# Swapnil Landge

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### Research Interests

Primary: Labor Economics, Applied Microeconomics

Secondary: Intergenerational Mobility, Income Inequality, Machine Learning in Economics, Ap-

plied Microeconometrics

#### Education

# The Graduate Center, City University of New York (CUNY)

New York, NY

Ph.D. in Economics, Expected 2026 M.Phil. in Economics, Sept. 2023

# University at Buffalo, SUNY

Buffalo, NY

M.S. in Econometrics and Quantitative Economics, Jan. 2020

# Symbiosis Institute of Operations Management, SIU Pune, India

MBA in Operations Management, Feb. 2010

## Government College of Engineering, Karad, India

B.E. in Electrical Engineering, Dec. 2007

#### Research

## Job Market Paper

Intergenerational Transmission of Occupational Skills in the U.S: A Machine Learning Analysis of Fathers' Skills and Children's Career Outcomes(Link)

This paper shows that fathers' occupational skills have distinct and systematic effects on children's career outcomes using a multinomial logistic regression (MLogit) framework and machine learning models with SHAP interpretability. Fathers' Technical skills increase children's likelihood of entering service occupations and skilled labor while reducing entry into office and administrative tracks. Father's Analytical skills exert the strongest single effect, raising entry into office and administrative roles by over one percentage, a four percent increase relative to baseline predicted probability. Communication and problem-solving skills channel children into education, healthcare, and transport, reflecting the interpersonal and operational demands of these sectors. Management skills reinforce persistence in business and managerial pathways but reduce entry into transportation. While the average marginal effects appear modest in absolute size, their proportional impact relative to baseline occupational probabilities is substantial. These results suggests that skills—not only credentials or parental resources—are the key currency of occupational inheritance.

# **Working Papers**

• Intergenerational Transmission of Occupation in the USA (Link)

Presents a detailed empirical analysis of how occupations are transmitted from fathers to sons in the U.S., using a large dataset of 56,952 parent-child pairs from the PSID (1968–2001). Its key novelty lies in focusing on the actual occupation categories rather than occupational rankings and quantifying intergenerational persistence across the full occupational spectrum.

The main finding is that occupational following is significantly higher both at the top (e.g., doctors, engineers) and bottom (e.g., service workers) of the socioeconomic ladder. For instance, sons of professionals have a 32.1% probability of entering the same field, while sons of service workers show a 25.8% match rate—demonstrating that inequality is perpetuated through both privilege and disadvantage via occupation-specific human capital and intangible entry barriers like soft skills.

• Relationship between Intergenerational Mobility (IGM) and Economic Growth: Evidence from Cross-Country Data (Link)

This paper extends the work of Aiyar and Ebeke (2019) by incorporating updated cross-country data (GDIM 2021 and All the Ginis 2019) and refining the empirical strategy to more robustly assess the role of Intergenerational Mobility (IGM) in shaping the relationship between income inequality and economic growth. It contributes new insights by emphasizing intergenerational educational mobility and applying a dynamic panel model using System GMM to address endogeneity concerns.

The central finding is that income inequality has a significantly more negative impact on economic growth in countries with low intergenerational mobility. In contrast, in societies where mobility is higher, the adverse effect of inequality is notably muted. These results underscore the importance of not just reducing income inequality, but also improving equality of opportunity through policies that enhance educational access and human capital development across generations.

#### Revise and Resubmit (R&R)

Legacy of Labor: The Impact of Parental Jobs on Children's Career Choices and Income Inequality
 Journal of Applied Econometrics (Link)

This paper introduces a novel empirical model of occupational self-selection that integrates the Roy model with Becker and Tomes's theory of intergenerational transmission. The key innovation is modeling innate skills using a bivariate Fréchet distribution, allowing for asymmetric, parent-influenced skill inheritance. It captures how a child's occupational choice is shaped not only by market returns but also by inherited, profession-specific abilities from parents.

The main finding reveals that a significant proportion of children from middle- and low-income backgrounds are negatively self-selected into their parents' occupations—meaning they would have been more productive and earned higher wages in higher-income jobs. Specifically, 11.5% of children from middle-income and 21.9% from low-income backgrounds fall into this category, pointing to a misallocation of talent and a mechanism by which income inequality persists across generations.

• Intergenerational Self-Selection Model: The Influence of Fathers' and Mothers' Occupations on Children's Occupational Outcomes — Journal of Applied Economics (Link)

This paper applies the self-selection framework. The key innovation is its comparative analysis of how mothers' and fathers' occupations influence sons' and daughters' career outcomes differently.

The main findings show that sons tend to experience positive self-selection when following their father's occupation—especially in skilled, high-wage fields—whereas both sons and daughters who follow their mother's occupations in low-wage sectors like service or farming often face negative self-selection, meaning they would have earned more in alternative careers. These results highlight the gendered dynamics of occupational inheritance and the structural inefficiencies it can perpetuate in the labor market.

#### Presentations

- Population Association of America Annual Meeting, 2025
- Midwest Economics Association Annual Meeting, 2025
- Eastern Sociological Society Conference, 2025
- IIIS/LIS Comparative Economic Inequality Conference, Luxembourg, 2025
- Eastern Economic Association Annual Meeting, 2025
- Stone Center Multidisciplinary Seminar Series, NYC, 2025 (Invited)
- APPAM Annual Fall Research Conference, 2024

# Fellowships and Awards

• CUNY Dissertation Fellowship	2025
• Stone Center Junior Scholarship	2025
• APPAM Student Ambassador Award	2024
• Graduate Center Fellowship, The Graduate Center, CUNY	2020-2025

# Media Coverage and Featured Articles

- "How Does Intergenerational Occupational Mobility Fuel Earnings Inequality?" Stone Center on Socio-Economic Inequality, CUNY Graduate Center, June 2024. (Link)
- "Swapnil Landge Merges AI and Economics to Study Social Mobility" *Transcontinental Times*, July 2024. (Link)

## Teaching Experience

# Adjunct Lecturer, Baruch College, CUNY Fall 2022–Present

Courses: Business Statistics, Microeconomics, Microeconomics (Honors)

**Adjunct Lecturer**, Brooklyn College, CUNY

Fall 2021–Present Courses: Microeconomics, Macroeconomics, Mathematical Economics, Business Statistics, Labor Economics, Urban Economics, and Financial Economics

Data Science Fellow, Baruch College, CUNY

Fall 2024–2025

Graduate Teaching Assistant, The Graduate Center, CUNY

Fall 2020–Spring 2021

# Research Experience

Research Assistant, Prof. Hany Guirguis, Manhattan College

Spring 2022

Independent Research, Prof. Isaac Ehrlich, University at Buffalo

Fall 2019

#### **Professional Service**

Reviewer, Journal of Health Economics and Outcomes Research

Reviewer, Journal of Finance and Accounting

Proposal reviewer, 2025 National Council on Family Relations (NCFR) Annual Conference

# **Professional Experience**

Project Manager, Procter & Gamble (P&G)	Feb 2020–Aug 2020
Project Manager, Robert Bosch	Oct 2014–Aug 2019
Consultant, Robert Bosch	May 2010–Sep 2014
Founder, Breakfastwala.com	Jan 2009–Feb 2010
Engineer, Emerson Network Power	May 2007–Feb 2008

#### Skills

Software: R, Stata, Python, MS Excel, LATEX Languages: English (fluent), Hindi, Marathi

#### References

#### Prof. Miles Corak (Advisor)

Professor of Economics
PhD Program in Economics
CUNY Graduate Center
mcorak@gc.cuny.edu

## Prof. Wim Vijverberg

Professor of Economics PhD Program in Economics CUNY Graduate Center wvijverberg@gc.cuny.edu

#### Dr. Lilia Maliar

Professor of Economics PhD Program in Economics CUNY Graduate Center lmaliar@gc.cuny.edu