

Daniel Herbst

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CONTACT INFORMATION

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ACADEMIC APPOINTMENTS

2018 - Assistant Professor, Department of Economics, University of Arizona
2019 - 2020 Visiting Scholar, MIT Golub Center for Finance and Policy

EDUCATION

2018 Ph.D. in Economics, Princeton University
2010 A.B. in Applied Math - Economics, Brown University

FIELDS OF INTEREST

Labor Economics, Consumer Finance, Education

FELLOWSHIPS, AWARDS, AND HONORS

2017 - 2018 National Academy of Education/Spencer Dissertation Fellowship
2016 Towbes Prize for Outstanding Teaching
2016 - 2017 Richard A. Lester Fellowship for Industrial Relations
2013 - 2014 Louis A. Simpson Graduate Fellowship
2014 Princeton IES Summer Fellowship
2010 *magna cum laude* with Honors in Economics, Brown University
2009 *Phi Beta Kappa* (Junior Year), Brown University

TEACHING EXPERIENCE

Spring 2019 Instructor, ECO481 *Economics of Wage Determination*
Spring 2019 Instructor, ECO382 *Labor and Public Policy*
Summer 2014/15/16 Instructor, Advanced Math Camp, Princeton MPA program

PROFESSIONAL ACTIVITIES

Referee for *American Economic Journal: Applied Economics*, *Economics of Education Review*, *Quantitative Economics*, *Quarterly Journal of Economics*, *Journal of Human Resources*, *Journal of Policy Analysis and Management*, *Review of Economics and Statistics*, and *Review of Economic Studies*
2010 - 2012 Assistant Economist, Federal Reserve Bank of New York
2010 Research Associate, NERA Economic Consulting
2009 Intern, Federal Reserve Board

INVITED TALKS AND PRESENTATIONS

2018 - 2020 APPAM Annual Research Conference, CFPB Research Conference, Federal Reserve Board, IZA Economics of Education Workshop, Jain Family Institute, Kansas State University, MIT Golub Center, National Academy of Education Research Conference, National Tax Association Research Conference, RAND Corporation, Society of Labor Economists Annual Meeting, Vanderbilt University, Rutgers University, University of Arizona, University of Bristol

PUBLICATIONS

2015 **“Peer effects on worker output in the laboratory generalize to the field”** (with Alexandre Mas), *Science* 350.6260 (2015): 545-549.

We compare estimates of peer effects on worker output in laboratory experiments and field studies from naturally occurring environments. The mean study-level estimate of a change in a worker’s productivity in response to an increase in a co-worker’s productivity (γ) is $\gamma = 0.12$ (SE = 0.03, N = 34), with a between-study standard deviation of $\tau^2=0.16$. The mean estimated γ -values are close between laboratory and field studies ($\gamma_{\text{lab}} - \gamma_{\text{field}} = 0.04$, $P = 0.55$, $n_{\text{lab}} = 11$, $n_{\text{field}} = 23$), as are estimates of between-study variance τ^2 ($\tau^2_{\text{lab}} - \tau^2_{\text{field}} = -0.003$, $P = 0.89$). The small mean difference between laboratory and field estimates holds even after controlling for sample characteristics such as incentive schemes and work complexity ($\gamma_{\text{lab}} - \gamma_{\text{field}} = 0.03$, $P = 0.62$, $n_{\text{samples}} = 46$). Laboratory experiments generalize quantitatively in that they provide an accurate description of the mean and variance of productivity spillovers.

RESEARCH PAPERS

2019 **“Liquidity and Insurance in Student-Loan Contracts: The Effects of Income-Driven Repayment on Borrower Outcomes”** Revise and Resubmit at *AEJ: Applied*

Traditional student loan payments fall on borrowers early in their careers and provide no insurance against earnings shocks. By contrast, Income-Driven Repayment (IDR) lowers monthly minimums to a share of borrower income until debt is repaid or some forgiveness period has been reached, increasing short-run liquidity at the potential cost of long-run debt forgiveness or distorted labor supply. In this paper, I use an administrative panel of student loans to estimate IDR’s effect on short- and long-run borrower outcomes and predict its fiscal costs. Exploiting variation in loan-servicing calls, I find that enrolling in IDR results in 22pp fewer delinquencies and \$368 lower balances within eight months of take-up. Three years later, IDR enrollees are 2.0pp more likely to hold mortgages, 1.8pp more likely to move to a higher-income zip code, and hold 0.2 more credit cards than non-enrollees. By contrast, I find no effects on unemployment deferments, a proxy for borrower employment status. I also find that most enrollees exit IDR and return to standard repayment after just one year, meaning the predicted incidence of debt forgiveness under IDR is close to zero. Taken together, my results suggest IDR provides short-term liquidity benefits but limited lifetime insurance value, carrying minimal long-run fiscal costs or labor supply distortions.

2018

“Unions and Inequality Over the Twentieth Century: New Evidence from Survey Data” (with Henry Farber, Ilyana Kuziemko, Suresh Naidu) Accepted at the *Quarterly Journal of Economics*

It is well-documented that, since at least the early twentieth century, U.S. income inequality has varied inversely with union density. But moving beyond this aggregate relationship has proven difficult, in part because of the absence of micro-level data on union membership prior to 1973. We develop a new source of micro-data on union membership, opinion polls primarily from Gallup ($N \approx 980,000$), to look at the effects of unions on inequality from 1936 to the present. First, we present a new time series of household union membership from this period. Second, we use these data to show that, throughout this period, union density is inversely correlated with the relative skill of union members. When density was at its peak in the 1950s and 1960s, union members were relatively less-skilled, whereas today and in the pre-World War II period, union members are equally skilled as non-members. Third, we estimate union household income premiums over this same period, finding that despite large changes in union density and selection, the premium holds steady, at roughly 15–20 log points, over the past eighty years. Finally, we present a number of direct results that, across a variety of identifying assumptions, suggest unions have had a significant, equalizing effect on the income distribution over our long sample period.

WORKS IN PROGRESS

2021

“Opportunity Unraveled: Private Information and Missing Markets for Human Capital” (with Nathaniel Hendren)

Investing in college generally carries high returns, but also comes with considerable risk. Why, then, is college typically financed through loans when alternatives like equity contracts could help mitigate this risk? This paper argues that adverse selection can explain this absence of private-market alternatives to student loans. We formalize this hypothesis through a model of private information that characterizes when contracts to finance higher education can be profitably sold. We then use survey data on students’ privately expected post-college outcomes to estimate the frictions imposed by private information for a variety of hypothetical contracts that could help insure college-going risks. We find significant evidence that students hold private knowledge of their future persistence, employment, and earnings outcomes, even after conditioning on screenable public information: borrowers would need to pay a roughly fifty-percent markup over the actuarially fair price to prevent unraveling in most contract markets. Our results suggest these “missing markets” might lead to underinvestment in human capital and provide a rationale for public provision of student loans, income-share agreements, and other financial products for prospective college students.

“Equity and Incentives in Human Capital Investment: Evidence from a Randomized Experiment” (with Constantine Yannelis and Miguel Palacios)
Currently in the Field

In this study, we test for adverse selection, moral hazard, and liquidity effects in income-share agreements. Specifically, we conduct a large field experiment among ISA borrowers in Latin America, which randomly varies contract offers across two dimensions: (1) the share of income owed, and (2) a flat monthly payment. Comparing realized earnings, repayment, and baseline characteristics between those borrowers in each group who declined their respective offers identifies adverse selection because both groups of “non-compliers” faced different menus of options but ultimately chose the same pre-offer contract terms. At the same time, because these two treatment contracts offer the same earnings disincentive (income-share reduction) but different liquidity benefits (flat monthly payment), estimating their treatment effects relative to control borrowers allows us to separately identify moral hazard and liquidity effects.