TRIDEVI CHAKMA
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HARVARD UNIVERSITY

Previous Education:
Bachelor of Finance, Australian National University, with High Distinction, 2011
MSc in Finance and Economics, London School of Economics, with Distinction, 2014

Graduate Studies:
Harvard University, 2018 to present
Ph.D. Candidate in Public Policy
Expected Completion Date: May 2024
Advisors: Professor Joseph Aldy, Professor Marcella Alsan, Professor Nathan Hendren

Teaching and Research Fields:
Applied Microeconomics, Environmental Economics, Public Finance

Teaching Experience:

Spring 2022	Using Big Data to Solve Economic and Social Problems, Harvard College Teaching fellow for Professor Raj Chetty Overall Effectiveness: 5/5
Fall 2021, Fall 2022	Resources, Incentives, and Choices I (Microeconomics), Harvard Kennedy School Teaching fellow for Pinar Dogan and Janina Matuszeski Overall Effectiveness: 4.7/5
Fall 2020, Spring 2021	Principles of Economics (Macroeconomics), Harvard College Teaching fellow for Professors David Laibson and Jason Furman Overall Effectiveness: 4.5/5

Research and Professional Employment:

2019	Harvard Business School Research assistant for Professor Alex MacKay
2014–18	Oxera Consulting LLP, London, United Kingdom *Consultant* (2015–18), *Analyst* (2014–15)
2012–14	Mott MacDonald, Dhaka, Bangladesh *Junior Consultant*

Awards, Fellowships and Affiliations:

2022–23	Washington Center for Equitable Growth Doctoral Grant
2022–present	Affiliate, Environmental Inequality Lab
2022–present	Special Sworn Status, U.S. Census Bureau
2022	Diversity Fellowship, Berkeley Summer School
2021, 2022	Harvard Certificate of Teaching Excellence, Derek Bok Center
2018–present	Pre-doctoral Fellow, Harvard Environmental Economic Program (HEEP)
2018–19	Jennifer Perini and Jim Cunningham Dissertation Fellowship
2008–11	Australian Development Scholarship, AusAID

Professional Activities and Service:

2022–present	HKS PhD Student Association, Diversity and Inclusion Committee Co-Chair
2020–21	HKS Applied Microeconomics Seminar, Organizer
2020–present	HKS PhD peer mentorship program, Mentor

Conference and Seminar Presentations:

2023	Occasional Workshop in Environmental and Resource Economics, UCSB (egg-timer)
2023, 2022	Association of Environmental and Resource Economists (AERE) summer conference
2022	Heartland Workshop on Environmental and Resource Economics at Illinois
2022	Northeast Workshop on Energy Policy and Environmental Economics
2022	Berkeley/Sloan Summer School in Environmental and Energy Economics (egg-timer)

Research Papers in Progress:

"Racial disparities in heat exposure"
Relative to white households in the same U.S. city, Black households live in neighborhoods that are characterized by a higher degree of impervious surfaces and residential density, and are hotter in summer. What explains the large and persistent racial disparities in heat exposure? Using racial composition shocks during the Great Migration as a natural experiment, I find that a one standard deviation larger increase in the historical Black population explains 20–40% of the present-day Black-white gaps in imperviousness, residential density, and summer surface temperature. I develop a residential sorting model to illustrate how early constraints on Black households' neighborhood choices result in development of greater density and concentrated imperviousness in Black neighborhoods.

"Where does air quality matter? New evidence from the housing market" [joint with Eleanor Krause]
Economists often exploit changes in local housing prices to estimate the demand for local environmental improvements. However, when housing is elastically supplied, amenity improvements may yield an expansion of the housing market, muting the capitalization of the amenity into housing prices. We demonstrate how the elasticity of the local housing market critically affects empirical valuations of amenity changes by influencing the price and quantity of housing. Leveraging local air quality improvements induced by the Clean Air Act and heterogeneity in housing supply constraints, we present consistent evidence that air quality improvements yield substantially larger housing price responses in places with less elastic housing supply. We present a model of spatial equilibrium that provides expressions for local prices, populations, and wages as functions of local amenities, and use this model to estimate marginal willingness to pay for $PM_{2.5}$ reductions across U.S. counties.

"Individual Economic Circumstances Do Not Drive Heat Disparities in the United States" [joint with Jonathan Colmer and John Voorheis]

"Urban Heat Islands and Mortality" [joint with Jonathan Colmer and John Voorheis]

Skills:

Data: R, Stata, SAS, Excel, Shell script, GitHub, Slurm, Grid Engine, LaTex

Languages: English (fluent), Bengali (native), Hindi (basic), French (basic)

Non-Academic Publications:

'The application of state aid rules in various fora: the role of economic analysis'. *[joint with Nicole Robins]*. Competition Law & Policy Debate, 4:3. (2018).

'State Aid in Energy under the Spotlight: the Implications of the Hinkley Point Decision'. *[joint with Nicole Robins]*. European State Aid Law Quarterly, 15:2. (2016).

'State aid scrutiny of corporate tax arrangements'. *[joint with James Kavanagh and Nicole Robins]*. Competition Law Journal, 14:3. (2016)