

# Environmental inequality study finds no direct links to segregation, income

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A new study examining two possible factors leading to "environmental racism" finds that although the average black or Hispanic resident of a major U.S. city lives in a more polluted part of town than the average white person, the levels of inequality vary widely between cities and defy simple explanation.

In a study of the 61 largest U.S. metropolitan areas, University of Colorado at Boulder Assistant Professor Liam Downey found that in some cities Hispanics live in the most polluted neighborhoods, but in other cities it is blacks and in still other cities it is whites. Moreover, the degree to which each of these groups is exposed to pollution varies greatly.

The study was published in the May issue of *Urban Studies*, an international journal for research in urban and regional studies published at the University of Glasgow in Scotland.

"The results may surprise people who think that environmental racial inequality is due solely to poverty and residential segregation," said Downey, a sociologist. "Instead, it seems likely that the role these factors play in shaping environmental inequality is highly contingent on local conditions."

Since the term "environmental racism" was coined in 1987, researchers have investigated why minorities are more likely than whites to reside in areas where there is more pollution, with many arguing that

environmental racial inequality is due to racial income inequality or residential segregation. In order to determine whether either of these factors produce environmental inequality, Downey compared environmental inequality levels to levels of residential segregation and racial income inequality in each of the 61 metropolitan areas.

Using a measure of air pollutant concentration and toxicity developed by the Environmental Protection Agency to calculate the air pollution "burden" of each neighborhood in each metropolitan area, Downey compared levels of inequality between blacks and whites, Hispanics and whites, and Hispanics and blacks. He then examined whether metropolitan areas with high levels of residential segregation and racial income inequality also had high levels of environmental racial inequality.

For example, if residential segregation was the key factor producing environmental racial inequality, then black/white environmental inequality should have been greatest in metropolitan areas with the highest levels of black/white residential segregation such as Detroit, Milwaukee and New York, and weakest in metropolitan areas with the lowest levels of black/white residential segregation like San Jose, Calif., Salt Lake City and Orange County, Calif.

Likewise, if income inequality was the key factor producing environmental racial inequality, black/white environmental inequality should have been strongest in Minneapolis, Milwaukee and Memphis, Tenn., and weakest in Nassau/Suffolk, N.Y., Middlesex, N.J., and Riverside, Calif.

But Downey found that black/white environmental inequality levels were highest in Orlando, Fla., Norfolk, Va., Louisville, Ky., and Portland, Ore., and weakest in Baltimore, Las Vegas, Boston and Nassau/Suffolk, N.Y.

Overall, there was so little correlation between what would be predicted by the two explanations of environmental racial inequality and the actual results of the study that the study "contradicts the residential segregation and income inequality hypotheses," Downey said.

"This does not mean that residential segregation plays no role in producing environmental racial inequality," he said. "After all, environmental racial inequality could not exist if blacks, Hispanics and whites were equally represented in all neighborhoods. Instead, the study demonstrates that residential segregation does not necessarily lead to environmental racial inequality.

"Taken as a whole, this study shows that environmental racial inequality exists in most large metropolitan areas," Downey said, "but it's not universal and the explanation for it is more complex than many people think."

Source: University of Colorado at Boulder

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