PSC 571
Quantitative Approaches to International Politics

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PURPOSE: This course examines statistical issues relevant to the study of international politics. We will consider issues such as self selection, strategic decision making, geographic interdependence, temporal dynamics, and the operationalization of major concepts, such as power, democra82MC ʇJ6 18 409.@o coes'nt to

- Signorino, Curtis S. 2002. "Strategy and Selection in International Relations." *International Interactions* 28(1):93-115.
- Clark, David H., and William Reed. 2003. "A Unified Model of War Onset and Outcome." *Journal of Politics* 65(1):69-91.

Recommended Readings:
- Schultz, Kenneth. 2001. "Looking for Audience Costs." *Journal of Conflict Resolution* 45(1):32-60.
- Danilovic, Vesna. 2001. "Conceptual and Selection Bias Issues in Deterrence." *Journal of Conflict Resolution* 45(1):97-125.
- Reed, William, and David H. Clark 2002. "Toward a Multiprocess Model of Rivalry and the Democratic Peace." *International Interactions* 28(1):77–92.

2. Geography and Spatial Interdependence

- Ward, Michael D., and Kristian Skrede Gleditsch. 2002. "Location, Location, Location: An MCMC Approach to Modeling the Spatial Context of War and Peace." *Political Analysis* 10(3):244-260.
- Heagerty, Patrick, Michael D. Ward, and Kristian Skrede Gleditsch. 2002. "Windows of Opportunity: Window Subseries Empirical Variance Estimators in International Relations." *Political Analysis* 10(3):244-260.
- Beck, Nathaniel, Kristian Skrede Gleditsch, and Kyle Beardsley. 2006. "Space Is More than Geography: Using Spatial Econometrics in the Study of Political Economy." *International Studies Quarterly* 50(1):27-44.
- Franzese, Robert and Jude Hayes. 2007. "Spatial-Econometric Models of Cross-Sectional Interdependence in Political Science Panel and TCSD Data." *Political Analysis*. 15(2):140-164.

3. Dyads, Interdependence, and Networks

- Hoff, Peter D. Hoff, and Michael D. Ward. 2004. "Modeling Dependencies in International Relations Networks." *Political Analysis* 12(2):160-175.
- Ward, Michael D. 2005. "What Are the Neighbors Doing?" Working paper, University of Washington.
- Ward, Michael D., Randolph M. Siverson, and Xun Cao. 2007. "Disputes, Democracies, and Dependencies: A Reexamination of the Kantian Peace." *American Journal of Political Science* 51(3):583-601.
- Handcock, Mark S., Adrian E. Raftery, and Jeremy M. Tantrum. 2007. "Model-Based Clustering for Social Networks." *Journal of the Royal Statistical Society*. 170(2):301-354.
- Poast, Paul. 2011. "(Mis)Using Dyadic Data to Analyze Multilateral Events." Forthcoming in *Political Analysis*.
- Poast, Paul. 2011. "War is K-adic." Working Paper.

4. Strategic Interaction

Part I
Required Readings:
- Signorino, Curtis S. 1999. "Strategic Interaction and the Statistical Analysis of International Conflict." *American Political Science Review* 93(2):279-297
- Smith, Alastair. 1999. "Testing Theories of Strategic Choice: The Example of Crisis Escalation." *American Journal of Political Science* 43(4):1254-1283.

- Carrubba, Clifford J., Amy Yuen, and Christopher Zorn. 2007. "In Defense of Comparative Statics: Specifying Empirical Tests of Models of Strategic Interaction." *Political Analysis*

6. Duration Models

Required Readings:

- Box-Steffensmeier, Janet M., and Christopher Zorn. 2002. "Duration Models for Repeated Events." *Journal of Politics* 64(4):1069-1094.
- Box-Steffensmeier, Janet M., Dan Reiter, and Christopher Zorn. 2003. "Nonproportional Hazards and Event History Analysis in International Relations." *Journal of Conflict Resolution* 47(1):33-53.
- Boehmke, Frederick J., Daniel S. Morey, Megan Shannon. 2006. "Selection Bias and Continuous-Time Duration Models: Consequences and a Proposed Solution." *American Journal of Political Science* 50(1):192-207.
- Box-Steffensmeier, Janet M., Suzanna De Boef, and Kyle A. Joyce. 2007. "Event Dependence and Heterogeity in Duration Models: The Conditional Frailty Model." *Political Analysis*. 15(3):237-256.

Recommended Readings:

Hills, CA: Sage.
- Singer, J. David. 1987. "Reconstructing the Correlates of War Dataset on Material Capabilities of States, 1816-1985." *International Interactions* 14:115-32.
- de Soysa, Indra, John R. Oneal, and Yong-Hee Park. "Testing Power-Transition Theory Using Alternative Measures of National Capabilities." *Journal of Conflict Resolution* 41(4):509-528.
- Memn, R. L., and D. Zinnes. 1988. "Validity of Power Indices." *International Interactions* 14:141-51.
- Baldwin, David A. 2002. "Power and International Relations." in Walter Carlsnaes, Thomas Risse and Beth A. Simmons., ed. *Handbook of International Relations.* Thousand Oaks, CA: Sage.

10. Measuring Democracy

Required Readings:
- Marshall, Monty G. and Keith Jaggers. 2002. "POLITY IV PROJECT: Political Regime Characteristics and Transitions, 1800-2002, Dataset Users' Manual." University of Maryland: Integrated Network for Societal Conflict Research (INSCR) Program and Center for International Development and Conflict Management (CIDCM).
- Gleditsch, Kristian S., and Michael D. Ward. 1997. "Double Take: A Reexamination of Democracy and Autocracy in Modern Polities." *Journal of Conflict Resolution* 41(3):361-383.
- Jackman, Simon, and Shawn Treier. 2007. "Democracy as a Latent Variable." *American Journal of Political Science* forthcoming.
- Vreeland, James Raymond. 2007. "The Effect of Political Regime on Civil War: Unpacking Anocracy." *Journal of Conflict Resolution*.
- Signorino, Curtis S., and Jun Xiang. 2011. "Averaging Away the Effects: Aggregation Bias in Indices of Power and Democracy." Working Paper.

Recommended Readings:
- Elkins, Zachary. 2000. "Gradations of Democracy? Empirical Tests of Alternative Conceptualizations." *American Journal of Political Science* 44(2):293-300.
- Bowman, Kirk, Fabrice Lehoucq, and James Mahoney. 2005. "Measuring Political Democracy: Case Expertise, Data Adequacy, and Central America." *Comparative Political Studies* 38(8):939-970.
- Munck, Gerardo L. and Jay Verkuilen. 2002. "Conceptualizing and Measuring Democracy: *ve   itical   Studie*

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- Gartzke, Erik. 1998. "Kant We All Just Get Along? Opportunity, Willingness, and the Origins of the Democratic Peace." *American Journal of Political Science* 42(1):1-27.
- Signorino, Curtis S., and Jeffrey M. Ritter. 1999. "Tau-b or Not Tau-b: Measuring the Similarity of Foreign Policy Positions." *International Studies Quarterly* 43(1):115-144.
- Bennett, D. Scott, and Matthew Rupert. 2003. "Comparing Measures of Political Similarity: An Empirical Comparison of Using S or tau-b in the Study of International Conflict." *Journal of Conflict Resolution* 47(3):367-393.
- Sweeney, Kevin and Omar M.G. Khesk. 2005. "The Similarity of States: Using S to Compute Dyadic Interest Similarity." *Conflict Management and Peace Science*. 22(2):165-87.

12. Ideal Point Estimation in International Relations

- Poole, Keith T. and Howard Rosenthal. 1985. "A Spatial Model for Legislative Roll Call Analysis." *American Journal of Political Science*. 29(2):357-384.
- Clinton, Joshua, Simon Jackman, and Douglas Rivers. 2004. "The Statistical Analysis of Roll Call Data." *American Political Science Review*. 98(2):355-370.
- Voeten, Erik 2000. "Clashes in the Assembly." *International Organization* 54(2):185-217.
- Voeten, Erik 2007. "The Politics of International Judicial Appointments: Evidence from the European Court of Human Rights." *International Organization* 61(4):669-701.

13. Causal (not "Casual") Inference

- Donald B. Rubin. 1973. Matching to Remove Bias in Observational Studies. *Biometrics*, Vol. 29, No. 1. pp. 159-183.
- Rosenbaum, P.R. and D.B. Rubin. 1983. "The Central Role of the Propensity Score in Observational Studies for Causal Effects." *Biometrika*.
- Rosenbaum, P.R. and D.B. Rubin. 1985. "The Bias Due to Incomplete Matching." *Biometrics*.
- Holland, P.W. 1986. "Statistical and Causal Inference (with discussion)." *JASA*.
- Freedman, David A. 1991. "Statistical Models and Shoe Leather." With discussion by Richard A. Berk, Hubert M. Blalock, Jr., William M. Mason. Pp. 291-358 in *Sociological Methodology* 1991.
- Joshua D. Angrist; Guido W. Imbens; Donald B. Rubin. 1996. "Identification of Causal Effects Using Instrumental Variables" *JASA*. Vol. 91, No. 434. pp. 444-455.
- James Heckman and Salvador Navarro-Lozanno. 2004. "Using matching, instrumental variables and control functions to estimate economic choice models." *Review of Economics and Statistics*. 86(1):30-57.
- Sekhon, Jasjeet S. 2009. Opiates for the Matches: Matching Methods for Causal Inference. *Annual Review of Political Science*. 12:487-508

14. Markov Transition Models

- Duncan, George T., and Randolph M. Siverson. 1975. "Markov Chain Models for Conflict Analysis: Preliminary Results from Sino-Indian Relations, 1959- 1964." *International Studies Quarterly* 19 (3):344-374.
- Jackman, Simon. 2000. "In and Out of War and Peace: Transitional Models of International Conflict." Working paper, Stanford University.
- Przeworkski, Adam, and James Vreeland. 2002. "A Statistical Model of Bilateral Cooperation." *Political Analysis* 10(2).
- Gleditsch, Kristian Skrede, and Michael D. Ward. 2006. "Diffusion and the International Context of Democratization." *International Organization* 60(4):911-933

15. Structural Breaks

- Spirling, Arthur. 2007. "'Turning Points' in Iraq: Reversible Jump Markov Chain Monte Carlo in Political Science." *The American Statistician*, forthcoming.
- Spirling, Arthur. 2007. "Bayesian Approaches for Limited Dependent Variable Change Point Problems." *Political Analysis*, forthcoming.

16. Surveys and Experiments

- Herrmann, Richard K, James F. Voss, Tonya Y. • RevJoursiseof Confli$Resoluicos/TT0 1 Tf0 Tc 7 T0.0005 Tw?