

Ideological extremism and electoral design. Multimember versus single member districts

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Abstract Relying on a formal theoretical model, Gary Cox demonstrates that single member districts induce candidates toward policy positions at their constituency median while multimember districts encourage dispersion. We test this theoretical implication in the context of the Arizona state legislature, in which each legislative district chooses one senator and two representatives in single member and multimember contests respectively. To do so, we generate W-NOMINATE estimates of scores based on roll-call data from the Arizona state legislature that are comparable across chambers (Senate and House). Our results are substantially less supportive of the formal theory than are those of prior studies.

Keywords Ideological branding · Multimember districts · Electoral systems · Legislator ideology

1 Introduction

Electoral structures are among the most important institutional arrangements shaping the incentives that drive legislators' behavior. American state legislatures provide considerable institutional variation for testing theories of legislative representation, and one such institution is the multimember district (MMD) wherein more than one legislator is elected from the same district in the same election. Though the single member district (SMD), in which

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various MMD arrangements, institutional rules and political cultures that may or may not reflect the realities of American state legislatures. Cox (1997) examined the implications of his spatial models with case studies in nations having various forms of MMD, where he found evidence supporting the extremism hypothesis. Similarly, in two studies of Chilean MMDs, Dow (1998) and Magar et al. (1998) also find support for the extremism hypothesis. In the American context, Schiller examined the U.S. Senate (a staggered MMD) and finds evidence that “a combination of electoral incentives and institutional forces . . . push senators [from the same state] in contrasting directions” (Schiller 2000, p. 4).

The extremism hypothesis has received less attention in the literature on American state politics. One possible effect generated by MMD is that political parties could be different in chambers with members elected in MMD versus SMD elections. To address this issue, Adams (1996, p. 137) employed formal logic in arguing that in all but the rarest of cases, MMDs “should increase the ideological variance across a party’s pool of nominees.” Using ratings of Illinois legislators calculated by an interest group before and after a switch from MMD to SMD, Adams finds evidence that parties were more ideologically diverse during the years with the MMD system. This finding is suggestive, but has several limitations. First, it uses only one interest group’s rating as a measure of legislator preferences. Second, the Illinois legislature used a cumulative MMD system, which was unique at the time it was in place, has not been used in any state since 1982, and generates different incentives for legislators’ behavior than the more prevalent bloc with partial abstention form of MMD (Cox 1990b).

Richardson et al. (2004) test for ideological extremism in the Arizona state legislature and provide evidence for the ideological extremism hypothesis. Using a scale of interest group endorsements as a measure of legislator preferences, they compare the distribution of preferences in the MMD House and SMD Senate, the differences between legislators within the same geographic districts, and the distributions across party caucuses. The results are suggestive of the impact of MMDs, but their measure of ideology is based on interest group endorsements, and interest group scores have several major limitations (Fowler 1982). First, the interest group score used in the analysis is an ordinal rather than an interval variable having a scale of only nine values. The coarseness of this measure may itself mask extremism. A change in endorsement from one or two groups would have a large impact on whether someone is classified as ideologically extreme. Second, the analysis tests only for chamber differences but does not test formally derived hypotheses regarding the number of candidates.

4 Hypotheses

Our general research question relates the effect of multimember districts to the revealed ideological extremism of legislators in roll-call voting. Testing our hypotheses requires a measure of legislators’ ideological preferences. Revealed preferences in office provide a rich source of data for the careful testing of theories of electoral regimes. Roll-call voting provides data for the calculation of ideal point estimates for the measurement of revealed ideology (Poole and Rosenthal 1997) that allows us to test several hypotheses on the relationship between MMDs and ideological extremism. We test two versions of extremism, which we shall call (a) *district extremism* and (b) *legislative extremism*.

District extremism is defined as the absolute difference between representative i and the median representative of district j , where district j is represented by three legislators, one senator and two representatives. We invoke the median voter theorem (Hotelling 1929;

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