SOPHIA MO

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Education

Harvard University
Ph.D. in Economics, 2019 to 2025
M.A. in Economics, 2023

University of Chicago
B.A. in Economics (with honors) and Political Science, 2018
B.S. in Mathematics, 2018

Fields

Labor Economics, Applied Macroeconomics

References

Professor Gabriel Chodorow-Reich
chodorowreich@fas.harvard.edu

Professor Lawrence F. Katz
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Professor Edward Glaeser
eglaeser@harvard.edu

Professor Adrien Bilal
adrienbilal@fas.harvard.edu

Fellowships & Awards

Chae Family Economics Research Award, Harvard University, 2023
Molly and Domenic Ferrante Economics Research Award, Harvard University, 2023
Oskar Morgenstern Fellowship, Mercatus Center, 2023
Phi Beta Kappa (Junior Year), University of Chicago, 2017

Teaching

Macroeconomics Theory, Harvard University, 2023
Financial Crises and Recessions of the 21st Century, Harvard University, 2023
Personal Finance, Harvard University, 2022
Intermediate Macroeconomics, Harvard University, 2021 - 2023

Research

Research Assistant for Adrien Bilal, 2021
Research Assistant for Ludwig Straub, 2020
Research Assistant for Gordon Hanson, 2020
Research Assistant for Neale Mahoney, 2018 – 2019
Research Assistant for Anjali Adukia, 2017 – 2018

Job Market Paper

Does Mobility Beget Mobility? Coworker Networks and the Sectoral Reallocation of Labor (with Xinyue Lin)

Social networks influence labor market outcomes. We investigate how the sectoral composition of an individual's current coworkers' past employment affects job-switching decisions. To identify causal effects, we employ multiple strategies, including distinguishing between current-year and non-current-year coworkers, controlling for time-varying shocks specific to the industry pairs, and using unexpected death or retirement events to isolate idiosyncratic changes in coworker networks. Using German administrative matched employer-employee longitudinal data, we find a positive causal relationship between the proportion of coworkers from a sector and both the propensity of transitioning to that sector and the sensitivity to sectoral wage changes. To quantify the coworker mechanism's contribution to employment and reallocation, we develop and estimate a multi-sector, multi-firm general equilibrium model where perceived wages and adjustment costs for sector transitions depend on coworker shares. Our results show that the welfare effect of COVID-induced

productivity shocks is higher when considering coworker networks compared to assuming no influence from coworkers. Maintaining worker-employer ties to reduce competition in positively shocked sectors can further increase welfare.

Working Papers

Coworker Influence on Job Choice: Information, Connection, and Industry Switching (with Xinyue Lin and Armando Miano)

We investigate the role of coworkers in shaping job mobility decisions by altering workers' perceptions of their outside options. Using novel survey data collected from a representative sample of U.S. wage and salaried workers, we document two distinct channels through which current and former coworkers influence mobility. First, having more current coworkers with prior experience in an industry improves the accuracy of wage beliefs for that industry. Second, having more past coworkers currently employed at a firm raises the perceived probability of receiving a job offer from that firm, as shown in a survey experiment that elicits subjective job-offer probabilities. We incorporate these findings into a job choice model with coworker-based learning and referral effects. Relative to standard models that assume perfect information about wages and job opportunities, our framework demonstrates that coworker networks facilitate reallocation and reduce the welfare losses associated with informational frictions.

Lender Experiences and Mortgage Costs

This paper examines how lenders' past experiences with house price changes influence the mortgage rates they charge, focusing on the role of lender expectations. I hypothesize that lenders extrapolate from past house price changes to balance profit margins with default risk, offering lower rates when they anticipate future price increases. Consistent with this hypothesis, I show that lenders exposed to greater house price growth tend to charge lower mortgage rates. I rule out alternative explanations, such as differential local growth opportunities or the potential of banks to influence local prices, using placebo tests and geographic variation in lending patterns. Specifically, I find that moving from the 25th to the 75th percentile of price growth exposure is associated with a 4.5 percentage point reduction in loan rate spreads.

Papers in Progress

Open Firms, Brighter Ideas: The Effects of Organizational Openness on Inventor Productivity (with Jieying Zhang)

This paper studies how organizational openness to academic research influences inventor productivity in high-tech firms. We define openness as a firm's engagement with external-facing research activities that promote collaboration and knowledge exchange. Combining data on patents from the USPTO, publications from OpenAlex, and employment histories from LinkedIn, we estimate the effect of openness on individual inventor output while controlling for field, location, and firm characteristics. Our identification strategy exploits variation across firms, fields, and cities, including within-firm changes in openness over time. To address endogeneity, we use a shift-share instrumental variable based on field-level trends in academic publications. We aim to find that whether openness boosts inventor productivity and attracts high-skilled talent, while considering implications for firm innovation and broader technological progress.

Peers, Pivots, and Progress: Evaluating the Network-Induced Field Switching for Inventors (with Jieying Zhang)

We study whether inventors pivot into new technical fields because of their recent co-inventors, and whether such mobility creates or dissipates social value. We introduce a simple approach to classify research topics into gaps vs. frontiers. Identification comes from within-firm redeployment of peers triggered by governance shocks, which shift an inventor's peer exposure to different fields. We then estimate the peer-follow elasticities and map the reduced-form estimates into a sufficient-statistics welfare expression that

separates adjustment costs, displacement, and duplication externalities, and quantifies how composition of moving into gaps vs. frontiers influences welfare.

Industry Policies and Labor Network

There is a recent resurgence of global interest in industrial policy driven by concerns such as climate change and national security. The effectiveness of these industrial policies in promoting targeted sectors depends on whether they can attract workers with the relevant skills from other sectors. However, as the policy shocks propagate through the production network, they also change the labor demand of other sectors. If the policy shocks induce the labor demand to co-move among industries connected by large worker flows, it can limit labor reallocation, reducing policy effectiveness. Empirically, I find that worker flows are stronger between industries closer in the production network, where labor demand tends to co-move in response to policy shocks. I examine the welfare and policy implications of such correlations.

Information Frictions and Wage Transparency

Information is critical for labor market decisions. How does an imperfect information structure affect the allocation of labor across sectors? To address this question, I develop a quantitative dynamic model of job choice with costly information acquisition and within-firm information sharing. In the model, rationally inattentive agents optimally choose how much information to acquire and learn about job payoffs in other firms and other sectors from their coworkers. I estimate the model using job-posting data and exploit variation in U.S. state-level wage transparency laws as a quasi-experimental source of exogenous information shocks. The results quantify the degree of inattention in labor market decisions and highlight its implications for job mobility, wage dispersion, and the effectiveness of transparency policies.

Work Experience Associate, Economics Practice, Cornerstone Research, July 2025 – present

Languages English, Chinese, Spanish

Software skills Python, MATLAB, Stata, R