

RESEARCH

Flint among most environmentally unjust census districts, 'U' study finds

by Michal Ruprecht
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A study **published** last month by the University of Michigan School for Environment and Sustainability reported Detroit, Grand Rapids, Flint, Saginaw, Lansing and Kalamazoo as some of the most environmentally unjust areas in the country.

University alum Laura Grier, Delia Mayor and Brett Zeuner co-authored the study with their faculty advisor, SEAS professor Paul Mohai. The group wrote in an email to The Daily the study is the first comprehensive quantitative and qualitative assessment of environmental justice in Michigan.

The researchers proved environmental injustice exists in the state of Michigan and an online environmental justice screening tool is feasible and desired. They also found a screening tool must be accompanied by strong state-level policy that supports communities burdened by high risk of exposure to environmental hazards.

Zeuner mentioned states like California **use** an environmental justice screening tool to leverage funding to communities most impacted by environmental justice issues. Grier added their study provides the state of Michigan with concrete, comprehensive and practical information about possible ways to address environmental injustices. She wrote she hopes Michigan adopts a similar screening tool.

“We also hope it encourages the Environmental Protection Agency and other national environmental leaders to consider cumulative impacts when making environmental decisions instead of one pollutant or facility at a time,” Grier wrote. “Specifically in Michigan, we hope this study encourages the State to adopt a screening tool, consult with impacted communities in permitting and policy decisions and consider cumulative environmental impacts.”

Mayor added if Michigan adopts an environmental justice screening tool, funding could be prioritized better and future environmental injustices could be avoided.

“We hope to see is that this information could be used by decision-makers to both prevent further environmental exposures and to prioritize allocation of funding to correct the already experienced impacts,” Mayor wrote.

The group partnered with the Michigan Environmental Justice Coalition to interview 30 environmental justice leaders. They also used social and environmental data from the EPA, Department of Housing and Urban Development and Census Bureau to rank Michigan’s census districts.

According to the researchers, the Flint water crisis was a result of environmental injustice. The water crisis [began](#) in April 2014 after the drinking water source for the city of Flint was changed from Lake Huron and the Detroit River to the Flint River to save money.

Several scientists including [Mona Hanna-Attisha](#) and [Marc Edwards](#) have denounced drinking water quality data [collected](#) under the [Safe Drinking Water Act](#) Lead and Copper Rule by the EPA during the Flint water crisis. Zeuner wrote the group didn’t use that data and instead used a lead exposure indicator from the EPA, which is the percentage of homes within a census district that were built before 1960. The researchers used the indicator to represent a risk of exposure from lead-based paint and lead pipes.

The research group quantified environmental injustice on a map and based injustice on 11 environmental indicators and six demographic indicators. Some of the indicators included air toxics cancer risk, lead paint indicator, wastewater dischargers indicator, percent minority residents, percent living below two times the federal poverty level and percent housing-burdened low-income households.

A community that has a high risk of exposure to environmental hazards because of social factors corresponds to a high environmental injustice score. The research team found high scores in census districts with large concentrations of minority residents, high levels of poverty and unemployment, low educational attainment and other indicators of social disadvantage.

Zeuner wrote though the team wasn’t able to quantify living experiences, he wrote policy makers should be aware of those factors.

“The largest challenge during the study was balancing the lived experiences of environmental injustice with the need for quantitative measures in policy,” Zeuner wrote. “While our study and its environmental justice screening tool provide the State of Michigan with a means of quantifying environmental justice, it does not remove the need for recognizing lived experiences which cannot be quantified.”

In addition to being the group’s advisor, Mohai served on former Michigan Gov. Rick Snyder’s Environmental Justice Work Group, which [submitted](#) 33 recommendations in 2018 in hopes of preventing another Flint water crisis. Snyder [acted](#) on the recommendations four months after they were submitted.

Mayor wrote the 2018 [report](#) also stated Michigan decision makers want to be leaders on environmental justice. Mayor emphasized her team’s report provides a tool to move in that direction. She added many of the failures that resulted in the Flint water crisis could have been prevented by following democratic processes, including communities in decision-making and adopting a screening tool and using it to create legislation.

“Many of the leaders we interviewed expressed that decision-makers are not listening to their communities and are placing economic profits above the health of their constituents,” Mayor wrote.

Though the group hopes policy makers adopt new changes, Grier wrote many of the impacts of environmental injustice cannot be reversed.

“Damage has been done to generations of communities across the state, yet community members persist in advocacy and organizing,” Grier wrote. “I think the State should consult with impacted communities in a meaningful way so they can shape policies and fixes that would best support their residents. I think this consultation must be the first step.”

Mayor wrote the team remained objective throughout the study by taking research design and process classes as well as following scientific methods and guidelines.

Grier believes this study could lead to other states conducting similar research. She added each state has specific environmental injustices that need to be analyzed carefully.

“Environmental justice concerns are so place-based and different depending on the state and region,” Grier wrote.

“We do hope this study prompts more state-specific studies and encourages state governments to support communities experiencing disproportionate impacts of pollution.”

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