## R. Andrew Butters

August 2024

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## Primary employment

2015-present Kelley School of Business

Indiana University

Associate Professor of Business Economics and Public Policy

Blanche "Peg" Philpott Faculty Fellow

2008-2010 Federal Reserve Bank of Chicago

Associate Economist

## Other positions

2023-present Institute for Environmental and Social Sustainability,

**Kelley School of Business** 

Research Fellow

2015-present Institute for Business Analytics, Kelley School of Business

Affiliate

### Education

2010-2015 Kellogg School of Management

Northwestern University

Ph.D. in Managerial Economics and Strategy, 2015

2004-2008 University of North Carolina, Chapel Hill

B.A. with Highest Honors in Economics, 2008

2006-2007 London School of Economics and Political Science

General Course, Mathematics

### **Publications**

- "Why Do Retail Prices Fall During Seasonal Demand Peaks?" (w/ Daniel W. Sacks and Boyoung Seo) Forthcoming at RAND Journal of Economics. [SSRN]
- "Competitive Balance in Professional Sports: A Multi-Dimensional Perspective," (w/ Levi Bognar, Scott A. Brave, and Kevin Roberts), *Sports Economics Review*, 2024, Vol. 6, 100034.
- "Industry Structure, Segmentation, and Quality Competition in the U.S. Hotel Industry," (w/ Thomas N. Hubbard), *Journal of Industrial Economics*, 2023, Vol. 71 (2), pp. 491-537. [SSRN][DOI][NBER]
- "A Practitioner's Guide and MATLAB Toolbox for Mixed Frequency State Space Models," (w/ Scott A. Brave and David Kelley), *Journal of Statistical Software*, 2022, Vol. 104 (10), pp. 1-40. [SSRN][DOI]
- "The Perils of Working with Big Data and a SMALL Framework You Can Use to Recognize Them," (w/ Scott A. Brave and Michael Fogarty), *Business Horizons*, 2022, Vol. 65, pp. 481-492. [SSRN][DOI]
- "How Do National Firms Respond to Local Cost Shocks?" (w/ Daniel W. Sacks and Boyoung Seo), *American Economic Review*, 2022, Vol. 112 (5), pp. 1737-1772. [SSRN]
- "Forecasting Unemployment Insurance Claims in Realtime with Google Trends," (w/ Daniel Aaronson, Scott A. Brave, Michael Fogarty, Daniel W. Sacks and Boyoung Seo), *International Journal of Forecasting*, 2022, Vol. 38 (2), pp. 567-581. [DOI]
- "Demand Volatility, Adjustment Costs, and Productivity: An Examination of Capacity Utilization in Hotels and Airlines," *American Economic Journal: Microeconomics* [lead article], 2020, Vol. 12 (4), pp. 1-44. [SSRN][DOI]
- "The Extent of the Market and Integration Through Factor Markets: Evidence from Wholesale Electricity," (w/ Daniel F. Spulber), *Economic Inquiry*, 2020, Vol. 58 (3), pp. 1076-1108. [SSRN][DOI]
- "Using the Eye of the Storm to Predict the Wave of Covid-19 UI Claims," (w/ Daniel Aaronson, Scott A. Brave, Daniel W. Sacks, and Boyoung Seo), *Covid Economics:* Vetted and Real-Time Papers, 2020, Issue 9, pp. 59-76. [SSRN][DOI]
- "On Demand Uncertainty in the Newsvendor Model," *Economics Letters*, 2019, Vol. 185, 108746. [SSRN][DOI]
- "Forecasting Economic Activity with Mixed Frequency Bayesian VARs," (w/ Scott A. Brave and Alejandro Justiniano) *International Journal of Forecasting*, 2019, Vol. 35 (4), pp. 1692-1707. [SSRN][DOI]
- "Uncovering the Sources of Team Synergy: Player Complementarities and the Production of Wins," (w/ Scott A. Brave and Kevin Roberts) *Journal of Sports Analytics*, 2019, Vol. 5 (4), pp. 247-279. [DOI]

"Diagnosing the Financial System: Financial Conditions and Financial Stress," (w/ Scott A. Brave) *International Journal of Central Banking*, June 2012, Vol. 8 (2), pp. 191-239. [DOI]

### Working papers

- "Soaking Up the Sun: Battery Investment, Renewable Energy, and Market Equilibrium," (w/ Jackson Dorsey and Gautam Gowrisankaran) Revisions Requested at *Econometrica*.

  [SSRN][NBER]
- "Racial differences in prices paid" (w/ Daniel W. Sacks and Boyoung Seo)
- "Charging into the Future: Intermittency and the Role of Energy Storage in the Transition to a Renewable Electric Grid" (w/ Thomas S. Palley, Asa B. Palley, and Oğuz Çetiz)
  [SSRN]
- "How Long is the Long Run? Evidence of Market Integration in Wholesale Electricity"

### Other publications

- "Looking down the road with ALEX: Forecasting U.S. GDP," (w/ Scott A. Brave and Michael Fogarty), *Chicago Fed Letter*, 2020, October 2020, No. 447.
- "The Stay-at-Home Labor Market: Google Searches, Unemployment Insurance, and Public Health," (w/ Daniel Aaronson, Scott A. Brave and Michael Fogarty), *Chicago Fed Letter*, May 2020, No. 436.
- "A 'Big Data' Chicago Fed National Activity Index," (w/ Scott A. Brave and David Kelley) Economic Perspectives, 2019, Vol. 43 (1), pp. 1-38.
- "Nowcasting Using the Chicago Fed National Activity Index," (w/ Scott A. Brave) *Economic Perspectives*, 2014, Vol. 38 (1), pp. 19-37. [SSRN]
- "Estimating the Trend Rate of Economic Growth Using the CFNAI," (w/ Scott A. Brave) Chicago Fed Letter, June 2013, No. 311.
- "Detecting Early Signs of Financial Instability," (w/ Scott A. Brave) *Chicago Fed Letter*, December 2012, No. 305.
- "Monitoring Financial Stability: A Financial Conditions Index Approach," (w/ Scott A. Brave) *Economic Perspectives*, 2011, Vol. 35 (1), pp. 22-43. [SSRN]
- "Chicago Fed National Activity Index Turns Ten—Analyzing Its First Decade of Performance," (w/ Scott A. Brave) *Chicago Fed Letter*, April 2010, No. 273.
- "What is the Relationship between Large Deficits and Inflation in Industrialized Countries," (w/ Marco Bassetto) *Economic Perspectives*, 2010, Vol. 34 (2), pp. 83-100. [SSRN]
- "Preannounced Tax Cuts and Their Influence on the 2001 Recession," (w/ Marcelo Veracierto) *Economic Perspectives*, 2009, Vol. 33 (3), pp. 17-32. [SSRN]

### Selected works in progress

"Estimating demand with a lot of data"

"Dynamic pricing, capacity constraints, price discrimination" (w/ Thomas N. Hubbard)

### Research interests

Industrial Organization

Applied Econometrics

### Honors and awards

Blanche "Peg" Philpott Faculty Fellowship, (2024--)

Research Accelerator Fellow, Kelley School of Business (2024)

Faculty Distinguished Teaching Award, Doctoral Student Association, Kelley School of Business (2024)

Faculty Exceptional Inspiration and Guidance Award Nominee, Doctoral Student Association, Kelley School of Business (2024)

Harry C. Sauvain Undergraduate Teaching Award Nominee (2024)

Harry C. Sauvain Undergraduate Teaching Award Nominee (2023)

Kelley Research Award, Kelley School of Business, Indiana University (2022)

Harry C. Sauvain Undergraduate Teaching Award Nominee (2022)

University of Florida Public Utility Research Center Prize, International Industrial Organization Conference (2021)

Harry C. Sauvain Undergraduate Teaching Award Nominee (2021)

Kelley School of Business, Indiana University Database Matching Grant-\$26,000 (2019)

Indiana University OVPR Research Equipment Fund-\$15,784 (2019)

Overseas Conference Grant (2017, 2018)

Indiana University Trustee Teaching Award (2017)

Best Rising Star Paper Prize, International Industrial Organization Conference (2015)

Kellogg School of Management Graduate Fellowship (2010-2015)

Best Honors Thesis, Economics, University of North Carolina (2008)

Summer Undergraduate Research Fellowship, University of North Carolina (2007)

Omicron Delta Epsilon Economics Honor Society (2006)

# Invited conference presentations

93<sup>rd</sup> Southern Economic Association Annual Meeting (November 2023), "Estimating Demand with a lot of Data"

21st Annual International Industrial Organization Conference (April 2023), discussant

- 16th International Conference on Computational and Financial Econometrics (December 2022), "Multi-Sectoral Business Cycle Accounting in a Data-Rich Environment"
- 92<sup>nd</sup> Southern Economic Association Annual Meeting (November 2022), "Benchmarking Big Data with Mixed-Frequency Multivariate Time Series Models"
- 42<sup>nd</sup> International Symposium on Forecasting (July 2022), "Benchmarking Big Data with Mixed-Frequency Multivariate Time Series Models"
- Society for Economic Dynamics Annual Meeting (June 2022), "Soaking Up the Sun: Battery Investment, Renewable Energy, and Market Equilibrium"
- 48<sup>th</sup> European Association for Research in Industrial Economics Annual Conference (August 2021), "Soaking Up the Sun: Battery Investment, Renewable Energy, and Market Equilibrium"
- 19<sup>th</sup> Annual International Industrial Organization Conference (May 2021), "Soaking Up the Sun: Battery Investment, Renewable Energy, and Market Equilibrium"
- 85th Midwest Economic Association Annual Meeting (March 2021), "Soaking Up the Sun: Battery Investment, Renewable Energy, and Market Equilibrium"
- 14<sup>th</sup> International Conference on Computational and Financial Econometrics (December 2020), "This Time is Different: Disentangling the Channels of the Covid-19 Recession"
- 90th Southern Economic Association Annual Meeting (November 2020), "Forecasting the Realtime Demand for Claiming Unemployment Insurance with Google Trends"
- 26<sup>th</sup> International Institute of Forecasters Workshop (July 2020), "Pandemics, Hurricanes, and (Google) Trends, UI: Forecasting Unemployment Insurance in Covid-19"
- 18th Annual International Industrial Organization Conference (April 2020)\*, "Industry Structure, Segmentation, and Competition in the U.S. Hotel Industry"
- 84<sup>th</sup> Midwest Economic Association Annual Meeting (March 2020)\*, "Multi-Sectoral Business Cycle Accounting in a Data-Rich Environment"
- 13<sup>th</sup> International Conference on Computational and Financial Econometrics (December 2019), "Multi-Sectoral Business Cycle Accounting in a Data-Rich Environment"
- 29th Annual Meeting of the Midwest Econometrics Group (October 2019), "Multi-Sectoral Business Cycle Accounting in a Data-Rich Environment"
- 46th European Association for Research in Industrial Economics Annual Conference (September 2019), "Why Don't Retail Prices Vary Seasonally with Demand?"
- 17th Annual International Industrial Organization Conference (April 2019), "Why Don't Retail Prices Vary Seasonally with Demand?"
- 88th Southern Economic Association Annual Meeting (November 2018), "The Extent of the Market and Market Integration Through Factor Markets: Evidence from Wholesale Electricity Markets"
- 45<sup>th</sup> European Association for Research in Industrial Economics Annual Conference (September 2018), "The Extent of the Market and Market Integration Through Factor Markets: Evidence from Wholesale Electricity Markets"
- 16<sup>th</sup> Annual International Industrial Organization Conference (April 2018), "The Extent of the Market and Market Integration Through Factor Markets: Evidence from Wholesale Electricity Markets"

- 82<sup>nd</sup> Midwest Economic Association Annual Meeting (April 2018), "The Extent of the Market and Market Integration Through Factor Markets: Evidence from Wholesale Electricity Markets"
- 87th Southern Economic Association Annual Meeting (November 2017), "On the Network Origins of Approximate Factor Models"
- 27th Annual Meeting of the Midwest Econometrics Group (October 2017), "On the Network Origins of Approximate Factor Models"
- 44<sup>th</sup> European Association for Research in Industrial Economics Annual Conference (September 2017), "Demand Volatility, Adjustment Costs, and Productivity: An Examination of Capacity Utilization in Hotels and Airlines"
- NBER Summer Institute Macroeconomics and Productivity Workshop (July 2017), participant
- 81<sup>st</sup> Midwest Economic Association Annual Meeting (April 2017), "Demand Volatility and Vertical Differentiation: Evidence from the Hotel Industry"
- 86th Southern Economic Association Annual Meeting (November 2016), "How Long is the Long Run? Evidence of Market Integration in the Western U.S. Wholesale Electricity Market"
- NBER Summer Institute Macroeconomics and Productivity Workshop (July 2016), participant
- 14<sup>th</sup> Annual International Industrial Organization Conference (April 2016), "Demand Volatility and Vertical Differentiation: Evidence from the Hotel Industry"
- 80<sup>th</sup> Midwest Economic Association Annual Meeting (April 2016), "How Long is the Long Run: Evidence of Market Integration in the Western U.S. Wholesale Electricity Market"
- 85th Southern Economic Association Annual Meeting (November 2015), "Demand Volatility, Adjustment Costs, Temporal Aggregation and Productivity"
- NBER Summer Institute Macroeconomics and Productivity Workshop (July 2015), participant
- 13th Annual International Industrial Organization Conference: Rising Star Sessions (April 2015), "Demand Volatility, Adjustment Costs, Temporal Aggregation and Productivity"
- 78th Midwest Economics Association Annual Meeting (April 2014) "What Drives Market Integration? Evidence from the Electric Power Market"
- 7th International Conference on Computational and Financial Econometrics (December 2013), "Nowcasting Using the Chicago Fed National Activity Index"
- Searle Center Research Roundtable on Innovation and Technology Standards (October 2013), participant
- Energy Institute Summer Camp (June 2013), "Power Capacity, Natural Gas, and Restructuring: A Structural Model of the Electricity Industry"
- 11th Annual International Industrial Organization Conference: Rising Star Sessions (May 2013), "The Evolution of the Market for Wholesale Power"
- NBER Entrepreneurship Summer Boot Camp (July 2012), participant
- \*Canceled due to Covid-19 pandemic

# Seminar presentations

2024: University of California, San Diego (Rady)

- 2023: U.S. Census Bureau, Texas University at Austin (McCombs)
- 2022: Penn State University
- 2020: University of Iowa (Tippie)
- 2019: Federal Reserve Bank of Chicago
- 2017: Federal Trade Commission
- 2016: Federal Reserve Bank of Chicago
- 2015: Northwestern University, University of Georgia (Terry), Microsoft, Indiana University (Kelley), Bureau of Economic Analysis
- 2014: Northwestern University (Kellogg), Federal Reserve Bank of Chicago
- 2013: Northwestern University (Kellogg), Federal Reserve Bank of Chicago

## **Teaching**

#### Interests

Econometrics, Industrial Organization, Energy Economics, Strategy, Microeconomics

## Experience

2015-present Kelley School of Business, Indiana University

Econometric Methods in Business I (PhD required)
Predictive Analytics for Business Strategy (BA elective)

Business Econometrics (BA elective)

Energy Economics and Environmental Policy (BA elective)

### Effectiveness

See "Honors and Awards" for teaching awards.

Mean outstanding instructor rating of 6.3 on a 7-point scale in all sections of all courses.

### Advising

Brian Andersen (2016, Undergraduate)

Megan Burge (2017, Undergraduate)

Kyu Ree Kim (2023, PhD examination committee member)

Moyan Li (2024, PhD committee member)

Joanna Mingxuan Li (2024, PhD committee member)

Chao Wang (2024, PhD committee member)

Yanhao Wang (2024, PhD committee member)

Hong Lee (current, PhD)

Tom Palley (current, PhD)

Ningning Guo (current, PhD)

Raushan Baizakova (current, PhD)

Madeline Yozwiak (current, PhD)

Huiqi Zhuang (current, PhD)

### Professional activities

#### Refereeing

American Economic Journal: Economic Policy, American Economic Journal: Microeconomics, American Economic Review, Applied Economics, Econometrica, Econometrics, Economic Journal, Economic Modelling, Financial Innovation, Geneva Risk and Insurance Review, International Journal of Central Banking, International Journal of Economics and Management, International Journal of Forecasting, International Journal of Industrial Organization, Israel Science Foundation, Journal of Applied Econometrics, Journal of Economic Behavior and Organization, Journal of the Association of Environmental and Resource Economists, Journal of Economics, Journal of Public Economics and Management Strategy, Journal of Industrial Economics, Journal of Public Economics, Management Science, National Science Foundation Economics Program, Nature Human Behavior, North American Journal of Economics and Finance, Omega, Oxford Bulletin of Economics and Statistics, Rand Journal of Economics, Review of Economic Studies, Review of Economics and Statistics, Social Sciences

#### Administrative Service

Search Committee Member, Kelley School of Business (2024)

Doctoral Policy Committee, Kelley School of Business (2023--)

Search Committee Chair, Kelley School of Business (2023)

Search Committee Member, Kelley School of Business (2022)

Jellison Living Learning Center Fellow (2022--)

Business Outlook Panel, Kelley School of Business (2020--)

Faculty Judge, FED Challenge (2020)

Teaching and Service Excellence Committee, Kelley School of Business (2019)

Microeconomics Seminar Coordinator, Kelley School of Business (2019--2022)

Senior Search Committee Member, Kelley School of Business (2018)

Founding Faculty and Judge, Kenway Case Competition (2016-2022)

Founding Faculty Sponsor, Envision Capital Management Group (2017--)

BEPP Club Lecture Series (2017, 2018, 2020)

Indiana University Course Development Institute (2017)

Junior Search Committee Member, Kelley School of Business (2016)

Faculty Judge, Economic Consulting Case Competition (EC3), Keystone (2016)

### Public commentary

"International outlook for 2024," (w/ Jennifer Lynn Rice) *Indiana Business Review*, Winter 2023.

"Initial UI Claims and Google Trends in the Post-Pandemic Era," (w/ Scott Brave and Levi Bognar) *Chicago Fed Insights*, June 1, 2023.

"International outlook for 2023," (w/ Jennifer Lynn Rice) *Indiana Business Review*, Winter 2022, 97(4).

- "Tracking the economy with the Brave-Butters-Kelley Indexes," *Indiana Business Review*, Fall 2022, 97(3).
- "What does the economy need now? 4 suggestions for Biden's coronavirus relief bill," *The Conversation*, January 22, 2021.
- "How Biden might stimulate the sputtering US economy: 4 questions answered," *The Conversation*, November 20, 2020.
- "Another look at the correlation between Google Trends and initial unemployment insurance claims," (w/ Scott Brave and Michael Fogarty), *Chicago Fed Insights*, July 7, 2020.
- "A closer look at the correlation between Google Trends and initial unemployment insurance claims," (w/ Scott Brave and Michael Fogarty), *Chicago Fed Insights*, June 17, 2020.
- "Tracking the origins of the select-service hotel," (w/ Thomas N. Hubbard) *Hotel News Now*, February 14, 2020.

### Selected Media Coverage

- "It's your business: Housing costs, wage growth and more about Bloomington's economy," *The Herald Times*, July 8, 2024.
- "Indiana secures nearly \$15 billion in tech-related projects," State Affairs, May 2, 2024.
- "This key US inflation gauge fell last month by the most since 2020," CNN Business, November 15, 2023.
- "High interest rates, inflation, and an auto strike could have large impacts on the economy," *Noon Edition*, September 19, 2023.
- "Indianapolis food pantry struggles to meet need as prices rise," WISH-TV, June 8, 2023.
- "Cook Medical to reduce global workforce by 4% in strategic realignment," *The Herald Times*, May 15, 2023
- "Economists say increasing immigration will reduce inflation," Forbes, May 4, 2023.
- "How Immigrants Tame Inflation," Wall Street Journal, May 1, 2023.
- "IU prof examines impact of low unemployment," Inside Indiana Business, February 9, 2023.
- "Wage increases haven't kept up with inflation," IndyStar, December 7, 2022.
- "The business landscape has seen many changes in 2022," Noon Edition, December 2, 2022.
- "2023 business outlook forecast reports uncertainty in economics," WFIU, November 11, 2022.
- "Recession remains possible in 2023, IU economists say," Fox59, November 10, 2022.
- "As inflation soars, economist remains optimistic," WFIU, November 1, 2022.
- "With inflation continuing to grow, will a recession follow?" Wave3, October 14, 2022.
- "Bureau of Labor Statistics reports less job openings across U.S.," ABC57, October 5, 2022.
- "Small and mid-sized dealers hope car prices come down as sales decrease," WTIU, September 9, 2022.
- "No end in sight: Tight labor market will likely persist for years," *South Bend Tribune*, September 4, 2022.
- "Economists, organizations react to expected student loan forgiveness," WRTV, August 23, 2022.
- "Inflation is top of mind for everyone...," WTHI, August 5, 2022.

- "Families feel pinch of back-to-school spending," NPR-Indianapolis, August 1, 2022.
- "Jobs in healthcare, technology, advanced manufacturing recession-proof," CBS-WANE, July 7, 2022.
- "Indiana state fair hosts job fair Wednesday," WTHR, July 6, 2022.
- "How does raising the interest rate help inflation?" CBS-WYMT, June 17, 2022.
- "Tight labor market, rising costs and possible recession," South Bend Tribune, June 16, 2022.
- "Inflation straining Hoosier wallets," Fox59, June 16, 2022.
- "How interest rate hikes impact Hoosiers," Fox59, June 15, 2022.
- "Indiana could be seeing plateauing labor force participation," IndyStar, June 15, 2022.
- "Financial expert gives tips to prepare for looming recession," WISHTV, May 10, 2022.
- "Indiana housing nonprofits prepare for additional demand following interest rate hike," Fox59, May 10, 2022.
- "Inflation, Controlled Burn Remediation, Sidewalk Construction, WTIU Newsdesk, November 19, 2021.
- "Indiana workers are quitting their jobs in record numbers," IndyStar, October 29, 2021.
- "Some fall attractions see challenges in hiring seasonal workers," Fox59, September 13, 2021.
- "Is lower workforce participation to blame for business staffing challenges," *Noon Edition*, May 21, 2021.
- "What you need to know about Biden's \$1.9 trillion stimulus plan," *The Herald-Times*, January 20, 2021.
- "Congress debates Covid-19 relief as Hoosiers struggle," *IndyStar*, December 14, 2020.
- "What can Biden do to quickly stimulate the sputtering U.S. economy?" *Fast Company*, November 27, 2020.
- "First-time unemployment claims continue trend of creeping back up," *IndyStar*, November 6, 2020.
- "Inside the 20,000 member trading community started by 2 IU students" *Business Insider*, August 17, 2020.
- "How Covid-19 is affecting the local economy," Noon Edition, April 16, 2020.
- "Layoff, job losses—Covid 19 impact expected to play out over months," NPR Alabama, March 26, 2020.
- "Area's above-average gas prices hard to explain," The Herald-Times, November 18, 2018.
- "Chasing the 'holy grail' of baseball performance," The Atlantic, July 17, 2018.
- "How to build team chemistry?", Wall Street Journal, July 12, 2017.

### Other

Volunteer, Junior Achievement (Chicago)