# David A. Armstrong II

# Curriculum Vitae<sup>1</sup>

Contact:

Department of Politicical Science e: dave.armstrong@uwo.ca University of Western Ontario t: 519-661-2111 x85160

Room 4154, Social Sciences Centre w: http://www.quantoid.net

London, ON N6A 5C2

Canada

Positions:

2017-Present University of Western Ontario

Canada Research Chair in Political Methodology (2017-2028)

Co-Director of the Centre for Computational and Quantitative Social Science

Professor (2024-)

Associate Professor of Political Science (2017-2024)

Associate Professor of Statistics and Actuarial Sciences (by courtesy)

2019-2021 Peace Research Institute Oslo

Research Professor (20%)

2009-2016 University of Wisconsin - Milwaukee

Associate Professor of Political Science (2014-2016) Assistant Professor of Political Science (2009-2014)

2006-2009 University of Oxford, Department of Politics and International Relations

Pre-doctoral Fellow in Quantitative Methods

Other Appointments:

2006-Present ICPSR Summer Program Methods

Advanced Regression: Non-linear, Nonparametric and Robustness Analyses (2024-)

Regression III (2007-2024) R: Learning by Example (2015-)

Interactive Visualization, Dashboards and Apps in R (2020-2021)

Introduction to R (2006, 2009-2014)

Scaling and Dimensional Analysis, with Bill Jacoby (2011, 2013)

**Education**:

Ph.D. in Government and Politics, University of Maryland (2009)

B.A. in Political Science. University of Maine at Presque Isle (1998)

## **Research Interests:**

Quantitative Political Methodology, Measurement Theory and Latent Dimension Estimation, Democracy, Human Rights, Contentious Politics

<sup>&</sup>lt;sup>1</sup>Last Updated June 13, 2024

## **Publications - Books:**

- Andersen, Robert and David A. Armstrong II. (2022) Presenting Statistical Results Effectively. Thousand Oaks, CA: Sage.
- Armstrong, David A., II, Ryan Bakker, Royce Carroll, Christopher Hare, Keith Poole and Howard Rosenthal. (2021) Analyzing Spatial Models of Choice and Judgement With R, 2<sup>nd</sup> ed.. Boca Raton, FL: CRC Press. (First edition, 2014)
- Blake, William, Joseph Cozza, Amanda Friesen and David A. Armstrong II *The Social Foundations of Constitutional Innovation* Under Contract with Cambridge Elements in Comparative Political Behavior.

# **Publications - Refereed Articles:**

- Samuel Routley and David A. Armstrong II. [Forthcoming] "The Effects of Personality Traits, Environmental Attitudes, and Demographic Factors on Green Party Support in Canada" Canadian Journal of Political Science.
- Christopher Alcantara, David A. Armstrong II and Laura Stephenson [Forthcoming] "Do Experts and Citizens Perceive Party Competition Similarly?" *Party Politics*
- Zack, Taylor and David A. Armstrong II [Forthcoming] "Political Divisions in Large Cities: The Socio-Spatial Basis of Legislative Behavior in Chicago and Toronto" *Journal of Politics*
- Lucas, Jack, Zack, Taylor, David A. Armstrong II and Ryan Bakker. [Forthcoming] "The Development of the Urban-Rural Cleavage in Anglo-American Democracies" Comparative Political Studies
- Lucas, Jack and David A. Armstrong II. [In Press] "The Structure of Municipal Voting in Vancouver." Journal of Urban Affairs
- Blake, William, Joseph Cozza, Amanda Friesen and David A. Armstrong II. (2024) "Social Capital, Institutional Rules, and Constitutional Amendment Rates" *American Political Science Review* 118(2): 1075-1083
- Sayers, Anthony M., Christa Scholtz, David A. Armstrong II, Christopher Kam and Christopher Alcantara. (2023). "Covid-19 Policy Convergence in Response to Knightian Uncertainty" *Political Studies Review* 21(3): 625–635
- Armstrong, David A. II., Christopher Alcantara and John Kennedy. (2023) "Exploring the Effects of Electorate Size on Indigenous Voter Turnout." *Politics Groups and Identities* 11(1): 98-107.

- Alcantara, Christopher, David A. Armstrong II and Anthony Sayers (2022) "Locating Federalism: Non-Financial Assets and Public Policy in Canada" Canadian Public Administration 65: 314-332
- Armstrong, David A. II, Jack Lucas and Zachary Taylor. (2022) "The Urban-Rural Divide in Canadian Federal Elections, 1896–2019." Canadian Journal of Political Science 55(1): 84:106.
- Lucas, Jack and David A. Armstrong II. (2021) "Policy Ideology and Local Ideological Representation in Canada." Canadian Journal of Political Science 54(4): 959-976.
- Kennedy, John, Christopher Alcantara and David A. Armstrong II (2021) "Do Governments Keep their Promises? An Analysis of Speeches from the Throne" *Governance* 34(3): 917-934.
- Armstrong, David A. II, Matthew J. Lebo and Jack Lucas. (2020) "Do COVID-19 Policies Affect Mobility Behaviour? Evidence from 75 Canadian and American Cities" *Canadian Public Policy*. 46(S2): 127-144.
- Armstrong, David A. II and Jack Lucas. (2020) "Measuring and Comparing Municipal Policy Responses to COVID-19" Canadian Journal of Political Science 53(2): 227-238.
- Armstrong, David A. II, Christian Davenport and Allan Stam. (2020) "Casualty Estimates in the Rwandan Genocide" *Journal of Genocide Studies* 22(1): 104-111.
- Armstrong, David A. II, Ora John Reuter and Graeme B. Robertson. (2020) "Getting The Opposition Together: Protest Coordination in Authoritarian Regimes" *Post-Soviet Affairs* 36(1): 1-19.
- Benesh, Sara, David A. Armstrong II and Zach Wallander. (2020) "Advisors to Elites: Untangling Their Effect" *Journal of Law and Courts* 8(1): 51-73.
- Davenport, Christian, Håvard Nygård, Hanne Fjelde and David Armstrong II. 2019. "The Consequences of Contention: Understanding the Aftereffects of Political Conflict and Violence" *Annual Review of Political Science* 22(1): 361-377.
- Hare, Christopher, David A. Armstrong II., Ryan Bakker, Royce Carroll and Keith Poole. 2015. "Using Bayesian Aldrich-McKelvey Scaling to Study Citizens' Ideological Preferences and Perceptions" *American Journal of Political Science* 59(3): 759-774.
- Jacoby, William G. and David A. Armstrong II. 2014. "Bootstrap Confidence Regions for Multidimensional Scaling Solutions" *American Journal of Political Science* 58(1): 264-278

- Armstrong, David A., II. 2013. "factorplot: Improving Presentation of Simple Contrasts in Generalized Linear Models" *The R Journal* 5(2): 4-15.
- Armstrong, David A., II. 2011. "Stability and Change in Political Rights and Civil Liberties" *Journal of Peace Research* 48(5): 653-662.
- Davenport, Christian, Sarah A. Soule and David A. Armstrong II. 2011 "Protesting While Black? The Differential Policing of American Activism, 1960 to 1990" *American Sociological Review* 76(1): 152-176.
- Duch, Raymond M., Jeff B. May and David A. Armstrong II. 2010. "The Coalition-Directed Vote in Contexts with Multi-party Governments" *American Political Science Review* 104(4): 698-719.
- Armstrong, David A., II and Raymond M. Duch. 2010. "Why Can Voters Anticipate Post-Election Coalition Formation Likelihoods" *Electoral Studies* 29(3):308-315.
- Armstrong, David A., II. 2009. "Measuring the Democracy-Repression Nexus" *Electoral Studies* 28(3): 403-412.
- Davenport, Christian and David A. Armstrong II. 2004. "Democracy and the Violation of Human Rights: A Statistical Analysis from 1976-1996" American Journal of Political Science 48(3): 538-554.
- Gimpel, James G., Irwin L. Morris and David A. Armstrong II. 2004. "Turnout and the Local Age Distribution: Examining Political Participation across Space and Time" *Political Geography* 23: 71-95.

## **Publications - Other:**

- Armstrong, David, Jason Roy, and Loleen Berdahl. 2021. Explorations: R Statistics Handbook. Oxford University Press.
- Armstrong, David. 2021. "Conceptualizing and Measuring Democracy" in What Is Democracy and How Do We Study It?, Editors: Cameron D. Anderson and Laura B. Stephenson. University of Toronto Press.
- Davenport, Christian; Rose McDermott and David Armstrong. 2018. "Protest Policing and Perceptions in Police Abuse in Democracy" in Police Abuse in Contemporary Democracy, Editors: Michelle D. Bonner, Guillermina Seri, Mary Kubal and Michael Kempa. Palgrave-MacMillan.

Armstrong, David A. II and Christian Davenport. 2008. "Six Feet Over: Internal War, Battle Deaths and the Influence of the Living on the Dead." In Stephen M. Saideman and Marie-Joelle Zahar, eds. *Insecurity in Intra-State Conflicts: Governments, Rebels, and Outsiders*. London: Routledge

Understanding Untouchability: A Comprehensive Study of Practices and Conditions in 1589 Villages. (Multiple Authors)

Report published by the Robert F. Kennedy Center for Justice & Human Rights Available at http://www.rfkcenter.org/untouchability

# Grants and Awards:

Canada Research Chair in Political Methodology

Tier II, 5-years, \$500,000

Social Sciences and Humanities Research Council (Canada)

The Canadian Policy Observatory

Internal Grant (with Vicki Esses and Zack Taylor) \$150,000

"Big Data, Hypothesis Testing and the Future of Quantitative Social Science" Insight Development Grant, \$ 49,915 (2-year project) Social Sciences and Humanities Research Council (Canada)

"The Cost of Contention: Comprehensively Understanding the Impact of State and/or Challenging Behavior" (PI-Christian Davenport)
Social Science Research Council of Norway (Total: \$2.2M, My portion: \$145,000)

## Teaching Experience:

Western University

Introduction to Statistics (POLISCI 4419F/9715A, 9590A UG/G)

Quantitative Methods in Political Science (POLISCI 9591B, G)

Maximum Likelihood Estimation (POLISCI 9592B, G)

Applied Bayesian Modeling (POLISCI 9596B, G)

Machine Learning for the Social Sciences (POLISCI 9592A, G)

University of Wisconsin - Milwaukee

Introduction to Pol Sci Research (POL SCI 203, UG)

Comparative Political Systems (POL SCI 335, UG, online and Face-to-face)

Techniques of Political Science Research (POLSCI 701, G)

Adv. Techniques of Political Science Research (POLSCI 702, G)

Seminar in Advanced Political Science Methodology (POLSCI 935, G)

Applied Bayesian Modeling for the Social Sciences (POLSCI 936, G)

Inter-University Consortium for Political and Social Research (ICPSR) Summer Program

Regression III: Advanced Methods (2007-present)

R: Learning by Example (2015-present)

Interactive Visualization, Dashboards and Apps with in R (2020-2021)

Measurement, Scaling and Dimensional Analysis [with Bill Jacoby] (2011, 2013)

Introduction to R (2006 [with Ryan Bakker], 2009-2014)

Essex Summer School in Social Science Data Analysis

Improving Regression Analysis (2008)

Dimension Reduction in R (2015)

# University of Oxford:

Advanced Statistics with Ray Duch (Trinity Term 2009)

Measurement in the Social Sciences (Trinity Term 2007, 2008, 2009)

Quantitative and Formal Methods in IR (Hilary Term 2009)

Intermediate Social Statistics (Hilary Term 2007, 2008, 2009)

Applied Statistics for the Social Sciences (Michaelmas Term 2006, 2007)

# **Invited Presentations and Workshops:**

"The Landscape of Interactive Graphics"

Essex Summer School in Social Science Data Analysis

Colchester, UK, August 17, 2022.

"A Bayesian Test for Levels of Measurement"

Machine Learning Meets Politics and Policy Conference

Chicago, IL, April 3, 2019

"Data, New Technologies and the Prospects for Social Science and Learning"

Electro-Governance Group

Western University, March 22, 2019.

"Big Data and the Future of Quantitative Social Science"

Department of Statistics and Actuarial Sciences Colloquium

Western University, April 20, 2017.

"Data Visualization" Workshop

Florida State University, May 5-6, 2016

"Introduction to R: Basics, Visualization and Text Analysis" Workshop

University of Wisconsin-Milwaukee (Digital Humanities Lab), April 3, 10 and 24, 2015

"Bayesian Analysis and Data Visualization" Workshop

Florida State University, May 6-9, 2013 (with Ryan Bakker)

"Communicating Statistical Results: Effective Presentation of Relationships and Effects" The Oxford Spring School, April 16-20, 2013 (with Bob Andersen)

"A Directional Model of Candidate Evaluation" with Bill Jacoby

Presented at the "Directions in Political Space" Conference

ICPSR, University of Michigan, October 26, 2012.

- "Causal Mechanisms and the Democracy-Repression Nexus" ETH-Zurich, CIS Colloquium, October 4, 2012.
- "An Introduction to R" Center for Applied Behavioral Health Research, University of Wisconsin-Milwaukee, June 5-6, 2012.
- "Communicating Statistical Results: Effective Presentation of Relationships and Effects" The Oxford Spring School, April 4-8, 2011 (with Bob Andersen)
- "An Introduction to R" Center for Addiction and Behavioral Health Research, University of Wisconsin-Milwaukee, June 15-16, 2010.
- "An Introduction to R" University of Maryland College Park, May 24-26, 2010.
- "The Unexpected Effects of Elections on Repression" Innovations in the Study of Mass Violations of Human Rights, University of Notre Dame, April 12-13, 2010.
- "Modern Regression Analysis" The Oxford Spring School, March 15-19, 2010 (with Bob Andersen)
- "Structural Equation Models for Panel Data" The Oxford Spring School, March 26, 2009
- "The Analysis of Large-N Comparative Data" Oxford Spring School Workshop (with Raymond Duch), September 30, 2008
- "An Introduction to R" Oxford Spring School Workshop September 29, 2008.
- "Reconsidering the Democracy-Repression Nexus" Nuffield Political Science Seminar Series. Nuffield College, University of Oxford, May 6, 2008.
- "A Strategic Ideological Vote" (with Ray Duch and Jeff May) at the *Theoretical and Empirical Contributions to Modeling Context in the Vote Decision Conference*. Nuffield College, University of Oxford, June 1-2, 2007.
- "Remeasuring Left-Right: Measurement and Manifesto-Based Party Placements" (with Ryan Bakker). Vrije Universiteit, Amsterdam. December 8, 2006.

## **Professional Service:**

Inter-university Consortium for Political and Social Research Governing Council (Member: 2020-2022, Chair 2022-2024)

Advisory Board Member: ICPSR Summer Program in Quantitative Methods (2013, 2017) Editorial Board Member: American Journal of Political Science (2014-2018)

Manuscript Reviewer: American Journal of Political Science, American Political Science Review, British Journal of Political Science, International Studies Quarterly, Journal of Conflict Resolution, Journal of Peace Research, Journal of Politics, Political Analysis, Political Psychology.

# Departmental Service:

## Dissertation Committee Chair:

2016: Michael Hansen (UWM)

2017: Kelly Gleason (UWM)

2020: Nick Davis (UWM)

2024: Megan Payler (UWO)

In Progress: Lucas Pokwyra, Daniel Mosannef (co-chair)

#### Dissertation Committee Member:

2010: Craig Frizzell

2012: David Helpap

2013: Joe Cera, Youngmi Choi, Clayton Clouse, Aaron Weinschenk

2014: Sky Amman, Hayam Kim, Tim Lynch, Michael Tyburski, Zach Wallander

2015: Cassio Muniz, Shawn Fettig

2016: Wondeuk Cho, Leanne Freeman (Ed Psych)

2017: Jennifer Clemens

2024: Ryan Atkinson

In Progress: Jesse Helmer, Michelle Kaplan, Shanaya Vanhooren

## Dissertation External Examiner:

2012: Florian Weiler (ETH-Zurich)

2016: Michael Dickerson (Brown University)

2017: Anthony Sealey (University of Toronto)

#### Master's Committee Chair

2010: Paul Lasswell

2012: Nick Davis, Dale Pinzino

2013: Scott Dettman, Rebekah Wilberg

2014: Ryan Lynch

2015: Paul Larson

2016: Chris Schwarz

2019: Jacob Allin, Amar Dhaliwal, Elena Hillman

2020: Keaton Aubin, Berent Batur (American Studies)

2024: Charlotte Rolfe

## Master's Committee Member

2010: Sky Amman, Margaret DeVito, BethAnn Hoover, Matt Luttig, Andrew Schmidt, Zach Wallander, Stefan Wojcik

2011: Benjaman Schmidt, Steven Thunander

2012: Stephen Baird, Michael Hansen, Seng Vang

2013: James Gorman

2014: Carisa Bergner, Justin Panawash-Bielinski

2015: Gayeon Ryu, Anthony Sudarmawan

2016: Kali Marcino

2017: Elisha Corbett (MA Thesis Internal Examiner),

2018: Shereen Arcis, Justin Di Camillo

Departmental Committees (Western University):

Graduate Committee: 2017-2020

Appointments Committee: 2017-2019, 2020-2021

Departmental Promotion & Tenure Committee: 2017-2018 (alternate)

Departmental Speaker Series Committee: 2017-2018

University Committees (Western University):

Non-medical Research Ethics Board: 2017-

One-year MA in Social Science Research Steering Committee

Economics Chair Search Committee (External Member)

Network for Social and Economic Trends Executive Committee

Departmental Committees (UW-Milwaukee):

Director of Undergraduate Studies: 2015-2016

Graduate Studies Committee: 2010-2016

Comparative Politics Prelim Exam Committee: 2010-2016 Search Committees: Comparative (2012), American (2013)

## Recent Conference Activity:

"Partial Selection Models for Social Science" Presented at the Annual Meeting of the Prairie Political Science Association 2019, Banff, Alberta.

"Decoupling Shrinkage and Selection for Model Diagnostics" with Tyler Girard, Bill Jacoby, Chris Schwarz. Presented at the Annual Meeting of the American Political Science Association 2018, Boston, MA.

Chair of panel on Domestic Politics at the conference - "South Korea's Rise: Politics, Economics and Humanities", May 1, 2013, University of Wisconsin - Milwaukee.

"(Un)Just Repression and mass (Resistance/)Acquiescence: 911, Countering Threats and the Anti–US Patriot Act Movement" Presented at the annual meeting of the Midwest Political Science Association, April 2013.

"Causal Mechanisms and the Democracy-Repression Nexus" Presented at the annual meeting of the Midwest Political Science Association, April 2012.

"The Unexpected Effect of Elections on Repression." Presented at the Annual Meeting of the Midwest Political Science Association, April 2011.

"Bootstrap Confidence Regions for Multidimensional Scaling Solutions" with Bill Jacoby. Accepted for presentation at the Annual Meeting of the Midwest Political Science Association, April 2011.

"Missing Data and the Gibbs Sampler: A Simple Approach to Estimating Models With Missing Data." with Ryan Bakker. Presented at the Annual Meeting of the Midwest Political Science Association, April 2010.

#### Software:

There are lots of projects on my github page. The major software projects I have produced are:

- asmcjr an R package that supports the book Analyzing Spatial Models of Choice and Judgment with R. The package contains all of the data used in the book along with all of the functions that we developed to estimate and investigate the models proposed in the book. Available from GitHub
- bsmds R package to perform, summarize and present bootstrapped multidimensional scaling solutions (written with Bill Jacoby). We implement a non-parametric bootstrapping algorithm for multidimensional scaling solutions and permit the user to plot two-dimensional configurations with either normal-theory confidence ellipses or convex hulls. Available from GitHub
- DAMisc R package of miscellaneous functions to support my teaching. This package includes functions to aid in the presentation and interpretation of generalized linear and related models. Version 1.7.2 of the package is available on the Comprehensive R Archive Network. Most recent development version available from GitHub. [Downloads: 57,490 since 2010, 7,920 last year]
- factorplot R package to help visualize pairwise comparisons from a multiple testing procedure (e.g., polytomous factors used in GLMs). This is another solution to the reference category problem (other solutions to the same problem are quasi/floating variances and compact letter displays). Version 1.1-2 is available on CRAN. Most recent development version available from GitHub. [Downloads: 40,136 since 2010, 5,409 last year]
- hot.deck R package to perform multiple hot-deck imputation as discussed by Cranmer and Gill (2013). Written with Skyler Cranmer, Jeff Gill, Natalie Jackson and Andreas Murr. Version 1.2 available on CRAN. [Downloads: 52.968 since 2010, 9,357 last year]
- psre R package to support the book Presenting Statistical Results Effectively (Andersen and Armstrong, 2022, Sage Publications). Version 0.1.0 available on CRAN. Most recent development version available from GitHub. [Downloads: 1810 since 2010, 1810 last year]