

OSTROM WORKSHOP COLLOQUIUM SERIES

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IU Bloomington*

“Projecting the Impact of the Clean Power Plan on SO₂ and NO_x Emissions: An Empirical Approach”

Monday, February 13, 2017

12:00 – 1:00 p.m. • Ostrom Workshop, 513 N. Park



We estimate the impact of the Clean Power Plan (CPP) on SO₂ and NO_x emissions. We focus on these co-pollutants because while the amount of CO₂ emitted from electricity generation is well established, the same is not true for local pollutants, SO₂ and NO_x. Unlike previous papers, and unlike the EPA’s own approach, we do not rely on engineering-based linear programming models to assess the effects of the policy. Instead, we use historical data from US power plants to empirically estimate the effects of compliance with the CPP on emissions of SO₂ and NO_x. In doing so, we provide an alternative approach to assessing the effects of the CPP. Our results suggest that the EPA may be substantially underestimating the reductions in SO₂ emissions, while likely overestimating the reductions in NO_x emissions. These differences are important from a public health perspective, because of the health effects of these co-pollutants. We provide estimates of those health effects using an integrated assessment model. Overall, our results suggest that there is value in using an empirical approach to project the environmental impacts of EPA interventions, rather than relying exclusively on engineering-based analyses.



Nikos Ziropgiannis is an assistant scientist at the School of Public & Environmental Affairs. As a resource economist, he is interested in the study of environmental policies with a particular focus on energy, air quality, climate change, and transportation. His work also includes dynamic statistical modeling that measures performance of public and nonprofit institutions, such as water utilities and public universities, over time. He received his PhD from the University of Massachusetts Amherst in 2013 ([website](#)).

Presentations are open to the public and are live streamed (see our website for URL and papers). You are welcome to bring your lunch. For questions, contact Allison Sturgeon (sturgeon@iu.edu; 812/855–3151).