

## RACHEL SCHUH

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### EDUCATION

Ph.D. in Economics, Stanford University,  
Expected Completion: June 2023

M.A. in Economics, Stanford University, 2020

B.A. in Economics and Mathematics, Carleton College, 2015 (Summa cum Laude)

### DISSERTATION COMMITTEE

Prof. Nicholas Bloom (Primary)  
Economics Department, Stanford University  
[nbloom@stanford.edu](mailto:nbloom@stanford.edu)

Prof. Peter J. Klenow  
Economics Department, Stanford University  
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Economics Department, Stanford University  
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Prof. Isaac Sorkin  
Economics Department, Stanford University  
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### RESEARCH AND TEACHING FIELDS

Primary field: Labor Economics  
Secondary fields: Macroeconomics

### RESEARCH PAPERS

*Miss-Allocation: The Value of Workplace Gender Composition and Occupational Segregation (Job Market Paper)*

This study analyzes whether and how much workers value the gender composition of their workplace and the aggregate consequences of these valuations for occupational segregation, tipping, and welfare. To measure these valuations, I conduct a survey with an embedded hypothetical job choice experiment. From my survey data, I estimate that women's valuations for gender composition are homophilic but concave and men value gender diversity. There is significant individual heterogeneity in these valuations: older workers are more likely to value gender homophily, suggesting that as men and women's labor market outcomes have converged over time, the value of gender homophily has declined. I then use the survey estimates of gender composition valuations in a structural model of occupation choice to assess their

consequences for gender sorting and welfare. I find that if workers did not value gender composition, women's employment in male-dominated jobs would increase substantially, but the estimated gender composition valuations are not large enough to create tipping points in segregation. Gender composition valuations also create a sorting externality: a welfare-maximizing social planner would reallocate workers across occupations to substantially decrease gender segregation, improving consumption-equivalent welfare by up to 2%.

*Management, Mergers, and Acquisitions* (with Nicholas Bloom, Raffaella Sadun, and John Van Reenen)

Are some management practices akin to a technology that can explain firm and national productivity? We collect original data on core management practices in two datasets: (a) the World Management Survey (WMS), which has over 11,000 firms in 34 countries for 2004–2014; and (b) the U.S. Census Management and Organizational Practices Survey (MOPS), which has over 40,000 plants for 2005–2015 in the U.S. Both surveys display a huge dispersion in the adoption of management practices. We detail a model with managerial capital in the production function, where firms are endowed with some initial heterogeneous managerial capability that changes endogenously over time in response to idiosyncratic shocks to the economic environment. Firms can grow organically by spawning new plants or increasing plant size or through the M&A market by acquiring (or disposing of) establishments. With costs of adjustment on all these dimensions, the model has rich dynamic properties. We characterize the equilibrium of such an economy and estimate key parameters from panel data, including the depreciation rate and adjustment costs of managerial capital (both are larger than for tangible non-managerial capital). The model makes several empirical predictions that are consistent with existing and new evidence from the WMS and MOPS: (a) better managed firms are more productive; (b) more competitive economies have better managed firms (partly from improved allocation: better managed firms grow larger); (c) the level of management rises and the dispersion of management falls as firms age; (d) better managed firms give birth (on net) to more plants and these “children” have better management; and (e) better managed firms do more M&A and improve the management (and productivity) of the plants they acquire. Building on our model, we show that differences in management practices account for about one-third of the TFP differences between countries and within countries across firms. Our model estimates suggest that shutting down that M&A market would reduce aggregate managerial quality by 30%.

## **Work in Progress**

*Wage Gaps and Directed Technical Change*

In this paper, I study the role of wage gaps caused by gender and unionization status in spurring labor-replacing technological innovation. It has been documented that innovation has been more prevalent in male-dominated than female-dominated professions, and that the prevalence of unionized jobs has declined at least in part due to automation. I propose a model of directed technical change to explain both phenomena, where occupations that earn higher wages are more likely to be innovated upon. Using data on the universe of U.S. patents matched with occupational task content, I show that occupations with a higher male share and with a larger share of unionized workers have overlapped more with new patents in the last 50 years, even within the manufacturing sector. To assess the causal effect of unionization on innovation, I utilize quasi-random variation in the timing of union elections to document that increased patent activity follows an increase in the unionization rate.

## **PUBLICATIONS**

KARAHAN, FATIH, MICHAELS, RYAN, PUGSLEY, BENJAMIN, SAHIN, AYSEGUL AND RACHEL SCHUH [2017], “Do Job-to-Job Transitions Drive Wage Fluctuations Over the Business Cycle?”, *American Economic Review Papers & Proceedings*, **107**(5), 353–57

## **TEACHING EXPERIENCE**

2021 Teaching assistant for Prof. Petra Persson, Stanford University, ECON 144 (Family and Society), Outstanding Teaching Assistant Award  
2020–2022 Teaching assistant for Profs. Charles Jones, Christopher Tonetti, and Sebastian Di Tella, Stanford Graduate School of Business, MGTECON 300 (Growth and Stabilization in the Global Economy)

## **RELEVANT POSITIONS**

2018– Special sworn status, U.S. Census Bureau  
2018–2019 Research assistant for Prof. Nicholas Bloom, Stanford University  
2015–2017 Research analyst, Federal Reserve Bank of New York

## **SCHOLARSHIPS, GRANTS, HONORS, AND AWARDS**

2020 Stanford Institute for Economic Policy Research George P. Shultz Dissertation Fund (\$6,000)  
2020 Stanford Graduate Research Opportunity Fund (\$5,000)  
2020 Finalist, NBER Fellowship on Gender in the Economy  
2019–2022 National Science Foundation Graduate Research Fellowship (\$102,000 and tuition support)  
2015 Phi Beta Kappa  
2015 Distinction on senior theses in Economics and Mathematics, Carleton College  
2015 Ada M. Harrison Prize in Economics, Carleton College (\$500)  
2014 Foreman Scholarship for Academic Excellence in Economics, Carleton College (\$10,000)

## **PROFESSIONAL ACTIVITIES**

Seminar presenter, 2022: Young Economist Symposium (Yale University); All-California Labor Economics Conference (poster session); Federal Statistical Research Data Center Annual Conference (Federal Reserve Bank of Kansas City)  
Participant of The NBER Entrepreneurship Research Bootcamp, 2020; Bonn Graduate School of Economics Summer School on the Macroeconomics of Inequality, 2019