JOHN M. NIEHAUS

Department of Statistics
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EDUCATION

M.S., Statistics — Dec. 2021 *(expected)*
Texas A&M University

M.A., Political Science — 2020
Texas A&M University, Ph.D program

B.A., Political Science; Psychology — 2014
University of Missouri

EMPLOYMENT

Graduate Research Assistant, *Texas A&M University* — Aug. 2016 – Present

- Programmed an R package for estimating bivariate count models
- Developed a new statistical estimation technique for time-series modeling of count data, programming this in R
- Connected to high-capacity research computing cluser via SSH to conduct Monte Carlo analyses in parallel
- Imported and cleaned data sets using R and Stata language for future statistical analyses
- Analyzed datasets using various statistical, econometric, and machine learning techniques

Replication Analyst, *Political Science Research & Methods*, Cambridge Press — 2018 – 2020

- Ensured that all code for accepted journal articles reproduced authors' scientific results
- Assisted authors in debugging their code
- Communicated with editorial staff and authors regarding article statuses

Time Series Analysis Teaching Assistant, *University of Michigan* — Summer 2018;19

- Assisted teaching advanced time-series techniques, e.g., vector autoregression, error correction models, markov switching models
- Taught class on bounds testing for cointegration

Global Development Intern (volunteer), *AIESEC*, Tolima, Colombia — Summer 2014

- Taught basic living skills and Spanish to Colombian's with developmental disabilities
- Administered psychological evaluations to incoming clients with developmental disabilities
- Organized activities for residents at a Colombian nursing home in order to improve clients' physical and mental faculties

PROGRAMMING & LANGUAGES

- **R** (advanced)
- **SQL** (basic)
- **Bash** (basic)
- **Stata** (intermediate)
- **SAS**(basic)
- **LaTeX** (advanced)
- **Spanish** (advanced)
- **Portuguese** (basic)

PUBLICATIONS & WORKING PAPERS

Cook, Scott, John Niehaus, and Samantha Zuhlke. 2018. "A Warning on Separation in Multinomial Logistic Models." *Research & Politics,* 5(2):1–5. Link.

Jo, Hyeran, and John Niehaus. "Through Rebel Eyes: Rebel groups, human rights, and humanitarian law." *Law and Contemporary Politics*, 81(4):101-120. Link.

Niehaus, John and Scott Cook. "It's Easier Than You Think: Modeling Dynamics in Time-Series-Cross-Sectional Count Data." **Working Paper.**

Niehaus, John, Lin Zhu, Mikyoung Jun, and Scott Cook. "`bivcount`: An R Package for Copula-based Bivariate Count Models." **Working Paper.**

RELEVANT GRADUATE COURSEWORK

1. *Statistical Programming* – R and SAS programming
2. *Computational Tools Used for Big Data* – Introductions to SQL, Bash, Python, HPC
3. †*Regression Analysis* – Linear, non-linear, generalized, and principal components regression
4. †*Methods of Statistics I* – 2-sample and univariate stats, survival models, bootstrapping
5. †*Methods of Statistics II* – Experimental design and methods
6. †*Statistical Methods in Finance* – ARCH/GARCH, copula models, portfolio selection
7. †*Overview of Mathematical Statistics* – Probability theory, theory of inference
8. †*Multivariate Analysis and Statistical Learning* – Machine learning, dimension reduction
9. †*Data Mining and Analysis* – Machine learning, dimension reduction
10. †*Applied Categorical Data Analysis* – Contingency tables, generalized linear models (logit, ordered, poisson, multinomial)
11. *Mathematical Economics* – Calculus, linear algebra, series/sequences
12. †*Economic Forecasting* – Time-series & forecasting models (VAR, ECM, ADL, etc.)
13. **Quantitative Political Analysis I* – OLS regression
14. †*Quantitative Political Analysis II* – ML estimation, GLMs, measurement error
15. **Advanced Political Research Methods I* – Time-series and spatial modeling

†Used R
*Used Stata