Apoorva Babbar | PhD Candidate in Economics

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Graduate Studies

I am a PhD candidate in Economics at the University of Calgary. I enrolled in the doctoral program in Fall 2020 and expect to complete the degree in 2027. My coursework, completed in the first two years of the program (2020 - 2022), covered advanced econometrics, microeconomic theory, and macroeconomic theory, along with field courses in labour economics, financial economics, international trade, regulatory economics, and health economics. I was away for a family emergency from Fall 2022 to Winter 2024. I completed the candidacy examination in July 2024. My second-year paper on gendered work norms and migration received the 'James D. Gaisford Best Second Year Paper Prize' from the Department of Economics.

I have been awarded the Eyes High International Doctoral Scholarship (x 2) and the Alberta Graduate Excellence Scholarship (International) through the University of Calgary's competitive Graduate Awards Competition, in recognition of my academic record and research. I have been working as a graduate research assistant for my supervisor, Alexander Whalley. I have also worked as a teaching assistant for courses in microeconomics, macroeconomics, engineering economics, and managerial economics.

In 2024, I was the sessional instructor for Principles of Macroeconomics, for which I received the 'Victor Yang Song Award for Teaching Excellence'. In 2026, I taught a guest lecture on the 'Economics of AI'. I was a visiting researcher at the Saïd Business School, University of Oxford in Michaelmas term 2025, supported by Mitacs Globalink Research Award for my research on gender and AI.

Research Interests

My research interests are labor economics, innovation, and financial economics. I study how innovation and social norms shape economic outcomes, with a current focus on artificial intelligence. My work combines large-scale census, firm-level, and patent data with econometric methods to examine how individuals, firms, and financial markets respond to technological and social change. A central goal is to understand how these responses differ across individuals and firms, and what those differences reveal about the mechanisms behind labor market inequality.

Research Projects

In "Gender Differences in AI Leadership: Evidence from Investor Reactions" (*Job Market Paper*), I examine how investors price firms' expected profitability during technological uncertainty and whether these responses differ by CEO gender. Using artificial intelligence (AI) as the source of technological shift, I construct a measure of firms' AI intensity from its occupation composition and estimate stock market reactions to 60 AI news events between 2022 and 2025. Following AI news that originates on social media, firms with higher AI intensity earn higher returns than firms with lower AI intensity. This premium is larger among firms with female CEOs, although the estimates are imprecise. The paper contributes to our understanding of how leadership and information environments can shape investors' responses to technological change.

Our paper, "Public R&D and the Automation of Manufacturing: Evidence from the Space Race" (with Alexander Whalley, Shawn Kantor, and Jingyuan Zeng; *NBER Working Paper No. w35966*) studies how public investment shapes the direction of technological change and its distributional consequences. Using a new patent-based measure of automation, we find that NASA-sponsored patents are more automation-intensive than comparable non-NASA patents, and that industries and locations more exposed to Space Race spending experienced persistent declines in labor share, with minimal changes in skill composition. The findings provide evidence on the link between publicly funded innovation and the distribution of economic gains. This also informs about the potential consequences of AI and other emerging technologies for automation and labor demand.

In "Gendered Work Norms and Migration: Impact on Female Labor Force Participation" (*Revise and Resubmit, Economic Development and Cultural Change*), I ask whether female labor market outcomes are driven by assimilation to destination-country norms or persistence of origin-country norms. Using novel global census data on 1.8 million migrants from 75 countries, I compare individuals who made the same origin-destination move at different ages. I find asymmetric responses. Moving from restrictive to more female-supportive norms increases female labor force participation over time, consistent with assimilation, while moving to more restrictive norms does not reduce it, suggesting persistence of origin norms. Male labor force participation remains unchanged. These findings show that the influence of gendered work norms on labor supply depends on the direction of cultural change following migration.

Work in progress: My work in progress builds on my job market paper, and I examine how executive gender differs in strategies and communication pertaining to AI. I will use textual analysis of earnings call transcripts to investigate gender differences in how corporate leaders discuss AI adoption, technological opportunities, and associated uncertainties. This research will complement my analysis of investor reactions by examining the corporate communication underlying market responses to AI changes.

Dissertation

Title: "Essays on Innovation and Inequality"

Description: My dissertation consists of essays on how innovation and social norms shape economic outcomes and labor market inequality. The first chapter studies how investors price firms' AI intensity and whether market responses differ by CEO gender. The second examines how mission-oriented public R&D directs innovation towards automation and reduces labor share in US manufacturing. The third chapter examines how migration exposes individuals to different gendered work norms and whether that affects female labor force participation.

Committee:

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