#### BRIGHAM R. FRANDSEN

frandsen@byu.edu

#### **BRIGHAM YOUNG UNIVERSITY**

#### **OFFICE CONTACT INFORMATION**

2141 West View Building, BYU
Provo, UT 84602
801-422-4049
frandsen@byu.edu
https://economics.byu.edu/faculty-and-staff/frandsen

**EDUCATION** Massachusetts Institute of Technology, 2010

Ph.D. Economics

Brigham Young University, 2004

B.S. Physics and Economics (Summa cum Laude and University Honors)

CITIZENSHIP USA DATE OF BIRTH August 1980

LANGUAGES English (native), Hungarian (fluent)

FIELDS Primary Fields: Labor Economics, Econometrics

Secondary Fields: Health Economics, Public Finance

RELEVANT	Professor, Department of Economics, BYU	2023-present
<b>POSITIONS</b>	Associate Professor, Department of Economics, BYU	2018-2023
	Visiting Associate Professor, Department of Economics, MIT	2018-2019
	Assistant Professor, Department of Economics, BYU	2012-2018
	Robert Wood Johnson Scholar in Health Policy Research, Harvard	2010-2012
	Management Consultant, McKinsey & Company	2004-2006

FELLOWSHIPS, NSF Graduate Research Fellowship

HONORS, AND NSF Doctoral Dissertation Research Improvement Grant (\$15,000), 2009

AWARDS MIT Economics Department Graduate Fellowship, 2006-2008

Best Graduate Teaching Assistant, MIT Economics Department, 2009,2010

PUBLICATIONS: "Organizational Economics and the US Healthcare System" (with David

Chan, Michael Powell, and Jim Rebitzer), in *The Economics of U.S. Healthcare: Competition, Innovation, Regulation, and Organizations*,

May 2023

"Judging Judge Fixed Effects" (with Lars Lefgren and Emily Leslie),

American Economic Review 113(1) January 2023

## PUBLICATIONS (CONTINUED)

"Discussion on 'Instrumental variable estimation of the causal hazard ratio," *Biometrics*, 2022

"Machine Labor" (with Joshua Angrist), *Journal of Labor Economics* Vol. 40 (S1) April 2022

"The Surprising Impacts of Unionization: Evidence from Matched Employer-Employee Data," *Journal of Labor Economics* Vol. 39 (4) October 2021

"Partial Identification of the Distribution of Treatment Effects, with an Application to the Knowledge is Power Program (KIPP)" (with Lars Lefgren), *Quantitative Economics*, volume 12 (1), January 2021

"Fragmented Division of Labor and Healthcare Costs: Evidence from Moves Across Regions" (with Leila Agha and James Rebitzer), *Journal of Public Economics*, Vol. 169, p. 144-159, January 2019

"Sticking Points: Common Agency Problems and Contracting in the U.S. Healthcare System" (with Michael Powell and James Rebitzer) *RAND Journal of Economics*, Vol. 50, No. 2, Summer 2019 pp. 251–285

"Testing Censoring Point Independence," *Journal of Business & Economic Statistics*, 2019 37:3, 496-505

"Testing Rank Similarity," with Lars Lefgren, Review of Economics and Statistics, 2018 100:1, 86-91

"Public Employee Pensions and Collective Bargaining Rights: Evidence from State and Local Government Finances," accepted, Journal of Law, Economics & Policy"

"Party Bias in Union Representation Elections: Testing for Manipulation in the Regression Discontinuity Design when the Running Variable is Discrete," *Advances in Econometrics* vol. 38, 2017

"Treatment Effects with Censoring and Endogeneity," *Journal of the American Statistical Association, volume 110, issue 512, 2015* 

"The Effects of Collective Bargaining Rights on Public Employee Compensation: Evidence from Teachers, Fire Fighters, and Police," Industrial and Labor Relations Review 69(1) January 2016

"Impacts of Unionization on Quality and Productivity: Regression Discontinuity Evidence from Nursing Homes," *Industrial & Labor Relations Review.* 68(4): 771-806 August 2015 (with Aaron Sojourner, Robert Town, David Grabowski, and Michelle Chen)

"Structuring Incentives within Organizations: The Case of Accountable Care Organizations," *The Journal of Law, Economics, and Organizations* 

#### 31 August 2015, with James Rebitzer

"Care Fragmentation, Quality, and Healthcare Spending among Chronically III, Commercially Insured Patients," *American Journal of Managed Care*, 21(5):355-362 May 2015 (with Ashish Jha, Karen Joynt, and Jim Rebitzer)

"Randomization Inference in the Regression Discontinuity Design: An Application to Party Advantages in the U.S. Senate," *The Journal of Causal Inference*, 3(1):1-24 March 2015, (with Rocio Titiunik and Matias Cattaneo)

"Quantile Treatment Effects in the Regression Discontinuity Design," *Journal of Econometrics* 168(2) June 2012, with Markus Froelich and Blaise Melly

"Did Vietnam Veterans Get Sicker in the 1990s? The Complicated Effects of Military Service on Self-Reported Health," *Journal of Public Economics* 94(11-12) December 2010, with Joshua Angrist and Stacey Chen

"Some Variations on Standard Income Measurement Error Models," *Journal of Income Distribution*, 2004, with James B. McDonald

"Acceleration of Free Electrons in a Symmetric Evanescent Wave," *Laser Physics*, 2006, with Justin B. Peatross and Scott A. Glasgow

### RESEARCH PAPERS:

# "Simultaneous Confidence Intervals for Partially Identified Parameters" (revise and resubmit at *Journal of Business & Economic Statistics*)

This article extends the Manksi and Imbens (2004) and Stoye (2009) confidence interval for a partially identified scalar parameter to a vector-valued parameter. The proposed method produces uniformly valid simultaneous confidence intervals for each dimension, or, equivalently, a rectangular confidence region that covers points in the identified set with a specified probability. The method applies when asymptotically normal estimates of upper and lower bounds for each dimension are available. The intervals are computationally simple and fast relative to methods based on test inversion or bootstrapped calibration, and do not suffer from the conservativity of projection-based approaches.

#### "Common Agent or Double Agent? Pharmacy Benefit Managers in the Prescription Drug Market," with Rena Conti, Mike Powell, and Jim Rebitzer

Pharmacy benefit managers (PBMs) play a central role in the U.S. market for prescription drugs, but are poorly understood and controversial. PBMs act as market intermediaries who operate drug formularies on behalf of payers and their activities are generally understood to produce lower prices and savings for their clients. Here we model PBMs as a common agent across payers and receive payments from branded 'on patent' drug makers for helping them sell their products to these consumers. The latter payments are called rebates and are calculated per unit sold and as a percentage of the

drug's list price set by the drug maker. Rebates are a central focus of controversy; observers question whether rebates turn these common agents into 'double agents', furthering their own for profit interests at the expense of their payer clients and contributing to inflated branded drug prices. Our model is useful for identifying conditions under which PBMs greatly enhance market efficiency. The model also identifies conditions under which PBMs threaten market efficiency. For example, we find that when PBMs are highly concentrated, these efficiency gains accrue to PBMs rather than consumers or drug makers. Our model offers a framework for understanding current market organization and evaluating proposed market reforms.

## "Examiner and Judge Designs in Economics: A Practitioner's Guide" (with Eric Chyn and Emily Leslie)

This article provides empirical researchers with an introduction and guide to research designs that are based on variation in judge and examiner tendencies to administer treatments or other interventions. We review the basic theory behind the research design, discuss tradeoffs associated with choices researchers must make for estimation, and describe several tests related to the validity of the approach. We discuss concepts and issues using examples drawn from the emerging empirical literature applying this research design.

#### PROFESSIONAL Referee:

#### **ACTIVITIES**

American Economic Journal: Applied Economics

American Economic Journal: Policy

American Economic Review

Biometrics

**Biostatistics** 

Contemporary Economic Policy

Econometric Theory

Econometrica

Economic Inquiry

Economic Journal

Economics of Education Review

**Empirical Economics** 

Health Affairs

Industrial and Labor Relations Review

Industrial Relations

International Journal of Health Economics and Management

Journal of Applied Econometrics

Journal of Business & Economic Statistics

Journal of Econometrics

Journal of Experimental Political Science

Journal of Health Economics

Journal of Human Resources

Journal of Labor Economics

Journal of Political Economy

Journal of Public Economics

Journal of the American Statistical Association

Journal of the European Economic Association

Labour

MIT Press

National Science Foundation

Oxford Bulletin of Economics and Statistics

Oxford Economic Papers
Quarterly Journal of Economics
Quarterly Journal of Political Science
Review of Economics and Statistics
Social Science Quarterly

#### **Presentations:**

resentations:	
SKILS Labor Conference, Parpan, Switzerland	January 2024
University of Calgary Economics Seminar, Calgary, Alberta, Canada	October 2022
International Association of Applied Econometrics, London	June 2022
California Econometrics Conference, Stanford	May 2022
ASSA Annual Meeting	January 2022
Federal Trade Commission Bureau of Economics Seminar	October 2021
Rice University Health Economics Guest Lecture	October 2021
American Society of Health Economists (ASHEcon) Annual Conference	June 2021
Congressional Budget Office Health Analysis Division Seminar	June 2021
University of Massachusetts Amherst Applied Micro Seminar, Amherst, MA	March 2021
BU/Harvard/MIT Health Economics Seminar, Cambridge, MA	February 2021
JOLE Conference in Honor of Alan Krueger	October 2020
Duke-Northwestern Causal Inference Workshop, Durham, NC	August 2019
Conference in honor of Whitney Newey, MIT, Cambridge, MA	May 2019
Iowa Econometrics Conference, University of Iowa	May 2019
MIT Applied Micro Seminar, Cambridge, MA	February 2019
Brown University Economics Seminar, Providence, RI	January 2019
CREST Econometrics Seminar, Paris, France	December 2018
	December 2018
CM Statistics, Pisa, Italy	
Boston University Econometrics Seminar, Boston, MA	November 2018
Duke University Econometrics Seminar, Durham, North Carolina	October 2018
Boston College Econometrics Seminar, Boston, MA	September 2018
Western Economic Association Summer Meetings, Vancouver	June 2018
Southern Utah University Economics Seminar, Cedar City, UT	March 2018
University of Michigan Econometrics Seminar, Ann Arbor, Michigan	September 2017
Institute for Economic and Social Research, Jinan University, Guangzhou,	August 2017
China	
Brookings Institution Municipal Finance Conference, Washington, D.C.	July 2017
Society of Labor Economists Annual Meeting, San Diego, CA	June 2017
University of Utah Entrepreneurship and Strategy Seminar, Salt Lake City,	April 2017
Utah	1
Syracuse University Economics Seminar, Syracuse, New York	April 2017
Public Policy Conference on Solving the Public Pension Crisis, GMU Scalia	December 2016
Law School	December 2010
UC Riverside Economics Seminar, Riverside, California	November 2016
APPAM	November 2016
	October 2016
California Econometrics Conference, Provo, Utah	
Research Roundtable on Solving the Public Pension Crisis, GMU Scalia Law School	September 2016
University of Utah Economics Seminar, Salt Lake City, Utah	September 2016
Advances in Econometrics Conference, University of Michigan	May 2016
Federal Reserve NYC Microeconomics Seminar, NYC	May 2016
UC Irvine Econometrics Seminar, Irvine	May 2016
UCLA Econometrics Seminar, Los Angeles	April 2016
Columbia University Econometrics Seminar, NYC	October 2015
California Econometrics Conference, USC	September 2015
Econometric Society World Congress, Montreal	August 2015

#### Brigham R. Frandsen May 2023 -- Page 6

Western Economic Association Summer Meetings, Honolulu	June 2015
Harvard-MIT Econometrics Seminar, Cambridge	May 2015
University of Minnesota Carlson School of Management Seminar, Minneapolis	May 2015
UC Davis Econometrics Seminar, Davis	May 2015
Econometric Society North American Winter Meetings, Boston	January 2015
AEA Annual Meetings, Boston	January 2015
California Econometrics Conference, Stanford University	September 2014
Econometric Society North American Summer Meetings, University of	June 2014
Minnesota	
Econometric Society North American Summer Meetings, University of	June 2013
Southern California	N. 2012
Conference on Healthcare Markets, Kellogg School of Management, Evanston	May 2013
AEA Annual Meetings, San Diego	January 2013
Haas-Sloan Conference on the Law and Economics of Organizations, UC Berkeley	December 2012
Econometric Society North American Summer Meetings, Northwestern	June 2012
University	
American Society of Health Economists Annual Meeting, University of	June 2012
Minnesota	
Northwestern Searle Center Conference on Government Unions in the United States, Chicago	October 2011
Econometric Society North American Summer Meetings, Washington	June 2011
University, St. Louis	
AEA Annual Meetings, Denver	January 2011
Census Research Data Center Annual Conference, University of Maryland	November 2010
NBER Labor Studies Program Meeting, Cambridge, MA	October 2010
Econometric Society World Congress, Shanghai	August 2010
Society of Labor Economists Annual Meetings, University College London	June 2010
Econometric Society North American Summer Meetings, Boston University	June 2009
Society of Labor Economists Annual Meetings, Cambridge, MA	May 2009
Census Research Data Center Annual Conference, Duke University	October 2008