

Gary is an Economist and Data Scientist with a PhD in Economics from the University of Cincinnati. His research in areas such as causal inference and time series analysis contribute to the understanding of complex systems and improving data-driven decision-making frameworks.

Gary is an expert communicator who has presented academic and industry work worldwide in a variety of settings. For the last five years, he has served as an instructor of time series econometrics at George Washington University and is among the top-rated instructors in the program.

Looking ahead, Gary aims to leverage his expertise in roles that prioritize innovation, member engagement, and insight-driven decision-making. He is particularly enthusiastic about opportunities that explore systems thinking, causal relationships, and the integration of AI in creating personalized member experiences. Gary seeks a dynamic position that challenges him to refine and expand his skill set.

EDUCATION

Ph.D., Economics <i>University of Cincinnati - Lindner College of Business</i>	2017
M.A., Economics <i>University of Cincinnati - Lindner College of Business</i>	2012
B.A., Economics <i>University of Cincinnati - Lindner College of Business</i>	2010

SKILLS

Research Interests	Bayesian/Spatial Econometrics, Causal Inference, Time Series and Forecasting, Hypothesis Testing, Machine Learning, Urban/Real Estate Economics, Large Language Models
Computing	R - tidyverse, ggplot, plotly, caret, XGboost, data.table, arrow Python - numpy, pandas, scikit-learn, matplotlib Matlab, Julia, ArcGIS, Git

PUBLICATIONS

- Chen, J., Cornwall, G., and Scott Wentland. "It's the Smell: How Resolving Uncertainty about Local Disamenities Affects the Housing Market" *Forthcoming: Land Economics*
- Cornwall, G., Gindelsky, M. "Nowcasting Distributional National Accounts for the United States: A Machine Learning Approach" *Forthcoming: American Economic Association Papers and Proceedings*
- Cornwall, Gary, and Beau Sauley. "Indirect effects and causal inference: reconsidering regression discontinuity." *Journal of Spatial Econometrics*, 2.1 (2021): 1-28.
- Chen, Jeffrey C., Edward A. Rubin, and Gary J. Cornwall. Data Science for Public Policy. *Springer International Publishing*, 2021.
- Cornwall, Gary J., et al. "Predictive Testing for Granger Causality via Posterior Simulation and Cross-validation." *Topics in Identification, Limited Dependent Variables, Partial Observability, Experimentation, and Flexible Modeling: Part A (Advances in Econometrics 40)*, (2019): 275-292.
- Strawn JR, Mills JA, Cornwall GJ, Mossman SA, Varney ST, Brooks KR, Croarkin PE. "Buspirone in Children and Adolescents with Anxiety: A Review and Bayesian Analysis of Abandoned Randomized Controlled Trials." *Journal of Child and Adolescent Psychopharmacology*, 28.1 (2018): 2-9.
- Cornwall, G., Parent, O. "Embracing heterogeneity: the spatial autoregressive mixture model", *Regional Science and Urban Economics*, 64 (2017): 148-161.
- Strawn JR, Dobson ET, Mills JA, Cornwall GJ, Sakolsky D, Birmaher B, Compton SN, Piacentini J, McCracken JT, Ginsburg GS, Kendall PC, Walkup JT, Albano AM, Rynn MA. "Placebo Response in Pediatric Anxiety Disorders: Results from the Child/Adolescent Anxiety Multimodal Study (CAMS)." *Journal of Child and Adolescent Psychopharmacology*, 27.6 (2017): 501-508.
- Cornwall G., Kim C., & Parent O. "At the frontier between local and global interactions", *Regional Research Frontiers Volume II (Springer, Edited by Randall Jackson and Peter Schaeffer)*, (2017).

PROFESSIONAL EXPERIENCE

Senior Research Economist

Bureau of Economic Analysis

Aug 2017 — Present

Washington, DC

- Advise the Chief Economist and his staff on questions of statistical and econometric modeling.
- Peer review research on behalf of the agency pertinent to their core products (e.g., Gross Domestic Product).
- Complete novel research in areas such as econometrics, urban economics, and machine learning measured by publication in peer-reviewed academic journals.
- Lead the acquisition, review, and production of actionable insights from new data sources consisting of hundreds of millions of observations.
- Develop scalable solutions to BEA relevant issues using machine learning in areas such as outlier detection, seasonality detection, and time series evaluation with a focus.
- Organize, chair, and present at academic conferences as a representative of the BEA.
- Member of agency-wide committees tasked with modernizing the BEA software environment. Responsibilities included the identification of project scope, implementation of common code mechanisms, and roll out of software and training to agency users.
- Develop and teach data science and related training courses.

Adjunct Professor of Economics

George Washington University

Jan 2020 — Present

Washington, DC

- Teach time series econometrics in the Master of Applied Economics program.
- Key topics include stationary, ARMA models, Vector Autoregression Models, Forecasting, and Forecast Combination.
- Consistently one of the highest rated classes in the program by students.

Testing and Reporting Specialist

Fidelity Investments

Mar 2005 — Jan 2014

Covington, KY

- Preparation of financial packages for the most complex of 401k/457/403b relationships.
- Provide support for audits conducted by the IRS and/or Department of Labor.
- On site provider of retirement seminars with firm employees and/or human resources departments.

CURRENT PROJECTS AND WORKING PAPERS

1. For What It's Worth: Measuring Land Value in the Era of Big Data
With Scott Wentland and Jeremy Moulton
2. Roots from Trees – A Machine Learning Approach to Unit Root Detection
With Jeff Chen and Beau Sauley
3. The Dark Side of the Moon: Searching for the Other Half of Seasonality
With Jeff Chen
4. When the Levy Breaks: How Failing Renewal School Levies Impacts Housing Prices
With Jeremy Moulton, Beau Sauley, and Scott Wentland
5. Monetary Policy and the Housing Market: Evidence from National Microdata
With Jeremy Moulton and Scott Wentland
6. Segment Reporting and Financial Statement Comparability: An Examination of Privately Reported Industry Data and Publicly Reported Segment Data
With Matthew Cobabe, Bret Johnson, Kelly Wentland, and Scott Wentland
7. The Seasons They Are A-Changin': Fifty Years of Definitions and a Way Forward
With Carter Bryson
8. Aggregation Bias and Input-Output Regionalization: Detail or Accuracy?
With Randall Jackson and Caroline Welter

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Gary Cornwall

Senior Research Economist

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INVITED SEMINARS

"Nowcasting Distributional National Accounts for the United States: A Machine Learning Approach"	2024
George Washington University	
"Testing A Hypothesis With Multiple Statistics: A Copula Based Approach"	2024
Murray State University	
"For What It's Worth: Measuring Land Value in the Era of Big Data"	
Federal Housing Finance Agency Seminar Series	2023
United States Department of Agriculture Seminar Series	2023
University of Cambridge	2022
"Roots from Trees - A Machine Learning Approach to Unit Root Detection"	
University of Auckland	2021
"The Dark Side of the Moon: Searching for the Other Half of Seasonality"	
University at Albany	2020
George Washington University	2020

SELECTED CONFERENCE PRESENTATIONS

"Nowcasting Distributional National Accounts for the United States: A Machine Learning Approach"	2025
American Economic Association (<i>Selected for Papers and Proceedings</i>)	
"When the Levy Breaks: How Failing Renewal School Levies Impacts Housing Prices"	2025
American Economic Association	
"Monetary Policy and the Housing Market: Evidence from National Microdata"	
American Real Estate Society Annual Meeting	2024
Society of Government Economists Annual Meeting	2024
"For What It's Worth: Measuring Land Value in the Era of Big Data"	
American Real Estate and Urban Economics Association National Conference	2023
Allied Social Sciences Association	2022
North American Regional Sciences Conference	2021
"It's the Smell: How Resolving Uncertainty about Local Disamenities Affects the Housing Market"	
American Real Estate Society Annual Meeting	2023
North American Meeting of the Urban Economics Association	2022
"The Dark Side of the Moon: Searching for the Other Half of Seasonality"	
Joint Statistical Meetings	2022
Midwest Econometrics Group	2019