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Author
Jarvis, Matthew

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BALLISTIC MISSILE DEFENSE IN CONGRESS

Matthew Jarvis

Department of Political Science
University of California, Berkeley
Berkeley, CA 94720
email: mjarvis@socrates.berkeley.edu

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Department of Political Science
University of California, Berkeley
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email: mjarvis@socrates.berkeley.edu

Abstract

Recent successful tests of the Theater High-Altitude Air Defense System (THAAD) and the Exoatmospheric Kill Vehicle (EKV) against simulated incoming ballistic missiles have again thrust the issue of ballistic missile defense (BMD) into the policy spotlight. Scholars have typically included defense spending in studies of distributive politics. This paper studies the determinants of ballistic missile policy in Congress, distinguishing between the public sphere of floor voting and less-visible activism as measures of policy support. Many theories exist that purport to explain support for defense projects, yet few of them distinguish between different kinds of support. This paper advances the theory that funding support in Congress cannot be easily measured, and that voting is expected to show signs of rigid partisanship while cosponsorship–a better measure of true policy activism–reflects more nuanced influences. This theory is then tested against the data on Congress in the 1990s.

Observers of Congress have long been interested in distributive politics. In determining what qualifies as 'distributive,' scholars have typically included defense spending (c.f. Krehbiel, 1992; Rundquist, Lee, & Rhee, 1996; Rundquist & Ferejohn, 1975; Arnold, 1979). The reason behind this thinking is fairly evident: defense is the single largest chunk of the federal budget, averaging well above 35% of the total budget annually, and a good portion of the fluid funds in the defense budget are spent at the district or state level. This budget thus represents a large amount of funds which could be used for congressional pork. This statement is not fully accurate, as students of defense policy are aware. Like much of the government's expenditures, a great deal of this budget is fairly inflexible, such as soldier pay and maintenance costs on military vehicles. What remains as the divisible pie is the still-massive Research, Development, Testing and Evaluation (RDT&E) and procurement budgets. Programs often spend years, if not decades, in the RDT&E phase before finally moving on to procurement, if they are not terminated. In modern American defense budgeting, no class of programs has remained in RDT&E as long as ballistic missile defense. Conceived of shortly after the invention of the ballistic missile, ballistic missile defense (BMD) has spent a long time on the drawing board. Why has BMD been funded for over 40 years without successfully moving into the procurement phase? In addition, BMD as a defense issue has attracted considerable press attention since its 'resurrection' by Ronald Reagan in 1983. BMD provides a good example of a very public defense RDT&E issue–one that deserves the attention of those interested in defense spending.

This paper studies the determinants of ballistic missile defense policy and funding in the 1990s. In delimiting determinants of policy, scholars have often followed in the footsteps Fenno, identifying three categories of congressional behavior: career-motivated, policy-motivated, and motivated by a desire to cultivate institutional influence (Fenno, 1973; Gordon, 1995; Davidson, 1986; Sinclair, 1998). Liske & Rundquist argue along parallel lines when they lay out four categories: career-serving, agency-serving, institution-serving, and constituency-serving (1974). Historically, many of the studies focused on defense policy have utilized an immersive approach, describing in rich detail the histories of certain programs (Farrell, 1997; Liske & Rundquist, 1974; Dawson, 1962). Other studies have sought the causes of defense appropriations in general (Rundquist, Lee, & Rhee, 1996; Arnold, 1979).

In seeking to understand ballistic missile defense policy, this paper charts a different course. Studies of a given program are prey to influence from peculiarities unique to that program. Individual weapons systems are often monitored closely by the media, and any setbacks or successes of those systems are often widely reported. For instance, the media closely followed the development of the B-2 bomber, but paid much less attention to US strategic bomber policy as a whole. By studying a program whose elements are comprised of different, possibly competing, systems, this effect can be said to be muted, although certainly not eliminated. The failure of certain missile systems to function can hurt that system's political prospects, but in doing so, bolster those of competing systems. At the same time, failure in a basic technology demonstration might cast a pall on the whole BMD endeavor. For similar reasons, overall defense policy evaluations are problematic as well. Overall defense funding levels are subject to budgetary restrictions. There are few such restrictions that impact entire program areas;

the programs compete for limited funds, but the maximum limit is far above the conceivable range for any program.[1]

Furthermore, theories proposed to explain defense policy have been flawed at a basic level. Lacking consensus on the correct dependent variable, the different theories are unable to explain defense policy. A correct theory of defense appropriations policy recognizes the difference in publicity of different actions. Voting is a very public act; a legislator's vote can be held against him by an opponent. Cosponsorship information, while public, is not of as much use to challengers, especially if the bill involved did not pass, or was a minor bill. Any theory of defense support must therefore distinguish between different kinds of support: public and private. The theory advanced here is that the electoral incentive dominates in the public sphere. Furthermore, the electoral incentive is realized differently in the private sphere. Since a legislator cannot get much electoral credit for their behind-the-scenes activity, they will prefer to get something of electoral benefit to them: campaign contributions. In the specific context of this investigation, therefore, the expected findings are of ideological dominance in the public sphere diminishing as the measures of support tap in to more private actions.

Determinant Selection

There are a number of theoretically possible motivations for decision-making in Congress. This paper tracks four such motivations: campaign contributions, district-interest, ideology and party. Measurement of these concepts is not perfect; the constructs utilized here do not capture everything. However, an investigation into the empirical realizations used herein will elucidate potential avenues for further research.

The first determinant selected was party. An obvious determinant to consider for any investigation of Congress, party is a particularly relevant variable here. Ballistic missile defense, as a concept, was first discussed within the Department of Defense in the 1950s, most strongly advocated by the Army. Systems were developed throughout the 1960s, culminating in the Safeguard system, which was deployed in its limited form after the 1972 Anti-Ballistic Missile Treaty with the Soviet Union. Missile defense was subsequently placed on the back burner until Ronald Reagan forcefully pushed for it again, starting in March, 1983. Since then, the issue has been seized upon by Republicans; party platforms since 1983 have had BMD as a plank, and the Republicans renewed a push on the issue following the well-publicized "success" of the Patriot system during the Gulf War.[2] In the 104th Congress, HR 7, the National Missile Defense Bill, was also known as the Contract with America Bill. As this short history should make clear, the Republican Party has considered the issue to be important over the last 17 years. Party as a variable does not fit neatly into any of Fenno's categories. It could be a career-related motivation, as party support in local elections can be crucial in some tight races. It could be a policy motivation if a member believes that the policies adopted by the Republican Party are the best for the nation. However, it also is an institutional

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[1] The theoretical funding limit for any RDT&E program is the entire RDT&E budget

[2] In fact, the Patriot missile defense system's effectiveness has been questioned in the years following the Gulf War. For more information on the Patriot system in the Gulf War, see House of Representatives Report 102-1086, which states that even claims of a 25% successful intercept rate may be exaggerated.

motivation; power within Congress is held mostly by leadership positions and committee rankings. With the death of seniority as the only determinant of committee and subcommittee chairmanships, a congressperson's partisan character is an important consideration (Crook & Hibbing, 1985). Bernard Sanders (I-VT) has been allowed to hold high-ranking positions of seniority on the Democratic side, no doubt due partly to the fact that he consistently votes with the Democrats.

The second independent variable selected for analysis is ideology, as measured by both ADA Liberal Quotient scores and Poole & Rosenthal's W-Nominate scores. The Liberal Quotient scores are tabulated by Americans for Democratic Action (ADA), who select 20 roll call votes each year to rate legislators on, giving out higher scores for more liberal votes. ADA also combines its indices into a lifetime average for each legislator, and it is that average that is used here. W-Nominate scores are measured in two dimensions, liberal-conservative and a southern dimension, and based on all roll calls in which the minority gets at least 2.5% of the vote (Poole & Rosenthal, 1985; Poole & Rosenthal, 1991). This selection was made in an attempt to tap into Fenno's category of policy-driven motivations. A refinement on the party variable, yet also different, ideology reflects the positions taken by legislators. It is a refinement of the party variable because it ranks legislators like Republican Christopher Shays of Connecticut, who often chart their own directions in Congress independent of party, on a scale that reveals differences within the parties which can be important. Treating Southern Democrats of the 1950s simply as Democrats is misleading. Thus, instead of the simple, dichotomous party variable, ideology scores give an index of member policy preferences. Party organizations may indeed be a factor in soliciting support for, or opposition to, BMD systems. By introducing ideology scores, however, we can control for ideology or party organization and test the different hypotheses. Two different measures of ideology were analyzed, giving multiple measures of the same independent variable. In the analysis, the measures were nearly interchangeable, as they were highly correlated.

Perhaps the most common congressional motivation considered is that of reelection. Strongly grounded in the rational choice school in American political thought, the assumption made is that the primary motivation of members of Congress is reelection.[3] Policies are adopted, statements are made, and campaign contributions are solicited in pursuit of that often-elusive 50.1%. A common and easily tracked electoral variable is campaign contributions. Defense political action committees (PACs) donate money to election campaigns. In the modern era of politics, with specialized polling firms and 'hired gun' political consultants, money is often seen as being crucial to election and reelection. Indeed, studies of congressional campaign funds have found "a clear correlation between the amount of money spent by challengers and their share of the total votes on election day."[4] There is an extensive literature on the effects of lobbying and contributions on policy (Hall & Wayman, 1990; Langbein, 1986; Wright, 1989, 1990; Grenzke, 1989). While much of this literature finds little influence of campaign

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[3] C.f. Mayhew, 1974

[4] Indeed, there are many interest groups founded on the belief that campaign donations affect campaigns and possibly congressional decisions. A good example of the work done in this field is the biannual volume, *Open Secrets*, published by Congressional Quarterly for a number of years, and now published directly by the Center for Responsive Politics, a campaign finance watchdog group.

donations on voting, some studies have found an effect on other facets of policy determination (Hall & Wayman, 1990). It is not unreasonable to hypothesize that defense contributions affect defense policy. The vast majority of defense industry donations go to members of the defense committees; why would defense PACs keep giving if they did not think they received real returns on their investments?

Another possible consideration for legislators is the impact that defense policies will have on their constituents (an electoral concern). The termination of the flow of defense dollars to a region can have devastating effects on the local economy. People, it is often said, vote their checkbooks. The incumbent who presides over defense money coming to the district can expect to see contented voters coming to the polls. At the same time, it is also a policy concern, in the sense that it is the 'duty' of a Congressperson to represent the interests of his/her constituents. Whether it is a policy or political concern, however, is not crucial to this discussion. What is important is that it is certainly possible and indeed likely that the presence of major defense contractors who work on BMD projects within a member of Congress' district is a factor in explaining the positions taken by these elected officials. Indeed, studies of military appropriations in the past have considered district interest as an important variable to be tested, and the recent rounds of base closures illustrated the lengths to which Congresspeople will go in protecting their district interests (Arnold, 1979). While most commonly used in the study of military employment, district interest is of interest in any study of appropriations. Further justification can be found, if anecdotally, in the fact that as part of the budget authorization process in the House Armed Services Committees, members submit "wish lists," including projects and desired funding levels. These wish lists are broken down into three categories–district interests, state interests and national interests.[5] That district interests are codified in the budget process, albeit in a non-public fashion, certainly indicates that they might play a role in defense policymaking. Additionally, district interests perhaps provide a lever with which to separate Senate and House findings. Senators represent very large populations; the differences between district effects on Congressmen and Senators should provide a frame of reference to judge the validity of the quantitative findings. However, it is possible that the increased power of Senators *vis-à-vis* Congressmen either magnifies or diminishes this district effect. Thus, it is best if the two houses are analyzed separately, to avoid problems over mis-specification of the different effects of district interests.

Methodology

As discussed earlier, the empirical realization of the institutional/ideological motivation is the party identification of the Congressperson. Party was coded as a dummy variable, with Republicans scored as 1 and Democrats as zero[6]. The district interest measurement was taken through analysis of the research and development sites of major contractors. A few major companies dominate defense spending, receiving annual defense contracts for billions of dollars. There are also thousands of smaller contractors and subcontractors that depend on defense money. Fortunately, BMD spending has been

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[5] Personal experience in the House
[6] Bernard Sanders, Independent Representative from Vermont, is coded as a Democrat.

concentrated mostly on large firms. As an example, expenditures on the Theater High-Altitude Air Defense system went to only two contractors, Lockheed Martin Missiles & Space and Raytheon, Inc. This simplifies the determination of district interest. District interest was coded as a dummy variable, with districts that either received a significant amount (over 100 million dollars) of money or could conceivably be the residences of workers dependent on jobs in another district coded as 1.[7] This gross simplification is an attempt to get at the nature of the expression of district interest to legislators. Legislators can reasonably be expected to know that they have major defense contractors in their district or adjacent to it. It is also reasonable to assume that defense industry lobbyists will keep legislators (or at least their staffs) informed as to the number of jobs dependent on certain programs. Without getting into the credibility of the lobbyist's statistics or presentation, we can simply say that legislators are aware of a district interest in a given program. This gives us our dichotomous dummy variable. Most studies of distributional politics use the raw amount of funds appropriated to a district as their measure of district interest. However, in the case of BMD the use of a dummy variable is justifiable. First, because the appropriations are going towards basic research and not system construction, the funds are relatively concentrated. Research scientists work in teams at few sites, whereas physical construction of aerospace systems can take place at many sites and be integrated at a final site. Furthermore, in the particular case of BMD, the money has gone to a few companies doing research in this field at only a few sites. It truly is a case where the money is being spent in large checks sent to a given few research facilities.[8]

Ideological bent was selected to help separate the various concepts captured by the party variable. Unfortunately, the dominant ideology scoring systems used in the literature, W-Nominate and ADA Liberal Quotients, were both strongly correlated with party. As shall be discussed later, this hinders the ability of the models used to isolate the effect of party from ideology. Finally, the average amount of money given to a candidate by defense PACs in the 1990s was selected as the realization of defense campaign contributions.[9] This campaign contribution variable was normalized to a relative scale where the top defense industry money recipient in each chamber was coded as 1.

Before discussing the results of the data analysis, it would be prudent to discuss the measurement of the dependent variable, heretofore only described loosely as 'support for ballistic missile defense.' Bills with clauses dealing with ballistic missile defense are referred to the Committees on Armed Services in both chambers.[10] Bills dealing with

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[7] As an example, Raytheon took over the Hughes Company in 1998, and in doing so, took possession of their Anaheim plant where research is done on adapting the Hawk system for future BMD use. One does not need to know the exact location of the plant, however, to determine that a lobbyist could credibly make the claim to either Loretta Sanchez of the 46th district or to Christopher Cox of the 47th that their constituents have jobs at stake, especially given the commuting nature of Southern California. In practice, when plants were located within 10 miles of another district, both districts were counted as having an interest in BMD.

[8] For more information on the compact nature of the spending, see "Picking the Best Missile Defense: Cold War Treaty or New Weapons," Pat Towell, *CQ Weekly*, April 18, 1998, pp 999-1004 and information available at http://www.fas.org

[9] This data was gathered from the biannual *Open Secrets* volumes published by the Center for Responsive Politics.

[10] In the 105th Congress, the House of Representatives Committee on Armed Services changed its name to the Committee on National Security. Its purview remained identical. The name was changed back at the

any issue often die in committee, and the Armed Services Committees are no different in this respect. Thus, the sample of bills are biased in favor of those that have a chance of passing in the first place. A measure, then, of support for these "dead" bills must be determined. The most public display of support for a measure would be to sponsor or cosponsor it.[11] Thus, we have one measure of Congressional support for ballistic missile defense–cosponsorship of bills that advocate more missile defense. This variable, however, lumps together those who fail to support BMD with those who actively oppose it, as neither group would cosponsor such pro-missile defense bills. Thus, our measure of cosponsorship includes negative scores for those who cosponsor bills that would curtail ballistic missile defense.

A few bills have made it to the floors of each of the houses of Congress. In such cases we have an easy measure–the roll call of votes. Many scholars would point out that, on some bills, what is important is not the vote on the bill, but votes on cloture in the Senate, or votes on recommitting the bill to the committee. These votes have been included in a separate measure from cosponsorship, and again, votes on bills that do not support increased ballistic missile defense have been scored negatively. Indices were constructed as follows: for those bills that specifically increased the budget authority for ballistic missile defense programs, yeas were coded positively, nays negatively and those voting present or not voting were coded as zeros. Bills that stated that the policy of the United States was to deploy, as soon as possible, a national missile defense system were treated similar as those increasing budgetary authority. Procedural votes were coded based on the nature of the bill that they dealt with. For example, there were two votes on cloture on S. 1873 in the 105th Congress. This bill was one of the many calling for the deployment of national missile defense. Cosponsorship was coded as a dummy variable, positive for support of missile defense and zero for those not cosponsoring. The indices created were one comprised of an average of all the vote variables, and one of all the cosponsorship variables. The voting index ranges from 0 to 1, with 1 being the most support for BMD and 0 the least. The cosponsorship index ranges from 0 to 1, with 1 being the most in favor of BMD.

The models tested here are all similar. The same four determinants were used in the models to calculate the contributions of the different aspects of influence to a legislator's decision-making. OLS analysis of the relevant variables was performed to determine their relative effects. The House and the Senate were analyzed separately, to determine if there are different values of the determinants in each house. For both the cosponsorship and the voting indices, the model is as follows:

$$\text{Index}_I = \beta_1 + \beta_2\, \text{Party}_I + \beta_3\, \text{District}_I + \beta_4\, \text{Defense}_I + \beta_5\, \text{ADA\_LQ}_I \qquad (1)$$

where I = a given legislator (1-764 in the House; 1-150 in the Senate);
  Party and District are dummy variables for party and for whether or not the
    legislator is from a district with a significant interest in BMD;
  Defense = the amount of defense contributions in a given campaign cycle
    (expressed in thousands of dollars);
  ADA_LQ_I = the lifetime average Liberal Quotient score given by the Americans

start of the 106th Congress. 'Committee on Armed Services,' or 'the Armed Services Committee,' will be used throughout this paper to refer to this committee, irrespective of Congress.
[11] For more on the use of cosponsorship as a measure, see Krehbiel, 1995

for Democratic Action.

Due to the high correlation between the ideology scores and party identity, regressions were also performed on the following equations, to estimate the significance of the effects separately:

$$Index_I = \beta_1 + \beta_2\, Party_I + \beta_3\, District_I + \beta_4\, Defense_{I,} \tag{2}$$
$$Index_I = \beta_1 + \beta_2\, District_I + \beta_3\, Defense_I + \beta_4\, ADA\_LQ_I. \tag{3}$$

Further analysis was done using Poole & Rosenthal's NOMINATE scores; the equations utilized and results of the regressions were similar to those for the ADA LQs and are presented in the Appendix.

House Findings

The regression coefficients for the House of Representatives data are presented in Table 1.

Table 1 **Regression Coefficients for Voting and Cosponsorship in the House[12]**

	Voting			Cosponsor		
	1	2	3	1	2	3
Constant	0.487***	0.949***	0.293***	0.601***	0.567***	0.546***
	(0.036)	(0.021)	(0.018)	(0.035)	(0.019)	(0.017)
Party	0.504***		0.665***	-0.040		0.004
	(0.034)		(0.023)	(0.034)		(0.024)
ADA Score	-0.279***	-0.796***		-0.084	-0.046	
	(0.046)	(0.035)		(0.047)	(0.032)	
Defense	0.090	0.020	0.129	0.516***	0.514***	0.519***
Contributions	(0.136)	(0.160)	(0.140)	(0.147)	(0.147)	(0.147)
District	0.020	0.050	0.005	-0.067	-0.068	-0.066
Interests	(0.049)	(0.058)	(0.051)	(0.055)	(0.055)	(0.055)
Committee	0.090**	0.050	0.111**	0.058	0.061	0.063
Membership	(0.031)	(0.036)	(0.032)	(0.034)	(0.034)	(0.034)
F	190.256	133.656	214.290	5.689	6.724	6.277
N	545	545	545	748	748	748
R^2	.64	.50	.61	.04	.04	.03

Numbers in parentheses are standard errors
*: $p < .05$; **: $p<.01$; *** $p< .001$

As can be seen, the best predictors of both support for and antipathy towards BMD are party and ideology. The committee membership variable, which was added as a control,

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[12] The number of cases varies between the models because not every Congress had votes on a BMD policy bill. Furthermore, not every Congressperson is included due to a few cases of missing data (2 in the House and 3 in the Senate)

is significant in its effects on floor voting as well. However, the effects only appear in the models with the party variable. To a large extent, therefore, we can see that the affects of committee membership are fairly muted; House Armed Services Committee members support BMD policy more than the general membership, but this seems to be a self-selection issue.[13] Of particular interest is the magnitude of the regression coefficients. A shift from the most liberal to most conservative possible positions would mean, on average, an 80% increase in voting for BMD. In simple terms, the liberal-conservative dimension defines voting. However, the story changes when discussing the cosponsorship index. The analysis of cosoponsorships shows that the only significant determinant of policy support is defense contributions. In fact, those who received no contributions were 52% less likely to cosponsor bills supporting BMD than those who received the most. It is interesting to notice that this trend holds despite the inclusion of the committee membership control, particularly in this specific case of defense contributions, as they are concentrated only on the relevant committees.[14] This echoes the results found by Hall and Wayman (1990), in that campaign contributions affected those legislators who were predisposed to support ballistic missile defense to push more actively for passage, namely, by cosponsoring the legislation. Additionally, the results conform to those of previous researchers who found that political contributions did not have a significant effect on roll call votes (Langbein, 1986; Wright, 1989, 1990; Grenzke, 1989). It was hypothesized earlier that if only one of the two houses were to experience the effect of district interest, it would be the House of Representatives. Thus, the Senate data for district interest is expected to show minimal, if not non-existent, effects.

State Findings

The regression coefficients for the senate analysis are presented in Table 2.

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[13] The self-selecting nature of committees is discussed in Fenno, 1973.

[14] It is even more surprising, given the nature of the data sources used for this investigation. The defense contributions variable was gathered from the *Open Secrets* volumes, collected by the Center for Responsive Politics. In collecting their data, they make the assumption that for those companies with both defense and other commercial interests, only those contributions to members of the Armed Services or Appropriations committees are 'defense' contributions. Thus, if there is an effect when controlling for committee membership, that effect is above and beyond any which may be obscured by the data used.

Table 2. **Regression Coefficients for Voting and Cosponsorship in the Senate**

	Voting			Cosponsor		
	1	2	3	1	2	3
Constant	0.447***	0.296***	0.979***	0.123*	0.299***	0.299***
	(0.065)	(0.032)	(0.047)	(0.051)	(0.030)	(0.030)
Party	0.568***	0.688***		0.188***		0.284***
	(0.059)	(0.038)		(0.046)		(0.030)
ADA Score	-0.213**		-.815***	-0.176**	-0.380***	
	(0.080)		(0.068)	(0.064)	(0.043)	
State Interests	0.060	0.060	0.070	-0.030	-0.024	-0.040
	(0.048)	(0.049)	(0.064)	(0.036)	(0.038)	(0.037)
Defense	0.040	0.040	0.183	-0.006	0.040	0.000
Contributions	(0.113)	(0.116)	(0.150)	(0.087)	(0.092)	(0.089)
Committee	-0.032	-0.012	-0.104	0.080*	0.060	0.100**
Membership	(0.045)	(0.045)	(0.059)	(0.036)	(0.038)	(0.036)
F	73.459	85.691	38.207	24.041	23.236	26.949
N	123	123	123	147	147	147
R^2	.76	.74	.56	.46	.40	.43

Numbers in parentheses are standard errors
*: $p<.05$; **: $p<.01$; ***: $p<.001$

The first difference noticed in analyzing the Senate data is that the predictive power of the model is much stronger for Senate cosponsorship than for the House. This result was not expected at the beginning of the analysis and presents an interesting finding. State interests continue to have a weak effect on voting and cosponsorship. Senate voting results continue to tell a tale that is similar but not identical to that of the House. Party and ideology remain the key variables in the voting equation; if anything, defense contributions and district interests have become less salient than in the House. Note, however, that the committee membership control had little statistical significance; this is expected for the highly individualistic Senate.

Chamber Comparisons

In sum then, the situation in the Senate imperfectly mirrors that in the House. Some expected differences did not materialize. Contrary to the distributive hypothesis, district/state interest seems to hold little to no sway over legislators. This holds true in both the House and Senate, contrary to expectations that the two chambers should differ in this respect. Returning to the dominant aspects of influence, the prominence of party is not surprising in the legislature that has traditions such as cloture and the filibuster. Nor is it strange to find party affecting ballistic missile defense policy; while the House Armed Services Committee is known one of the more 'bipartisan' committees in the

House, the Senate Armed Services Committee is far from being a scene of idyllic bipartisan tranquillity.[15]

A more interesting story told by the data is in the similarities and differences between the models. The floor voting models are remarkably similar. Party and ideological effects dominate activity on the floor for seemingly all members of Congress, be they Republican or Democrat, Representative or Senator. The strong correlation between these two independent variables is troubling and the nature of this relationship will be further investigated shortly. As earlier noted, however, the committee membership control variable was significant in the House voting models, but not in the Senate. This finding strongly echoes those of Fenno (1973) and other scholars who have contrasted House and Senate Committees. Thus, the two sets of floor voting models dovetail quite nicely and where they do not, the discrepancy is expected.

The models differ quite sharply when it comes to cosponsorship. It is initially curious that the impact of campaign contributions differs so sharply between the House and Senate. However, this is better understood if we consider the nature of campaign funding in both chambers. Candidates for the House often run unopposed or against untested opponents. In such races, it is usually sufficient to raise a large enough sum of money to scare off potential opponents. In Senate races, however, a Senator is practically guaranteed that they will face a quality challenger with copious funds. A Senator cannot stop raising funds once they get their defense contributions; defense contributions constitute a lesser portion of their overall contribution profiles. Thus, Senators cannot devote as much of their (and their staff's) time to working on the defense industry's legislation.[16] The more highly partisan/ideological nature of Senatorial cosponsorship is also expected, although only for empirical reasons. In recent years, the Senate Armed Services Committee has been plagued by partisan rancor in distinct contrast to the bipartisan nature of its House counterpart. This author has encountered no explanations for this difference in the literature. The other difference between the chambers is the impact of committee membership on favorable bill sponsorship. Again, this finding is puzzling and contradicts some earlier research on the Senate. If the Senate is the home of policy individualism, why would committee members be more disposed to be policy activists when anyone can? The answer is found in the nature of the Senate. Fenno (1973) notes that Senate committee members respond to the individualistic nature of the Senate by adopting a back-scratching process whereby those Senators in a position to help others do so. It happens in conference committee; it happens in Senate committees. Thus, committee membership has an effect on cosponsorship in the Senate because those Senators on the committee are responding to the desires of outside Senators for policy stewardship. If it were simply policy expertise, both chambers would show an effect.

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[15] Personal conversation with congressional staffer of a member who serves on the House Armed Services Committee, April 1998. The discussion on the partisan nature of various committees is a well-developed literature (Fenno, 1973; Davidson, 1986; Unekis & Franke, 1994; Unekis & Franke, 1995;Smith & Deering, 1990)

[16] Confirmatory evidence of an anecdotal nature is available. In the 1994 election cycle, the average member of the House Armed Services Committee got 10.2% of their campaign funding from the defense industry, compared to 5.2% for the average Senate committee member. Furthermore, defense was the #3 industry (out of 13 industries) in contributions to the House Appropriations Committee, while it is the 12th of 13 in giving to the Senate Appropriations Committee. In fact, the defense industry gave the least out of all industries to SASC members, while ranking 3rd amongst the House committee.

Rather, it is symptomatic of the back-scratching which is endemic to the Senate, but not the House.

In retrospect, the highly accurate nature of the Senate voting equations may be an artifact of the specification of the dependent variable. However, the cosponsorship index does not have this problem, yet the equations used to explain cosponsorship appear accurate. This could indicate two things. First, it could be that the choice of a dummy variable for district interest was inadvisable. This author is reluctant to make that conclusion on the basis of the data. Those states coded as having a district interest in BMD (Alabama, California, New Jersey, Georgia, Pennsylvania, Utah and Washington) all were the recipients of significant amounts of BMD funding. Very few other states received any money whatsoever. Unlike many other defense programs, BMD has had its contracts given directly to major contractors, with few subcontractors involved. Funding for the Theater High-Altitude Area Defense system, for instance, goes to only two contractors: Lockheed Martin Missiles & Space of Sunnyvale, California and Raytheon's facility in Anaheim, California. Raytheon's portion of that money is actually quite small in comparison as well. For BMD, the story is really one of the haves and have-nots; the money is allocated mostly in lump sum form.[17] The second, more likely, possibility is that the small significance is due to the small amount of variance in this variable: only 30 Senators of 150 were coded as having district interests. On any given bill, there were only 14 out of 100 Senators with district interests. This low variance will lead to a weaker observed effect in the OLS analysis.

Discussion of Results

It should be clear from the preceding discussion that the most salient effects on ballistic missile defense policy are party identification and/or ideological bent. To those familiar with the ballistic missile defense debate in Congress, this should come as no surprise. The debate over ballistic missile defense has been carried on by the parties. A good illustration of the party dominance over the terms of debate can been seen in an analysis of the budget authorizations for ballistic missile defense in the 1990s. Under President Bush, requested budget authority for the then SDIO was higher than either the House or Senate (then both under Democratic control) reported out. With Clinton's election in 1992, the budget requests for BMD decreased instantly. The Democrats in Congress continued to cut BMD funds from the budget authorizations, however, signifying that perhaps Clinton's cuts were not 'Democratic' enough. However, the very first budget year after the Republican Revolution of 1994 (Fiscal Year 1996), the House version, Senate version and conference versions of the budget authority all contained more than the President's request. This trend has continued until Fiscal Year 1999, when the budget authority requests were fairly similar. The levels of budget authorizations for BMD are presented in Figure1. This seeming irregularity can be easily explained by the circumstances surrounding ballistic missile defense at the time of the Fiscal Year 1999 defense authorization bill.

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[17] Further investigation is planned using the actual federal expenditures on these programs as a measure. However, theorists have previously utilized dummy variable for district interest (Niou & Ordeshook, 1985)

**Figure 1   Budget Authorization Levels for Ballistic Missile Defense Programs,
Fiscal Years 1990-2000**
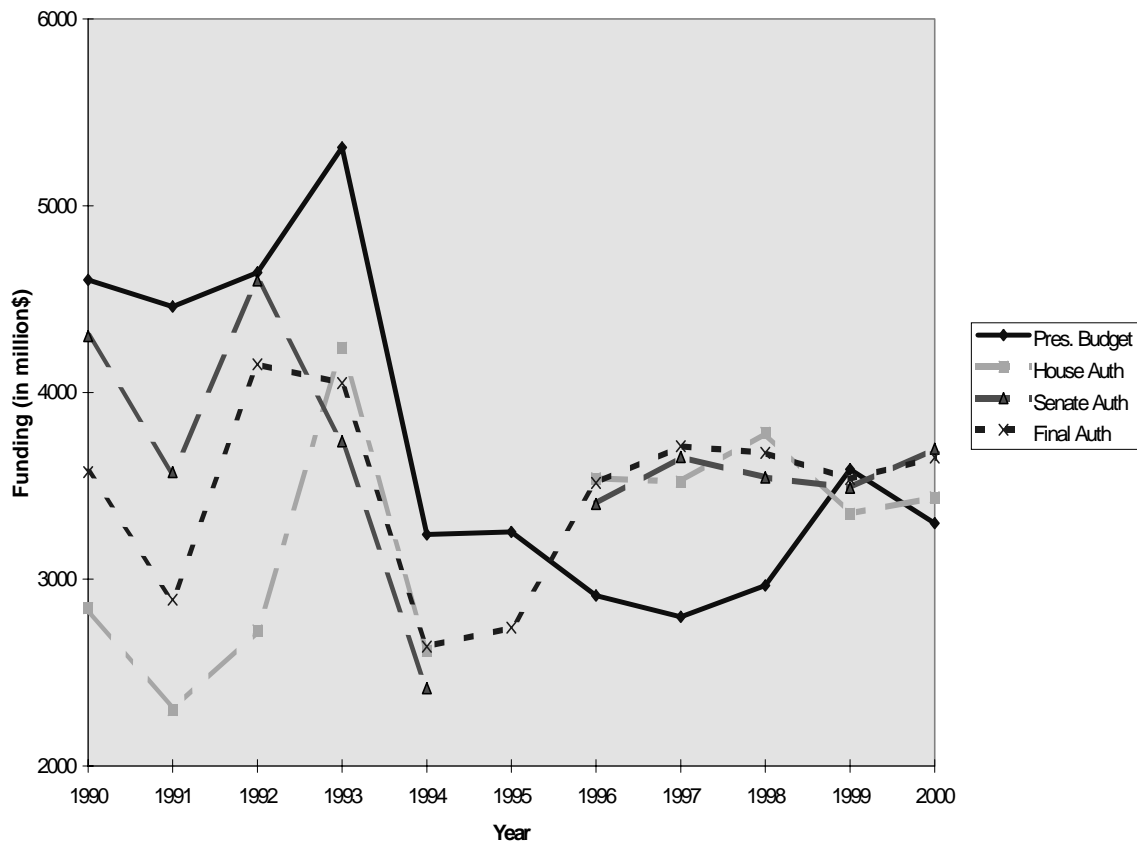
The defense budget authorization process starts in the spring. Through early summer, the committees debate the provisions of the authorization bills, usually reporting them to the floor by the end of July. The authorization bills are passed by each house and committees go into conference in August, sometimes taking until the end of September to report the final bill to the floor. History interceded in this case early in the process. In the spring of 1998, the Theater High-Altitude Area-Defense system (THAAD) failed to intercept target missiles in its 4th and 5th flight tests. This failure of a long-standing program of research was heavily reported on by the New York Times, Washington Post, and other major news outlets.[18] In short, THAAD was bound to lose a lot of support. An examination of the line items of the 1999 defense authorization thus shows the cause of the change in the earlier budget trends. Most of the President's budget was accepted as-is, with a big boost being given to the Navy Upper-Tier program in all three amended versions. The reason the committees and conference reported out bills with less than the President's request is that they cut approximately $294 million out of the THAAD budget. One program's problems occurring after the President's formulation of the budget, but during the congressional process led to the change in the term that has existed for four years. The fiscal year 2000 defense authorization bill held up to the previous trends, and surpassed Clintons' budget request.

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[18]Los Angeles Times, May 13, 1998, Page 1, Failed Test Deals a Setback to a National Missile Defense, Paul Richter; The New York Times, May 13, 1998, Section A; Page 19; Pentagon Anti-Missile System Fails Fifth Flight Test in a Row, AP; The Washington Post, May 13, 1998, Pg. A01, Antimissile Test Yields 5th Failure In a Row, Bradley Graham

Table 3   Crosstabulation of BMD Authorization Levels, 1990-2000[19]

% of Pres. Request	Rep Prez/Dem Cong	Dem Prez/Dem Con	Dem Prez/Rep Cong
<90%	4	2	0
<100%	0	0	1
>110%	0	0	4
	Value	Df	Sig. (2-sided)
Pearson Chi-Square	11.000	4	.027

Further support of the conclusion that party is the driving support comes from more anecdotal sources. Ballistic missile defense support has been part of the Republican Presidential agenda every year since Reagan reintroduced the concept in 1983. It has been part of the Republican agenda for Congress at least as far back as 1995. In fact, one of the votes considered, HR 7 in the 104th Congress, has two titles: the National Missile Defense Bill, and the Contract with America Bill–so named because it was one of the platforms of the national Contract with America congressional campaign of the Republicans in 1994. In fact, only 2 Republicans cosponsored any of the bills studied that might have impeded ballistic missile defense; Rick Santorum of Pennsylvania, and Christopher Shays of Connecticut. While Santorum's cosponsorship is curious, Shays' moving against the bulk of his party is not surprising at all for the party maverick that cosponsored the Shays-Meehan campaign finance bill in the 105th Congress.

At first, it seems strange that the effects of campaign donations fluctuated between cosponsorship and voting indices. As noted, however, this type of discrepancy has actually has been well documented in the literature (Wright, 1985; Grenzke, 1989; Hall & Wayman, 1990). Nevertheless, it deserves comment. Upon further investigation, a number of significant findings fall out. The effects of collinearity on the model can be eliminated by the use of separate models for both the Republicans and the Democrats. The results of these analyses are presented in tables 4-7.

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[19] Data presented is for conference committee authorization levels; data for the Senate and House is nearly identical

Table 4   Regression Coefficients for House Democrats

	Voting	Cosponsorship
Constant	0.474***	0.649***
	(0.053)	(0.040)
District Interest	0.027	-0.114
	(0.099)	(0.084)
Committee Membership	0.180**	0.010
	(0.056)	(0.048)
Defense Contributions	0.185	0.479*
	(0.220)	(0.187)
ADA Score	-0.291***	-0.141**
	(0.067)	(0.054)
F	8.934	4.298
N	273	417
R^2	.12	.04

Numbers in parentheses are standard errors
*: $p<.05$; **: $p<.01$; ***: $p<.001$

Table 5   Regression Coefficients for House Republicans

	Voting	Cosponsorship
Constant	0.995***	0.500***
	(0.008)	(0.023)
District Interest	0.012	-0.020
	(0.024)	(0.067)
Committee Membership	-0.004	0.134**
	(0.018)	(0.048)
Defense Contributions	0.011	0.535*
	(0.091)	(0.243)
ADA Liberal Quotient	-0.155**	0.313**
	(0.047)	(0.118)
F	2.797	7.132
N	272	331
R^2	.04	.08

Numbers in parentheses are standard errors
*: $p<.05$; **: $p<.01$; ***: $p<.001$

Table 6   Regression Coefficients for Senate Democrats

	Voting	Cosponsorship
Constant	0.504***	0.001
	(0.115)	(0.019)
State Interest	0.120	0.011
	(0.103)	(0.015)
Committee Membership	-0.060	-0.020
	(0.101)	(0.016)
Defense Contributions	0.014	0.122**
	(0.300)	(0.046)
ADA Liberal Quotient	-0.294*	-0.001
	(0.137)	(0.023)
F	1.497	2.067
N	58	74
R^2	.10	.11

Numbers in parentheses are standard errors
*: $p<.05$; **: $p<.01$; ***: $p<.001$

Table 7   Regression Coefficients for Senate Republicans

	Voting	Cosponsorship
Constant	0.995***	0.378***
	(0.003)	(0.042)
State Interest	0.002	-0.102
	(0.005)	(0.064)
Committee Membership	0.002	0.159*
	(0.005)	(0.060)
Defense Contributions	0.004	-0.020
	(0.011)	(0.129)
ADA Score	0.007	-0.685***
	(0.012)	(0.149)
F	0.252	8.836
N	65	73
R^2	.02	.34

Numbers in parentheses are standard errors
*: $p<.05$; **: $p<.01$; ***: $p<.001$

These findings show a few things. First, the fact that the voting models have low F-statistics with highly significant constants indicates that partisanship is the driving force behind floor voting on this issue. There is nothing left for these models to explain because the limitation of the model to partisans of a given chamber has answered the question for us. What remains, however, is quite interesting in that different stories about BMD policy can be told in reference to different groups of legislators. In the House, the effect of campaign contributions on cosponsorship has remained for both sets of partisans. However, an interesting finding is that committee membership affects

cosponsorship for the Republicans, but not the Democrats. While this finding might seem curious, it is easily explainable. The majority of bills proposed on this issue have been supportive. This is partly an artifact of the time period selected, in that Republicans have held Congress for the majority of the 1990s. Democrats have not been willing to cosponsor bills that have no chance of passing. Thus, the policy experts among the Republicans (the committee members) are seen to be pushing for their policy, while the Democratic policy experts are not captured by this dependent variable as well. In sum, then, these tables demonstrate different possible sources of motivation for Democrats and Republicans. Democrats are motivated to support BMD more than their fellows by the lure of campaign contributions. Republicans support BMD more than their fellows when motivated by policy expertise or ideological bent, and in the case of House Republicans, campaign contributions.

Conclusions

This investigation into the possible determinants of congressional ballistic missile defense policy has examined the potential effects of five variables on political outcomes. District interest in pushing for increased BMD dollars has been demonstrated to have no effect on floor activities. This does not mean that it is not a valuable concept to keep in mind in thinking about BMD policy and funding. Rather, the effects of this variable on committee politics are totally unmeasured in this analysis. This subject deserves investigation; indeed, the common classifications of the Congressional committees assign the Committees on Armed Services into the 'distributive committee' category (Fenno, 1973; Davidson, 1986; Unekis & Franke, 1994, 1995; Smith & Deering, 1990). It would indeed prove to be an interesting result if BMD constituted an issue that transcended the distributive nature of the committees, or if the committees are best thought of as something other than distributive. Further, district interest had little impact on legislative activity beyond position-taking. This result is consonant with earlier findings (Moyer, 1973). In particular, this result further calls into question the 'military-industrial complex' model. Curiously enough, congresspeople do not obey the assumptions of the 'parochial' hypothesis: they do not simply vote in the economic interests of their districts, at least on defense issues. Nor does there seem to be any extra activity on behalf of their districts above and beyond the vote. Indeed, it seems that local defense companies should adopt a new lobbying strategy: forget the local congressman—focus on getting a Republican to carry your water on the Hill.

Notice, however, that the significance of money given to legislators, while not crucial in influencing their votes, is an excellent predictor of a Representative's cosponsorship activity. This is not to say that campaign contributions lead to cosponsorship; any study that utilizes a simple campaign contribution variable can run into a problem of causality. These findings beg the question: do PACs give to cause behavior or reward it? The models used isolated the effect of campaign donations to one measure of policy support, moving us towards a more fine-grained understanding of the effects of money on politics. What is encouraging is the resonance that this result finds in the literature. Campaign donations have been found to have little impact on roll call votes, while "moneyed interests are able to mobilize legislators already predisposed to

support the groups position."[20] On the pro side, the defense industry obviously has reasons to support those legislators who propose or publicly promise to endorse favorable bills. It also follows that those who propose legislation that would curtail ballistic missile defense policy are typically gadflies to the industry, and would not be expected to get much, if any, industry support. This leaves the disinterested middle, who can reasonably expect the defense industry to care as little about them as they do about the industry. This paper does not investigate the very interesting question of whether contributions motivate support or vice-versa.

Party (and its handmaiden in the 1990s, ideology) played a significant role in the determination of BMD policy preference, particularly when it came to voting. This finding with respect to voting was expected in advance from a series of Congresses that have had some narrow majorities and have shown an increase in partisanship. Party and ideology are alive and well on the floors of Congress. The split between the two parties on defense policy that began to emerge in the late 1960s crystallized in the 1980s and the 1990s are simply a reflection of the now well-known hawk-dove split between the Republicans and Democrats.

Finally, membership on one of the Armed Services Committees seems to play a curious role. Inserted only as a control variable, committee membership displayed some interesting characteristics. First, committee membership is associated with more support for BMD policy through cosponsorship, but only for Republicans. Secondly, only House Armed Services Democrats were inclined to support BMD more on the floor than would otherwise be predicted. Whether or not this can be explained as a policy expertise or not is debatable and unresolved by this author. However, these results deserve further inquiry.

This discussion is not complete. As stated earlier, many studies of defense policy have been conducted in an immersive, descriptive fashion. This is not without just cause. Defense policy for much of the Cold War was not determined in full public view. To this day, the defense committees do not publish vote counts in readily accessible formats.[21] Viewing the committees in action and watching votes take place is one remedy for such a problem. Additionally, a more quantitative study such as this one relies heavily on quantifiable data–votes, cosponsorships, amount of money given, etc. The intangibles could be what actually carry the day. Finally, an in-depth, qualitative investigation of Congress, with the data gathered here in hand, would go a long way towards our understanding of this issue. As stated earlier, this was a preliminary investigation–one designed to set the stage for future investigations. Some novel discoveries were made, particularly considering that the literature on ballistic missile defense has historically considered the international relations implications of ballistic missile defense, and not the myriad motivations behind the development of such capabilities.

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[20] Hall & Wayman, 1990, p. 814

[21] The data are sometimes made available in hearing transcripts and committee reports. In most cases, the votes are kept in tables which are not viewable over the Internet. The tables can generally only be seen in the original printed documents or on microfiche. This contrasts with roll call vote data, which can be accessed, printed, and downloaded in data format without a great deal of trouble.

Appendix

Two different measures of ideology were selected for analysis. The data analysis presented in the body of the paper utilized the Americans for Democratic Action Liberal Quotient scores. Analysis of the same data using Poole & Rosenthal's W-Nominate scores was also done. The regression coefficients for those analyses are presented in Table A1 and Table A2. A comparison of the regression coefficients shows the analyses to be similar. Discrepancies in the coefficients are expected between the two analyses, even though there is a significant correlation (-0.9536 in the Senate, -0.9083 in the House) between the ADA LQ scores and the W-Nominate first index scores. This is due to the high correlations between these variables and the party variable. The regression analyses are complicated by this high amount of correlation. It is for this reason that separate regressions were performed on the with the party and ideology scores. The ADA LQ Score regressions were retained due to the lower degree of correlation between that measure of ideology and party, as well as the comparative ease of presentation and understanding that comes with having one measure of ideology rather than two. The correlations of ADA LQ score with party is 0.8643 in the Senate and 0.8415 in the House, while the W-Nominate conservative measure correlates 0.9147 in the Senate and 0.8851 in the House. The ADA scores were chosen to avoid as much of the problems arising from high independent variable correlation as possible. In the end, it may simply amount to playing around the margins, but the ADA LQ scores were chosen with the goal of a slight improvement of the model in mind.

Table A1   Regression Coefficients for Voting and Cosponsorship in the House

	Voting		Cosponsor	
	1	2	1	2
Constant	0.473***	0.551***	0.479***	0.580***
	(0.023)	(0.013)	(0.026)	(0.013)
Party	0.195***		0.244***	
	(0.049)		(0.053)	
Committee Membership	0.050	0.040	0.050	0.030
	(0.029)	(0.029)	(0.033)	(0.033)
District Interests	0.010	0.007	-0.056	-0.072
	(0.046)	(0.047)	(0.053)	(0.053)
Defense Contributions	0.020	0.020	0.378**	0.404**
	(0.125)	(0.127)	(0.139)	(0.141)
W-Nominate Dimension 1	0.470***	0.628***	-0.252***	-0.049*
	(0.044)	(0.019)	(0.049)	(0.021)
W-Nominate Dimension 2	0.040	-0.006	0.161***	0.100**
	(0.031)	(0.029)	(0.034)	(0.032)
F	197.209	228.580	9.323	6.649
N	506	506	701	701
R^2	.70	.70	.08	.05

Numbers in parentheses are standard errors
*: $p < .05$; **: $p < .01$; ***: $p < .001$

Table A2   Regression Coefficients for Voting and Cosponsorship in the Senate

	Voting		Cosponsor	
	1	2	1	2
Constant	0.436***	0.683***	0.184***	0.167***
	(0.055)	(0.027)	(0.042)	(0.019)
Party	0.423***		-0.029	
	(0.084)		(0.065)	
Committee Membership	-0.027	-0.066	0.070	0.070
	(0.040)	(0.043)	(0.032)	(0.032)
District Interests	0.050	0.030	-0.045	-0.044
	(0.043)	(0.046)	(0.032)	(0.032)
Defense Contributions	0.050	0.070	-0.003	-0.004
	(0.100)	(0.110)	(0.078)	(0.078)
W-Nominate Dimension 1	0.241***	0.540***	0.261***	0.241***
	(0.065)	(0.028)	(0.050)	(0.020)
W-Nominate Dimension 2	0.040	0.040	0.010	0.010
	(0.037)	(0.040)	(0.029)	(0.028)
F	82.772	77.743	26.985	32.531
N	119	119	143	143
R^2	.82	.78	.54	.54

Numbers in parentheses are standard errors
*: $p<.05$; **: $p<.01$; ***: $p<.001$

Bibliography

Arnold, R. Douglas. 1979. *Congress and the Bureaucracy*. New Haven: Yale University
    Press

Crook, Sara Brandes, and John R. Hibbing, 1985. "Congressional Reform and Party
    Discipline: The Effects of Changes in the Seniority System on Party Loyalty in theUS
    House of Representatives" *British Journal of Political Science,* 15: 207-226

Davidson, Roger H. 1986. "Congressional Committees As Moving Targets." *Legislative*
    Studies Quarterly. 11: 19-33

Dawson, Raymond H. 1962. "Congressional Innovation and Intervention in Defense
    Policy: Legislative Authorization of Weapons Systems." *The American Political*
    Science Review 56:42-57

Farrell, Theo. 1997. Weapons Without a Cause: the Politics of Weapons Acquisition in
    the United States, New York : St. Martin's Press

Fenno, Richard F. Jr. 1973. *Congressmen in Committees*. Boston: Little, Brown and
    Company

Gordon, Sanford C. 1995. "'Outlier' Committees in a Republican House? Committee
    Restructuring in the 104th Congress," paper presented at the annual meeting of the
    American Political Science Association, Chicago, IL, August 31-September 3, 1995

Grenzke, Janet M. 1989, "PACs and the Congressional Supermarket: The Currency is
    Complex," American Journal of Political Science 33: 1-24

Hall, Richard L., and Frank W. Wayman, 1990 "Buying Time: Moneyed Interests and the
    Mobilization of Bias in Congressional Committees." *The American Political* Science
    Review, 84: 797-820

Kessler, Daniel, and Keith T. Krehbiel. 1996. "Dynamics of Cosponsorship." *The*
    American Political Science Review, 90:555-566

Krehbiel, Keith T. 1992. Information and Legislative Organization. Ann Arbor:
    University of Michigan Press
_____. 1995. "Cosponsors and Wafflers from A to Z." *American Journal of*
    Political Science 39:906-923

Langbein, Laura I. 1986. "Money and Access: Some Empirical Evidence." *The Journal*
    of Politics 48: 1052-1062

Liske, Craig, and Barry Rundquist. 1974. "The Politics of Weapons Procurement: The
    Role of Congress." *Monograph Series in World Affairs* 12: Monograph 1

Mayhew, David R. 1974. *Congress: The Electoral Connection*. New Haven: Yale
    University Press

Moyer, Wayne. 1973. "House Voting on Defense: An Ideological Explanation." In
    Military Force and American Society, ed. Bruce Russett and Alfred Stepan. New
    York: Harper & Row

Niou, Emerson M.S., and Peter C. Ordeshook. 1985, "Universalism in Congress,"
    American Journal of Political Science 29:246-258

Poole, Keith T., and Howard Rosenthal. 1985, "A Spatial Model for Legislative Roll Call
    Analysis", American Journal of Political Science 29:357-384
_____.1991, "Patterns of Congressional Voting,"
    American Journal of Political Science 35: 228-278

Rundquist, Barry, and John Ferejohn. 1975. "Observations on a Distributive Theory of Policy-making: Two American Expenditure Programs Compared." In *Comparative Public Policy*, ed. Craig Liske, William Loehr, and John McCamant. New York: Wiley

Rundquist, Barry, Jeong-Hwa Lee, and Jungho Rhee. 1996. "The Distributive Politics of Cold War Defense Spending: Some State Level Evidence." *Legislative Studies Quarterly* 21: 265-281

Sinclair, Barbara. 1998. "Do Parties Matter," paper presented at the annual meeting of the Midwest Political Science Association, Chicago, IL, April 23-25, 1998

Smith, Steven M. and Christopher Deering, 1990. *Committees in Congress*. 2nd ed. Washington D.C.: Congressional Quarterly Press

Unekis, Joseph K., and James L. Franke. 1994. "Universalism and the Parties in the Committees of the Post Reform U.S. House of Representatives: 1971-1992," paper presented at the annual meeting of the American Political Science Association, New York, NY, September 1-4, 1998

_____. 1995. "Amending Activity in House Committee Markups," paper presented at the annual meeting of the American Political Science Association, Chicago, IL, August 31-September 3, 1995

Wright, John R. 1989. "PAC Contributions, Lobbying, and Representation." *The Journal of Politics*, 51: 713-729

_____ 1990. "Contributions, Lobbying, and Committee Voting in the U.S. House of Representatives." *The American Political Science Review*, 84: 417-438