

- EDUCATION** *Ph.D.*, Economics
University of Pittsburgh, Pittsburgh, PA, expected 2022
- Concentrations:** Development economics, experimental economics, applied microeconomics
- Ph.D. Comprehensive:** “Water Availability and Heat-Related Mortality: Evidence from South Africa,” completed Spring 2019
- Thesis Committee:** Prof. Osea Giuntella (co-chair), Prof. David Huffman (co-chair), Prof. Randall Walsh, Prof. Karen Clay, Prof. Andrea La Nauze (see References section on last page for contact information)
- RESEARCH** **Job Market Paper**
[Group-Biased Risk Perception](#)
- Publications**
[Lifestyle Disruptions and Mental Health During COVID-19](#) (with Osea Giuntella, Silvia Saccardo, and Sally Sadoff) (*Proceedings of the National Academy of Sciences*, 2021)
[Pandemics, Economic Freedom, and Institutional Tradeoffs](#) (with Vincent Geloso and Ilia Murtazashvili) (*European Journal of Law and Economics*, 2021)
- Works in Progress**
[The Regressive Costs of Drinking Water Contaminant Avoidance](#)
[Water Availability and Heat-Related Mortality: Evidence from South Africa](#)
[Drinking Water Contamination and COVID-19 Mortality in the United States](#)
Heat Exposure and Dietary Choices
Gender-Specific Shocks & Household Bargaining Power: A Machine Learning Approach To Scanner Data (with Osea Giuntella and Rania Gihleb)
Living Jerrycan to Jerrycan: The Cost of Drinking Water in Urban Nigeria
Replication and Extension of “Conveniently Upset: Avoiding Altruism by Distorting Beliefs About Others’ Altruism” (Di Tella et al., *The American Economic Review*, 2015) (with Lise Vesterlund, Alistair Wilson, Kanatip Winichakul, Logan Bialik, Yufei Chen, Neil Silveus, Taylor Weidman, and Liyang Zhou)
- Presentations**
American Society of Health Economists (ASHEcon) Annual Conference, June 2021
Population Association of America Annual Meeting, May 2021

1st Applied Microeconomics Workshop (AMIE), March 2021
 North American Regional Sciences Council (NARSC) Annual Meeting, November 2020
 IESR-GLO Conference on COVID-19, June 2020
 American Society of Health Economics (ASHEcon) Annual Conference, June 2020¹
 Stanford Rosenkranz Global Health Policy Symposium, April 2020¹
 Centre for the Study of African Economies: Economic Development in Africa (University of Oxford), March 2020¹
 Population Health Sciences Research Workshop (University of Pennsylvania), December 2019
 Camp Resources (North Carolina State University CEnREP), August 2019
 American Society of Health Economists (ASHEcon) Annual Conference, June 2019
 Population Association of America Annual Meeting, April 2019
 Advancing Research through Computing (University of Pittsburgh Center for Research Computing), March 2019
 Grad Expo (University of Pittsburgh Graduate Student Organization), March 2019

GRANTS

National Science Foundation Doctoral Dissertation Research Improvement Grant (Co-PI), \$62,600, July 2020

TEACHING

Instructor

Health Economics (undergraduate), University of Pittsburgh, Summer 2020

Teaching Assistantships

Math Methods for Economists (graduate), Professor Roe Teper, Fall 2018

Introduction to Microeconomic Theory (undergraduate), Instructor Mallory Avery, Summer 2018

Introduction to Macroeconomic Theory (undergraduate), Professor James Kenkel, Spring 2018

Advanced Microeconomic Theory I (graduate), Professor Luca Rigotti, Fall 2017

AWARDS

ASHEcon Diversity Fellowship, June 2020

Best Second Year Paper Award, University of Pittsburgh, September 2019

Andrew W. Mellon Predoctoral Fellowship, 2019

Student Poster Contest Winner, Advancing Research through Computing, March 2019

Summer Research Fellowship, University of Pittsburgh, Summer 2018

Slesinger Fellowship, University of Pittsburgh, Fall 2016

¹Cancelled or postponed due to COVID-19.

**PAPER
ABSTRACTS**

Group-Biased Risk Perception (Job Market Paper)

Many decisions involving risk require the decision maker to infer their own prospects from information about others' outcomes. This paper tests the hypothesis that the decision maker will selectively seek out and emphasize the outcomes of others most superficially similar (i.e., in terms of gender, race, age, or education level) to them, even when those similarities are not meaningfully predictive of an individual's prospects. I document strong and exclusive belief updating responses to in-group information in a lab experiment where prospects are known to be individually randomly assigned. When subsequently acting on these beliefs, participants take on risks inconsistent with their general risk preferences. I supplement these experimental results with a survey on health statistics by group which similarly finds strong in-group responses to noisy, unrepresentative information. Taken together, the experiment and survey suggest that noisy group-labeled information in environments where group membership does not predict outcomes frequently leads to erroneous beliefs about group differences, especially when the information reinforces errors in the prior.

Water Availability and Heat-Related Mortality: Evidence from South Africa

Rising global surface temperatures threaten to reduce precipitation and evaporate surface freshwater in areas already experiencing water stress. In this paper, I demonstrate that higher upstream water availability significantly reduces the slope of the temperature-mortality relationship during the hot season. This suggests investment in water infrastructure is an effective community-level adaptation to climate change, especially where the status quo of water access is relatively poor. As an example of such investment, I show a transnational water transfer project both increased water availability and reduced hot-season mortality in receiving districts.

The Regressive Costs of Drinking Water Contaminant Avoidance

Up to 45 million Americans in a given year are potentially exposed to contaminated drinking water, increasing their risk of adverse health outcomes. Existing literature has demonstrated that individuals respond to drinking water quality violations by increasing their purchases of bottled water and filtration avoidance, thereby avoiding exposure to contaminants. This paper demonstrates that poorer households, for whom the costs of avoidance comprise a greater share of disposable income, bear disproportionate costs of water quality violations in the United States. Following a health-based water quality violation, poor households expenditure on nutritious grocery products in a nationally representative panel differentially decreases by approximately \$7 per month. This is associated with a decrease of about 1,500 calories per household member per day, placing these individuals at a higher risk of food insecurity. This finding suggests that the indirect costs of drinking water contamination through economic channels exacerbate health disparities associated with poverty.

Drinking Water Contamination and COVID-19 Mortality in the United States

Over 185,000 deaths have been attributed to the COVID-19 pandemic in the United States as of September 2020. There is growing evidence that the composition of these deaths reflects multiple long-standing health disparities, including environmental quality. In this paper, a county-day level panel of confirmed COVID-19 case and death counts, water quality violations, and demographic variables is constructed to estimate the association between risk of exposure to drinking water contaminants and the COVID-19 case fatality rate (CFR). Counties with more recent violations among major community water systems than average (treated) are matched to control counties on key demographic and environmental variables using coarsened exact matching (CEM). Three categories of water quality violations are considered: acute health-based violations, which pose an immediate health threat to exposed individuals; health-based violations involving contaminants shown in prior literature to increase the risk of cardiovascular disease (lead, arsenic, cadmium, and copper); and all health-based violations regardless of type. The county-level COVID-19 CFR is significantly associated with acute and cardiovascular-associated health-based violations. On average, the CFR is about 18% higher (0.48 percentage points; $p < 0.01$) in counties more affected by acute violations than average and about 15% higher (0.42 percentage points; $p = 0.037$) in counties more affected by cardiovascular-associated violations. There is suggestive evidence of a linear association between the dose of violation exposure (the sum of the estimated percentages of the population affected by each respective violation) and the CFR.

Lifestyle Disruptions and Mental Health During COVID-19 (with Osea Giuntella, Silvia Saccardo, and Sally Sadoff) (*Proceedings of the National Academy of Sciences*, 2021)

Using a longitudinal dataset linking biometric and survey data from several cohorts of young adults before and during the pandemic ($N=682$), we document large disruptions to physical activity, sleep, time use, and mental health. At the onset of the pandemic, average steps decline from 10,000 to 4,600 steps per day, sleep increases by 25-30 minutes per night, time spent socializing declines by over half to less than 30 minutes, and screen time more than doubles to over 5 hours per day. Over the course of the pandemic from March to July 2020, the proportion of participants at risk of clinical depression ranges from 46% to 61%, up to a 90 percent increase in depression rates compared to the same population just prior to the pandemic. Our analyses suggest that disruption to physical activity is a leading risk factor for depression during the pandemic. However, restoration of those habits through a short-term intervention does not meaningfully improve mental well-being.

Gender-Specific Shocks & Household Bargaining Power: A Machine Learning Approach To Scanner Data (with Osea Giuntella and Rania Gihleb)

We examine the effect of several gender-specific labor market shocks documented in the literature on the consumption of heterosexual married couples in the United States. Using machine learning and text analysis techniques, we construct a score of relative gender preference at the product UPC level, culminating in an overall score of each households consumption. We find that within households, negative shocks to male labor demand increase the relative share of female-preferred goods, and vice versa, suggesting women gain intra-household bargaining power following these shocks. These effects are mirrored in consumption of childrens goods by gender, suggesting an improved bargaining position for the mother proportionally benefits daughters.

REFERENCES

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