

## Education

---

- PhD in Economics, University of California, Santa Cruz 2019-Present
- Dissertation: “Essays in Discriminatory Outcomes and Mechanisms in Education”
  - Committee Chairs: Professor Laura Giuliano (UCSC) and Professor Robert Fairlie (UCLA)
- MPhil in Economics, Indira Gandhi Institute of Development Research 2018
- MSc in Economics, Indira Gandhi Institute of Development Research 2017
- Awarded the Chancellor’s Gold Medal for the Best-Performing Student in 2015-17.
- B.A. (Hons) Economics, University of Delhi 2015

## Working Papers

---

Affirmative Action, Faculty Productivity, and Caste Interactions: Evidence from Engineering Colleges in India

(with Robert Fairlie, Saurabh Khanna, and Prashant Loyalka)

**Abstract:** Affirmative action programs are often criticized because of concerns that they result in lower worker productivity and efficiency losses. We study the relative productivity of workers benefiting from an aggressive affirmative action policy in a setting where hiring constraints are especially likely to bind. In India, colleges are required to reserve approximately 50 percent of faculty hires for individuals from disadvantaged caste and social class groups. We collect and analyze data from a nationally representative sample of 50 engineering and technology colleges in India, some of which randomly assign students to classrooms. We find that reservation category faculty have lower levels of education, lower professorial ranks and fewer years of experience in academia than general category faculty who are not hired through reservations. Yet, even with lower qualifications, we find no evidence that reservation category faculty provide lower quality instruction across a wide range of measures that include course grades, follow-on course grades, standardized test scores, dropout, attendance, graduate school plans, and graduation. In fact, we find that, at least for immediate effects on course grades, students taught by reservation category faculty perform slightly better than students taught by general category faculty. We find no evidence of positive “teacher-like-me” effects of reservation category faculty on the relative course performance and longer-term outcomes of reservation category students. Furthermore, even in the face of potential discrimination and resentment against faculty hiring quotas, general category students perform slightly better in classrooms taught by reservation category faculty than general category faculty. The findings have implications for the heated debates over affirmative action programs found in many countries around the world and in India which is now the largest country in the world.

An Engineering Instructor Like Me: Female Teacher-Student Interactions in Indian Engineering Colleges

(with Robert Fairlie, Mridul Joshi, Saurabh Khanna, and Prashant Loyalka).

- **Abstract:** We examine the effects of female faculty on both cognitive and non-cognitive outcomes of female students in STEM. Creating a novel representative dataset of engineering and technology colleges in India, we investigate the impact of exposure to female faculty on academic performance, confidence, anxiety, and gender stereotypes in STEM fields. In one of the first studies with random assignment to classrooms in higher education in any setting or country, we avoid problems with selection bias and other statistical pitfalls that plague many previous studies. We find that female students perform significantly better in courses taught by female instructors, with an improvement of 2.7 percentile points in course grades. Additionally, a 10 percentage point increase in female faculty exposure leads to a 0.03 standard deviation increase in standardized test scores. We also provide novel findings on non-cognitive benefits of female faculty, including a reduction in anxiety about STEM subjects and more equitable gender beliefs, particularly among male students. These findings suggest that female faculty play a crucial role in improving both academic performance and broader perceptions of gender equity in STEM, with important implications for policies aimed at reducing gender disparities in higher education and STEM fields.

## Works in Progress

---

Gender Gaps in Elementary and Middle School Performance and The Role of Teachers: Evidence from North Carolina

The Performance of Affirmative Action Admits in College: Evidence from Reservation Policies in Indian Engineering Colleges

(with Robert Fairlie, Saurabh Khanna, and Prashant Loyalka)

School Sports and Academic Success: Evidence from Texas

(with Evan Bennett, Derek Rury, and Sofia Shchukina)

Gender, STEM, and Confirmation Bias: An Experimental Investigation

## Teaching and Mentoring Experience

---

Graduate Student Instructor, Department of Economics, UCSC

- Intermediate Microeconomics (Online Asynchronous)

Teaching Assistant, Department of Economics, UCSC

- Applied Econometrics (Graduate Course)
- Applications in Microeconomics (Graduate Course)
- Intermediate Microeconomics
- Introductory Microeconomics
- Introductory Macroeconomics
- Industrial Organization
- Economic Rhetoric

Graduate Pedagogy Fellow, Teaching and Learning Center, UCSC

Winter 2022-Present

- Conducting professional development workshops for first-time and experienced teaching assistants in Economics.
- Assisting in developing lesson plans for implementing active learning strategies in Economics classrooms.

Peer Mentor, Summer GSI Support Team, Teaching and Learning Center, UCSC

Spring-Summer 2024

- Mentoring first-time graduate student instructors in equitable course and assessment design.

## Research Experience

---

Graduate Student Researcher

2020-2024

- Prof Laura Giuliano, Department of Economics, UCSC
- Prof Robert Fairlie, Chair, Department of Public Policy, UCLA Luskin School of Public Affairs
- Institutional Research, Assessment and Policy Studies Unit, UCSC

## Grants, Awards, and Fellowships

---

Summer GSI Peer Support Fellowship, Teaching and Learning Center, UCSC

2024

Dissertation Research Grant, Department of Economics, UCSC

2024, 2023, 2022

Graduate Pedagogy Fellowship, Teaching and Learning Center, UCSC

2024, 2022

Regent's Fellowship, Graduate Division, UCSC

2019

## Conferences and Summer Schools

---

Conference and Summer School on Socio-Economic Mobility and Inequality, Harris School of Public Policy, University of Chicago	2024
Southern Economic Association, 93rd Annual Meeting, New Orleans, LA	2023
Second Biennial Conference on Development, Indira Gandhi Institute of Development Research, Mumbai	2022
Summer School on Theory-Driven Experiments, Center for Theoretical and Experimental Social Sciences, CalTech, Pasadena	2022
All-California Labor Economics Conference, UCSC (poster session)	2019

## Technical Skills

---

Data analysis and plotting with STATA, R, SPSS, and MICROSOFT EXCEL.

Optimization, computation, and plotting with WOLFRAM MATHEMATICA.

Typesetting with  $\text{\LaTeX}$

## References

---

Dr Laura Giuliano, Professor, Department of Economics, UC Santa Cruz	<a href="mailto:lgiulian@ucsc.edu">lgiulian@ucsc.edu</a>
Dr Robert Fairlie, Distinguished Professor, Public Policy and Economics, UCLA	<a href="mailto:rfairlie@ucla.edu">rfairlie@ucla.edu</a>
Dr George Bulman, Associate Professor, Department of Economics, UC Santa Cruz	<a href="mailto:gbulman@ucsc.edu">gbulman@ucsc.edu</a>