

Political Science 794: Methodology Seminar

Winter 2018

Tuesday 3–6 (2333 MH)

Professor: Walter R. Mebane, Jr.

Office: 7735 Haven Hall (607/592-0546); email wmebane@umich.edu

Office hours: Tue 12–2 or other times by appointment.

Course web page: <http://www.umich.edu/~wmebane/ps794.html>

Assignment Due Dates

due date	description	weight
TBA	participation	20%
April 3, 10, 17	presentation	10%
April 24	course paper	70%

Class meeting and reading schedule (● required)

1. past glories (January 9)

- Paul Poast. 2010. “(Mis)Using Dyadic Data to Analyze Multilateral Events.” *Political Analysis* 18: 403–426. (in file [Poast PA -2010.pdf](#))
- Timm Betz. 2013. “Robust Estimation with Nonrandom Measurement Error and Weak Instruments.” *Political Analysis* 21: 86–96. (in file [robust_estimation_with_nonrandom_.pdf](#))

2. choice models (January 16)

- Kenneth E. Train. 2009. *Discrete Choice Methods with Simulation*. 2d ed. Cambridge UP. <http://elsa.berkeley.edu/books/choice2.html>
- Daniel McFadden and Kenneth Train. 2000. Mixed MNL Models for Discrete Response. *Journal of Applied Econometrics* 15 (5, Sep–Oct): 447–470.
- Garrett Glasgow. 2001. Mixed Logit Models for Multiparty Elections. *Political Analysis* 9 (1): 116–136.
- Hensher, David A., and William H. Greene. 2003. The mixed logit model: the state of practice. *Transportation* 30 (2): 133–176.

Bierlaire, M. 2003. BIOGEME: A free package for the estimation of discrete choice models, Proceedings of the 3rd Swiss Transportation Research Conference, Ascona, Switzerland. <http://biogeme.epfl.ch/>

John E. Jackson, Bogdan W. Mach and Radoslaw Markowski. 2010. “Party Strategies and Electoral Competition in Post-Communist Countries: Evidence from Poland.” *Electoral Studies* 29 (2): 199–209. (in file [jackson.mach.markowski.elecstud2010.pdf](#))

John E. Jackson, Bogdan W. Mach and Radoslaw Markowski. 2010. “Party Strategies and Electoral Competition in Post-Communist Countries: Evidence from Poland. Appendix A: Methodological Appendix.” (in file [jelsmethapp.docx](#))

Walter R. Mebane, Jr., John E. Jackson and Jonathan Wall. 2015. “Choice Function Heterogeneities in Models of Electoral Behavior.” Working paper (in file [mw14.pdf](#)).

3. identification, partial identification and misspecification (January 23)

- Thomas J. Rothenberg. 1971. Identification in Parametric Models. *Econometrica* 39 (May): 577–591.
- Ryan Bakker and Keith T. Poole. 2013. “Bayesian Metric Multidimensional Scaling.” *Political Analysis* 21: 125–140. (in file `bayesian_metric_multidimensional_scaling.pdf`)
- Charles F. Manski. 1990. Nonparametric Bounds on Treatment Effects. *American Economic Review* 80 (2, Papers and Proceedings): 319–323.
- Charles F. Manski. 2007. Partial Identification of Counterfactual Choice Probabilities. *International Economic Review* 48 (4, Nov): 1429–1439.
- Judea Pearl. 1995. Causal Diagrams for Empirical Research. *Biometrika* 82 (4, Dec.): 669–688. (plus discussion, 688–710).
- Kei Kawai and Yasutora Watanabe. 2013. “Inferring Strategic Voting.” *American Economic Review* 103 (2): 624–662.

Roger Bowden. 1973. The Theory of Parametric Identification. *Econometrica* 41 (Nov): 1069–1074.

Franklin Fisher. 1976. *The Identification Problem in Econometrics*. Krieger.

Roger Bowden and Darrell Turlington. 1984. *Instrumental Variables*. Cambridge UP.

Judea Pearl. 2009. *Causality: Models, Reasoning and Inference*, 2d ed. Cambridge UP. Chapters 1–5.

Charles F. Manski. 1995. *Identification in the Social Sciences*. Harvard UP.

Charles F. Manski. 2003. *Partial Identification of Probability Distributions*. Springer.

Jeremy T. Fox. 2007. Semiparametric Estimation of Multinomial Discrete-Choice Models Using a Subset of Choices. *The RAND Journal of Economics* 38 (4, Winter): 1002–1019.

Beresteanu, Arie and Francesca Molinari. 2008. Asymptotic Properties for a Class of Partially Identified Models. *Econometrica* 76(4): 763–814.

Rosa L. Matzkin. 2007. Nonparametric Identification. In James J. Heckman and Edward E. Leamer, eds., *Handbook of Econometrics* volume 6B. North-Holland. Pp. 5307–5368.

Donald W.K. Andrews, Marcelo J. Moreira, James H. Stock. 2007. Performance of conditional Wald tests in IV regression with weak instruments. *Journal of Econometrics* 139 (1, July): 116–132.

Donald Andrews and James Stock. 2005. Inference with Weak Instruments.
<http://cowles.econ.yale.edu/P/cd/d15a/d1530.pdf>

Jinyong Hahn, John Ham, and Hyungsik Rorger Moon. 2011. The Hausman Test and Weak Instruments. *Journal of Econometrics* 160 (2, February): 289–299.

4. measurement 1 (January 30)

- Karl G. Jöreskog. 1974. “Analyzing Psychological Data by Structural Analysis of Covariance Matrices.” In David H. Krantz, Richard C. Atkinson, R. Duncan Luce and Patrick Suppes, *Contemporary Developments in Mathematical Psychology*, Vol. II. W. H. Freeman and Company.

- Daniel L. Oberski. 2014. “Evaluating Sensitivity of Parameters of Interest to Measurement Invariance in Latent Variable Models.” *Political Analysis* 22: 45–60. (in file `evaluating_sensitivity_of_parameters_in_latent_.pdf`)
- Derek Greene and James P. Cross. 2017. “Exploring the Political Agenda of the European Parliament Using a Dynamic Topic Modeling Approach.” *Political Analysis* 25: 77–94. (in file `exploring_the_political_agenda_of_the_european_.pdf`)
- Martin Elff. 2013. “A Dynamic State-Space Model of Coded Political Texts.” *Political Analysis* 21: 217–232. (in file `dynamic_statespace_model_of_coded_political_texts.pdf`)
- Will Lowe. 2008. “Understanding Wordscores.” *Political Analysis* 16: 356–371. (in file `understanding_wordscores.pdf`)
- Benjamin E. Lauderdale and Alexander Herzog. 2016. “Measuring Political Positions from Legislative Speech.” *Political Analysis* 24: 374–394. (in file `measuring_political_positions_from_legislative_speech.pdf`)
- James Lo, Sven-Oliver Proksch and Thomas Gschwend. 2014. “A Common Left-Right Scale for Voters and Parties in Europe.” *Political Analysis* 22: 205–223. (in file `common_leftright_scale_for_voters_and_parties_in_europe.pdf`)

Karl G. Jöreskog. 1977. “Structural Equation Models in the Social Sciences: Specification, Estimation and Testing.” In P.R. Krishnaiah, *Applications of Statistics*. North Holland.

Daniel L. Oberski, Jeroen K. Vermunt and Guy B. D. Moors. 2015. *Political Analysis* 23: 550–563. (in file `evaluating_measurement_invariance_in_categorical_.pdf`)

Sebastián M. Saiegh. 2015. “Using Joint Scaling Methods to Study Ideology and Representation: Evidence from Latin America.” *Political Analysis* 18: 363–384. (in file `using_joint_scaling_methods_to_study_ideology_.pdf`)

5. measurement 2 (February 6)

- Anthony J. McGann. 2014. “Estimating the Political Center from Aggregate Data: An Item Response Theory Alternative to the Stimson Dyad Ratios Algorithm.” *Political Analysis* 22: 115–129. (in file `estimating_the_political_center_from_aggregate_.pdf`)
- John H. Aldrich, Jacob M. Montgomery and David B. Sparks. 2014. “Polarization and Ideology: Partisan Sources of Low Dimensionality in Scaled Roll Call Analyses.” *Political Analysis* 22: 435–456. (in file `polarization_and_ideology_partisan_sources_.pdf`)
- Pablo Barberá. 2015. “Birds of the Same Feather Tweet Together: Bayesian Ideal Point Estimation Using Twitter Data.” *Political Analysis* 23: 76–91. (in file `birds_of_the_same_feather_tweet_together_.pdf`)
- Devin Caughey and Christopher Warshaw. 2015. “Dynamic Estimation of Latent Opinion Using a Hierarchical Group-Level IRT Model.” *Political Analysis* 23: 197–211. (in file `dynamic_estimation_of_latent_opinion_using_.pdf`)
- Chris Tausanovitch and Christopher Warshaw. 2017. “Estimating Candidates’ Political Orientation in a Polarized Congress.” *Political Analysis* 25: 167–187. (in file `estimating_candidates_political_orientation_in_a_polarized_congress.pdf`)

Nicole Asmussen and Jinhee Jo. 2016. “Anchors Away: A New Approach for Estimating Ideal Points Comparable across Time and Chambers.” *Political Analysis* 24: 172–188. (in file `anchors_away_a_new_approach_.pdf`)

- Thomas Bräuninger, Jochen Müller and Christian Stecker. 2016. “Modeling Preferences Using Roll Call Votes in Parliamentary Systems.” *Political Analysis* 24: 189–210. (in file `modeling_preferences_using_roll_call_votes_in_parliamentary_systems.pdf`)
- Adam Bonica and Maya Sen. 2017. “A Common-Space Scaling of the American Judiciary and Legal Profession.” *Political Analysis* 25: 114–121. (in file `commonsense_scaling_of_the_american_judiciary_and_legal_profession.pdf`)
- Simon Jackman and Shawn Treier. 2008. Democracy as a Latent Variable. *American Journal of Political Science* 52 (1): 201–217.
- Joshua Clinton, Simon Jackman and Douglas Rivers. 2004. The Statistical Analysis of Roll Call Data. *American Political Science Review* 98 (2, May): 355–370.
- Michael A. Bailey. 2007. Comparable Preference Estimates across Time and Institutions for the Court, Congress, and Presidency. *American Journal of Political Science* 51 (3, Jul.): 433–448.
- Jeffrey B. Lewis and Keith T. Poole. 2004. Measuring Bias and Uncertainty in Ideal Point Estimates via the Parametric Bootstrap. *Political Analysis*, 12: 105–127.
- Royce Carroll, Jeffrey B. Lewis, James Lo, Keith T. Poole, and Howard Rosenthal. 2009. Measuring Bias and Uncertainty in DW-NOMINATE Ideal Point Estimates via the Parametric Bootstrap. *Political Analysis* 17: 261–227.

6. text data (February 13)

- Burt L. Monroe, Michael P. Colaresi and Kevin M. Quinn. 2008. “Fightin’ Words: Lexical Feature Selection and Evaluation for Identifying the Content of Political Conflict.” *Political Analysis* 16: 372–403. (in file `fightin_words_lexical_feature_selection_and_.pdf`)
 - Justin Grimmer. 2010. A Bayesian Hierarchical Topic Model for Political Texts: Measuring Expressed Agendas in Senate Press Releases. *Political Analysis* 18 (No. 1, Winter): 1–35.
 - Justin Grimmer and Brandon M. Stewart. 2013. “Text as Data: The Promise and Pitfalls of Automatic Content Analysis Methods for Political Texts.” *Political Analysis* 21: 267–297. (in file `text_as_data_the_promise_and_pitfalls_.pdf`)
 - Will Lowe and Kenneth Benoit. 2013. “Validating Estimates of Latent Traits from Textual Data Using Human Judgment as a Benchmark.” *Political Analysis* 21: 298–313. (in file `validating_estimates_of_latent_traits_from_textual_.pdf`)
 - Margaret E. Roberts, Brandon M. Stewart, Dustin Tingley and Edoardo M. Airoldi. 2013. “The Structural Topic Model and Applied Social Science.” NIPS 2013 Workshop on Topic Models: Computation, Application, and Evaluation. (in file `stmnip2013.pdf`)
- Vito D’Orazio, Steven T. Landis, Glenn Palmer and Philip Schrodtt. 2014. “Separating the Wheat from the Chaff: Applications of Automated Document Classification Using Support Vector Machines.” *Political Analysis* 22: 224–242. (in file `separating_the_wheat_from_the_chaff_applications_.pdf`)
- Christopher Lucas, Richard A. Nielsen, Margaret E. Roberts, Brandon M. Stewart, Alex Storer and Dustin Tingley. 2015. “Computer-Assisted Text Analysis for Comparative Politics.” *Political Analysis* 23: 254–277. (in file `computerassisted_text_analysis_for_comparative_politics.pdf`)

- Sean M. Gerrish and David M. Blei. 2011. Predicting legislative roll calls from text. *International Conference on Machine Learning*.
<http://www.cs.princeton.edu/~blei/papers/GerrishBlei2011.pdf>
- David M. Blei and John D. Lafferty. 2007. A correlated topic model of Science. *Annals of Applied Statistics* 1 (1, Jun.): 17–35.
<http://www.cs.princeton.edu/~blei/papers/BleiLafferty2007.pdf>
- David M. Blei, Andrew Y. Ng and Michael I. Jordan. 2003. Latent Dirichlet allocation. *Journal of Machine Learning Research* 3 (Jan.): 993–1022.
<http://www.cs.princeton.edu/~blei/papers/BleiNgJordan2003.pdf>
- David M. Blei, Jon D. McAuliffe. 2007. Supervised topic models. *Neural Information Processing Systems* 21.
<http://www.cs.princeton.edu/~blei/papers/BleiMcAuliffe2007.pdf>

7. images plus (February 20)

- Alex Krizhevsky, Ilya Sutskever and Geoffrey E. Hinton. 2012. “ImageNet Classification with Deep Convolutional Neural Networks.” NIPS 2012. (in file `krizhevsky_etal_2012.pdf`)
- Sinno Jialin Pan and Qiang Yang. 2009. “A Survey on Transfer Learning.” *IEEE Transactions on Knowledge and Data Engineering* 22 (10):1345–1359. (in file `survey_transfer_learning.pdf`)
- Maxime Oquab, Leon Bottou, Ivan Laptev and Josef Sivic. 2014. “Learning and Transferring Mid-Level Image Representations using Convolutional Neural Networks.” CVPR ’14, *Proceedings of the 2014 IEEE Conference on Computer Vision and Pattern Recognition* 1717–1724. (in file `transferring_midlevel_image.pdf`)
- Karen Simonyan and Andrew Zisserman. 2015. “Very Deep Convolutional Networks for Large-scale Image Recognition.” ICLR 2015. <https://arxiv.org/abs/1409.1556v6> (in file `vdeep_convnet.pdf`)
- Yu Wang, Yuncheng Li and Jiebo Luo. 2016. “Deciphering the 2016 U.S. Presidential Campaign in the Twitter Sphere: A Comparison of the Trumpists and Clintonists.” *Proceedings of the Tenth International AAAI Conference on Web and Social Media (ICWSM 2016)*. (in file `2016_election_comvision.pdf`)

8. panel data and time series (March 6)

- Daniel Stegmueller. 2013. “Modeling Dynamic Preferences: A Bayesian Robust Dynamic Latent Ordered Probit Model.” *Political Analysis* 21: 314–333. (in file `modeling_dynamic_preferences_a_bayesian_robust_.pdf`)
- Zack W. Almquist and Carter T. Butts. 2013. “Dynamic Network Logistic Regression: A Logistic Choice Analysis of Inter- and Intra-Group Blog Citation Dynamics in the 2004 US Presidential Election.” *Political Analysis* 21: 430–448. (in file `dynamic_network_logistic_regression_a_logistic_choice_analysis.pdf`)
- Khusrav Gaibulloev, Todd Sandler and Donggyu Sul. 2014. “Dynamic Panel Analysis under Cross-Sectional Dependence.” *Political Analysis* 22: 258–273. (in file `dynamic_panel_analysis_under_crosssectional_dependence.pdf`)

- Xun Pang. 2014. “Varying Responses to Common Shocks and Complex Cross-Sectional Dependence: Dynamic Multilevel Modeling with Multifactor Error Structures for Time-Series Cross-Sectional Data.” *Political Analysis* 22: 464–496. (in file `varying_responses_to_common_shocks_and_.pdf`)
- Yajuan Si, Jerome P. Reiter and D. Sunshine Hillygus. 2015. “Semi-parametric Selection Models for Potentially Non-ignorable Attrition in Panel Studies with Refreshment Samples.” *Political Analysis* 23: 92–112. (in file `semiparametric_selection_models_for_potentially_nonignorable_.pdf`)
- Alexander M. Tahk. 2015. “A Continuous-Time, Latent-Variable Model of Time Series Data.” *Political Analysis* 23: 278–298. (in file `continuoustime_latentvariable_model_of_time_series_data.pdf`)

9. process priors (March 13)

- Minjung Kyung, Jeff Gill and George Casella. 2010. Estimation in Dirichlet Random Effects Models. *Annals of Statistics* 38 (2, Apr.): 979–1009.
- Richard Traunmüller, Andreas Murr, Jeff Gill. 2015. “Modeling Latent Information in Voting Data with Dirichlet Process Priors.” *Political Analysis* 18: 1–20. (in file `modeling_latent_information_with_dirichlet_process_priors.pdf`)
- Lauren A. Hannah, David M. Blei, and Warren B. Powell. 2011. Dirichlet process mixtures of generalized linear models. *Journal of Machine Learning Research* 12 (Jun.): 1923–1953. (in file `HannahBleiPowell2011.pdf`)
- C. Wang and D. Blei. 2009. Variational inference for the nested Chinese restaurant process. *Neural Information Processing Systems*. (in file `WangBlei2009d.pdf`)
- Justin Grimmer. 2011. An Introduction to Bayesian Inference via Variational Approximations. *Political Analysis* 19 (No. 1, Winter): 32–47.

Samuel J. Gershman and David M. Blei. 2011. A tutorial on Bayesian nonparametric models. *Journal of Mathematical Psychology*, forthcoming. (in file `GershmanBlei2011.pdf`)

Brooks, S. P. 1998. Markov chain Monte Carlo method and its application. *The Statistician* 47: 69–100.

10. strategic behavior (March 20)

- Alaitz Artabe and Javier Gardeazabal. 2014. “Strategic Votes and Sincere Counterfactuals.” *Political Analysis* 22: 243–257. (in file `strategic_votes_and_sincere_counterfactuals.pdf`)
- Lucas Leemann. 2014. “Strategy and Sample Selection: A Strategic Selection Estimator.” *Political Analysis* 22: 374–397. (in file `strategy_and_sample_selection_a_strategic_selection_estimator.pdf`)
- Daina Chiba, Lanny W. Martin and Randolph T. Stevenson. 2015. “A Copula Approach to the Problem of Selection Bias in Models of Government Survival.” *Political Analysis* 23: 42–58. (in file `copula_approach_to_the_problem_of_selection_bias_.pdf`)
- McKelvey, Richard D., and Thomas R. Palfrey. 1995. Quantal Response Equilibria for Normal Form Games. *Games and Economic Behavior* 10: 6–38.

- Goeree, Jacob K., and Charles A. Holt. 2005. An Explanation of Anomalous Behavior in Models of Political Participation. *American Political Science Review* 99 (May): 201–213.
- Curtis S. Signorino. 1999. Strategic Interaction and the Statistical Analysis of International Conflict. *American Political Science Review* 93 (2, Jun.): 279–297.

Rust, J. 1987. Optimal Replacement of GMC Bus Engines: An Empirical Model of Harold Zurcher. *Econometrica* 55: 999–1033.

V. Joseph Hotz and Robert A. Miller. 1993. Conditional Choice Probabilities and the Estimation of Dynamic Models *The Review of Economic Studies* 60 (3, Jul): 497–529.

Hiroyuki Kasahara and Katsumi Shimotsu. 2009. Nonparametric Identification of Finite Mixture Models of Dynamic Discrete Choices. *Econometrica* 77 (1, Jan): 135–175.

Victor Aguirregabiria and Pedro Mira. 2007. Sequential Estimation of Dynamic Discrete Games. *Econometrica* 75 (1, Jan.): 1–53.

Hiroyuki Kasahara and Katsumi Shimotsu. 2008. Pseudo-likelihood estimation and bootstrap inference for structural discrete Markov decision models. *Journal of Econometrics* 146 (1): 92–106.

11. distorted and missing data (March 27)

- Scott J. Cook, Betsabe Blas, Raymond J. Carroll and Samiran Sinha. 2017. “Two Wrongs Make a Right: Addressing Underreporting in Binary Data from Multiple Sources.” *Political Analysis* 25: 223–240. (in file `two_wrongs_make_a_right_addressing_underreporting_.pdf`)
- Tsung-han Tsai and Chang-chih Lin. 2017. “Modeling Guessing Components in the Measurement of Political Knowledge.” *Political Analysis* 25: 483–504. (in file `modeling_guessing_components_.pdf`)
- Rosa L. Matzkin. 2007. Nonparametric Survey Response Errors. *International Economic Review* 48 (4): 1411–1427.

12. presentations (Apr 3, 10, 17)