ALICE H. WU

haowen_wu@g.harvard.edu
1-510-816-1546
https://www.alicewu.io

HARVARD UNIVERSITY

Littauer Center M33
1805 Cambridge St
Cambridge MA 02138

Placement Director: Claudia Goldin cgoldin@harvard.edu 617-495-3934
Placement Director: Lawrence F. Katz lkatz@harvard.edu 617-495-5079
Administrative Director: Brenda Piquet bpiquet@harvard.edu 617-495-8927

Education

Harvard University
Ph.D. Economics, 2018 to present
Expected completion date 2024

Harvard University
M.A. Economics 2020

University of California, Berkeley
B.A. in Applied Mathematics and Economics (Highest Honors) 2017

Fields

Labor Economics
Economics of Innovation, Industrial Organization

References

Lawrence Katz
Harvard
lkatz@harvard.edu

Claudia Goldin
Harvard
cgoldin@harvard.edu

Elie Tamer
Harvard
elietamer@fas.harvard.edu

David Card
UC Berkeley
card@berkeley.edu

Teaching

Harvard Econ 2120, First-year PhD Econometrics Fall 2022
TA to Elie Tamer, With Distinction in Teaching Fall 2021
Harvard Econ 1126, Undergraduate Advanced Econometrics Fall 2020
TA to Elie Tamer, With Distinction in Teaching

Job Market Paper

"Reveal or Conceal? Employer Learning in the Labor Market of Computer Scientists"

Abstract:
The efficient allocation of labor relies on the identification of talent. When employee output is not publicly observable, employers have incentives to take advantage of private information, potentially leading to the misallocation of workers between firms. This paper provides empirical evidence of employer learning and quantifies the impact of learning on job mobility and innovation outputs in the labor market for Ph.D.'s in computer science (CS). Papers in CS conference proceedings offer the ability to observe research effort by CS workers. About one-quarter of CS papers from industry can be matched to patent applications filed around the same time, an indicator of a more valuable innovation. Yet a patent application remains private information to the incumbent employer for more than a year. CS researchers with a new paper are more mobile across firms than are similar coworkers without a paper. Initially, authors of papers with a matched patent are less likely to move than are authors of papers with no patent application. But once the application is made public, the authors not only move more but are 35% more likely to move into a top tech firm than are coworkers without such signals. The findings confirm predictions of a model with a dynamic game between employers who learn a worker's ability from her innovation outputs and where the incumbent employer has an initial information advantage. Structural estimates of the

model suggest that if matched patents and papers were disclosed simultaneously, then high-ability workers would be recognized faster and move to more productive firms. The increase in positive assortative matching and more efficient allocation of labor would result in a 5% increase in total innovation outputs.

Publications

"Gender Bias in Rumors Among Professionals: An Identity-based Interpretation," *Review of Economics and Statistics*, 102, 5, pp. 867-880. December 2020.
Abstract:
This paper measures gender bias in what people say about women versus men in an anonymous online professional forum. I study the content of posts that refer to each gender, and the transitions in the topics of discussion that occur between consecutive posts in a thread once attention turns to one gender or the other. I find that discussions about women tend to highlight their personal characteristics (such as physical appearance or family circumstances) rather than their professional accomplishments. Posts about women are also more likely to lead to deviations from professional topics than posts about men. I interpret these findings through a model that highlights posters' incentives to boost their own identities relative to the underrepresented out-group in a profession.

"Gendered Language on the Economics Job Market Rumors Forum," *AEA Papers and Proceedings*. 108: 175-79. May 2018.

Working Papers

"Who Becomes an Inventor? The Role of Firms in Talent Discovery" *(with Sabrina Di Addario)*
Abstract:
How does firm productivity relate to the speed of talent discovery? We assess this relationship in the labor market for Italian inventors. We define talent discovery as a worker becoming an inventor who files a patent application for the first time. Using the employer-employee data from the Italian Social Security Institute matched with patent applications between 1987 and 2009, we find large heterogeneity in talent discovery across firms, particularly for workers early in their careers. On average a worker younger than 35 is 175% more likely to become an inventor at firms in the top quartile of productivity than at firms in the bottom quartile, conditional on differences across sectors and geographic areas. Workers who do invent at bottom quartile firms on average receive an 8-10 log point increase in wages, rather than 2-4 log points at more productive firms. We interpret the empirical findings in an employer learning framework.

Papers In Progress

1) "The Labor Market Signaling Value of Open-Source Contributions" *(with Jacob Weber)*
Abstract:
Does the rise in open-source software development provide an opportunity for software developers and engineers to signal their ability to potential employers, and is this signaling value higher for workers from less advantaged backgrounds? We answer this question by matching open-source contributions on GitHub to employment outcomes from LinkedIn. We investigate whether workers increase open-source contributions before changing jobs. In particular, we examine whether the effects of this activity on labor market outcomes, such as moving into a higher-paid job, are higher for workers from less advantaged education and demographic backgrounds.

2) "Does Trade Secret Litigation Increase Monopsony Power? Evidence from the Defends Trade Secret Act" *(joint with Evgenii Fadeev)*
Abstract:
We use the texts of legal complaints from trade secret litigation to study how firms responded to the enactment of the Defend Trade Secret Act (DTSA) in 2016. One of the goals of this act was to increase the protection of American firms against international trade secret theft. Within a year of the act's passage, trade secret litigation surged by 33%. However, this increase was predominantly driven by US companies suing employees who transitioned to other domestic firms. We show that the spike in litigation post-DTSA was more pronounced in states with weaker enforceability of non-compete agreements. The evidence suggests that firms might resort to trade secret litigation as an alternative to non-compete clauses. We examine whether a trade secret lawsuit against an

employee affects her own job mobility, productivity, and business venture, as well as the spillover effects on her former co-workers at the plaintiff.

Seminars & Conferences

2022: Federal Reserve Bank of San Francisco
2019: Paris Seminar on the Economics of Digitization, 9th ifo Dresden Workshop on Labor Economics
2017-2018: UC Berkeley Labor Lunch, Harvard Business School Gender Initiative, Bowdoin College, American Economic Association Meetings (Philadelphia), Princeton Quantitative Social Science Colloquium

Fellowships & Awards

Stone Ph.D. Scholar in Inequality and Wealth Concentration	2019-2024
Thomas J. Sargent Dissertation Fellowship (San Francisco Fed)	Summer 2022
Mark A. Schimbor Prize in Economics (Best Honors Thesis)	2017
Dorothea Klumpke Roberts Prize in Mathematics (Top Eight Math Majors)	2017
Phi Beta Kappa (Junior Year)	2016

Grants

The Lab for Economic Applications and Policy (LEAP)	2018; 2020; 2023
Stone Program in Inequality, Individual Research Fund	2021

Research Experience

Harvard, RA to Claudia Goldin and Larry Katz	Spring 2023; 2019
Princeton, RA to Janet Currie	2017-2018
UC Berkeley, RA to David Card	2015-2017
UC Berkeley, RA to Ulrike Malmendier	2015-2016
Columbia Business School, Summer Intern (RA to Wei Jiang)	Summer 2015

Service

Referee for *American Economic Review*, *Journal of Public Economics*, *Quarterly Journal of Economics*	
Co-organizer for Harvard Labor/Public Student Workshop	2021-2022
Co-chair, Peer Support Network (Mental Health)	2019-2020
Founding co-editor, *Berkeley Economic Review* (Undergraduate Journal)	2016-2017

Skills

Programming in Python, Stata, SQL, Matlab, and R
Web Scraping
Machine Learning, Natural Language Processing