Leland D. Crane

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Employment

Principal Economist, Federal Reserve Board of Governors, Industrial Output Section, Division of Research and Statistics, 2021–Present

Senior Economist, Federal Reserve Board of Governors, Industrial Output Section, Division of Research and Statistics, 2017–2021

Economist, Federal Reserve Board of Governors, Industrial Output Section, Division of Research and Statistics, 2014–2017

Outside Researcher, U.S. Census Bureau, Fall 2015–Present

Economist, U.S. Census Bureau, Fall 2009–Summer 2014

Outside Researcher, Bureau of Labor Statistics, Summer 2012–Summer 2015

Education

Ph.D. Economics, University of Maryland, College Park, August 2014

B.A. Economics (with high honors), Oberlin College, June 2005

Recent Working Papers

"Total Recall? Evaluating the Macroeconomic Knowledge of Large Language Models", joint with Paul Soto and Akhil Karra, *Working Paper (2025)*

"Manufacturing Sentiment: Forecasting Industrial Production with Text Analysis", joint with Tomaz Cajner, Christopher Kurz, Norman Morin, and Paul Soto, *Submitted*

"Tracking Real Time Layoffs with SEC Filings: A Preliminary Investigation", joint with Emily Green, Molly Harnish, Will McClennan, Paul E. Soto, Betsy Vrankovich, and Jacob Williams, *Working Paper (2024)*

Published or Forthcoming Papers

"Cyclical Labor Market Sorting", joint with Henry R. Hyatt and Seth Murray, *Journal of Econometrics (2023), special issue on AKM*

"Business Exit During the COVID-19 Pandemic: Non-Traditional Measures in Historical Context" joint with Ryan A. Decker, Aaron Flaaen, Adrian Hamins-Puertolas and Christopher Kurz, *Journal of Macroeconomics (2022)*

"The $800 Billion Paycheck Protection Program: Where did the Money Go and Why Did it Go There?" joint with David Autor, David Cho, Mita Goldar, Byron Lutz, Joshua Montes, William B. Peterman, David Ratner, Daniel Villar, and Ahu Yildirmaz, *Journal of Economic Perspectives (2022)*

"An Evaluation of the Paycheck Protection Program Using Administrative Payroll Microdata" joint with David Autor, David Cho, Mita Goldar, Byron Lutz, Joshua Montes, William B. Peterman, David Ratner, Daniel Villar, and Ahu Yildirmaz, *Journal of Public Economics short communitication (2022)*

"Improving the Accuracy of Economic Measurement with Multiple Sources: The Case of Payroll Employment Data", joint with Tomaz Cajner, Ryan A. Decker, Adrian Hamins-Puertolas and Christopher Kurz, *"Big Data for Twenty-First-Century Economic Statistics", NBER volume (2022)*

"The U.S. Labor Market During the Beginning of the Pandemic Recession" joint with Tomaz Cajner, Ryan A. Decker, John Grigsby, Adrian Hamins-Puertolas, Erik Hurst, Christopher Kurz, and Ahu Yildirmaz, *Brooking Papers on Economic Activity (2020)*

Shorter Papers

"Measuring AI Uptake in the Workplace", joint with Paul Soto and Michael Green, *FEDS Notes series (2025)*

"Payroll Employment at the Weekly Frequency", joint with Tomaz Cajner, Ryan A. Decker, Adrian Hamins-Puertolas, and Christopher Kurz, *AEA P&P (2023)*

"Tracking the Labor Market with "Big Data"", joint with Tomaz Cajner, Ryan A. Decker, Adrian Hamins-Puertolas, Christopher Kurz, *FEDS Notes series (2019)*

Older Working Papers

"Tracking Labor Market Developments during the COVID-19 Pandemic: A Preliminary Assessment", joint with Tomaz Cajner, Ryan A. Decker, Adrian Hamins-Puertolas, Christopher Kurz, *FEDS Paper (2020)*

"Dynamic Beveridge Curve Accounting", joint with Hie Joo Ahn, *FEDS Paper (2020)*

"Business Dynamics in the National Establishment Time Series (NETS)", joint with Ryan A. Decker, *FEDS Paper (2019)*

"Using Payroll Processor Microdata to Measure Aggregate Labor Market Activity", joint with Tomaz Cajner, Ryan A. Decker, Adrian Hamins-Puertolas, Christopher Kurz, and Tyler Radler, *FEDS Paper (2018)*

"Supermodularity and Search", *working paper (2018)*

"An Assessment of the National Employment Time Series (NETS) Database", joint with Keith Barnatchez and Ryan A. Decker, *FEDS Paper (2017)*

"Firm Dynamics and Assortative Matching", *CES working paper (2014)*

"A Generalized Model of Hiring Dynamics: Evidence, Implementation, Implications", joint with Steven J. Davis, R. Jason Faberman, and John C. Haltiwanger, *work in progress*

Recent Presentations and Discussions

2024: NBER CRIW Summer Institute (discussant), 6th Conference on Nontraditional Data, Machine Learning and Natural Language Processing for Macroeconomics (Rome, discussant)

2022: ASSA, Federal Reserve Bank of Chicago

2021: ASSA

2020: ASSA (discussant), Washington Statistical Society seminar, National Association of Business Economists seminar, FCSM Computational Statistics and the Production of Official Statistics Webinar on Blended Data

Service

Conference Organization: Nontraditional Data, Machine Learning, and Natural Language Processing in Macroeconomics (2019)

Referee: Journal of Econometrics (x2), AEJ: Marco, AER: Insights, Journal of Public Economics

Affiliations

Member: NBER Conference on Research in Income and Wealth (CRIW)