Swapnil Landge

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Research Interests

Primary: Labor Economics, Applied Microeconomics
Secondary: Intergenerational Mobility, Income Inequality, Machine Learning in Economics, Applied 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 Transfer of Occupational Skills: A Causal AI and Machine Learning Analysis of Fathers' Skills and Children's Career Outcomes(Link)

This paper provides direct evidence that fathers' occupational skills—not just occupations—are transmitted across generations. Linking the *Integrated Public Use Microdata Series, United States (IPUMS USA, 2000–2023)* with the *Occupational Information Network (O*NET)*, I analyze 35 detailed skills and 5 clustered skill dimensions (Technical, Analytical, Communication, Problem-Solving, Management) across 23 detailed, 9 intermediate, and 3 broad occupational categories of children's careers.

The results reveal strong intergenerational patterns. Multinomial logistic regression estimates show that children are up to 57% more likely to enter STEM and skilled manual roles when their fathers possessed technical skills, while managerial and communication skills of father increase the likelihood of entry of children into business, education, and service occupations by 11–22%. Extreme Gradient Boosting (XGBoost) models, interpreted via SHapley Additive exPlanations (SHAP) values, reinforce these findings, highlighting *critical thinking, problem-solving, and communication* as the most influential transferable skills across domains.

Overall, the evidence shows that intergenerational mobility is structured by the inheritance of specific skills rather than occupational titles alone. Policies that strengthen transferable cognitive

and interpersonal abilities can broaden opportunities, while targeted technical training remains crucial for entry into STEM and skilled trades.

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

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
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