

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  
Placement Director: Lawrence F. Katz  
Administrative Director: Brenda Piquet

[cgoldin@harvard.edu](mailto:cgoldin@harvard.edu)  
[lkatz@harvard.edu](mailto:lkatz@harvard.edu)  
[bpiquet@harvard.edu](mailto:bpiquet@harvard.edu)

617-495-3934  
617-495-5079  
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](mailto:lkatz@harvard.edu)

Claudia Goldin  
Harvard  
[cgoldin@harvard.edu](mailto:cgoldin@harvard.edu)

Elie Tamer  
Harvard  
[elietamer@fas.harvard.edu](mailto:elietamer@fas.harvard.edu)

David Card  
UC Berkeley  
[card@berkeley.edu](mailto:card@berkeley.edu)

## Teaching

Harvard Econ 2120, First-year PhD Econometrics

TA to Elie Tamer, With Distinction in Teaching

Fall 2022

Fall 2021

Harvard Econ 1126, Undergraduate Advanced Econometrics

TA to Elie Tamer, With Distinction in Teaching

Fall 2020

## 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 an incentive to take advantage of private information, potentially leading to the misallocation of labor among 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 computer science (CS) Ph.D.’s. CS conference proceedings provide public information on research effort by existing CS workers. Among papers authored by researchers from industry, about one-quarter can be matched to a contemporaneous patent application – an indicator of a more valuable innovation. Yet the fact of the application remains private information at the incumbent employer for 18 months. Consistent with public learning, researchers with a new paper have higher inter-firm mobility rates than do coworkers without a paper. Initially, authors of papers with a matched patent are less likely to move than authors without a patent application. But once the patent application becomes public, their mobility rates cross over. Authors of papers with a matched patent are also 35% more likely to move to a top tech firm. These patterns confirm the predictions of a model in which incumbent firms have initially private information on more productive researchers. Structural estimates of the model suggest that

if papers and patents were disclosed simultaneously, high-ability workers would sort more quickly to high-productivity firms. The implied increase in allocative efficiency would increase innovation outputs by about 5%.

## **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 stronger 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.

<b>Seminars &amp; Conferences</b>	2022: Federal Reserve Bank of San Francisco 2019: Paris Seminar on the Economics of Digitization, 9 <sup>th</sup> 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	
<b>Fellowships &amp; Awards</b>	Stone Ph.D. Scholar in Inequality and Wealth Concentration Thomas J. Sargent Dissertation Fellowship (San Francisco Fed) Mark A. Schimbor Prize in Economics (Best Honors Thesis) Dorothea Klumpke Roberts Prize in Mathematics (Top Eight Math Majors) Phi Beta Kappa (Junior Year)	2019-2024 Summer 2022 2017 2017 2016
<b>Grants</b>	The Lab for Economic Applications and Policy (LEAP) Stone Program in Inequality, Individual Research Fund	2018; 2020; 2023 2021
<b>Research Experience</b>	Harvard, RA to Claudia Goldin and Larry Katz Princeton, RA to Janet Currie UC Berkeley, RA to David Card UC Berkeley, RA to Ulrike Malmendier Columbia Business School, Summer Intern (RA to Wei Jiang)	Spring 2023; 2019 2017-2018 2015-2017 2015-2016 Summer 2015
<b>Service</b>	Referee for <i>American Economic Review</i> , <i>Journal of Public Economics</i> , <i>Quarterly Journal of Economics</i> Co-organizer, Harvard Labor/Public Student Workshop Co-chair, Peer Support Network (Mental Health) Founding co-editor, <i>Berkeley Economic Review</i> (Undergraduate Journal)	2021-2022 2019-2020 2016-2017
<b>Skills</b>	Programming in Python, Stata, SQL, Matlab, and R Web Scraping Machine Learning, Natural Language Processing	