

Ross Buchanan

ADDRESS: 601 W. St Johns Ave., Apt 2112, Austin, TX 78752
PHONE: 512-363-0671 • EMAIL: rbuchanan7@outlook.com • WEBSITE: rossabuchanan.com

EDUCATION

University of Texas at Austin 2013 - 2021

- Ph.D., Political Science
 - Committee: Bryan Jones (co-Chair), Christopher Wlezien (co-chair), Brian Roberts, Eugenio Y. Arima (UT Geography Dept.)
- Dissertation:
 - *The Public, Politics, and Pollution: Real-World Outcomes of Policy Responsiveness*

College of Wooster 2005 - 2009

- B.A., International Relations

EXPERIENCE

Graduate Research Assistant 2020 - Present

- Research focuses on decarbonization, energy, and transportation policy.
- Designed focus group questions for state legislators (via NCSL) – asked about:
 - Problem status of energy and infrastructure-related issues.
 - Viability of potential policy solutions.
 - Stakeholders and their role in the policy process.
- Designed survey of state legislators based on focus group responses.
- Modeled effects of road quality and fuel tax changes on electoral outcomes over time.

Dissertation Research 2013 - 2021

- Modeled air pollution's dynamic relationship with policy and public opinion.
- Employed large datasets from disparate sources, including:
 - Spatial grids of global air pollution.
 - Socioeconomic variables for 593 localities over multiple years.
 - Text of 12,000+ local government reports.

SKILLS

R (Programming)

- Econometric modeling & time-series cross-sectional analysis.
- Extensive experience working with big data across heterogeneous datasets.

GIS & Geospatial Analysis

- Visualizing data with maps.
- Spatial modeling (e.g., lagged spatial autoregressive models).
- Experience working with air pollution data and NOAA atmospheric data.
- Completed specialized course, Statistics & Data Sciences Dept. at UT Austin (2017).

Data Visualization

- Proficient with ggplot2, Shiny, Excel, and Tableau.

SQL Databases

- Familiarity using R (Programming) with SQL databases.

Structural Equation Modeling

- Accounting for latent variables and error correlation in systems of equations.
- Completed specialized course, Statistics & Data Sciences Dept. at UT Austin (2018).

Bayesian Statistics

- Completed specialized course, Statistics & Data Sciences Dept. at UT Austin (2020).

Scalable Machine Learning

- Completed specialized course, Statistics & Data Sciences Dept. at UT Austin (2021).

Web Scraping (in Python)

- Used Selenium WebDriver to collect and analyze thousands of Chinese government work reports and articles in state newspapers.

Text Analysis (in Python)

- Used 12,000+ local government reports to estimate air pollution mitigation efforts.

OTHER EXPERIENCE

Fulbright Korea

2010 – 2013

- Taught English speaking and writing classes at Cheongwon High School in South Korea.
- Critical Language Enhancement Award at Jungwon University (2011).

AmeriCorps City Year

2009 – 2010

- Tutored and organized service activities for low-income high school students in Seattle.

ACADEMIC PUBLICATIONS

- Buchanan, Ross, Megan Dias, and Christopher Wlezien. Forthcoming. "Collective Opinion and Representation". In *The Oxford Handbook on Politics and Public Opinion*, ed. Thomas J. Rudolph. Oxford: Oxford University Press.
- Lavenex, Sandra, Flavia Jurje, Terri Givens, and Ross Buchanan. 2016. "Regional Migration Governance". In *The Oxford Handbook of Comparative Regionalism*, eds. Tanja A. Börzel and Thomas Risse. Oxford: Oxford University Press, 457–85.
- Qin, Xiaolei, and Ross Buchanan. 2019. "Policy and Public Preferences Regarding the University Enrollment Quotas System across Chinese Provinces". *Higher Education Policy*.

CONFERENCE PAPER PRESENTATIONS

- "Fiscal Opportunities for Transportation in a Shifting Energy Landscape: The Role of State Legislators." International Transportation Economics Association. 2021.
- "Real-World Outcomes of Policy Responsiveness." American Political Science Association. 2020. Southern Political Science Association 2021.
- "All Politics is Local? Policy Responsiveness of Local, State, and National Governments in the United States." Midwest Political Science Association. 2019.
- "Responsiveness and Feedback under Authoritarianism: The Public, City Governments, and Air Pollution in China." Southern Political Science Association. 2019.

- Responsiveness and Feedback under Authoritarianism: The Public, City Governments, and Air Pollution in China.” Southern Political Science Association. 2019.
- “Policy Implementation Responsiveness to Public Participation in an Authoritarian Regime.” Midwest Political Science Association. 2018.
- “Policy Responsiveness in Authoritarian Regimes: The Case of Air Pollution in China.” Midwest Political Science Association. 2017.

REFERENCES

- Bryan Jones
Professor of Political Science
Government Department
University of Texas at Austin
Email: bdjones@austin.utexas.edu, Phone: 512-471-9973
- Christopher Wlezien
Professor of Political Science
Government Department
University of Texas at Austin
Email: wlezien@austin.utexas.edu, Phone: 512-471-5121
- Gian Claudia Sciara
Assistant Professor of Community and Regional Planning
School of Architecture
University of Texas at Austin
Email: sciara@utexas.edu, Phone: 512-471-1922
- Andrew Waxman
Assistant Professor of Economics and Public Policy
LBJ School of Public Affairs
University of Texas at Austin
Email: awaxman@utexas.edu, Phone: 512-471-2027