## UC **SANTA BARBARA**



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## Transparency in government is good for global health

When are you most forthcoming with life updates? And when are you the most transparent about exactly what those updates are? For most folks — show of hands, please — it's when things are going well. Sharing our wins is in our nature; our losses, typically, not so much.

Not surprisingly, governments are similarly inclined. Yet, it turns out, broad government transparency not only breeds goodwill, begetting still more transparency — it can change lives for the better.

Researchers <u>Sarah Anderson</u> and <u>Mark Buntaine</u>, of UC Santa Barbara's Bren School of Environmental Science & Management, and colleagues conducted a field experiment with cities in China to demonstrate that <u>an increase in transparency causes decreases in pollution, with meaningful effects on health. Their findings are published in the Proceedings of the National Academy of Sciences.</u>

"This has major policy implications because we now know that policies to induce transparency can be effective at improving governance of outcomes like pollution," said Anderson, a professor of environmental politics.

More broadly, the results suggest that transparency can significantly improve how environmental policies are enforced, added Buntaine, professor of environmental institutions and government, and a lead author of the paper. "If governments provide clear and accessible information about their activities, firms respond by reducing pollution, leading to better environmental outcomes, he said. "This has implications for many countries facing similar issues, such as India, Indonesia, and the U.S., where transparency could help bridge gaps between environmental laws and actual practices, improving health and environmental quality broadly."

The researchers sought to understand whether transparency itself causes better enforcement of pollution laws and cleaner air. But governments being governments, studying transparency therein can be challenging: "Those that are more transparent usually have characteristics that help them perform better overall," Buntaine said. "They might be under pressure to be both transparent and effective at the same time, making it difficult to separate the effects of transparency alone from these other pressures. Our goal was to overcome this challenge and see if an increase in transparency, independent of these other factors, directly improves environmental outcomes."

To get at their answer, the team conducted a randomized experiment involving 50 Chinese cities. Half of them were publicly rated on how transparently they shared environmental information, like air quality data and pollution inspections; the other half were not rated. The researchers first showed that the rating boosted transparency in the treated cities. Then, by tracking pollution violations by firms, government inspection activities and air quality in both groups over several years, they were able to isolate the direct effects of transparency on pollution outcomes without other influencing factors — because transparency was randomly boosted.

## The results?

High-polluting companies reduced their violations by 37%, regulatory inspections increased by 90% and overall air pollution dropped by around 8–10% in cities subject to treatment that boosted transparency. All that, and no evidence of direct public pressure, like increased citizen complaints or media coverage, was found. What they did find — and were surprised by — was just how strongly firms responded to increased transparency, suggesting that the implied threat of scrutiny is a major motivator.

"This provides strong evidence that transparency is a powerful tool for better governance and can lead to meaningful improvements in public health and environmental protection globally," Buntaine said. "These changes saved thousands of lives.

"Transparency isn't just beneficial in theory — it has real-world impacts that save lives. This study highlights the importance of holding governments accountable through transparency, suggesting that more policymakers should embrace openness as a practical step toward achieving meaningful environmental improvements."

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