The Distribution of Campaign Spending Benefits across Groups

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Coleman and Manna (2000) argue that campaign spending boosts the quality of democracy by increasing citizen knowledge about and affect toward candidates. If politically and socially advantaged groups disproportionately capture these knowledge benefits, however, then campaign spending merely perpetuates political inequality. Examining challenger and incumbent spending in 1996, I estimate the distribution of campaign spending benefits and find that these benefits are distributed broadly across advantaged and disadvantaged groups. In this regard, campaign spending is a democratizing force.

Scholarly attention to congressional campaign spending has focused primarily on the benefits candidates receive from that spending, from challenger deterrence to election victory to size of the winning margin (see, for example, Gerber 1998; Goidel and Gross 1994; Green and Krasno 1988; Kenny and McBurnett 1992, 1994; Krasno and Green 1988; Snyder 1989). Coleman and Manna (2000) redirect the focus by analyzing the costs and benefits of campaign spending for civic engagement, including trust and efficacy, involvement and attention, and knowledge and affect. They find that campaign spending neither boosts nor thwarts trust, efficacy, involvement, or attention. The benefits of spending for knowledge and affect, on the other hand, are strong and significant, especially for House challengers (see also Baron 1994; Goidel, Gross, and Shields 1999).

Various theoretical and empirical accounts suggest directly or indirectly that candidates have good reason to use campaign funds to inform the public (Bailey 1998; Baron 1994). Increasing name recognition and generating public awareness of the candidate's positions on issues, experience, and personal characteristics will be key functions of nearly any campaign. Incumbents build a public image over their term of office that normally accrues to their benefit (Box-Steffensmeier and Franklin 1995; Lodge, Steenbergen, and Brau 1995), so part of the incumbent's task during the campaign is to reinforce this image and spread the good news to less attentive citizens. Challengers, typically less known

to the public, have even stronger incentives to use campaign funds to spread their message broadly. On the other hand, scholars have shown frequently that the participating American electorate generally overrepresents those who are better off, better educated, and more attentive (Burnham 1987; Verba, Schlozman, Brady 1995; Wolfinger and Rosenstone 1980). Parties and campaigns, facing resource constraints, have greater incentives to target those citizens who have already shown an inclination to be involved than to engage in broad mobilization efforts (Rosenstone and Hansen 1993; Schier 2000). Campaign spending, then, might possibly reinforce social, economic, and political inequalities.

From a "quality of democracy" perspective, it is important whether the knowledge benefits identified by Coleman and Manna disproportionately accrue to the already advantaged or extend broadly across the population. Differences in political resources, skills, participation, power, and benefits across groups have been a central concern of political scientists. V. O. Key's (1949) and E. E. Schattschneider's (1960) warnings about the fate of the "have nots" in unorganized politics and Verba, Schlozman, and Brady's (1995) extensive analysis of participatory inequality are three prominent examples of this vast literature. In the study of campaign finance, distributional concerns have been substantial on the contributions side of the equation—who contributes, how much, and with what effect—but not on the spending side (Austen-Smith 1995; Biersack, Wilcox, and Herrnson 1999; Gais 1998; Snyder 1990). I tie campaign spending to the longstanding scholarly concern with distributional equity.

From the practical political perspective of campaign finance reform, the answer also matters: the extent to which the benefits of spending are distributed narrowly or broadly may affect the normative attractiveness of ideas such as campaign spending limits and public financing floors and ceilings. Coleman and Manna suggest that campaign imperatives for the challenger, especially, make it likely that campaign spending may work as a democratizing force that spreads information beyond political and social elites (see also Bailey 1998, 2000).

The Link between Spending and Knowledge

Coleman and Manna merge items from the 1994 and 1996 NES studies with incumbent and challenger spending for respondents from all NES districts featuring an incumbent versus challenger House race. Their dependent measures include a set of items tapping into knowledge about the challenger and the incumbent. As noted above, challengers are especially in need of the recognition that campaign spending can produce, and the quality of a campaign as a democratic forum will depend most strongly on the challenger's ability to compete credibly. Therefore, I focus here on knowledge items concerning the challenger. These variables were estimated on a model that included a range of independent variables: candidate characteristics (incumbent and challenger spending, incumbent voting record, and whether incumbent is a freshman or not); respondent information and cognition (educational level, perceiving politics as

too complicated to understand, frequency of reading local newspaper, and frequency of watching broadcast news in previous week); respondent political orientation (party identification, placement as a strong Democrat or Republican on a seven-point party identification scale, and placing self outside the middle three points on a seven-point ideology scale); and demographic controls (age, family income, gender, and race). To address the endogeneity between candidate spending and the dependent variables, the analysis employs proxy measures for spending derived from two-stage least squares estimations.[1]

Challenger campaign spending produces substantial and significant benefits for campaigns. Table 1 presents the significance of challenger and incumbent spending for several dependent variables related to the challenger. Challenger spending is significant, usually highly so, in all but one instance. Incumbent spending, on the other hand, has virtually no impact on public knowledge and perceptions of the challenger. Assuming that more knowledge is better than less and that the ability to scale candidates is preferable to an inability to do so, challenger spending plays a positive role in boosting the quality of campaign democracy for the general public. Are these "knowledge benefits" spread across the population or captured by groups already politically and socially advantaged?

Who Benefits from Challenger Campaign Spending?

To explore the distribution of campaign spending benefits across groups, I first focus on four of the variables in Table 1: postelection recall of the challenger's name, postelection ability to place the challenger on the 7-point ideology scale, being "very" or "pretty" certain about the placement of the challenger

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[1]Details on the independent variables, construction of the dependent variables, and two-stage least squares estimation are available in Coleman and Manna (2000). The two-stage least squares estimates employ four sets of instruments. *Challenger characteristics* include a three-point challenger quality scale and the party of the challenger. *Incumbent characteristics* include dummy variables indicating whether the incumbent chaired a committee or subcommittee; a dummy variable indicating whether the incumbent held a party leadership position; and the number of years the incumbent has held the seat. *Past district behavior* includes the incumbent's share of the district vote in the previous House election; a dummy variable indicating whether the challenger's party won the district in the 1992 presidential election; and expenditures by the incumbent party candidate in the previous House election. *District political and economic characteristics* include the percentage of college graduates and the median family income in the district; media cost per point figures for the evening newscast in the designated market area(s) corresponding to the congressional district; whether the national parties made coordinated expenditures in the district race (coordinated expenditures are not included in FEC candidate disbursement totals); an index measuring the restrictiveness of the state's campaign finance laws; the number of membership organizations in the district's most populous county (Standard Industrial Classification 8600); and the number of employees in business-related membership organizations in the district's most populous county (Standard Industrial Classification 8610). For 1996, the instruments produced adjusted r-squares of .68 and .58 estimating incumbent and challenger spending, respectively. Estimated incumbent and challenger spending correlated with actual incumbent and challenger spending at .84 and .80, respectively.

TABLE 1

Spending and Knowledge About the House Challenger,
1994 and 1996 (from Coleman and Manna 2000)

Dependent Variables[a]	Challenger Spending		Incumbent Spending	
	1994	1996	1994	1996
Recalls challenger's name	***	***		
Places challenger on 7-point ideology scale[b]	***	***	*	
Very/pretty certain about scaling	*	***		
Places challenger on 7-point services and spending scale[c]		***		
Places challenger on 7-point defense scale[d]	na	**	na	
Places challenger on 4-point abortion scale[e]	na	***	na	
Has likes about challenger	***	**		
Has dislikes about challenger	*	***		

*$p < .10$, **$p < .05$, ***$p < .01$; two-tailed. All coefficients positively signed.

[a]Abortion, defense, and government services and spending questions asked preelection in 1996. All other variables asked postelection. The defense and abortion questions were not asked in 1994.

[b]"We hear a lot of talk these days about liberals and conservatives. Here is a 7-point scale on which the political views that people might hold are arranged from extremely liberal to extremely conservative. Where would you place [candidate's name] on this scale?"

[c]"Some people think the government should provide fewer services even in areas such as health and education in order to reduce spending. Suppose these people are at one end of a scale, at point 1. Other people feel it is important for the government to provide many more services even if it means an increase in spending. Suppose these people are at the other end, at point 7. And, of course, some other people have opinions somewhere in between, at points 2, 3, 4, 5, or 6. Where would you place [candidate's name] on this scale?"

[d]"Some people believe that we should spend much less money for defense. Suppose these people are at one end of a scale, at point 1. Others feel that defense spending should be greatly increased. Suppose these people are at the other end, at point 7. And, of course, some other people have opinions somewhere in between at points 2, 3, 4, 5, or 6. Where would you place [candidate's name] on this scale?"

[e]"There has been some discussion about abortion during recent years. Which one of the [4] opinions on this page best agrees with your view? Where would you place [candidate's name] on this scale?"

on the ideology scale, and preelection ability to place the challenger on the 7-point government services and spending scale.[2] As measures of knowledge, the ideology and government services and spending measures tell us whether respondents feel they can place the challenger on the scale, but they do not tell us whether respondents place the candidate correctly. With incumbents, there is

[2]These four items address a range of cognitive skills and, with one exception, are part of the postelection (and hence post-spending) survey wave. Space considerations prevent a presentation of the analysis for the remaining variables in Table 1; the findings for these four variables parallel closely the results reported here. I present the logit estimations in the first four columns of the Appendix.

a roll-call voting record by which to compare public perceptions of the candidate with the legislative record, but that record does not exist for the challenger.[3] Assuming that placements across issue and ideology scales should be roughly similar if respondents accurately perceive the challenger, the NES data provide some optimism. Respondents tend to place challengers consistently on the broad ideology scale and the more concrete government services and spending scale. With Democratic challengers, these items correlate at −.44; for Republican challengers the correlation is −.49. (Liberal position is point 1 in the ideology scale and point 7 in the services and spending scale.) These compare favorably to the consistency of respondent placement for incumbents, at −.31 and −.49, respectively.[4]

I compare the effects of spending for a series of social and political groups. The first group in these pairings is advantaged either economically or socially or more politically engaged compared to the second group. The groups compared include those who identify themselves as strong partisans versus those who do not, those who place themselves outside the middle 3 points on the 7-point ideology scale versus those who place themselves in those middle points, those contacted by one of the parties during the campaign versus those not contacted, those who voted in the House election versus those who did not, whites versus racial minorities, those whose family income places them in the top 75% of the NES sample versus those below that threshold, and those who have attended at least some college versus those who have not. Broadly speaking, these pairings contrast the "haves" with the "have nots" or the "have less," in the sense of both social status and attention from political elites.

Combining a set of these groups, I create one last pairing that reflects the multivariate reality of individuals' social and political position. This pairing compares those who are "haves" on at least three of the following criteria—income, college education, voter, strong ideologue—with those who are not.

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[3] A possible substitute for challengers would be to match challengers to their stated policy intentions as identified in interview databases such as that provided by Project Vote Smart. Although this measure would not reflect actual governing behavior, it would suggest whether the candidate's announced preferences are being received by the public. Another possibility for some challengers would be their behavior in a prior office.

[4] The government services and spending scale taps the broadest array of government activity and is more highly correlated to the ideology scale than are the other specific issue scales. The difference, however, is not vast. The defense and ideology scales correlate at .38, .41, .31, and .32 for Democratic incumbents and challengers and Republican incumbents and challengers, respectively. For abortion and ideology, the correlations are, respectively, −.32, −.25, −.36, and −.37 (the liberal position is 1 on the ideology scale and 4 on the abortion scale). Simple OLS regression shows the spending and services, defense, and abortion placements relate significantly to the ideology placement for both Democratic and Republican candidates. Some of the looseness remaining in the relationships between the scales may be attributable to the issue scales being asked in the preelection survey wave and the ideology scale employed here being part of the postelection wave. NES variables are v459, v460 (government spending and services); v475, v476 (defense); v515, v516 (abortion); and v1277, v1279 (ideology).

The first two criteria tap into disadvantage arising from one's social or economic position; the latter two focus on disadvantage arising from one's political position. Political engagement and interest will tend to be higher for the educated, the well-off, voters, and strong ideologues than for those who are less educated, poorer, nonvoters, and less ideologically driven. Those in the favored categories also receive substantial attention from candidates and other political elites. Note that my aim here is to concentrate on groups thought to be generally advantaged or disadvantaged rather than groups that might be of coalitional interest to particular candidates at a particular time, such as environmentalists or pro-life supporters.[5]

My procedure is straightforward. First, I estimate the logit coefficients for the full sample, in effect replicating the estimations in Coleman and Manna (2000), using the two-stage least squares proxies for incumbent and challenger spending. (See the first four columns in the Appendix for the logit estimations.) Next, I set all independent variables at their mean values for a particular group. For example, I set the variables at the mean values of those respondents who did not vote in the House election. The advantage of this procedure is that it allows me to estimate the impact of spending on the typical or mean member of the group. In other words, these values will appropriately reflect the mean nonvoter rather than the mean respondent in the entire sample. Lastly, for this group, I vary the amount of challenger spending and compute the probability of recalling the challenger's name, placing the challenger on the ideology scale, and so on.[6]

Table 2 presents the effect of challenger spending on recall of the challenger's name. The first data column provides the probability of recalling the challenger's name for individuals in each group when all variables, including challenger spending, are at their mean values for the group. For challenger spending, this sets spending at about $225,000. Not surprisingly, in each pairing the advantaged group—the first group in the pairing—has a higher probability of recalling the challenger's name when all independent variables, including challenger spending, are held at the mean values for that group.

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[5] I include strong ideologues in this measure of cumulative advantage because of their important role in party and candidate activity, including fund-raising and volunteering. Alternative forms of the cumulative advantage measure that replace strong ideologue with a dummy variable indicating whether a respondent was contacted by a party contact or is a strong partisan produce nearly identical results throughout the analysis; the original form also produces a slightly higher value for Cronbach's alpha than these alternatives. A version of the measure based on all the groupings used in the analysis (see Table 2 for a list) similarly produces results highly consistent with those presented here but removes some respondents due to missing values.

[6] To test the possibility that the spending coefficient might differ significantly between groups, I also ran all 42 of the estimations presented in this analysis with an interaction between the spending variable and the appropriate group dummy variable. In four instances, the interaction between spending and the group variable was statistically significant but produced no substantive change in interpretation. For this reason and the insignificance of the interactions in 90% of the estimations, I rely here on the noninteractive form of the variables.

TABLE 2

Challenger Spending Impact on Probability
of Recalling Challenger's Name

| | Probability with Challenger Spending at:[a] | | | Discrete Change | | |
Group Pairings	$225K	$650K	$1.3M	Increase Spending from min to max	Set Spending + or − 1/2 std. dev.	Marginal Effect
Strong partisan	.23	.40	.68	.48	.08	.0032
Not strong	.17	.30	.58	.42	.06	.0025
Strong ideologue	.36	.54	.79	.52	.11	.0041
Not strong	.14	.26	.53	.39	.06	.0021
Contacted by party	.25	.41	.69	.49	.09	.0035
Not contacted	.17	.31	.59	.43	.06	.0025
Voted in House race	.23	.39	.67	.48	.08	.0032
Did not vote	.12	.23	.49	.37	.05	.0019
White	.24	.40	.68	.49	.08	.0033
Not white	.03	.07	.19	.14	.01	.0005
Family income in top 75% of sample	.23	.39	.67	.48	.08	.0032
Family income below	.09	.17	.40	.30	.04	.0014
At least some college	.28	.46	.73	.50	.09	.0037
No college	.11	.20	.45	.34	.04	.0017
Cumulatively advantaged[b]	.33	.51	.77	.51	.10	.0040
Not advantaged	.11	.21	.46	.34	.04	.0017

N = 951

[a]All other independent variables held at mean values for members of the group.

[b]Respondent is considered cumulatively advantaged if at least three of the following apply: strong ideologue, voted in House race, family income in top 75% of sample, attended at least some college.

Does challenger spending merely perpetuate the advantage of the haves? No. The remaining columns of Table 2 provide measures of the impact of spending on recall of the challenger's name. I present first the predicted probability when all variables are held to their means and challenger spending is set to the incumbent spending mean value of about $650,000. I then double that amount and compute probabilities at $1.3 million of challenger spending. Next, I present the discrete change in probability when challenger spending moves from its minimum to maximum value and when challenger spending is plus or minus half a standard deviation from the mean amount of challenger spending (i.e., plus or minus approximately $130,000). Lastly, I list the marginal effect of challenger spending, measured as the partial derivative of the predicted probability.

Challenger spending does not erase the absolute gap between the advantaged and disadvantaged, but its benefits are spread broadly. As spending increases to the amount spent by the mean incumbent and then to double that amount,

the probability of recalling the challenger's name increases sharply for all groups except racial minorities. Proportionately, disadvantaged groups do indeed gain on advantaged groups. For example, although the absolute gap in probability increases from .17 (i.e., .28–.11) to .28 (.73–.45) for the some-college/no-college pairing, the probability level of the no-college group is 39% of the some-college level at $225,000, 43% at $650,000, and fully 62% of the some-college level at $1,300,000. Although I focus more on the absolute gap in my discussion below, this proportional increase is evident throughout this table and the tables to follow.

Looking down the discrete change columns, it is the advantaged groups that respond more strongly to changing levels of challenger spending, but improvement in the ability to recall the challenger's name is substantial even for those respondents in disadvantaged categories. Challenger spending increases the probability that the average member of an advantaged group and the average member of a disadvantaged group will be able to recall the challenger's name. Marginal effects tell much the same story.

Table 3 examines the ability of respondents to scale the challenger on the 7-point ideology scale. We see again that respondents from the advantaged groups are, at the means, more likely to be able to scale the candidate than respondents from the disadvantaged groups. This, of course, merely confirms that the advantaged are indeed advantaged. Beyond that obvious point, however, Table 3 shows that members of disadvantaged groups are able to close the scaling gap with their more advantaged counterparts. Strong majorities of the advantaged and disadvantaged are able to place the challenger on the scale with spending set at $650,000. At over $1,000,000 spending, the gap between the two erodes substantially and 90% or more of any given group is able to scale the challenger. As this would suggest, moving from the minimum to the maximum level of challenger spending either has virtually identical group effects on the probability of scaling the challenger or provides a stronger boost for members of the disadvantaged group. Moving half a standard deviation from the mean challenger spending level produces identical discrete changes in probability levels across groups; marginal effects are similar.

As noted, as the level of challenger spending approaches about $1,000,000, the gap between advantaged and disadvantaged respondents in scaling the challenger erodes. This is a high spending total for any candidate and even more so for a challenger. Nonetheless, the closing of this gap is especially striking because the comparison is between mean members of each group. That is, the mean member of the lower income group also tends to rank low on other social and political characteristics, yet this group becomes as likely as the higher income group to scale the challenger. In effect, challenger spending at high levels is compensating for the absence of these other characteristics.[7]

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[7] Confidence bands (95%) around the predicted probability grow as spending moves away from the mean level and particularly as spending moves past $1,000,000, so projections at these high

TABLE 3

Challenger Spending Impact on Probability
of Placing Challenger on 7-point Ideology Scale

| | Probability with Challenger Spending at:[a] | | | Discrete Change | | |
| | | | | Increase Spending from | Set Spending + or −1/2 | Marginal |
Group Pairings	$225K	$650K	$1.3M	min to max	std. dev.	Effect
Strong partisan	.61	.80	.94	.49	.14	.0053
Not strong	.47	.69	.90	.58	.14	.0055
Strong ideologue	.61	.80	.94	.49	.14	.0053
Not strong	.48	.70	.91	.57	.14	.0055
Contacted by party	.53	.74	.92	.55	.14	.0054
Not contacted	.51	.73	.92	.56	.14	.0055
Voted in House race	.54	.75	.93	.54	.14	.0055
Did not vote	.47	.70	.91	.57	.14	.0055
White	.51	.73	.92	.56	.14	.0055
Not white	.52	.74	.92	.55	.14	.0055
Family income in top 75% of sample	.54	.75	.93	.54	.14	.0055
Family income below	.44	.67	.90	.59	.14	.0054
At least some college	.55	.76	.93	.54	.14	.0055
No college	.47	.70	.91	.57	.14	.0055
Cumulatively advantaged[b]	.57	.78	.94	.52	.14	.0054
Not advantaged	.47	.69	.90	.58	.14	.0055

N = 831
[a]All other independent variables held at mean values for members of the group.
[b]Respondent is considered cumulatively advantaged if at least three of the following apply: strong ideologue, voted in House race, family income in top 75% of sample, attended at least some college.

The remaining two dependent variables—certainty of the scale placement on ideology and ability to scale the challenger on government services and spending—behave more like candidate recall than the ability to place the challenger on the ideology scale. That is, members of the advantaged group have a higher probability of being certain about their ideological scaling of the challenger (Table 4) and a higher probability of placing the challenger on the government services and spending scale (Table 5). Benefits from spending are, however, again spread broadly to members of disadvantaged as well as advantaged groups. As spend-

levels of spending are necessarily less certain. This is less a concern for the ideological scaling item, where the expansion of the confidence bands is relatively small. For the remaining dependent variables in this study, the confidence bands expand somewhat more as spending exceeds $1,000,000, but in each case the lower bound of the band projects a higher probability as spending increases.

TABLE 4

Challenger Spending Impact on Being "Very" or "Pretty" Certain
of Placement of Challenger on 7-point Ideology Scale

| | Probability with Challenger Spending at:[a] | | | Discrete Change | | |
Group Pairings	$225K	$650K	$1.3M	Increase Spending from min to max	Set Spending + or −1/2 std. dev.	Marginal Effect
Strong partisan	.32	.50	.77	.53	.10	.0040
Not strong	.18	.32	.61	.45	.07	.0027
Strong ideologue	.31	.50	.77	.53	.10	.0039
Not strong	.18	.33	.62	.46	.07	.0028
Contacted by party	.25	.43	.71	.51	.09	.0036
Not contacted	.21	.36	.65	.48	.08	.0029
Voted in House race	.24	.41	.70	.50	.09	.0034
Did not vote	.17	.31	.60	.44	.07	.0025
White	.22	.38	.67	.49	.08	.0032
Not white	.19	.34	.63	.46	.07	.0027
Family income in top 75% of sample	.23	.40	.69	.50	.09	.0033
Family income below	.16	.30	.58	.43	.06	.0024
At least some college	.26	.43	.71	.51	.09	.0036
No college	.17	.31	.60	.44	.07	.0025
Cumulatively advantaged[b]	.28	.47	.74	.52	.10	.0038
Not advantaged	.17	.31	.59	.44	.07	.0025

N = 831

[a]All other independent variables held at mean values for members of the group.

[b]Respondent is considered cumulatively advantaged if at least three of the following apply: strong ideologue, voted in House race, family income in top 75% of sample, attended at least some college.

ing increases, the probability of being "very" or "pretty" certain about the challenger's ideological scaling and being able to scale the challenger on services and spending grows. Probability for all groups exceeds .50 as spending moves past $1,000,000. Like challenger name recall, the initial gap in predicted probability levels between mean members of these groups—a bit larger for certainty of ideological scaling than for scaling on spending and services—persists and does not begin to fade until challenger spending approaches or exceeds $1,300,000. Keeping in mind that the mean member of a disadvantaged group is likely to be a member of other disadvantaged groups as defined here, however, it is not surprising that some absolute gap might remain. The proportional gap between the advantaged and disadvantaged does, as noted above, diminish as spending increases. For example, the "no college" group starts at $225,000 with a probability level that is 65% of the level for the "some college" group in Table 4 and improves to 85% at spending of $1,300,000.

TABLE 5

Challenger Spending Impact on Probability of Placing Challenger
on 7-point Government Spending and Services Scale

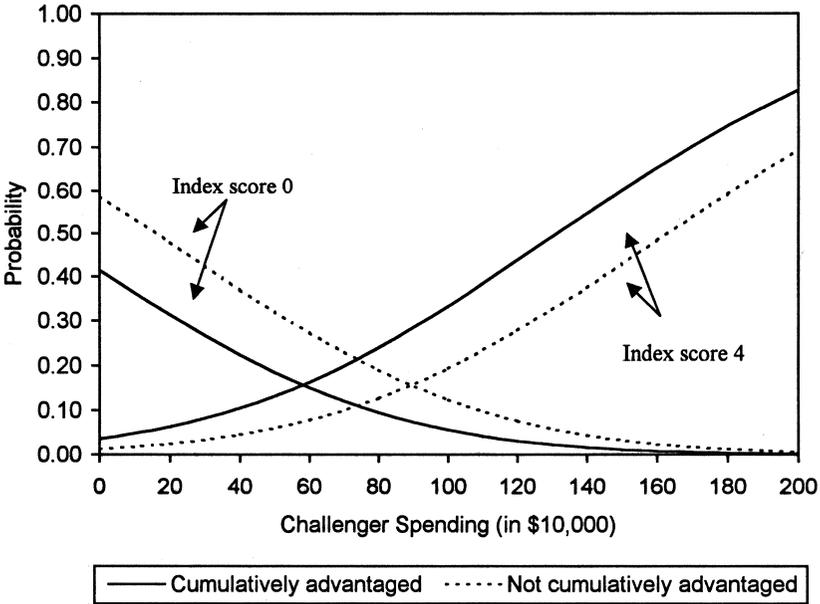|	Probability with Challenger Spending at:[a]			Discrete Change		
				Increase Spending from	Set Spending + or −1/2	Marginal
Group Pairings	$225K	$650K	$1.3M	min to max	std. dev.	Effect
Strong partisan	.18	.35	.67	.52	.08	.0030
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Contacted by party	.17	.32	.65	.50	.08	.0031
Not contacted	.14	.29	.61	.47	.06	.0025
Voted in House race	.16	.32	.64	.50	.07	.0029
Did not vote	.13	.26	.57	.45	.06	.0022
White	.14	.29	.61	.47	.07	.0026
Not white	.17	.34	.66	.51	.07	.0028
Family income in top 75% of sample	.16	.31	.64	.49	.07	.0028
Family income below	.12	.25	.56	.43	.05	.0021
At least some college	.17	.33	.66	.51	.08	.0030
No college	.12	.25	.57	.44	.06	.0022
Cumulatively advantaged[b]	.18	.35	.67	.52	.08	.0031
Not advantaged	.13	.26	.58	.45	.06	.0022

N = 951

[a]All other independent variables held at mean values for members of the group.

[b]Respondent is considered cumulatively advantaged if at least three of the following apply: strong ideologue, voted in House race, family income in top 75% of sample, attended at least some college.

As a final exploration of the distribution of challenger campaign spending benefits across groups, I constructed an index from the four dependent variables discussed above (Cronbach's alpha = .71). The combined knowledge index ranges from 0, meaning the respondent was not able to perform any of the tasks, to 4, indicating the respondent could perform every task. Using the same set of independent variables as those employed in the individual variable estimations, I ran an ordered probit estimation. Challenger spending was positively signed and significant (at the .01 level). (See the fifth column in the Appendix for ordered probit results.) I then set each variable to its mean for those respondents categorized as "cumulatively disadvantaged" in Tables 2 through 5, raised challenger spending from $0 to $2,000,000, and computed probabilities for each index score (the probability of scoring 0, scoring 1, and so on). I repeated the process for those identified as cumulatively advantaged.

In Figure 1, I present the probability of a zero score on this index and the probability of a score of four for the cumulatively advantaged and disadvan-

FIGURE 1

Probability of Minimum and Maximum Scores
on Combined Knowledge Index

taged across challenger spending levels from $0 to $2,000,000. The probability of obtaining the minimum score declines for both groups, diminishing to effectively zero and erasing the gap between the advantaged and disadvantaged. The probability of obtaining the maximum score increases for both groups, with cumulatively advantaged respondents displaying a somewhat higher probability level. The results reaffirm the earlier analysis: the distribution of benefits from campaign spending is spread broadly across groups.[8]

The Effect of Incumbent Spending

The knowledge benefits of challenger campaign spending are significant, substantial, and distributed across groups. Incumbent spending produces more modest benefits. Coleman and Manna show that incumbent spending is positively and significantly related (at the .10 level) to respondents' certainty about their placement of the incumbent on the 7-point ideology scale but is unrelated

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[8] I estimated the spending variables in alternative forms including squared values and interacted with the group pairing variables; these were not significant.

to the ability to place the incumbent on the scale. Incumbent spending does not help respondents recall the incumbent's name, but it does help respondents place the incumbent on the 7-point government services and spending scale (at the .10 level). There is logic to this pattern. On basic characteristics about the incumbent such as his or her name and broad ideology, the public has some familiarity after years in office, or the "long campaign" (Box-Steffensmeier and Franklin 1995). The ability to place the incumbent on the ideology scale, for example, is high across groups. With all variables set at the mean level, the probability of placing the incumbent on the ideology scale ranges from .74 for racial minorities to .89 for strong partisans and strong ideologues. Being "very" or "pretty" certain about the incumbent's ideology and placing the incumbent on the more specific government services and spending scale, on the other hand, are perhaps a bit more difficult and thus likely to be boosted by the incumbent's campaign efforts.

With incumbents, it is possible to test whether respondents are accurate in their perception of the incumbent's legislative behavior. Coleman and Manna (2000) convert the incumbent's Americans for Democratic Action (ADA) roll-call rating for 1995–1996 into a 7-point scale analogous to the 7-point NES ideological placement scale. They then condense the ADA and NES scales into 3-point scales, with points 1, 2, 6, and 7 becoming points 1 and 3 on the 3-point scale, respectively, and points 3, 4, and 5 becoming point 2. The respondent's placement of the incumbent is compared to the incumbent's position on the ADA 3-point scale. If these placements match, a 1 is coded for the "moderate accuracy" measure; if they do not match, a 0 is entered.

Although additional incumbent spending does not increase respondents' ability to place the incumbent on the ideology scale, it does substantially and significantly improve the accuracy of their placement. (See the sixth column in the Appendix for logit results.) Table 6 shows that the benefits of incumbent spending are spread broadly. As spending doubles from the incumbent mean to about $1.3 million (i.e., about 1.5 standard deviations above the mean), probability levels in the "have less" groups jump by a little over 50% on average and by just over 40% for the "haves." At that high level of spending, every group except two has a predicted probability over .50, and those exceptions—no college and the cumulatively disadvantaged—are close at .49. As with most of the dependent variables in the challenger spending analysis, spending does not eliminate the accuracy gap between the advantaged and disadvantaged groups, but for every group it does increase the probability that group members will place the incumbent accurately.

Unfortunately for incumbents, their spending is not the only spending that matters. Challenger spending also significantly affects respondent accuracy, but challengers, trying to disrupt the relationship between the incumbent and his or her constituents, foster confusion rather than clarity. That is, the more challengers spend, the less accurate respondents become in placing the incumbent ideologically, and this is true across the groups examined in this study. In the typical

TABLE 6

Incumbent Spending Impact on Probability of Placing Incumbent
Accurately on 3-point Ideology Scale

| | Probability with Incumbent Spending at:[a] | | | Discrete Change | | |
| | | | | Increase Spending from min to max | Set Spending + or −1/2 std. dev. | Marginal Effect |
Group Pairings	$225K	$650K	$1.3M			
Strong partisan	.37	.49	.66	.68	.13	.0028
Not strong	.25	.35	.53	.78	.12	.0026
Strong ideologue	.42	.54	.71	.63	.13	.0028
Not strong	.24	.33	.51	.79	.11	.0025
Contacted by party	.30	.42	.60	.73	.12	.0028
Not contacted	.28	.38	.57	.75	.12	.0027
Voted in House race	.31	.42	.60	.73	.12	.0028
Did not vote	.24	.34	.52	.78	.11	.0025
White	.29	.40	.58	.74	.12	.0027
Not white	.24	.34	.51	.78	.11	.0024
Family income in top 75% of sample	.30	.40	.59	.74	.12	.0027
Family income below	.24	.34	.52	.78	.11	.0025
At least some college	.34	.46	.64	.70	.13	.0028
No college	.22	.31	.49	.80	.11	.0024
Cumulatively advantaged[b]	.37	.49	.66	.68	.13	.0028
Not advantaged	.22	.32	.49	.80	.11	.0024

N = 580

[a]All other independent variables held at mean values for members of the group.

[b]Respondent is considered cumulatively advantaged if at least three of the following apply: strong ideologue, voted in House race, family income in top 75% of sample, attended at least some college.

race, of course, incumbents have a huge spending advantage, so there will be a net boost in accuracy during the campaign.

Considering the atypical race, where challenger and incumbent spending are equal, produces a different result. Figure 2 may be the very definition of an uneventful graph, but it is nonetheless striking. Looking at the cumulatively advantaged and those not cumulatively advantaged and setting challenger and incumbent spending levels equal shows that there is effectively no net movement on accuracy. Incumbents improve accuracy, challengers decrease it, and together they cancel out. For the advantaged and disadvantaged alike, the probability that respondents will be accurate is just as low when both candidates spend $1,000,000 as when nothing is spent and just as low when each spends an additional $1,000,000. Of course, this is but one possible measure of accuracy and only one election year, but the message remains normatively discour-

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FIGURE 2

Composite Effects of Challenger and Incumbent Spending on Respondent Accuracy
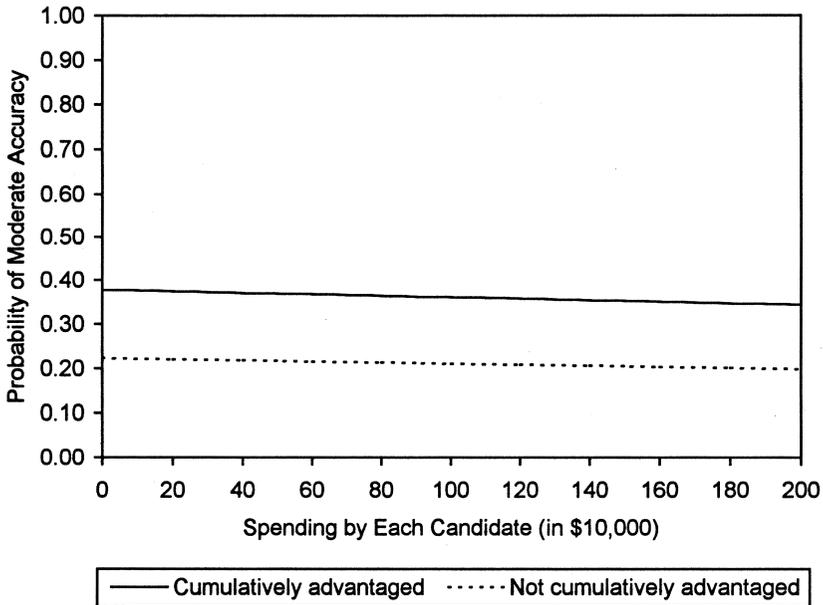
aging: after upwards of millions of dollars of spending, the less advantaged end up no worse off, but also no better off.[9]

Conclusion

In the national debate over campaign finance reform, the idea of limiting campaign spending has attracted substantial public support. Given a range of options in a 1997 Gallup survey, congressional campaign spending caps attracted the support of 79% of the respondents, trailing only business and indus-

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[9] A relaxed definition of accuracy would simply assess whether the respondent placed the Democratic candidate to the left of the Republican candidate. Although not necessarily true in all races, this is clearly the proper placement in the vast majority of cases. Here again I found that when incumbent spending increased, respondents were significantly more likely to place the Democratic candidate to the left; when challenger spending increased, they were significantly less likely to place the Democratic candidate to the left. This relationship held up regardless of whether respondents were considered to be accurate or inaccurate when placing the Democrat and the Republican at the same position on the ideology scale.

try contribution limits (81% support) in attractiveness.[10] To some degree, this support results from democratic concerns about campaign fund-raising: raising funds creates legislative obligations to special interests, the argument goes, so limiting the amount that candidates can raise and spend should trim the power of these interests. Turning scholarly attention to the civic engagement effects of campaign spending, Coleman and Manna (2000) argue that campaign spending increases public knowledge about and affect toward the candidates, particularly challengers. These benefits suggest caution before imposing spending limits and offer some support for partial public financing of campaigns. But who benefits? If this increased knowledge about the candidates disproportionately flows to privileged sectors of society and bypasses less privileged sectors, campaign spending would be strengthening and entrenching political inequality.

I have shown here that this fear is largely unfounded. For dependent variables measuring campaign knowledge about the incumbent, results are mixed. Recall of the incumbent's name and the ability to place the incumbent on the ideological scale are not related to incumbent spending. On the other hand, incumbent money positively and significantly improves the ability of all groups to scale the incumbent on the government services and spending scale and to feel relatively certain about the placement of the incumbent on the ideology scale. Moreover, the more incumbents spend, the more accurate all groups become about their placement of the incumbent on the ideology scale. If challengers spend as much as incumbents do, however, this accuracy boost dissipates across groups.

On the challenger side, the message is consistent and encouraging. With each of the dependent variables measuring campaign knowledge about the challenger, benefits from campaign spending flow to all or nearly all the groups in this study. When scaling the challenger on the ideology scale, spending at high levels eliminates the absolute probability gap between advantaged and disadvantaged respondents. Even when that absolute gap persists with the other dependent variables, both types of respondent become more knowledgeable as spending increases and the probability level of the disadvantaged group grows as a proportion of the level of the advantaged group. On balance, the benefits of campaign spending are distributed broadly across the population and not disproportionately captured by the already advantaged.

[10] Gallup Poll, February 2, 1997 (http://www.gallup.com/poll/releases/pr970222.asp).

Appendix
Knowledge about Challenger and
Accuracy toward Incumbent

Independent Variables	Recalls Name	Can Scale on Ideology	Very/Pretty Certain about Scaling	Can Scale on Services/ Spending	Combined Knowledge Index	Accurate Incumbent Placement[b]
Incumbent spending	.002	−.001	.004	.001	.001	.011***
(in $10,000)	(.003)	(.003)	(.003)	(.003)	(.001)	(.004)
Challenger spending	.018***	.022***	.018***	.021***	.014***	−.012*
(in $10,000)	(.006)	(.005)	(.006)	(.006)	(.003)	(.006)
Incumbent is	.282	.165	.258	−.057	.090	−.136
post-freshman	(.291)	(.254)	(.298)	(.303)	(.130)	(.298)
Roll-call moderation	.013**	.010*	.021***	.022***	.010***	.052***
(folded ADA)	(.006)	(.006)	(.006)	(.006)	(.003)	(.020)
Education	.306***	.035	.121**	.105*	.076***	.262***
	(.058)	(.052)	(.060)	(.063)	(.027)	(.093)
Politics not too	.033	−.070	−.034	.024	−.024	.061
complicated	(.067)	(.058)	(.067)	(.070)	(.030)	(.070)
Days watched	.071**	.021	.030	.083**	.030*	.014
local news	(.035)	(.030)	(.036)	(.039)	(.016)	(.038)
Days read	.090***	.067*	.072**	.125***	.058***	.027
newspaper	(.032)	(.028)	(.032)	(.034)	(.015)	(.035)
Identify with	−.138***	−.045	−.070*	−.088**	−.058***	.028
incumbent's party	(.039)	(.036)	(.039)	(.042)	(.018)	(.049)
Strong partisan	.344*	.499***	.681***	.352*	.314***	.378*
	(.188)	(.171)	(.189)	(.200)	(.087)	(.201)
Strong ideologue	.821***	.330*	.405**	.058	.255***	.524***
	(.185)	(.171)	(.190)	(.206)	(.088)	(.200)
Family income	.029*	.021	.015	.009	.014**	−.006
	(.016)	(.013)	(.016)	(.017)	(.007)	(.017)
Age	−.027	−.089*	−.028	−.103*	−.050*	−.028
	(.056)	(.049)	(.058)	(.060)	(.026)	(.063)
Gender	−.164	−.004	−.039	−.218	−.072	−.090
	(.170)	(.152)	(.175)	(.185)	(.079)	(.183)
Race	−1.897***	.067	−.107	.269	−.117	−.285
	(.441)	(.231)	(.282)	(.275)	(.123)	(.322)
Constant	−4.199***	−1.015**	−3.423***	−3.333***	.826[a]	−2.682***
	(.579)	(.495)	(.590)	(.597)	(.257)	(.728)
Pseudo R^2	.20	.08	.12	.12	.09	.09
−2LL	896.06	1057.70	851.14	802.86	2249.47	729.16
Model χ^2	217.71***	91.65***	121.46***	114.09***	212.74***	70.22***
Percent correct	76.76	62.82	76.77	81.18	na	62.76
N	951	831	831	951	831	580

*$p < .10$, **$p < .05$, ***$p < .01$; two-tailed. Standard errors in parentheses.
[a]Ordered probit estimation, first cutpoint. Other cutpoints are 1.459 (.259), 2.087 (.264), and 2.845 (.271).
[b]Three additional variables were included in this estimation: an interaction between the folded ADA and education; the feeling thermometer toward the incumbent; the gap between the respondent's self placement and placement of the incumbent's party on the ideology scale. The latter was positive and significant at .05.

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