

## **G53:3300: Applications of Game Theoretic Models to American Politics**

Spring 2004

Professor Rebecca Morton

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**Office Hours:** 8:30-10 am Fridays or by appointment

**Class Meeting Time:** 10-noon Fridays

**Course Prerequisites:** At least one of the following courses (either taken prior or concurrently): G53.1110 or G53.2105 or G53.2106. Students also should have completed G53.1150.

**Course Description:** This class focuses on how game theoretic models have and can be used to address substantive issues in American politics. Students will be expected to have some exposure to the use of game theory in political science as well as regression analysis. The class will focus on how to bridge from the game theoretical work in political science to understanding the empirical world of American politics. We will read and discuss a number of game theoretic works, which are inspired or related to the environment of real world American politics. However, much of the work we will read has not been examined empirically in a systematic fashion. Where empirical analysis related to the work exists, we will discuss and evaluate that work. Where empirical analysis does not exist, we will explore how that analysis might be conducted fruitfully. Most of the class will emphasize game theoretic models in the area of electoral politics since this work is less well represented in the American politics core course and other courses at NYU and an area with opportunities for empirical evaluation (an area where the theory and the existing empirical work is often much less connected than elsewhere in American Politics). Furthermore, because of the widespread use of the elections in choosing governmental officials and sometimes directly making policy in American Politics, understanding the American electoral process is essential to understanding American Politics.

**Assignments:** Your grade will be based on three factors:

First, 40% of your grade will be based on your class participation, which will include both discussions and a couple of brief presentations of the articles assigned to the class.

Second, 30% of your grade will be based on a research paper that is due at the end of the semester (you will be expected to give a brief presentation to the class on your paper at the end of the semester). In the research paper you will take a game theoretic model that is inspired by or related to the environment of American

politics (in most cases a model that has been devised previously, however, you may create your own model – if you have lots of time!) and conduct a preliminary empirical analysis of that model.

The remaining 30% of your grade will be based on a number of other short assignments, including homework problems, research proposals, and “referee reports” which will be explained in more detail in class.

**Texts and Readings:** The following text is required (the rest of the course will comprise of readings listed below, a course pack will be available for the required readings):

Morton, Rebecca, *Methods and Models: A Guide to the Empirical Analysis of Formal Models in Political Science*, Cambridge U. Press, 1999.

### **Tentative Class Schedule**

**Friday, January 23<sup>rd</sup>**

**Introduction to the Course**

Required Reading: Morton, *Methods and Models*, entire (particular emphasis should be paid to chapter 4).

**Friday, January 30<sup>th</sup>**

**Game Theoretic Models of Voter Turnout – Foundations (required readings are starred)**

\*Slutsky, Steven, 1975. “Abstentions and Majority Equilibrium,” *Journal of Economic Theory*, vol. 11, no. 2, 292-304.

\*Ledyard, John, 1984. “The Pure Theory of Two Candidate Elections,” *Public Choice*, 44, pages 7-41.

Palfrey, Thomas and Howard Rosenthal, 1983. “A Strategic Calculus of Voting,” *Public Choice*, 41-1, 7-53.

\*Palfrey, Thomas and Howard Rosenthal, 1985. “Voter Participation and Strategic Uncertainty,” *American Political Science Review*, 79-1, 62-78.

**Friday, February 6<sup>th</sup>**

**Game Theoretic Models of Voter Turnout – the Swing Voter’s Curse, Random Voters, & the Poisson Approach (required readings are starred)**

\*Feddersen, Timothy J. and Wolfgang Pesendorfer. 1999. “Abstention in Elections with Asymmetric Information and Diverse Preferences,” *American Political Science Review*, vol. 93, no. 2, 381-398.

\*Myerson, Roger B., 2000. “Large Poisson Games,” *Journal of Economic Theory*, vol. 94, no. 1, 7-45.

Campbell, CM, 1999. “Large Electorates and Decisive Minorities,” *Journal of Political Economy*, vol. 107, no. 6, 1199-1217.

### **Friday, February 13<sup>th</sup>**

#### **Game Theoretic Models of Voter Turnout – the Group Approach (required readings are starred)**

- \*Morton, Rebecca 1987. “A Group Majority Model of Voting,” *Social Choice and Welfare*, 4:117-31.
- Morton, Rebecca 1991. “Groups in Rational Turnout Models,” *American Journal of Political Science*, 35, 758-76.
- \*Shachar, R and B. Nalebuff, 1999. “Follow the Leader: Theory and Evidence on Political Participation,” *American Economic Review* 89(3):525-547, June.
- \*Schram, A and J. Sonnemans, 1996. “Why People Vote: Experimental Evidence,” *Journal of Economic Psychology*, 17(4):417-442, August.

### **Friday, February 20<sup>th</sup>**

#### **More on Groups and Voting**

- \*Feddersen, Timothy J. and Alvaro Sandroni, 2002, “A Theory of Participation in Elections with Ethical Voters,” working paper.
- \*Coate, Steven and Michael Conlin. 2002, “Voter Turnout: Theory and Evidence from Texas Liquor Referenda,” NBER Working Paper.
- \*Alesina, A, LaFerrara E, 2000 “Participation in Heterogeneous Communities,” *Quarterly Journal of Economics*, 115(3):847-904, August.

### **Friday, February 27<sup>th</sup>**

#### **A Sampling of Empirical Evidence on Game Theoretic Models of Turnout and Some Applications to Substantive Issues (required readings are starred)**

- Schram, Arthur and J. Sonnemans 1996. “Voter turnout as a participation game: An Experimental Investigation,” *International Journal of Game Theory*, 25 (3), pages 385-406.
- Hansen, S., TR Palfrey, H. Rosenthal, 1987. “The Downsian Model of Electoral Participation – Formal Theory and Empirical Analysis of the Constituency Size Effect,” *Public Choice*, 52(1): 15-33, 1987.
- \*Endersby, JW, Galatas SE, Rackaway CB, 2002. “Closeness Counts in Canada: Voter Participation in the 1993 and 1997 Federal Elections,” *Journal of Politics*, 64(2): 610-631, May.
- \*Kunze, M., 2001. “Pre-election Polling and the Rational Voter: Evidence from State Panel Data (1986-1998), vol. 107 (1-2), 21-34, April.
- Matsusaka, JG, Palda F, 1999. “Voter Turnout: How Much Can We Explain?” *Public Choice*, 98 (3-4), 431-446, March.
- \*Filer, Kenny, and Morton, 1993. “Redistribution, Income, and Voting,” *American Journal of Political Science*, 37(1):63-87, February 1993
- Filer, Kenny, and Morton, 1991. “Voting Laws, Educational Politics, and Minority Turnout,” *Journal of Law and Economics*, 34(2):371-393, Part I, October.
- \*Greene KV, Nikolaev O, 1999. “Voter Participation and the Redistributive State,” *Public Choice*, 98 (1-2): 213-226, January.
- Kanthak, K and R. Morton, 2003. “Primaries and Turnout,” working paper.

**Friday, March 5<sup>th</sup>**

**Moving Beyond Turnout to a First Cut of Understanding Candidates in Plurality Rule Elections (required readings are starred)**

- Feddersen, Timothy J. 1992. "A Voting Model Implying Duverger's Law and Positive Turnout," *American Journal of Political Science*, vol. 36, no. 4, 938-62.
- Osborne, MJ, Slivinski A, 1996. "A Model of Political Competition with Citizen-Candidates," *Quarterly Journal of Economics* 111(1):65-96, February.
- \*Besley, T, Coate, S. 1997. "An Economic Model of Representative Democracy," *Quarterly Journal of Economics*, vol. 112 (1): 85-114, February.
- \*Myerson, RB, 1993. "Incentives to Cultivate Favored Minorities Under Alternative Electoral Systems," *American Political Science Review*, 87(4):856-869, December.
- \*Myatt, DP, Fisher SD, 2002. "Tactical Coordination in Plurality Electoral Systems," *Oxford Review of Economic Policy*, 18(4):504-522, Winter.
- Myerson, RB, 1999. "Theoretical Comparisons of Electoral Systems," *European Economic Review*. 43(4-6):671-697, April.

**Friday, March 12<sup>th</sup> – (Public Choice Meetings are this weekend so this class may need to be rescheduled for a different day)**

**Voters and Candidates in Primaries and Sequential Elections (required readings are starred)**

- \*Cadigan, J, Janeba E. 2002. "A Citizen-Candidate Model with Sequential Elections," *Journal of Theoretical Politics*, 14(4):387-407, October.
- \*Chen, KP, Yang SZ. 2002. "Strategic Voting in Open Primaries," *Public Choice*, 112(1):1-30, July.
- \*Callender, Steven, 2003. "Duverger's Hypothesis, the Run-Off Rule, and Electoral Competition," working paper.
- \*Martinelli, C. 2002, "Simple Plurality versus Plurality Runoff with Privately Informed Voters," *Social Choice and Welfare*, 19(4):901-919, October.
- Strumpf, KS, 2002. "Strategic Competition in Sequential Election Contests," *Public Choice*, 111(3-4):377-397, April.
- Battagliani, Marco, 2003. "Sequential Voting" working paper.

**Friday, March 19<sup>th</sup> Spring Break No Class**

**Friday, March 26<sup>th</sup>**

**Voters and Candidates in Primaries and Sequential Elections Empirics (required readings are starred)**

- \*Morton, RB, KC Williams. 1999. "Information Asymmetries and Simultaneous versus Sequential Voting," *American Political Science Review*, 93(1):51-67, March
- \*Gerber, ER, Morton RB, 1998. "Primary Election Systems and Representation," *Journal of Law, Economics, and Organization*, 14(2):304-324, October.
- \*Gerber, ER, Morton RB, 2003, "Electoral Coalition Formation," working paper.
- \*Morton, RB and T. Rietz, 2003, "Majority Requirements and Minority Representation," working paper.

**Friday, April 2<sup>nd</sup>**

**Voters, Candidates, and Parties (required readings are starred)**

- Martinelli, C. 2001. "Elections with Privately Informed Parties and Voters," *Public Choice*, 108(1-2):147-167, July.
- \*Snyder, JM and MM Ting, 2002, "An Informational Rationale for Political Parties," *American Journal of Political Science*, 46(1):90-110, January.
- \*Morelli, Massimo, 2002, "Party Formation and Policy Outcomes under Different Electoral Systems," working paper.
- Poutvaara, P, 2003. "Party Platforms with Endogenous Party Membership," *Public Choice*, 117(1-2):79-98, October.
- Roemer, JF, 1999. "The Democratic Political Economy of Progressive Income Taxation," *Econometrica*, 67(1):1-19, January.
- Calvert, RL, 1985. "Robustness of the Multidimensional Voting Model – Candidate Motivations, Uncertainty, and Convergence," *American Journal of Political Science*, 29(1):69-95.
- \*Morton, RB, 1993. "Incomplete Information and Ideological Explanations of Platform Divergence," *American Political Science Review*, 87(2):382-392, June.
- Fauli-Oller, Ramon, Efe A. Ok, Ignacio Ortuno-Ortin, 2003, "Delegation and Polarization of Platforms in Political Competition," *Economic Theory*, 22(2):289-309, September.
- \*Ortin, IO, 2002, "Ideological versus Downsian Political Competition," *Social Choice and Welfare*, 19(3):551-567, July.

**Friday, April 9<sup>th</sup> – (Good Friday so this class may need to be rescheduled for a different day)**

**Interest Groups & Money in Elections (required readings are starred)**

- Prat, Andrea, 2002. "Campaign Advertising and Voter Welfare," *Review of Economic Studies*, 69(4):999-1017, October.
- \*Prat, Andrea, 2002. "Campaign Spending with Office-Seeking Politicians, Rational Voters, and Multiple Lobbies," *Journal of Economic Theory*, 103(1):162-189, March.
- \*Kirschsteiger, G and A. Prat, 2001. "Inefficient Equilibria in Lobbying," *Journal of Public Economics*, 82(3):349-375, December.
- Baron, DP, 1994. "Electoral Competition with Informed and Uninformed Voters," *American Political Science Review*, 88(1):33-47, March.
- \*Morton, RB and C. Cameron, 1992. Elections and the Theory of Campaign Contributions: A Survey and Critical Analysis," *Economics and Politics*, 4(1992):79-108.
- \*Dharmapala, D and F. Palda, 2002 "Are Campaign Contributions a Form of Speech? Evidence from Recent US House Elections," *Public Choice*, 112(1):81-114, July.

**Friday, April 16<sup>th</sup> – Midwest Political Science Association Meetings (to be rescheduled for a different day)**

**More on Information and the Media in Elections (required readings are starred)**

- Stromberg, David, "Radio's Impact on Public Spending," forthcoming, *Quarterly Journal of Economics*.

- \*Stromberg, David, "Mass Media Competition, Political Competition, and Public Policy," forthcoming, *Review of Economic Studies*.
- Husted, TA, Kenny LW, Morton RB, 1995. "Constituent Errors in Assessing Their Senators," *Public Choice*, 83(3-4):251-271, June.
- \*Gerber, A and Green DP, 1998. "Rational Learning and Partisan Attitudes," *American Journal of Political Science*, 42(3):794-818, July.
- \*Musto, DK, Yilmaz B, 2003. "Trading and Voting," *Journal of Political Economy*, 111(5):990-1003, October.
- Baron, David, working paper.
- \*Forsythe, R., TA Rietz, TW Ross, 1999. "Wishes, Expectations, and Actions: A Survey on Price Formation in Election Stock Markets," *Journal of Economic Behavior and Organization*, 39(1):83-110, May.

### **Friday, April 23<sup>rd</sup>**

#### **Shared But Limited Powers and American Elections (required readings are starred)**

- \*Alesina, A, and Howard Rosenthal, 1996. "A Theory of Divided Government," *Econometrica*, 64(6):1311-1341, November.
- Alesina, A, and Howard Rosenthal, 2000. "Polarized Platforms and Moderate Policies with Checks and Balances," *Journal of Public Economics*, 75(1):1-20, January.
- \*Mebane, WR, 2000, "Coordination, Moderation, and Institutional Balancing in American Presidential and House Elections," *American Political Science Review*, 94(1):37-57, March.
- Mebane, WR and Sekhon JS, 2002. "Coordination and Policy Moderation at Midterm," *American Political Science Review*, 96(1):141-157, March.
- Bulgarin, MS, 2003. "Vote Splitting, Reelection and Electoral Control: Towards a Unified Model," *Social Choice and Welfare*, 20(1):137-154, February.
- \*Ansolabehere, S., Snyder JM, Ting MM, 2003. "Bargaining in Bicameral Legislatures: When and Why Does Malapportionment Matter?" *American Political Science Review*, 97(3):471-481, August.
- \*Cremer, J. and Palfrey TR, 2000, "Federal Mandates by Popular Demand," *Journal of Political Economy*, 108(5):905-927, October.

### **Friday, April 30<sup>th</sup>**

#### **Presentation of Student Papers**