

# JACOB LIGHT

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## EDUCATION

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### Stanford University

Ph.D. in Economics

2018 - 2024 (*Expected*)

- Fields: Labor and Public Economics
- Dissertation: Essays in the Economics of Education

### University of Michigan

Bachelor of Science, Mathematics and Economics (Highest Honors)

2011 - 2015

- Summa cum laude, Phi Beta Kappa (inducted as a junior)

## DISSERTATION COMMITTEE

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Prof. Caroline Hoxby (Primary)  
Economics Department, Stanford University  
(650) 723-9678  
choxby@stanford.edu

Prof. Nick Bloom  
Economics Department, Stanford University  
(650) 725-7836  
nbloom@stanford.edu

Prof. Eric Hanushek  
Hoover Institution, Stanford University  
(650) 736-0942  
hanushek@stanford.edu

Prof. Petra Persson  
Economics Department, Stanford University  
(650) 723-4116  
perssonp@stanford.edu

## PUBLISHED WORK

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**Long-run Trends in the U.S. SES-Achievement Gap**, (with Eric Hanushek, Paul Peterson, Laura Talpey, and Ludger Woessmann), Fall 2022, *Education Finance and Policy*

## RESEARCH IN PROGRESS

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### Student demand and the supply of college courses [[Job Market Paper](#)]

In an era of rapid technological and social change, do universities adapt enough to play their important role in creating knowledge? To examine university adaptation, I extracted the information contained in the course catalogs of over 450 US universities spanning two decades (2000-2023). When there are changes in student demand, universities respond inelastically, both in terms of course quantity and content. Supply inelasticity is especially pronounced in fields experiencing declining demand and is more pronounced at public universities. Using Natural Language Processing, I further show that while the content of existing courses remains largely unchanged, newly-created courses incorporate topics related to current events and job skills. Notably, at selective institutions, new content focuses on societal issues, while at less selective institutions, new content emphasizes job-relevant skills. This study contributes uniquely to our understanding of the supply-side factors that affect how universities adapt to the rapidly evolving landscape.

## **Anatomy of labor market distress** (with Eric Hanushek, Simon Janssen, and Lisa Simon) [\[Slides\]](#)

Earnings losses after mass layoffs are highly skewed: a small number of workers experience catastrophic losses, while most workers recover quickly. This paper documents the heterogeneity in earnings losses after mass layoffs and the adjustments driving these differences. We study workers from firms in West Germany that closed between 2000-2005. For each laid-off worker, we create a synthetic control from similar workers with matching earnings trajectories who weren't laid off during that period. Which workers experience the greatest losses is not a priori predictable based on fixed characteristics, but is associated with post-layoff adaptability, like switching professions or relocating. Consequently, pre-layoff targeted policies to assist these workers might not be as effective as post-layoff interventions.

## **The importance of non-major courses in predicting college students' post-graduation outcomes** (with Merrill Warnick)

In the United States, college students have substantial discretion over the courses they take in college. Often, only one-third of courses a student takes are in their major and the remaining courses are at the student's discretion. This project studies how the substantial variation in college course selection impacts students' outcomes in the labor market. Using administrative data containing transcript-to-employment linked records for all students attending public universities in Texas, we investigate how a student's college course composition impacts their career outcomes. First, we use machine learning techniques to demonstrate that non-major courses explain up to 30% of the unexplained variation in occupation choice among students with the same major. To estimate causal effect of non-major courses on a student's occupation choice, we study course selection and labor outcome effects resulting from natural experiments in the form of changing distribution requirements at Texas universities.

## **Instructor value-added in higher education** (with Merrill Warnick and Anthony Yim)

### **PRESENTATIONS**

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**2023:** All-California Labor Economics Conference, CSQIEP Virtual Seminar, Stanford Applied Economics Workshop

**2022:** AERA Annual Meeting, Stanford Applied Economics Workshop

### **GRANTS, AWARDS, AND FELLOWSHIPS**

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<b>Leonard W. Ely and Shirley R. Ely Graduate Student Fellowship</b>	<i>2023</i>
<b>Stanford IRiSS Dissertation Fellowship \$11,000</b>	<i>2023</i>
<b>NAEd/Spencer Dissertation Fellowship Semifinalist and Alternate</b>	<i>2023</i>
<b>Stanford H&amp;S Graduate Research Opportunities Grant (with Merrill Warnick) \$5,000</b>	<i>2023</i>
<b>George Shultz Graduate Research Fellowship (with Merrill Warnick) \$3,000</b>	<i>2022</i>
<b>Patricia Liu McKenna and Kenneth McKenna Graduate Fellowship</b>	<i>2021-22</i>
<b>Stanford Outstanding Teaching Award</b>	<i>Spring 2021</i>
<b>George Shultz Graduate Research Fellowship \$12,500</b>	<i>2021</i>
<b>Stanford Outstanding Teaching Award</b>	<i>Winter 2021</i>
<b>Stanford IRiSS Research Data Grant \$2,000</b>	<i>2020</i>
<b>Stanford IRiSS Center for Computational Social Science Grant \$1,500</b>	<i>2020</i>
<b>Stanford Economics First-Year Ph.D. Fellowship</b>	<i>2018</i>
<b>NSF Graduate Research Fellowship, Honorable Mention</b>	<i>2018</i>
<b>Ferrando Honors Prize, University of Michigan Economics Department</b>	<i>2015</i>
<b>Sims Honors Scholarship, University of Michigan Economics Department</b>	<i>2015</i>
<b>Gerald Ford Public Service Prize, University of Michigan</b>	<i>2015</i>
<b>Outstanding Achievement in Math, University of Michigan Math Department</b>	<i>2015</i>

## TEACHING AND RESEARCH ASSISTANCE

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<b>ECON 43: Introduction to Financial Decision-Making</b>	<i>Spring 2021</i>
Outstanding TA Award	
<b>ECON 144: Family and Society</b>	<i>Winter 2021</i>
Outstanding TA Award	
<b>ECON 1: Principles of Economics</b>	<i>Fall 2020</i>
<b>Research Assistant for Professor Caroline Hoxby</b>	<i>2019 - 2020</i>

## PROFESSIONAL EXPERIENCE

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<b>Research Engineering Intern - Core Data Science, Meta</b>	<i>2021</i>
Menlo Park, CA	
<b>Senior Research Analyst, The Brattle Group</b>	<i>2015 - 2018</i>
Washington, DC	

## REFEREEING

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*Journal of Labor Economics*

## SERVICE

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<b>Advanced Tax Preparer</b> , IRS Volunteer Income Tax Assistance	<i>2015 - 2021</i>
<b>President</b> , Stanford Graduate LGBTQ+ Affinity Group (GradQ)	<i>2019 - 2022</i>
<b>Applied Economics Workshop Coordinator</b> , Stanford Economics Department	<i>2020 - 2022</i>
<b>Social Chair, Admitted Student Day Liaison</b> , Stanford Economics Department	<i>2019 - 2020</i>

## CITIZENSHIP

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United States