Application: NBER Digital Economics and AI Tutorial

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Contact Information

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Graduate Study

I am a fourth-year PhD student in Economics at the University of Miami. I have completed the core PhD coursework in microeconomics, macroeconomics, and econometrics, along with field coursework, and I am now working full time on my dissertation research.

Research Interests

My research is in **urban macroeconomics and housing** and **household finance**. I study how labor-market conditions shape households' housing, saving, and borrowing decisions, combining household panel data with quantitative life-cycle models. My current work asks how technological change—in particular artificial intelligence—alters the risks that households face and how those risks propagate into homeownership, residential mobility, and welfare. I am especially interested in measuring occupational exposure to AI, in linking that exposure to household-level outcomes rather than only to wages and employment, and in the spatial consequences of jobs that can increasingly be done from anywhere.

Dissertation

Title: *Labor-Market Risk and the Demand for Housing: AI Exposure, Mobility, and Homeownership*

Committee: Stefania Albanesi, Rong Hai, Christopher Parmeter, Athena Tsouderou

Description. Buying a home is a long-term bet on a steady income in one place. AI differs from earlier automation in that it reaches the cognitive, office-based occupations held by educated, well-paid workers—the workers most likely to own. My dissertation asks how occupational differences in earnings risk and mobility shape homeownership, and what would happen to ownership and welfare if AI raised that risk and mobility. It has three parts.

(1) **Household evidence.** Using PSID household panels (1999–2023), I assign each household head the AI exposure of their 2017 occupation (Felten, Raj and Seamans, 2021) and estimate continuous difference-in-differences and wave-by-wave event studies. I develop a regression approach that recovers changes in the permanent and transitory variances of earnings shocks with clustered standard errors. After 2018, more exposed workers became more mobile—one standard deviation of exposure raises the two-year probability of moving by 2.8 percentage points—while their earnings did not fall and their earnings risk did not rise significantly. Their homeownership fell, through owners switching to renting rather than renters delaying purchase.

(2) **Metropolitan evidence and measurement.** Using ACS data for 260 metropolitan areas (2018–2024), I show that ownership fell in more exposed metros under three AI-exposure measures—the AIOE index, the LLM task measure of Eloundou et al. (2024), and an observed-use measure built from AI-assistant conversations (Massenkoff and McCrory, 2026). The decline is unchanged when each metro's current education and remote-work shares are held fixed, but it cannot be separated from the initial education and

remote-work profile of these metros, and exposure to generative AI adds no further change after 2022. AI exposure thus marks a bundle of *location-flexible* jobs.

(3) **Quantitative model.** A life-cycle model of the rent-versus-own decision with persistent and transitory earnings shocks, mortgages, transaction costs, and relocation shocks, calibrated by exposure group, shows that relocation risk is the channel that moves ownership (about -1.7 percentage points per point of annual relocation risk), while earnings risk slightly raises ownership through precautionary saving but carries the largest welfare cost. The housing consequences of AI therefore depend less on what exposed workers earn than on whether they must move.

The paper is scheduled for presentation at the 3rd Annual Boca Finance and Real Estate Conference (2026).

Research in Progress and Next Steps

- Using the PSID's reasons for moving to test whether the extra moves of exposed workers are job-related, a direct test of the location-flexibility mechanism.
- Separating AI exposure from education and remote work within occupations using worker-level exposure.
- Extending the model with endogenous house prices, distress sales, and mortgage-rate lock-in, to study how AI-driven mobility feeds back into local housing markets.
- Repeating the generative-AI test as post-2022 data accumulate.

Why This Tutorial

My work sits at the intersection of AI and household economics, a connection that is still new. The tutorial would give me direct exposure to frontier research on AI measurement and diffusion—how AI exposure should be measured, how adoption spreads across firms and places, and how to separate AI from correlated technological and organizational change. These are exactly the questions my dissertation needs to answer more sharply, and feedback from researchers in digital economics would help me strengthen the identification of the household channels I study.