

# Not all communities benefit equally from pollution mitigation

March 25 2016, by Tom Fleischman

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There's a phenomenon called "environmental injustice" – it characterizes the reality whereby environmental burdens, such as toxic and other waste disposal, are more pronounced in economically disadvantaged communities than in more well-off areas.

A recent study co-authored by Cornell associate professors Arturs Kalnins and Glen Dowell sought to examine this inequality over the last three decades, since the inception of the toxic release inventory ([TRI](#)), a mandatory program of the Environmental Protection Agency that tracks the management of certain toxic chemicals.

Their findings suggest that, while overall pollution has been reduced significantly over that time, the disparity in mitigation between rich and [poor areas](#) is stark – and continues to grow.

"I was actually struck by the contrast there," said Kalnins, of the School of Hotel Administration. "If you break the USA apart geographically by income quartiles, the wealthiest quartile of counties has enjoyed a tremendous drop in corporate pollution. The highest quartile has seen [pollution levels](#) drop about 70 percent from just 30 years ago, and the lowest quartile has seen it drop by around 20 percent. To add to that, the large drop in wealthy [areas](#) was from a much lower initial level of pollution than that of the lower income areas. That's a striking imbalance."

Their research is [documented in a paper](#) published online last September

in the *Journal of Business Ethics*.

Kalnins and Dowell, who is area coordinator of management and organizations in the Samuel Curtis Johnson Graduate School of Management, met as graduate students in the late 1990s at the University of Michigan.

They've talked regularly since Dowell arrived at Cornell in 2007. Kalnins offered a different perspective from Dowell on corporate pollution, which Dowell has studied extensively.

"Maybe my benefit coming in as a total novice was just to ask different and more general questions," Kalnins said.

The pair combined Kalnins' background in statistical analysis with Dowell's expertise in corporate pollution to tackle the effect of the TRI on pollution mitigation.

Their research factored in such variables as continuously operating plants against those that entered and exited a community during 1998 to 2014, and found the pattern held true for both.

One facet of their research particularly supported the veracity of their claims. In 23 of the 25 largest states in terms of number of polluting establishments, pollution reduction was greater in the wealthier half of counties than in the poorer half.

"In this case, everybody's doing a little better in terms of pollution," Kalnins said, "but for the wealthy areas, it's really come down tremendously."

Kalnins said that while the ongoing water crisis in Flint, Michigan, is a different sort of case, their research points to some similarities with it.

"Flint is a perfect example," he said, "of both the inability of the lower-income classes to organize and the explicit disregard of their interests by the political hierarchy, which is particularly disturbing. I would hope that in most cases [in our study], while it's still unfortunate, it's a little bit more benign than that."

Over the 26 years they studied, their research concluded, wealthy areas enjoyed a 67.7 percent drop in total pounds of chemicals emitted, while poorer areas saw just a 17.9 percent reduction. There was one component, however, that did not play a role in what they found.

"Racial composition did not make the inequality even worse," Dowell said. "Poor areas such as Flint suffer disproportionately, but poor mostly white areas fare no better in terms of the corporate pollution, at least in our study."

Their paper is titled "Community Characteristics and Changes in Toxic Chemical Releases: Does Information Disclosure Affect Environmental Injustice?" Kalnins hopes it will serve as a wake-up call to those who would declare that they are "winning" in the battle to reduce pollution levels nationwide.

"Its implications are very practical," he said of the study. "Particularly in terms of how people are boasting so much about how corporate pollution has gone down, let's at least officially acknowledge and discuss this inequality issue, and figure out specific mechanisms to fix it."

"These results at least raise some troubling questions about the efficacy of information disclosure as a regulatory tool," Dowell added. "Poor areas don't have the resources to act on the information, and may be captive to the jobs that these polluting facilities provide, so are reluctant to push back against the polluters."

**More information:** Arturs Kalnins et al. Community Characteristics and Changes in Toxic Chemical Releases: Does Information Disclosure Affect Environmental Injustice?, *Journal of Business Ethics* (2015).

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