

## Education

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- 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 The M.Sc. Program.
- B.A. (Hons) Economics, University of Delhi 2015

## Working Papers

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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:** This study provides causal evidence on the impact of exposure to female faculty on female STEM students. We leverage the random assignment of undergraduate STEM students to instructors, which is rarely feasible in higher education settings, to circumvent identification issues arising from non-random sorting of students to classrooms based on instructor or peer characteristics. We find that female students taught by female faculty achieve higher course grades, improving by 2.7 percentile points. Moreover, increasing female faculty exposure by 10 percentage points over two years (from a baseline of 0.34) yields a 0.03 standard deviation improvement in standardized test scores of female students. Beyond academic performance, we find that exposure to more female faculty leads to a reduction in STEM anxiety among female students and more equitable gender beliefs among male students. These findings suggest that the exposure to female faculty helps improve the performance of female students in STEM through higher academic achievement and reduced anxiety as well help reshape traditionally held gender-based stereotypes in STEM.

## Works in Progress

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Gender Gaps in Elementary and Middle School Performance and The Role of Teachers: Evidence from North Carolina (Job Market Paper)

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

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

Friday Night Lights, Monday Morning Grades: How High School Football Success Affects Student Achievement

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

Gender, STEM, and Confirmation Bias: An Experimental Investigation

## Teaching and Mentoring Experience

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Graduate Student Instructor, Department of Economics, UCSC

Summer 2024

- Intermediate Microeconomics (Online Asynchronous)

Teaching Assistant, Department of Economics, UCSC

Winter 2020-Present

- 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

- Assisting in developing teaching strategies for graduate students in their role as teaching assistants.
- Conducting professional development workshops for graduate teaching assistants in using active learning in economics classrooms.

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

Spring-Summer 2024

- Developing equity-minded course learning outcomes, assessment plans, and an engaging course structure.
- Leading discussions on effective teaching strategies, giving feedback to students, and navigating classroom challenges.
- Facilitating peer feedback on lesson planning, syllabus design, and reflective teaching practices.

## Research and Work Experience

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Graduate Student Researcher, UC Santa Cruz

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

Research Associate, Economic Research Unit, Koan Advisory

2019

Research Assistant, Delhi School of Economics

2017

- Prof Rohini Somanathan, Center for Development Economics, DSE

## Grants, Awards, and Fellowships

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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

2022

Regent's Fellowship, Graduate Division, UCSC

2019

Chancellor's Gold Medal for the Best-Performing Student in The M.Sc. Program

2015-17

## Conferences and Summer Schools

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| 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

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

Optimization, computation, and plotting with WOLFRAM MATHEMATICA.

Typesetting with  $\text{\LaTeX}$

## References

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|---|-------------------|
| Dr Laura Giuliano, Professor, Department of Economics, UC Santa Cruz          | lgiulian@ucsc.edu |
| Dr Robert Fairlie, Distinguished Professor, Public Policy and Economics, UCLA | rfairlie@ucla.edu |
| Dr George Bulman, Associate Professor, Department of Economics, UC Santa Cruz | gbulman@ucsc.edu  |

## Teaching References

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| Dr Carlos Dobkin, Professor, Department of Economics, UC Santa Cruz | cdobkin@ucsc.edu |
| Dr Kendra Dority, Teaching and Learning Center, UC Santa Cruz       | kdority@ucsc.edu |