale still have some of the worst health outcomes in Cincinnati.[14] From childhood asthma to high rates of heart disease, decades of industrial pollution and systemic disinvestment have left deep health scars across Southwestern Ohio particularly in Black and working-class communities. One resident noticed that "almost every day, a lot of people have sinus infections or respiratory infections. A lot more people are on oxygen, or have health problems that are related to what they're breathing."

Southeastern Ohio's adult asthma rates are among the highest in the state.[15] Asthma death rates for Black children were eight times more than those of white children in Ohio.[16] As of 2020, many counties with the highest rates of heart disease and chronic obstructive pulmonary disease were also in the industrial zones of Southern Ohio.[17]

These health issues have been linked to exposure to pollution and toxic chemicals on a daily basis. In 2020, more industrial waste was dumped into the Ohio River watershed than in any other in the country. The 41 million pounds of byproducts from coal plants, steel and aluminium factories, and oil and gas facilities included hundreds of cancer-causing chemicals. This led to environmental dead zones and contamination of drinking water in neighboring states like Kentucky.[18]

The sheer stress of life near industrial facilities makes these chronic health problems worse. One resident described the neighborhoods near steel and coke plants as a "torture chamber where you have noises so loud you can't sleep."

Another local agreed these conditions rob residents of basic dignity and safety. "The environmental



trauma, the mental health trauma ... these are things that eat away at you day after day," they said. These layered health impacts show a stark reality: For many Black and working-class residents, living near industry has meant sacrificing health and well-being for economic survival.

Residents are organizing for cleanup, green space, and justice

Despite layered challenges, communities across Southwestern Ohio are fighting to reclaim their health, dignity, and future. Local leaders, organizers, and residents are shaping a vision grounded in community power, environmental repair, and equitable development.

In Lincoln Heights, residents and advocates are pushing for infrastructure revitalization and long-overdue environmental cleanup. Their work centers on transforming Lincoln Heights into a self-sustaining, thriving community — with access to healthy food, public spaces, mental health services, and youth development programs. One resident shared a vision to build "a continuum of care" that addresses trauma, creates economic pathways, and restores pride.

Another local envisions a Cincinnati where outdoor spaces are a right, not a luxury, and where Black and brown communities feel safe and truly at home. We Outside Cincinnati hosts culturally relevant environmental and outdoor education programs aimed at reconnecting communities to land and health. The goal is to make green space and conservation work feel accessible, joyful, and community-driven rather than exclusive or corporate.

In Middletown, residents demand stronger enforcement of pollution laws and more comprehensive air monitoring. Residents have been documenting fallout and advocating for stricter limits on emissions from facilities like Cleveland-Cliffs and SunCoke Energy.

These campaigns have pushed local and state agencies to restore air nuisance rules — a hard-fought win after years of government agencies overlooking community concerns.[19] However, this victory is under attack. Recently, the Ohio legislature has attacked the rule and sought to remove it from the State Implementation Plan. This would prevent community efforts to hold polluters accountable by monitoring and implementing air quality standards.[20]

At the policy level, groups across the region have successfully fought for small but meaningful reforms, including temporary shutdowns of particularly dangerous facility units and tighter restrictions on rail operations that block entire neighborhoods for hours. Meanwhile, collaborations with environmental health researchers have brought more attention to cumulative health impacts.[21] The future is complex; cuts to federal funding means local industry may not use cleaner, newer technology.

As these efforts show, residents are not only resisting ongoing harm but actively building the conditions for a just transition. Southwest Ohio offers a blueprint for transforming industrial regions: Center the voices of those most harmed, repair past and ongoing damage, and ensure new development uplifts long-standing communities.

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