

# **Aman Desai**

PhD Program in Economics 365 Fifth Avenue, New York

365 Fifth Avenue, New York Cell: (+1) 716-903-7787 NY, USA, 10016 Website: amandesai.com

Email: adesai@gradcemter.cuny.edu

## **EDUCATION**

Expected 2025 PhD in Economics, CUNY Graduate Center

2018 MS in Econometrics and Quantitative Economics, SUNY at Buffalo

2015 Diploma for Graduates in Economics, University of London International Programmes

2014 BTech in Civil Engineering, Gujarat Technological University

#### **FIELDS OF INTEREST**

Labor Economics, Applied Micro-econometrics, Machine Learning in Social Science

#### **JOB MARKET PAPER**

### Measuring Income Inequality of Opportunity: Accounting for Dynamic Complementarity

**Abstract :** The egalitarian principle of justice attributes life success to two main factors: circumstances beyond an individual's control and personal effort within it. Roemer's equality of opportunity concept proposes compensating individuals for inequalities arising from unequal circumstances. Dynamic complementarity in skill formation suggests that early childhood skill gaps often persist into adulthood, leading to unequal outcomes. Using PSID data, I classify all measurable factors before the age of majority at 18 as circumstances, creating sets based on critical childhood stages to account for dynamic complementarity. My findings show that over 40% of total income inequality can be attributed to inequality of opportunity before adulthood. Moreover, nearly one-third of total income inequality stems from circumstances faced by individuals at or before age five. Using circumstances identified as important through a random forest—a supervised machine learning model—based on permutation-based importance scores, I estimate the lower bound of inequality of opportunity's share in total inequality before the age of majority to be about 31%. These results underscore the importance of considering childhood circumstances when measuring inequality of opportunity.

## **WORKING PAPERS**

Impact of COVID-19 on Student Performance: Using Exam Level Data from a Public College in NYC, with Theodore Joyce

**Abstract**: We analyze the impact of the COVID-19 pandemic on undergraduates' performance in an introductory economics course at a large public university. One challenge in analyzing student academic outcomes during the pandemic was the explicit change in grading policies by college administrators as well as the implicit adjustment by faculty designed to mitigate the impact of an abrupt shift to online learning amidst the stress and uncertainly associated with the pandemic. To limit the impact of grading policies we analyze changes in the raw scores on a common final administered to all sections of the course the year before and for four semesters after the spring of 2020. To limit variation in the difficulty of the exams from before to during the pandemic, we compare student performance on nearly identical questions on the final exam overtime. Adjusted mean scores on the common final fell by 0.6 points and the probability of answering the qualitatively same question on the final fell, on average, by 5.7 percentage points. Students with lower GPAs were 4.3 percentage points less likely to answer similar questions correctly relative to students with higher GPAs during the pandemic.

Measuring the Educational Inequality of Opportunity using Early Childhood Circumstances (work in progress)

### **FELLOWSHIPS & AWARDS**

2023-2024 Junior Scholar Award, Stone Center on Socio-Economic Inequality, NYC, New York

2022 Open Pedagogy Fellowship, Mina Rees Library, CUNY Graduate Center

2018-2023 Graduate Center Fellowship, CUNY Graduate Center

### SEMINARS/CONFERENCE PRESENTATIONS

2024	Stone Center Multidiscip	linary Seminar Series	, NYC, New York

2024 PSID Annual User Conference, Ann Arbor, Michigan

2024 Dissertation Seminar in Economics, CUNY Graduate Center, NYC, New York 2023 Dissertation Seminar in Economics, CUNY Graduate Center, NYC, New York

## **TEACHING EXPERIENCE**

## **Adjunct Lecturer**

2022-present ECO 4000 Statistical Analysis for Economics and Finance, Baruch College

2021-present ECO 1002 Macroeconomics, Baruch College

2019-2022 ECO 1001 Current Economic Problems, Baruch College

2019-2020 BUSN 3400 Introduction to Economics and Business Statistics, Brooklyn College

## **Teaching Assistant**

2019-2022 ECO 4100 Applied Micro-Econometrics, Dr. Theodore Joyce, Baruch College 2017 ECO 407 Macroeconomic Theory, Dr. James Holmes, SUNY at Buffalo

## **RESEARCH EXPERIENCE**

2023 Research Assistant to Dr. Theodore Joyce, Research Foundation, CUNY

2022 Research Assistant to Dr. Rafia Zafar, Stone Center on Socio-Economic Inequality 2019-2022 Research Assistant to Dr. Miles Corak, Stone Center on Socio-Economic Inequality

#### **WORKSHOPS**

2024	Inequality by Numbers, Stone Center on Socio-Economic Inequality, NYC, New York
2023	Machine Learning and Heterogeneous Effects, by Brigham Frandsen (online)
2023	Machine Learning and Causal Inference, by Brigham Frandsen (online)
2022	Causal Inference Mixtape II, by Scott Cunningham (online)
2022	Causal Inference Mixtape I, by Scott Cunningham (online)

2022 PSID Data User Workshop, Ann Arbor, Michigan

# **SOFTWARE SKILLS**

R, Stata, Python, MS-Excel, Latex

#### **LANGUAGES**

English (proficient), Hindi (fluent), Gujarati (native)

## **REFERENCES**

Dr. Miles Corak (Advisor) Dr. Theodore Joyce **Professor of Economics Professor of Economics** PhD Program in Economics **Zicklin School of Business** 

**CUNY Graduate Center Baruch College** 

Email: mcorak@gc.cuny.edu Email: theodore.joyce@baruch.cuny.edu

Dr. Lilia Maliar Dr. Wim Vijverberg **Professor of Economics Professor of Economics** PhD Program in Economics PhD Program in Economics **CUNY Graduate Center CUNY Graduate Center** 

Email: lmaliar@gc.cuny.edu Email: wvijverberg@gc.cuny.edu