

**Jingyan(Jean) Guo**  
DEPARTMENT OF ECONOMICS  
UNIVERSITY OF CALIFORNIA, RIVERSIDE

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### CONTACT INFORMATION

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### EDUCATION

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Ph.D., Economics, University of California, Riverside (expected completion June 2024)  
M.S., Applied Analytics, Columbia University, 2017  
B.A., Economics and Mathematics, Colby College, 2015

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### FIELDS OF INTEREST

Health Economics, Labor Economics, Development Economics

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### JOB MARKET PAPER

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#### “Sleep and Fatal Vehicle Crashes: Evidence from Sunset Time in the United States”

Adequate sleep is critical for general healthy functioning. This paper studies how sleep affects fatal vehicle crashes. The sleep data is from American Time Use Survey (ATUS) and the vehicle fatality data is from Fatality Analysis Reporting System (FARS). Using sunset time as instrument, I find that a one-hour increase in monthly sleep leads to a decrease of about 0.035 fatal crashes per 100 million vehicle miles traveled (VMT), equivalent to a 2.4% reduction in fatalities in the short run. Alternatively scaled, an extra hour of daily sleep reduces one fatal crash in 2,724 years if one drives 100 miles per day. However, I find there is no significant long run effect of sleep on fatal vehicle crashes. Using spatial regression discontinuity in the timing of sunset at a time-zone boundary, I find that people sleep less if they live on the side of the time-zone border where the sunset time is later using data from 2004-2013 but the results are the opposite if using data from 2014-2019. Traffic fatality is lower on the side of late sunset using data from 2004-2013 and higher on the side of late sunset using data from 2014-2019.

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### WORKING PAPERS

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#### “Caste Differences in Child Growth: Disentangling Endowment and Investment Effects” with Joseph Cummins, Anaka Aiyar, Neha Agarwal, Vaishali Jain, Andrew Bergmann *submitted*

Using the fourth round of the Indian National Family Health Survey (NFHS- 4), and subsequently replicating our results using the fifth round (NFHS-5), we document differential child physical growth patterns across caste groups in India, demonstrating that lower caste children are born shorter and grow less quickly than children from higher-caste households. We then show that, in line with work from previous rounds of the NFHS, these differences are largely explainable by observable covariates, particularly maternal characteristics and household wealth variables. However, unlike previous research, our models reveal that the influence of these variables changes as children develop, and suggest that caste-gaps are the result of multiple channels of causal effects impacting the child growth process at different stages of development. Using age-disaggregated decomposition methods, we demonstrate that health endowment related variables largely explain birth length gaps, and that investment related variables become increasingly influential as children age. Children from low caste households thus face two margins generating height gaps as they age: a persistent endowment effect present from birth, and a post birth investment effect that exacerbates the initial deficit.

**“How does Air Pollution Affect Sleep? Survey and Social Media Evidence from the United States”** with Da Gong, Zhuocheng Shang

Using the Twitter data, American Time Use Survey (ATUS) on sleep, and satellite data on pollution, we aim to answer the following questions in our research: How does air pollution affect the sleep of people in the United States? Specially, we will use two instrument variables (IVs) including thermal inversion and Clean Air Act (CAA) to estimate the causal impact of pollution on sleep. With access to the Twitter data, our project aims to utilize tweets as a measure of sleep amount in the United States, and to study the impact of pollution on sleep. Furthermore, we will validate accuracy of measure from Twitter data by comparing it with survey data from the ATUS. The use of Twitter data has the potential to provide valuable insights into sleep patterns, especially in regions where sleep surveys are not readily available. It could be used in future studies to explore various topics on sleep quality and its associated health outcomes.

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### FELLOWSHIPS, HONORS, AND AWARDS

2023: University Teaching Certificate, Graduate Division, UC Riverside  
2023: Conference Travel Grant, GSA, UC Riverside  
2023: Finalist for Outstanding International Student – Graduate Award, UC Riverside  
2023: Dissertation Year Fellowship, UC Riverside  
2022: Conference Travel Grant, GSA, UC Riverside  
2022: Finalist for Outstanding International Student – Graduate Award, UC Riverside  
2019: Dean's Distinguished Fellowship, UC Riverside (2019-2024)  
2015: Robert W. Pullen Award for Outstanding Research Assistant, Colby College

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### TEACHING

*Instructor, UC Riversides*

ECON102 (Intermediate Microeconomics Theory), *Summer 2022*

*Teaching Assistant, UC Riversides*

ECON102 (Intermediate Microeconomics Theory), *Summer 2021*

ECON104A (Intermediate Microeconomics Theory), *Summer 2021, Fall 2020*

ECON002 (Introductory to Macroeconomics Theory), *Spring 2021*

ECON003 (Introductory to Microeconomics Theory), *Winter 2021*

*Teaching Assistant, Colby College*

EC134fs (Principles of Macroeconomics), *Spring 2013*

MA253fs (Linear Algebra), *Fall 2012*

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### RELEVANT POSITIONS HELD

Graduate Student Researcher at Inland Empire Labor and Community Center (IELCC), UC Riverside, July 2023 – Present

Graduate Student Researcher at Center of Social Innovation (CSI), UC Riverside, Oct 2022 – Mar 2023

Graduate Student Researcher to Professor Joseph Cummins, UC Riverside, Oct 2021 – June 2022

Lab Manager, Los Angeles Behavioral Economics Laboratory (LABEL), University of Southern California, Sep 2018 – June 2019

Research Assistant, Colby College, Jan 2013 – May 2015

## PROFESSIONAL ACTIVITIES

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### *Presentations*

2023: Western Economic Association International (WEAI) 17th International Conference, Time Use Across the Life Course Conference at the University of Maryland, WEAI's 98th Annual Conference  
2022: Pacific Conference for Development Economics (PacDev), WEAI's 97th Annual Conference, 15th Annual All-California Labor Economics Conference (ACLEC) (Poster), Global Health Economics Doctoral Student Mentorship Workshop, Graduate Student Brown Bag Seminars at UC Riverside (UCR)

### *Volunteer Service*

2022: 15th Annual All-California Labor Economics Conference (ACLEC)  
2022-2023: Peer Mentor, International Student Peer Mentor Program (ISPMP) at UC Riverside

## TECHINICAL SKILLS

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STATA, LaTeX, R Studio, Python, Tableau, JMP from SAS, SQL, and Google Analytics

## REFERENCES

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