

**The Political Economy  
of Social Choices Workshop**

**Oaxaca, México**

**July 25-31, 2015**

**SPONSORED BY**

**Casa Matemática De Oaxaca (CMO)  
and  
Banff International Research Station (BIRS)**

**ORGANIZERS**

**Maria Gallego and Norman Schofield**

**BOOK OF ABSTRACTS**

---

**Authors:** Dina Balalaeva (National Research University—Higher School of Economics) and  
**Olga Shvetsova** (Binghamton University (SUNY))

**Title:** Autocratic Health versus Democratic Health:  
The Political Economy of which Diseases to Treat First

**Abstract:**

In this paper we argue that autocracies' healthcare policy is a part of their economic policy and targets developing the labor force as a factor of production. With disaggregated data on mortality from specific diseases, we show that, other things being equal, autocracies manage to deal relatively well with the diseases that “damage” the workforce, at the expense of other areas of health improvement. Democracies, in contrast, do not have such bias, and their policy priorities are less clear and depend on the preferences of their winning coalitions on the dimension of health.

---

**Authors:** **Steven J. Brams** (New York University) and  
Richard F. Potthoff (Duke University)

**Title:** The Paradox of Grading Systems

**Abstract:**

We distinguish between (i) voting systems in which voters can rank candidates and (ii) those in which they can grade candidates, such as approval voting, in which voters can give two grades--approve (1) or not approve (0)--to candidates. While two grades rule out a discrepancy between the average-grade winner, who receives the highest average grade, and the superior-grade winner, who receives more superior grades in pairwise comparisons (akin to Condorcet winners), more than two grades allow it. We call this discrepancy between the two kinds of winners the paradox of grading systems, which we illustrate with several examples and whose probability we estimate for sincere and strategic voters through a Monte Carlo simulation. We discuss the tradeoff between (i) allowing more than two grades, but risking the paradox, and (ii) precluding the paradox, but restricting voters to two grades.

---

**Authors:** Steven J. Brams (New York University) and  
**D. Marc Kilgour** (Wilfrid Laurier University)

**Title:** Paths to Victory in Presidential Elections: The Setup Power of Noncompetitive States

**Abstract:**

In U.S. presidential elections, voters in noncompetitive states seem not to count—and have zero power, according to standard measures of voting power—because they cannot influence the outcome in their states. But the electoral votes of these states are essential to a candidate's victory, so they do count, but in a different way. We propose a simple model that enables us to measure the setup power of voters in noncompetitive states by modeling how these states structure the contest in the competitive states, as illustrated by the 2012, 2008, 2004, and 2000 presidential elections. We define three measures of setup power—winningness, vulnerability, and fragility—and show how they pinpoint the advantages of the candidate ahead in electoral votes in the noncompetitive states. In fact, this candidate won in all four elections.

---

**Author:** **Craig Brett** (Mount Allison University)

**Title:** Probabilistic Voting over Income Taxes with International Migration

**Abstract:**

The choice of income tax policy by vote-maximizing politicians when workers are internationally mobile is examined. Optimal tax rules are derived, showing the separate effects of voting at the ballot box and with the feet. The resulting formulas are used to highlight when and how political considerations can attenuate (or exacerbate) the downward pressure on income tax rates typically associated with international mobility.

---

---

**Authors:** **Arnaud Dellis** (Université du Québec a Montreal) and  
Christopher Cotton (Queen's University)

**Title:** Informational lobbying and agenda distortion

**Abstract:**

We challenge the prevailing view that pure informational lobbying (in the absence of political contributions and evidence distortion) leads to better informed policymaking. Our argument relies on two key features of the policymaking process. First, time and budget constraints prevent a policymaker from addressing all issues, forcing him to choose an agenda. Second, a policymaker can exert effort or expand resources to learn about an issue on his own, and therefore does not need lobbying to become informed. We show how interest groups involved with less important issues can have a greater incentive to collect information and lobby than other groups. These lobbying efforts can shift the policymaker's attention away from the issues which are most important for constituents and towards the issues of lower public importance but with active lobbies. The resulting distortion of the policy agenda can lead to worse policy outcomes for constituents, even when the policymaker shares policy preferences with his constituents. Interestingly, we show that informational lobbying can simultaneously lead to a better-informed policymaker and worse policy outcomes. Also, we show that even friendly lobbying (i.e., interest groups lobbying a policymaker who is already biased in their favor) can lead to worse policy.

---

**Authors:** Alexander Elbittar (Instituto Tecnológico Autónomo de México),  
**Andrei Gomberg** (Instituto Tecnológico Autónomo de México),  
César Martinelli (Instituto Tecnológico Autónomo de México), and  
Thomas Palfrey (California Institute of Technology)

**Title:** Ignorance and Bias in Collective Decisions

**Abstract:**

We study theoretically and experimentally a committee with common interests. Committee members do not know which of two alternatives is the best, but each member can acquire privately a costly signal before casting a vote under either majority or unanimity rule. In the experiment, as predicted by Bayesian equilibrium, voters are more likely to acquire information under majority rule, and attempt to counter the bias in favor of one alternative under unanimity rule. As opposed to Bayesian equilibrium predictions, however, many committee members vote when uninformed. Moreover, uninformed voting is strongly associated with a lower propensity to acquire information. We show that an equilibrium model of subjective prior beliefs can account for both these phenomena, and provides a good overall fit to the observed patterns of behavior both in terms of rational ignorance and biases.

---

---

**Authors:** **Robert S. Erikson** (Columbia University) and  
Yair Ghitza (Catalist)

**Title:** Electing the Agenda-Setter

**Abstract:**

There are two well-known theoretical results about voting on policy when preferences are multidimensional: (1) generally, no equilibrium policy exists, and (2) an agenda-setter has the power to manipulate the results to her desired outcome. We examine the case where the agenda setter is chosen by the vote of the legislature rather than exogenously imposed. In the model, legislators share common expectations about the locations of their preferences in multi-dimensional space. We simulate the results of tournaments in which legislators vie for the role of the leader, who will have the power to set the legislative agenda to her liking. We show that when all potential choices for leader are paired against each other, a Condorcet winner is more likely than not. The probability of a Condorcet winner (who defeats all comers in a leadership battle) actually increases with the complexity of the structure of legislative preferences.

---

**Authors:** J. Stephen Ferris (Carleton University),  
**Stanley L. Winer** (Carleton University) and  
Bernard Grofman (University of California Irvine)

**Title:** Measuring Electoral Competitiveness: The Parliamentary System of Canada, 1867 - 2011

**Abstract:**

We consider the meaning and measurement of electoral competitiveness in a parliamentary democracy, and construct a variety of indexes for the entire history of the Canadian state from 1867. Devising a practical and useful measure of the competitiveness of an economic market is not an easy task, and doing so for an election contest is no less challenging. This is so despite the common use of such indexes as the effective number of parties and first versus second place vote margins. Our analysis highlights both differences and similarities among the indexes used to measure the competitiveness of economic markets and those used to measure the competitiveness of electoral contests. Working at both the constituency and the national party level, we apply the various indexes to measure electoral competitiveness across Canadian federal elections using the complete record of regular constituency level elections from Confederation in 1867 to the 41st election in 2011. Finally, we pose some key questions that we think we need to address in further work. This paper is a part of a larger project on the meaning, measurement and consequences for public policy of electoral competitiveness in mature democracies.

---

**Authors:** **Maria Gallego** (Wilfrid Laurier University) and  
Norman Schofield (Washington University in St. Louis)

**Title:** Modelling the effect of campaign advertising on US Presidential elections when differences across states matter.

**Abstract:**

We provide a stochastic electoral model of the US Presidential election that gives a theoretical rationale for candidates spending more resources in swing than in non-pivotal states. Social media coupled with data on voters' personal information allows candidates the ability to directly communicate with voters. Campaign messages are now directed at states and voters.

In our model, candidates directly communicate with voters and since they understand the political and economic differences that exist across states, they run different campaigns at the state and national levels. Voters care about candidates' policies relative to their ideal, about the frequency of candidates' advertising messages relative to their ideal message frequency. They vote taking into account their sociodemographic characteristics, candidates' traits and their belief on candidates' competence. Prior to the election candidates announce their national and state policies and use their state and national advertising campaigns to give voters a further impetus to vote for them. The local Nash equilibrium characterizes the equilibrium at the state level where candidates give maximal weight pivotal voters and at the national level where candidates give maximal weight to swing states. These weights are endogenously determined as they depend on the probability with which voters choose each candidate which depends on the candidates' policies and advertising campaigns at the state and national levels. Thus, the political and socioeconomic differences across states lead candidates to treat voters and states differently when choosing their policies or advertising campaigns at the state and national levels.

---

**Authors:** **Eric Magar** (Instituto Tecnológico Autónomo de México),  
Micah Altman (Massachusetts Institute of Technology),  
Michael McDonald (University of Florida), and  
Alejandro Trelles (University of Pittsburgh)

**Title:** The effects of malapportionment, turnout, and gerrymandering in multi-party systems.

**Abstract:**

Mexico's federal electoral authority has carried out automated redistricting since the mid-1990s. We inspect two recent machine-generated maps for evidence of party bias in the translation of votes to seats for the lower chamber of Congress. Based on Monte Carlo simulations of recent elections, we develop a new procedure to measure three potential sources of party bias in a multiparty setting separately: malapportionment, gerrymandering, and turnout. Analysis reveals how, relative to the right-of-center PAN, the former hegemonic PRI, but especially the left-of-center PRD have enjoyed advantageous party bias. We also show that systematic and often large turnout-based bias in favor of PRI has been countered by district boundaries substantively helping one or both other major parties. Despite nominally neutral district drawing, gerrymandering remains a key ingredient of party bias in representation.

---

**Authors:** Michel Le Breton (Toulouse Scholl of Economics),  
Dominique Lepelley (Université de la Réunion) and  
**Vincent Merlin** (Université de Caen Basse-Normandie)

**Title:** Evaluating the likelihood of the referendum paradox for mixed voting systems

**Abstract:**

A referendum paradox (Nurmi, 1999) occurs, in a two party competition, each time a party gets a majority of the seats in the parliament while it did not obtain a majority of votes nationwide. This paradox can be viewed as an instance of the Borda paradox, as the voting rules fails to select the Condorcet winner. Feix, Lepelley, Merlin and Rouet (2004), Wilson and Pritchard (2007) and Lepelley, Merlin and Rouet (2011) computed the probability of the referendum paradox under the Impartial Culture (IC) assumption and a variant of the Impartial Anonymous Culture (IAC\*) assumptions when two parties compete in  $D$  equal sized districts. These a priori models for voting are extensively described in Gerhlein (2006). The same paradox may occur for mixed electoral systems. On the top of electing  $D$  representatives in districts, the voters also elect  $L$  members of the parliament at large. Hence, the parliament is of size  $D + L$ . Blais and Massicote (2009) propose an extensive survey of all the mixed electoral systems that are used worldwide. In this paper, assuming that  $D$  representatives are elected in equal size jurisdictions, we estimate the probability of the referendum paradox for three different mixed systems: 1) when the all the  $L$  at large seats are attributed to the party which obtained a majority of votes nationwide 2) when the  $L$  at large seats are apportioned according to the proportional rule and 3) when the  $L$  seats are apportioned on the basis of the wasted votes, that is, the sums of the votes of the party candidates that were not elected in districts. We perform our estimations under the IC and IAC\* hypothesis. As a corollary, we estimate the probability of the referendum paradox as a function of the ratio  $L/D$  under the three scenarios. In an electoral design perspective, we are then able to suggest which values for  $L/D$  are sufficiently large for the referendum paradox to become negligible and which mixed system is more able to drastically reduce the likelihood of the paradox.

---

**Authors:** Mazen Hassan (Cairo University),  
Sarah Mansour (Cairo University) and  
**Rebecca B. Morton** (New York University)

**Title:** Political Polarization and Support for Reform: Experimental Evidence from Egypt

**Abstract:**

We examine whether political polarization in elections is an obstacle to reform in an incentivized laboratory experiment using natural ideological differences in Egypt. Specifically, we create societies which subjects join based on ideological preferences. Voters choose between enacting a reform, which will benefit all (but has a differential benefit for supporters of one of the societies) versus not enacting the reform and everyone receiving lower payoffs. We find that when voters are provided with information that support for the reform varies across ideological societies, they are significantly more likely to report that their vote choices are influenced by their society membership than when such information is not provided. We also find some evidence that the information influences voters' choices in the election. We find no information effects when societies are ideologically neutral. Our results provide evidence that ideological polarization can make reform less desirable for some even when all benefit.

---

**Authors:** Michael Morreua (University of Norway) and  
**John A. Weymark** (Vanderbilt University)

**Title:** Scale-Dependent Welfarist Social Choice

**Abstract:**

The social welfare functional approach to social choice theory fails to distinguish between a genuine change in individual well-beings from a merely representational change due to the use of different measurement scales. A generalization of the concept of a social welfare functional is introduced that explicitly takes account of the scales that are used to measure well-beings so as to distinguish between these two kinds of changes. This generalization of the standard theoretical framework results in a more satisfactory formulation of welfarism, the doctrine that social alternatives are evaluated and socially ranked solely in terms of the well-beings of the relevant individuals. This scale-dependent form of welfarism is axiomatized using this framework. The implications of this approach for characterizing classes of social welfare orderings are also considered.

---

**Author:** **Marcus Pivato** (Université de Cergy-Pontoise)

**Title:** Statistical Utilitarianism

**Abstract:**

Given a menu of social alternatives, the "utilitarian" alternative is the one which maximizes the average utility of all the individuals in society. There are four problems in finding this alternative. (1) Precise interpersonal utility comparisons are difficult. (2) It is hard to estimate people's utility functions. (3) People might even be incorrect about their own utility functions (e.g. due to myopia). (4) People might strategically misrepresent their utility functions (to manipulate the outcome).

However, I will show that, in a sufficiently large population satisfying certain statistical regularities, these problems can be largely mitigated: it is often possible to accurately estimate the utilitarian social welfare function, even if we only have very noisy data about individual utility functions and interpersonal utility comparisons. Indeed, this can be done in a strategy-proof way, using a modified version of the Groves-Clarke pivotal mechanism.

Furthermore, if this large population satisfies certain statistical regularities, then the profile of voter preferences will admit a Condorcet winner (i.e. an alternative which beats every other alternative in a pairwise majority vote), and this Condorcet winner will maximize utilitarian social welfare. Thus the utilitarian outcome will be selected by any Condorcet consistent voting rule. In particular, it will be the subgame-perfect equilibrium outcome of several voting games. Finally, I will show that it is often possible to identify an optimal or close-to-optimal utilitarian social choice using "scoring rules" such as evaluative voting, approval voting, or the Borda rule.

---

---

**Authors:** **Norman Schofield** (Washington University in St. Louis) and  
**Jeong Hyun Kim** (Washington University in St. Louis)

**Title:** Spatial Model of U.S. Presidential Election in 2012

**Abstract:**

Using a survey from a nationally representative sample in the U.S., this paper applies a spatial model of election to 2012 U.S. Presidential election. Studying 2012 Presidential election allows us to examine the role of activists in U.S. elections, since this election is the first presidential election after the historical *Citizens United* decision by the U.S. Supreme Court, which resulted in the removal of the limits on campaign contribution. By estimating a set of multinomial logit models, we find that ideological distance between candidate and voters still plays a significant role in determining vote choice in the U.S. elections. However, the valence of a candidate in the 2012 election turns out to be not a statically significant predictor of vote choice. These finding suggest that the exogenous increase in campaign contribution has emphasized the role of ideological distance in voting behavior, while reducing the effect of valence.

---

**Authors:** **Norman Schofield** (Washington University in St. Louis) and  
**William Simoneau** (Washington University in St. Louis)

**Title:** Modeling Elections and Referenda in Ireland

**Abstract:**

Using survey data from the Irish Social Sciences Data Archive (ISSDA), we apply spatial models for the 2007 Irish general election, the 2008 Lisbon Treaty referendum, and the 2009 Lisbon Treaty referendum. These elections occurred right before and during the global financial crisis. This study will provide greater insight into the Irish electorate during such a tumultuous time. By estimating through both multinomial and binomial logit models, we find that ideological distance between voter and party plays a significant role in determining the vote in the general election. Moreover, we find that valence plays a significant role in both of the treaty referenda. These findings suggest that an increased media campaign conducted by the Yes campaign in the second Lisbon treaty, contributed towards a improved valence, and in turn improved result for the Yes campaign.

---

**Authors:** Norman Schofield (Washington University in St. Louis) and  
**Brandon Barutt** (Washington University in St. Louis)

**Title:** Measuring Campaign Spending Effects in Post-Citizens United Congressional Elections

**Abstract:**

The impact of campaign spending on U.S. election outcomes is a matter of significant controversy. Many scholars have observed that incumbent and challenger campaign spending have an asymmetrical impact -- specifically, challenger campaign spending exhibits a greater marginal impact in empirical models. Other scholars have posited this seemingly counter-intuitive finding is the result of endogeneity bias; these scholars argue a properly identified model yields a more intuitive symmetrical impact. This project seeks to extend these models to include the impact of now-ubiquitous independent expenditures following controversial rulings in *Citizens United v. Federal Election Commission* (2010) and *Speech Now v. Federal Election Commission* (2010). Primarily using recent data from the 2014 U.S. House of Representative elections, this project examines the nature of independent expenditures in U.S. congressional elections and how the impact of these independent expenditures compares to traditional campaign expenditures. Preliminary results suggest independent expenditures are subject to a different dynamic than campaign spending. Even when controlling for the expectations suspected of causing endogeneity bias, an asymmetrical impact of campaign spending persists; in contrast, a symmetrical impact is observed for independent expenditures. Moreover, despite widespread concern about the impact of spending on election outcomes, few election outcomes are substantially altered by the presence of spending, including controversial independent expenditures. Additional research is required to confirm these findings and fully overcome the intractable endogeneity problem.