Lance D. Cundy, Ph.D.

Contact	*Email:* lance.cundy@gmail.com	*Location:* Minneapolis, MN
	Phone: (605) 860-1451	*Website:* www.lancecundy.com

Education

University of Iowa, Iowa City, IA
Ph.D., Economics, May 2018
- Research interests: Applied Econometrics, Applied Economics

M.A., Economics, 2016

South Dakota State University, Brookings, SD
M.S., Mathematics, Specialization in Statistics, 2014
B.S., Mathematics & B.S., Civil Engineering, 2012

Current Employment

Federal Reserve Bank of Minneapolis, Minneapolis, MN
Validator & Quantitative Fellow, System Model Validation, July 2018 - present

Model Validation
- Performed model validations on supervisory stress testing models for the following portfolios/models: Counterparty, Trading, Securities, Retail, Wholesale, PPNR, Operational Risk, Capital, and the Global Market Shock
- Wrote validation reports to assess the following: model selection and framework, assumptions and limitations, outcomes analysis, ongoing monitoring, estimation and production data, and controls processes
- Communicated validation findings to model developers and influenced their model development processes to improve model performance
- Developed methodology to construct model risk ratings
- Performed a gap analysis to assess internal processes against SR 11-7
- Led projects to enhance internal model validation processes
- Supervised the work of junior validators and quantitative fellows

Rotations and Other Projects
- *Quantitative Fellowship Program*: Spent two years in a rotational program across the Federal Reserve System designed to increase exposure to S&R teams and projects
- *Model Risk Management Group*: Developed estimations of uncertainty and risk around supervisory stress testing models
- *Supervisory Modeling Team*: Generated analysis and interpreted Counterparty stress testing model results
- *Quality Assurance*: Performed quality assurance work on model results and public disclosure to ensure models were executed correctly and public documents were accurate
- *Volcker Rule*: Productionalized code that screens for potential violations of the Volcker Rule
- *Banking Markets*: Collected commuting and retail data to build a machine learning algorithm that defined banking markets across the U.S.

Research	**Working Paper** A Dynamic Quantile Model for Distinguishing Intertemporal Substitution from Risk Aversion (with Luciano I. de Castro, Antonio F. Galvao, and Rafael Westenberger)

Research

Working Paper
A Dynamic Quantile Model for Distinguishing Intertemporal Substitution from Risk Aversion (with Luciano I. de Castro, Antonio F. Galvao, and Rafael Westenberger)

Job Market Paper
Estimating the Elasticity of Intertemporal Substitution with Disaggregated Consumption Data

Master's Thesis
Customer Portfolio Cluster Analysis in a Community Bank

Publication
Monte Carlo Simulation of Forster Resonance Energy Transfer in 3D Nanoscale Organic Bulk Heterojunction Morphologies. *Journal of Physical Chemistry C*, with Ishtiaq Maqsood, Matt Biesecker, Jung-Han Kimn, Dustin Johnson, Rachel Williams, and Venkat Bommisetty, 2013.

Previous Experience

Hamline University, St. Paul, MN
Adjunct in School of Business, Fall 2019, Spring 2020, Fall 2020
Instructor for MSBA 8100: Statistical Foundations of Business Analytics:
- Taught an introduction to probability and statistics
  - Elementary probability, distributions, sampling and confidence intervals, descriptive statistics, linear regression, logistic regression, and resampling methods
- Taught an introduction to R
  - base R, tidyverse, ggplot2, R markdown

University of Iowa, Iowa City, IA
Instructor and Teaching Assistant, August 2014 - May 2018
- Provided instruction in Principles of Microeconomics

Lemonly/9 Clouds/Statographics, Sioux Falls, SD
Strategist/Consultant, May 2013 - August 2014
- Collaborated with the 2013 South Dakota Young Entrepreneurs of the Year to build a startup company

Fishback Financial Corporation, Brookings, SD
Business Intelligence Analyst, January 2013 - July 2014
- Developed thesis involving cluster analysis of customer segmentation to create tier levels based on profitable customers

Daktronics, Brookings, SD
Structural Design, May 2012 - December 2012
Manufacturing Process Engineer, May 2011 - August 2011
Standard Order Project Manager, May 2009 - March 2011

Speaking	**Events** Forecasting during Uncertain Times, SDSU Data Science Symposium, Feb 2022 Guest Lecture: How Math Relates to My Work, Drake University Math Honors Society, Nov 2021 Making Maps in R, Quantitative Skills Conference, Federal Reserve Bank of Atlanta, Nov 2020 Panel Discussion: Career Paths, Federal Reserve Bank of Minneapolis, July 2020 Visualizing Total Assets over Time with gganimate, Quantitative Skills Conference, Federal Reserve Bank of Atlanta, Nov 2019 Panel Discussion: The Intersection of Economics and Data Science, 2019 Minnesota Economic Association Annual Conference, Oct 2019 Effective Model Validation, SDSU Data Science Symposium, Feb 2019 Estimating the Quantile Elasticity of Intertemporal Substitution with Instrumental Variables Quantile Regression Department of Economics, SDSU Data Science Symposium, Feb 2018 Introducing the Shiny Package, Great Plains R User Group, Nov 2013
Awards	**Federal Reserve Bank of Minneapolis** Strategic Direction Award, 2020 **University of Iowa** Best Ph.D. Student Teaching Assistant, Tippie College of Business, 2017-18 Outstanding Teaching Assistant, Department of Economics, 2016-17 Graduate College Post-Comprehensive Research Summer Award, 2017 **South Dakota State University** Graduate Student Fellowship, Department of Mathematics, 2013-14
Leadership	**Memberships** Economic Club of Minnesota Young Professionals Club, 2019 - present Business Advisor at Federal Reserve Bank of Minneapolis, 2020 - 2021 **Coaching** Iowa Speed Cross Country Assistant Coach, 2016-17 South Dakota Heat Basketball Assistant Coach, 2014 Lennox AAU Basketball Head Coach, 2012 De Smet High School Basketball Assistant Coach, 2009-10