# Ozgen Kiribrahim-Sarikaya

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#### **Education**

Arizona State University, Ph.D. in Economics2025 (Expected)Bogazici University, M.A. in Economics2020Bogazici University, B.A. in Economics2017

Research Fields

Environmental and Energy Economics, Urban Economics, and Labor Economics

## **Publications**

**Energy-Efficient Investments in Housing**, (with Kelly C. Bishop), **Regional Science and Urban Economics**, Vol. 107, July 2024.

# **Working Papers**

# Place-Based Environmental Regulations and Labor Market Dynamics (Job Market Paper)

**Abstract:** Place-based environmental regulations target pollution-intensive sectors in polluted areas. These regulations can improve local quality of life by reducing air pollution, while simultaneously reducing labor demand. I develop a framework to study the heterogeneous effects on worker welfare, considering changes in pollution exposure, wages, and unemployment. I focus on the U.S. Environmental Protection Agency's regulation of ozone and fine particulate air pollution (PM<sub>2.5</sub>) during the 2000's. First, I develop a triple-difference estimator to measure the employment effects on college-educated and non-college-educated workers. I find that, on average, regulation decreases employment by 7.6% among non-college-educated workers and by 3.6% among college-educated workers, with the latter being statistically insignificant. However, these average treatment effects vary substantially depending on the intensity and type of regulation. I use this causal evidence to develop empirical moments that serve to identify key parameters of a new general equilibrium search and matching model with endogenous worker location choice and pollution exposure.

## **Distributional Effects of Residential Solar Subsidies** (with Yueming Lucy Qiu)

**Abstract:** We investigate how household income affects demand for residential solar systems and the distributional effects of renewable energy tax credit policies. The residential solar market has grown significantly in the past decade, due partly to falling prices and government subsidies. However, this growth has been driven by high-income households, leading to inequality in the distribution of subsidies. We estimate a dynamic model of solar adoption using novel household-level data on hourly energy consumption, prices, household income, and solar panel installation for 16,321 utility company customers in the Phoenix, AZ, metropolitan area from 2013 to 2017. We find that the household's sensitivity to the system cost decreases as income increases. While low-income households are more sensitive to reductions in the system cost, high-income households are more likely to receive the full benefit of non-refundable tax credit due to their higher tax liability. Specifically, making the tax credit refundable would increase the take-up rate among low-income households by 16%, with no effect on high-income households. Finally, we characterize the trade-off between equity and efficiency for a range of counterfactual policies that aim to allocate a fixed fraction of total subsidies to lower-income households, in line with the stated objectives of the Biden-Harris administration.

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# **Work in Progress**

**The Mortality Effects of Long-Term Exposure to Air Pollution**, (with Kelly C. Bishop, Jonathan Ketcham, and Nicolai V. Kuminoff)

**Abstract:** We examine the impact of long-term cumulative exposure to fine particulate air pollution  $(PM_{2.5})$  on mortality among individuals aged 65 and older. Developing causal evidence on the long-term effects of  $PM_{2.5}$  exposure is challenging due to residential sorting, latent health, and measurement error in pollution exposure. We address these challenges by developing an instrumental variable analog to the Cox proportional hazards model. The IV leverages quasi-random variation in long-term  $PM_{2.5}$  exposure caused by the expansion of Clean Air Act regulations. We are currently estimating the model using longitudinal data on millions of senior citizens from the US Centers for Medicare and Medicaid Services.

# **Grant Participation**

**Predicting Residential Price Plan Enrollment and Energy Use.** PhD Student Investigator. 2023-2024. Salt River Project, \$50,042 (*PI: Nicolai V. Kuminoff, Co-PI: Nicholas Vreugdenhil*)

# **Workshop and Conference Presentations**

2024 AERE Summer Conference, WEAI Annual Conference - Graduate Student Workshop

2023 Arizona Environmental Economics Workshop, AERE Summer Conference, WEAI Annual Conference

2022 Camp Resources XXVIII, Sloan Summer School in Environmental and Energy Economics

# **Teaching Experience**

#### Instructor

Microeconomic Principles

Summer 2023 & 2024

## **Undergraduate Teaching Assistant**

Public Economics, Environmental Economics

Macroeconomic Principles, Intermediate Microeconomic Theory

## Research Assistance

## Department of Economics, Arizona State University

2022-2023

R.A. to Kelly C. Bishop, Jonathan Ketcham, and Nicolai V. Kuminoff, funded by the National Science Foundation

## **Department of Economics, Arizona State University**

Summer 2022 & 2023

R.A to Nicolai V. Kuminoff

## **Awards and Fellowships**

University Fellowship Award, Department of Economics, ASU
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2019, 2020

Performance Award, Department of Economics, ASU

2020, 2022

Travel Grant, Graduate and Professional Student Association, ASU

2023, 2024

#### Other Academic Activities

Referee: Journal of the Association of Environmental and Resource Economists

Research Fellow: ASU Center for Environmental Economics and Sustainability Policy

## **Programming**

Stata, MATLAB, R, LaTeX

## References

Nicolai V. Kuminoff (chair)

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