TRIDEVI CHAKMA

tchakma@g.harvard.edu
+44 7568 297165
www.tridevichakma.com

Education

Harvard University
Ph.D. Public Policy, 2018–2024
London School of Economics, United Kingdom
MSc in Finance and Economics, 2013–2014
Australian National University, Australia
Bachelor of Finance, 2008–2011

Fields

Environmental Economics, Public Economics

References

Professor Nathaniel Hendren	Professor Joseph Aldy	Professor Marcella Alsan
MIT	Harvard Kennedy School	Harvard Kennedy School
nhendren@mit.edu	joseph_aldy@hks.harvard.edu	marcella_alsan@hks.harvard.edu

Employment

Cornerstone Research, London, United Kingdom
Associate, 2024–present

Oxera Consulting LLP, London, United Kingdom
Consultant, 2015–2018, Analyst, 2014–2015

Mott MacDonald, Dhaka, Bangladesh
Junior Consultant, 2012–2013

Fellowships & Awards

Harvard Joint Center for Housing Studies Grant, 2023
Washington Center for Equitable Growth Doctoral Grant, 2022–2023
Diversity Fellowship, Berkeley Summer School, 2022
Harvard Certificate of Teaching Excellence, Derek Bok Center, 2021, 2022
Jennifer Perini and Jim Cunningham Dissertation Fellowship, 2018–2019
Australian Development Scholarship, AusAID, 2008–2011

Teaching

Resources, Incentives, and Choices I (Microeconomics), Harvard Kennedy School
Teaching fellow for Pinar Dogan and Janina Matuszeski, 2021, 2022

Using Big Data to Solve Economic and Social Problems, Harvard College
Teaching fellow for Professor Raj Chetty, 2022

Principles of Economics, Harvard College
Teaching fellow for Professors David Laibson and Jason Furman, 2020, 2021

Research

Research assistant for Professor Alex MacKay, Harvard Business School, 2019

Seminars & Conferences

WB-GWU Sustainable Cities Workshop, 2024
Harvard Environmental Economics Seminar, 2023
Harvard Economics and Social Policy Seminar, 2023
Occasional Workshop in Environmental and Resource Economics, UCSB, 2023
Association of Environmental and Resource Economists (AERE) summer conference, 2023
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, 2022
Association of Environmental and Resource Economists (AERE) summer conference, 2022

Job Market Paper

The Causes and Consequences of Urban Heat Islands, with Jonathan Colmer and John Voorheis

This paper studies the causes and consequences of urban heat islands. Combining new administrative data with a novel proxy for experienced temperature at the neighborhood scale, we show that a hot day increases mortality by six additional deaths per 100,000 for the elderly population living in neighborhoods with a high concentration of impervious surfaces, relative to the median. These patterns hold even within counties and cannot be explained by selection. Moreover, the increase in mortality among elderly Black Americans following a hot day is three times that of elderly White Americans, and half of this disparity can be attributed to Black individuals living in more impervious neighborhoods. We then present suggestive evidence that imperviousness is driven by density zoning policies, and document that the racial incidence of density is reflected in a long historical process since the Great Migration.

Working Papers

Where does Air Quality Matter? New Evidence from the Housing Market, with Eleanor Krause

The hedonic valuation approach often estimates demand for amenities from housing prices. We show that when housing supply is elastic, increased demand is met through quantity expansions, attenuating price capitalization and biasing hedonic estimates downward. Consistent with this, we find that declines in $PM_{2.5}$ concentrations yield larger price effects in markets with inelastic housing supply and larger quantity effects in elastic markets. A spatial equilibrium model demonstrates that the traditional hedonic price coefficient reflects demand for an amenity attenuated by the supply elasticity. Incorporating elasticities into the hedonic framework increases the estimated benefits of $PM_{2.5}$ reductions by over 12 percent.

Individual-Level Heat Disparities in the United States, with Jonathan Colmer and John Voorheis

Temperatures can vary substantially over short distances due to differences in land cover—a phenomenon known as the urban heat island effect. Combining 20 years of high-resolution satellite-derived land surface temperature data, measured over 9 billion cells, with new individual-level data containing detailed demographic, residential, and economic information for every citizen and permanent resident of the contiguous United States between 2000 and 2019, we provide the most comprehensive and systematic evaluation of surface temperature disparities to date. We document that within the same commuting-zone, Non-Hispanic Black individuals are exposed to higher surface temperatures than Non-Hispanic White individuals at every percentile of the income distribution. We show that individual economic circumstances can account for approximately 30 percent of the Black-White temperature gap, providing suggestive evidence that race rather than class is more important in determining heat disparities in the United States.

Non-Academic Publications

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

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

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

Service

Diversity and Inclusion Committee Co-Chair, HKS PhD student association, 2021 to 2023
Organizer, HKS Applied Microeconomics Seminar, 2020 to 2021
Mentor, HKS PhD peer mentorship program, 2020 to 2023

Software Skills

R, Stata, SAS, SQL, Shell script, GitHub, Slurm, PBS

Languages

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