Cooperative Media Spending in Senate Campaigns, 2010 & 2012

Kenneth M. Miller
University of Texas at Austin

March 27, 2015

Abstract

Outside groups now represent a major, sometimes majority voice in U.S. Senate campaigns. Given the scale of spending, independent groups, parties, and candidates have a strong incentive to ensure that expenditures are allocated efficiently. This project makes two contributions to our understanding of how the various campaign actors cooperate to maximize the benefit of their resources. First, this paper specifies how outside groups cooperatively spend on media to assist candidates. In addition to weighting spending towards the closest contests, outside advertising dollars are distributed with increasing awareness of which candidates are running out of money and which candidates are facing the most opposing spending. Second, by differentiating expenditures by type of activity, the strength of outside group messaging relative to candidate messaging is more accurately measured. Comparing media expenditures of groups and candidates shows that Senate candidates have far less direct control over campaign messages than typically reported.

Campaign advertising by parties and independent groups have become an increasingly large share of political communication in federal races. In 2004, the first federal campaign season after passage of the Bipartisan Campaign Reform Act (BCRA)[1], Senate and House candidates were responsible for 85% of the spending in their races.

[1] Prior to the passage of BCRA, "issue ads" were not reported to the Federal Election Commission (FEC) and most soft money expenditures by parties was not clearly or consistently tracked.

Paper prepared for presentation at the annual meeting of the Western Political Science Association, April 2–5, 2015. Please do not cite or distribute without permission.

In 2012, the last year for which reliable data is available, House candidates directly controlled 73% of the spending and Senate candidates were directly responsible for just 62% (Ornstein et al. 2013).

Outside money is an even larger share of spending on congressional races in midterm election years. The full picture of the 2014 elections is still coming into focus, but outside groups outspent candidates in 14 House races and 9 Senate races in 2014 (Krumholz 2015). Given that independent expenditures were far higher in 2014 than in 2010 or 2012, it is reasonable to expect that congressional candidates only had direct control about three-fifths of the money spent in their races.

Many candidates and campaign professionals have lamented the prominence of outside spending and have complained that they lose control of their own message. In 1998, years before the passage of BCRA in 2004 and the court decisions in 2010 that set the stage for large scale spending by independent groups, a state assemblyman quipped, "Pretty soon, all we're going to have to do is file and sit back and let these independent expenditures run the show" (Berke 1998). Campaign staff from the 2012 congressional elections bemoaned the loss of message control by campaigns, remarking that "the campaign is not fully in charge of its own destiny as far as the messaging goes," and that independent expenditure ads made their campaigns "dumber and sillier" (Tokaji and Strause 2014, 61). Sheila Krumholz from the Center for Responsive Politics refers to outside groups as "a shadow party that's effectively impossible to dislodge, and they will shape, if not control, the dialogue in key races and therefore nationally" (Parker 2014).

These accounts from political professionals and observers are at odds with work in political science on the relationship between independent expenditure groups, parties, and candidates. Even though independent groups are outside of the direct control of the candidates that that they support and are a less efficient way to distribute campaign resources than through the parties (La Raja 2008, 2012) a more common view within political science is that outside groups are integrated pieces of a broader party network (Bawn et al. 2012; Herrnson 2009; Koger, Masket, and Noel 2009; Schwarz 1990; Skinner, Masket, and Dulio 2012).

Much of the increase in outside activity can be explained by political actors adapting and diverting resources from the parties into independent groups in a "hydraulic" process (Issacharoff and Karlan 1998). Independent spending partially replaced soft money in the years immediately after the passage of BCRA in congressional and presidential campaigns (Weissman and Hassan 2006), and independent spending accelerated further with key court decisions in 2010 (Corrado 2014). There is variation in which races receive outside attention, mostly based on the competitiveness of the contest (Brox 2013; Franz, Rivlin, and Goldstein 2006; Herrnson 2009; Herrnson, Patterson, and Curtis 2014).

The question remains, however, if independent expenditures are independent assistance that reflect similar but separate objectives of its sponsors, or if independent expenditures are well coordinated support that behaves more like the now banned soft money. This paper advances a theory of cooperative behavior between independent groups, parties, and candidates to explain actors' strategies and provide evidence for how effective these groups are in their cooperation.

The more effective that outside groups and candidates are in cooperating in their campaign activities, the more that the legal rationale behind important pieces of current campaign finance law is undermined. Contributions to "Super-PAC's," expenditure-only political committees, are not subject to limits in large part because these groups are independent of candidates. Independent expenditure groups can spend unlimited amounts in support of candidates because the supposed independence of the activity. As independent groups, parties, and candidates become more adept at cooperating with one another, campaign activity from independent groups becomes indistinguishable from in-kind contributions or the now banned soft money, and the legal rationale for unlimited independent expenditures is increasingly divorced from the reality of campaigns.

This project focuses on cooperation in media spending. Campaign advertising is of particular interest because political advertising is uniquely effective among campaign activities in its ability to educate citizens, mobilize voters, and have sufficient influence on vote preference to affect the outcome of close races (Freedman, Franz, and Goldstein 2004; Gerber et al. 2011; Vavreck 2009). Campaign advertising is a critical force in defining what an election is "about". Campaign themes can influence the policy agenda in government when winning candidates seek to deliver on campaign promises (Sulkin 2011) and electoral victory is interpreted as a public mandate for the winning campaigns' issues.

Most comparisons of candidate and outside spending (such as those referenced in the introduction here) consistently and substantially understate the weight of outside advertising relative to candidate advertising. Candidates spend resources on a wide array of activities, while independent expenditures are almost entirely devoted to advertising. Accounting for these different budgetary requirements, the true strength of outside campaigning compared to candidate campaigning should be much stronger than is usually reported.

This paper will show that outside money cooperates efficiently, that is, outside spending effectively accounts for supported candidates' budgets and opposing activity. In the process of testing this expectation, a less biased and more efficient measure of campaign activity by various campaign actors is used that better illustrates the true impact of outside spending on campaigns.

Cooperative Campaigning

Modern campaigns have been characterized as a "team sport," with multiple players working towards the shared goal of electoral success (Magleby 2011), but political science has had little to say about how these teams function. Since the 2010 Supreme Court decision in *Citizens United v. FEC* and the D.C. Circuit Court in *Speechnow.org v. FEC* individuals, corporations, and unions may all make unlimited direct expenditures or contribute to organizations that make unlimited expenditures. These expenditures must be independent of candidates, that is, not in coordination with candidates or the expenditures will be subject to contribution limits. A coordinated expenditure is defined by the FEC as one "made in cooperation, consultation or concert with, or at the request or suggestion of, a candidate, a candidate's authorized committee, or their agents, or a political party committee or its agents."[2]

Cooperative campaigning is the practice of campaign actors harmonizing their

[2]11 C.F.R. §109.20(a) (2004)

activities without crossing this legal threshold of coordination. Outside groups – any entity campaigning in a race other than the candidate committee – and candidates seek to cooperate with one another through a mix of complimentary and compensatory supportive activity. Both parties and independent groups – outside groups not directly attached to the parties – face prohibitions against direct communication with candidates. These barriers to communication result in gaps in information about each others' campaign strategies and cause potential errors in cooperation with each other or simplified strategies of support that fail to maximize the benefit of all resources.

Campaigns and outside groups could conduct campaign activity that is independent of each other or cooperative with one another. Independent campaign activity is advertising or other campaign activity that is done in support of a candidate but without consideration of how the activity fits in with the activities of other campaign actors supporting the candidate. "Independent" has a very different and stricter meaning here than how the term is defined by the FEC. In this project independent activity is analogous to statistical independence, that is, the campaign activity of one actor does not make a particular activity by other actors more or less likely. To the FEC, independence is defined as the absence of explicit coordination between campaign actors.

Cooperation can take two different forms, either *complementary activity* or *compensatory activity*. Complementary cooperative activity is parallel campaigning. Complementary media spending would be spending that reinforces candidates by spending more where candidates are most active. Compensatory cooperative activity is a division of labor. Outside media spending can compensate for an underfunded candidate in a close race by spending more on media where candidates are spending less relative to the closeness of the contest and/or the spending level of the opponent. Independent spending would simply allocate resources to the closest contests without consideration for other actors' spending.

In media spending, complimentary cooperation is clearly an inefficient strategy and is unlikely to occur. Instead, independent groups and parties will engage in compensatory cooperation in mass media spending. Campaign actors will be quite effective in distributing resources efficiently since race competitiveness and candidate war chests are publicly available pieces of information. Parties have long been effective at efficiently distributing resources to the most competitive races (Damore and Hansford 1999; Jacobson 1985, 2010). Well-heeled independent groups will be equally effective, and the distribution of outside money across races should also account for the financial state of the candidates; that is, in addition to race competitiveness, outside media spending will account for opposing actors' spending and which candidates are running out of money.

It is possible that outside advertisers, if they lack full information or are indifferent to information about campaign spending, will engage in independent support by simply deciding to direct resources into the closest contests. Such errors in compensatory cooperative campaigning should be infrequent and decreasing over time, however. Campaign actors experiment in ways to communicate their strategies (Mattingly 2014), and over time these actors should learn how to best operate in a recently changed rules environment. Especially innovative attempts have been made by candidates and parties in the 2014 cycle to share strategic information with outside groups: a stand-alone corporation was created on the Republican side to disseminate opposition research among both candidates and independent expenditure groups while remaining compliant with FEC rules (Confessore 2014), and Twitter accounts were created on both sides to share polling information across party, candidate, and independent groups (Blumenthal 2014; Moody 2014). Campaign actors are clearly interested in improving the quality of information available to one another, most likely with the goal of improving cooperative behavior.

Campaign Actors

Campaign actors can be divided into two principal categories: the candidate campaigns, and outside groups. Outside advertisers are further divided into party groups and independent groups. Each side of a campaign, then, has three categories of campaign actors that could be active in a race:

Candidate campaigns These are the campaign committees of the candidate. Campaign staff and consultants hired by the campaign have the solitary goal of winning the campaign and answer to the candidate.

Party groups These groups are clearly and explicitly affiliated with the party, e.g. Democratic Senatorial Campaign Committee (DSCC) and National Republican Senatorial Committee (NRSC). These groups are driven pursue party objectives, and are answerable to party leadership.

Independent groups This category captures all other Super PACs, 527s, 501(c)4's, and other political committees and non-profits engaged in mass communication of political messages. These groups do not have an explicit party affiliation, e.g. Chamber of Commerce, SEIU, Americans for Tax Reform, League of Conservation Voters. These groups will typically be closely allied with one party, but are ultimately accountable to their donors. Some groups are explicitly created to support a party or even a single candidate, others to advance a policy agenda.

All of these groups have the same basic objective of winning the election they are participating in, even though each of these categories of campaign actors have slightly different motives: candidates simply seek electoral victory (Downs 1957; Mayhew 1974), parties seek majorities in government (Aldrich 2011; Downs 1957) and independent expenditure groups must satisfy their donors or members (Skinner 2007). Given these objectives, parties and candidates work in as close a partnership as possible (Brox 2013). Many independent expenditure groups have narrower policy objectives, but even policy-oriented groups will conduct campaign activity with the intention of supporting the preferred candidate's campaign.

Some independent groups may have specific policy goals but those narrower policy goals are better served (and often more cheaply served) through access-oriented activities like PAC contributions and lobbying. Policy-focused super-PAC's and 501(c)'s could make decisions on which candidates to support and how strongly to support them based on candidates' policy positions instead of basing their support purely with a seat-maximizing objective. If so, the distribution of independent expenditure group support would deviate from the expectations of compensatory cooperation.

However, I expect that when independent groups commit to the expensive proposition of independent expenditures, across multiple races parties and large independent groups will distribute resources with the goal of maximizing legislative seats.

How Campaign Actors Spend

Not all campaign spending is equal. Some campaign expenditures are made with the purpose of defining the issues, raising the awareness of the candidate, and defining the opponent. Other expenses service the operational needs of the campaign, conduct fundraising, and manage get-out-the-vote efforts. It has long been known that measuring a candidate's campaign communications using total spending is a biased and inefficient measure (Ansolabehere and Gerber 1994). In addition to the variety of purposes of expenditures, there is heterogeneity in how different campaigns allocate resources. Some campaigns may spend lavishly on travel and meals while other campaigns may spend nearly all resources on television spot buys.

In order to assess how independent expenditures fit into the overall campaign landscape it is first necessary to have a clearer picture of how campaigns and outside groups are allocating their resources. Using FEC filings, every reported expenditure by major party Senate candidates (N=307,180) and independent expenditure groups (N=66,476) in the 2010 and 2012 elections is categorized by type of activity. The expenditures of candidate campaigns, parties, and independent expenditure groups are coded into three categories:

Mass media for production and media buys of mass advertising on television, radio, online, and (in theory but rarely in practice) newspapers

Direct contact expenditures for contacting voters individually, through email, post, phone, and canvass

Other all other expenditures. Mostly composed of expenses for payroll, travel, office space, donations, polling, and consultants

Some other categorization schemes of campaign expenditures make a distinction between spending oriented towards persuasion, mobilization, and fundraising (Fritz and Morris 1992; Morris and Gamache 1994). Here there they are grouped together as direct contact because efforts to persuade or fundraise often happen concurrently within a single direct mail piece or single email. Canvassing at times has dual purposes of both persuading undecided voters as well as encouraging likely votes to turn out to the polls. Accurately categorizing expenditures into discrete categories based on these purposes is nearly impossible. Furthermore, since the principal measurement of interest is the spending on mass media advertising, a different coding scheme for these other types of expenditures would have no impact on the conclusions drawn.

Outside group spending for each race is calculated as the total spending designated as supporting the candidate plus the total spending designated as opposing that candidate's opponent. In rare cases of races with a third viable candidate (Florida and Alaska in 2010, and Maine and Maryland in 2012) the opposing spending is "credited" to the correct candidate based on the party affiliation or ideological position of the group reporting the expenditure.

On average, candidate committees devote half of their expenditures to mass media, whereas outside group spending is almost entirely devoted to mass media (see Table 1). Outside party groups such as the DSCC and NRSC, independent Super-PAC's, and 501(c)'s may have substantial overhead and other expenses, but these are not reported to the FEC as independent expenditures in support or opposition of candidates. In contrast, candidates report all of their expenses, and candidate committees must allocate resources to staffing, office rental, travel, events, and all of the other activities of a federal candidacy. Directly comparing independent expenditures to candidate expenditures significantly understates the relative weight of independent expenditures in the total campaign communication environment. Furthermore, the variation in spending by candidates and outside groups is substantial (see standard deviations in Table 1). A consequence of the variability in spending decisions is that we cannot assume that categories of campaign expenditures are constant ratios. There is no reliable "rule of thumb" for how much candidates devote to campaign communications.

The ideal, efficient distribution of campaign resources over the range of races should be sharply peaked on contests that are most uncertain (Jacobson 1985). Table 1 shows the pairwise correlation of spending levels to the competitiveness of the contest. The competitiveness of the race is measured using race ratings from the Rothenberg Political Report on October 1, 2010 and October 5, 2012.[3] A simple approximation of the ideal association between spending and competition is to square the categorical values for competitiveness, rescaling the measure from 0 –

[3] Rothenberg uses a nine category scale to reflect the probability that one party or the other will win the seat, not the expected vote share. A six-point competitiveness scale is created by folding Rothenberg's scale and breaking out safe seats where no challenger filed with the FEC into an "uncontested" category.

Table 1: Average Campaign Spending by Category

	2010		
	Media	Direct	Other
Candidates			
Mean	$4,270,925	$1,106,904	$3,048,167
Standard Deviation	$4,677,329	$2,240,705	$2,629,567
Corr. w/ Competitiveness	.50	.29	.37
Outside Groups			
Mean	$1,779,100	$266,635	$40,390
Standard Deviation	$3,219,227	$449,402	$102,764
Corr. w/ Competitiveness	.84	.75	.58
	2012		
	Media	Direct	Other
Candidates			
Mean	$5,208,092	$844,315	$4,034,111
Standard Deviation	$5,922,890	$1,050,659	$4,612,892
Corr. w/ Competitiveness	.42	.37	.26
Outside Groups			
Mean	$4,381,612	$632,003	$136,852
Standard Deviation	$6,532,462	$916,875	$268,766
Corr. w/ Competitiveness	.73	.68	.23

Source: FEC Candidate Disbursements and Independent Expenditures files

5 to 0 – 25, and measure the linear association between spending and the squared competitiveness term.

Not surprisingly, outside spending responds more closely to the competitiveness of the race than candidate spending. Outside resources are flexible and can be easily deployed across contests, whereas candidate resources are more constrained. Candidates in safe contests can donate surplus funds to more efficiently distribute resources to the races where they are needed most, but candidates are risk averse and will often keep or spend their funds instead. Candidates in the closest races lose their ability to respond to tightening conditions when they run out of money, while outside groups can quickly and easily reallocate dollars based on conditions.

These spending patterns also provide a window into campaigns' valuation of these activities. Media is the largest category of expenditures for both candidates and outside groups, and media spending is most closely responsive to the intensity of the contest. Non-media expenditures rise with increased competitiveness, but not to the same degree as media. When the race gets close, campaigns put their resources into mass media.

Independent expenditure group media is weighted even more heavily than candidate media towards the closest races (see Table 2). As a result, in the closest races candidate spending is evenly matched or even outpaced by outside spending. Equal spending by candidates and independent expenditure groups does not necessarily mean equal advertising reach, however. The Federal Election Campaign Act (FECA) requires that broadcasters offer advertising time at the "lowest unit rate" to federal candidates in the last 45 days before a primary and 60 days before a general election. Candidates should pay much less than outside groups for the same advertising reach (Fowler and Ridout 2012). In discussions with media executives, however, they described how stations reset their rate cards months before campaign seasons in anticipation of political spending. The true difference in ad rates paid by campaigns and outside groups is not well known and probably quite variable across markets and years.

In campaigns where the message matters most, the candidates have the least control over the message. To illustrate the loss of control, candidate and outside group

Table 2: Average Media Spending in Senate Races

Competitiveness	Candidate Spending	Outside Spending	Candidate Control	N
2010				
Toss Up	$8,649,762	$9,394,896	48%	4
Tilting	$6,542,588	$5,453,295	55%	14
Competitive	$11,133,186	$1,468,550	88%	6
Less Competitive	$3,969,513	$230,301	95%	15
Non-Competitive	$1,894,590	$118,742	94%	31
Uncontested	$169,370	$590	100%	3
2012				
Toss Up	$9,369,550	$12,366,669	43%	12
Tilting	$6,994,482	$8,612,178	45%	6
Competitive	$7,370,043	$7,165,145	51%	9
Less Competitive	$3,492,678	$2,014,734	63%	6
Non-Competitive	$3,231,935	$280,931	92%	29
Uncontested	$1,037,302	$3,333	100%	3
All Races 2010	$4,270,925	$1,779,100	70%	73
All Races 2012	$5,208,092	$4,381,612	54%	65

Source: FEC Candidate Disbursements and Independent Expenditures files

media spending is compared in Table 2. The percentage of total media spending controlled by candidates (candidate media / candidate media + outside media) is shown in the Candidate Control column.

In 2010 outside groups were responsible for nearly one-third of media spending in Senate races overall. Outside groups evenly matched candidate media spending in races in the closest two categories of competitiveness. In 2012 outside media spending was even more impactful on campaign communications. Candidates had direct control of half or less of the media spending in races in the top three categories of competitiveness. Even in less competitive contests, races where favored candidates faced almost no real threat, candidates directly controlled less than two-thirds of their side's media dollars.

Compensatory Media Spending

Outside groups heavily skew their media dollars towards tightly contested campaigns. The result is total media spending (candidate media + supporting outside media) that is far more responsive to race competitiveness than candidate media spending alone (see Table 3).

Table 3: Correlations of Media Spending and Competitiveness

	2010	2012
Candidate Media	.50	.42
Outside Media	.84	.73
Total Media	.78	.75

Pairwise correlations between media spending and race competitiveness squared

This association does not demonstrate compensatory cooperation, however. The spike of independent spending on the closest fought campaigns could be independent activity – outside groups simply piling their money into the races that are most in doubt. Or this spending pattern could be complimentary activity – outside groups buying media in the same places where candidates do. What characterizes compensatory spending allocations is a consideration for candidate war chests, specifically, increasing spending in places where candidates lack the funds to meet the media demands of their race, and spending less where candidates have the most ample resources on hand.

Compensatory Spending Hypothesis: Outside groups engage in compensatory cooperation, allocating resources in direct response to campaign intensity and in inverse response to supported candidate resources.

A model of how outside groups and campaigns cooperate is best described in terms of mass media. Cooperative behavior between campaigns and outside groups is obscured when examining total expenditures since candidates and outside groups both spend and report that spending differently. The above hypothesis is therefore tested using a model estimating outside media spending as a function of several variables listed in Table 4. The dependent variable, *outside media*, is the spending in dollars by outside groups on media in each Senate campaign.

Table 4: Summary Statistics for Model of Outside Spending

	Mean	**Std. Dev.**	**Min.**	**Max.**
Dependent Variable				
Outside media	3,004,921	5,203,962	0	28,410,056
Independent Variables				
Race competitiveness	7.2	8.3	0	25
Candidate media	4,712,343	5,301,515	250	26,973,317
Opposing media	7,990,801	8,400,785	0	35,502,114
Size of electorate	3,243	3,211	268	15,356
Incumbent candidate	33%	—	0	1
Democratic candidate	47%	—	0	1
Republican candidate	50%	—	0	1
Independent candidate	3%	—	0	1
N	138			

Several variables should predict outside spending regardless of outside groups' media spending strategies.The *competitiveness* of the race is expected to be the strongest predictor of outside spending, and is represented in the model with the categorical Rothenberg rating squared. The *size* of the electorate should have a positive relationship with media spending since a meaningful amount of advertising will be far more expensive in a large state like California compared to a small state such as Nevada. The size is represented here in thousands of registered voters in the state in 2010 and 2012, obtained from the FEC. Incumbent candidates often attract more direct contributions from PAC's and party support, so *incumbency* is included as a dummy variable in the model. In the immediate aftermath of the *Citizens United* and *Speechnow.org* decisions Republicans were faster to adapt to the change in the campaign finance environment and more reliant on independent expenditure support in their campaigns, so party affiliation is included as a categorical variable (the omitted category in the estimated model is Democrat).

Two variables in the model measure compensatory media spending. First and most importantly, *candidate media*, measured in dollars, should have a negative association with outside spending. Holding other factors constant, when a candidate has less available to spend on media outside groups should increase their supportive spending, or when a candidate is especially well funded outside groups will offer less support and instead choose to spend elsewhere. Second, *opposing media* should have a positive effect on outside spending. Outside groups should reinforce candidates with supporting advertising more strongly when there is greater spending in opposition. Opposing media is measured in dollars as the total media expenditures by opposing candidates and opposing outside group media spending combined.

The dependent variable in the model, outside media spending, is bounded at zero. More specifically, the optimal amount of outside media support will often be no support, or a "corner solution" (Wooldridge 2002). Estimating this model using ordinary least squares, in addition to making negative predictions for some campaigns, would yield biased and inconsistent parameter estimates (Long 1997). Instead, a tobit model estimated using maximum likelihood will provide consistent parameter estimates and is chosen here. The model takes the following form:

$$outmedia_i = \begin{cases} y_i^* & \text{if } y_i^* > 0 \\ 0 & \text{if } y_i^* \leq 0 \end{cases}$$

$$y_i^* = \beta_0 + \beta_1 compet_i + \beta_2 canmedia_i + \beta_3 oppmedia_i + \beta_4 size_i + \beta_5 inc_i + \beta_6 rep_i + \beta_7 ind_i + e_i$$

The coefficients from the tobit model are shown in Table 5. The results strongly support the compensatory spending hypothesis. Race competitiveness has the expected strong association with outside spending. Most importantly, the coefficients for candidate media spending and opposing media spending have the correct sign, are statistically significant, and show strengthening substantive effects in 2012 compared to 2010. Incumbency and the size of the electorate do not have meaningful relationships with outside media spending levels. In 2010 Republican candidates had significantly more support than Democrats from outside media, but there were no significant differences between the parties in 2012.

The coefficients in Table 5 represent the linear effect of the independent variables on the latent y^* not on the observed dependent variable, so these coefficients cannot be interpreted in the same way as OLS estimates. To better describe the substantive effects of the independent variables on outside media spending, marginal effects are calculated and shown in Table 6. The first set reflects the marginal effects for the

Table 5: Coefficients from Tobit Model of Outside Media Spending

Independent Variables	**2010**	**2012**
Race competitiveness	394,103***	472,951***
	(52,427)	(91,363)
Candidate media spending	-0.09^{+}	-0.35**
	(0.06)	(0.12)
Opposing media spending	0.12*	0.50***
	(0.06)	(0.10)
Size of electorate (in 000's)	43	51
	(97)	(191)
Incumbent candidate	854,057	-644,379
	(538,638)	(1,367,174)
Republican candidate	1,606,880**	766,528
	(498,691)	(1,163,150)
Independent candidate	890,366	-720,102
	(1,461,896)	(3,559,031)
Intercept	-2,805,914	-2,570,475
Uncensored observations	53	48
Left-censored observations	20	17
χ^2	99.29***	78.61***

Standard errors in parentheses

$^{+}p < .10$, $^{*}p < .05$, ** $p < .01$, *** $p < .001$, *two-tailed tests*

Table 6: Marginal Effects on Outside Media Spending

	2010	**2012**
Unconditional Expected Value		
Race competitiveness	286,129	229,955
Candidate media spending	-0.09	-0.26
Opposing media spending	0.09	0.37
Size of electorate (in 000's)	31	38
Incumbent candidate	620,069	-475,849
Republican candidate	1,166,638	566,051
Independent candidate	646,430	-531,767
Conditional on Outside Media Spending > 0		
Race competitiveness	202,541	163,337
Candidate media spending	-0.06	-0.18
Opposing media spending	0.06	0.26
Size of electorate (in 000's)	22	27
Incumbent candidate	438,926	-337,996
Republican candidate	825,824	402,067
Independent candidate	457,586	-377,715

unconditional expected value of outside media spending evaluated at the means of the independent variables. The second set shows the marginal effects on the expected value of outside media spending conditional on outside media spending being greater than zero, that is, only among Senate campaigns where outside groups spent media dollars.

In both election years outside media spending was closely associated with race competitiveness. Recall that race competitiveness is a squared term, so on average the marginal effect of a race being "toss up" ($compet$ = 25) versus a "tilting" ($compet$ = 16) is \$2,575,161 in additional outside media spending in 2010 and

$\$2,069,595$ in 2012 overall.

Variables to measure compensatory cooperative spending had much stronger substantive effects in 2012 compared to 2010. On average, an additional dollar of candidate media spending in 2010 decreases the outside media spending by 9 cents. In 2012 an additional dollar of candidate media spending is associated with 26 cents less outside media spending. Among races where outside groups spent media dollars, candidate spending is associated with 6 cents less outside activity in 2010 and 18 cents less in 2012. Opposing media spending also has a much stronger association in 2012 than in 2010. An additional dollar of opposing media is associated with an increase of 9 cents of outside supporting media in 2010 and an increase of 37 cents in 2012. Conditional on the presence of outside media spending, the association between opposing media and supporting outside media is 6 cents in 2010 and 26 cents in 2012.

Conclusion and Discussion

From 2010 to 2012 outside groups improved the efficiency of the allocation of their media dollars. In 2010 outside groups engaged in mostly independent support and limited compensatory cooperation. Media spending in 2010 was strongly responsive to race competitiveness and more weakly associated with the supported campaigns' activity and the opposing candidates' activity. Just one election cycle later outside group cooperation was strongly compensatory. Outside groups had become far more efficient in allocating media spending to those races where supported candidates needed it most. By 2012 outside groups were engaged in a functional equivalent of coordination in their media spending in support of candidates.

This does not suggest that outside groups are engaging in illegal coordination with candidates. The information required to efficiently cooperate with candidates is easily obtainable through legal avenues. In the most recent election cycles campaigns have left nothing to chance and have taken the initiative to explicitly communicate their intentions on media buys. Such information was once considered strategically valuable and was kept confidential. In the current rules environment it appears that the benefit of communicating spending intentions to allied outside supporters is greater than the cost of informing opponents about campaign strategy.

It is also noteworthy that outside media dollars are being spent by approximately 200 different groups in each of these election cycles. Despite this broad array of groups participating in communications in Senate campaigns – Hill committees, party-adjacent groups like American Crossroads, issue specific groups like the League of Conservation Voters, and smaller race-specific Super-PAC's – the total distribution of resources is remarkably efficient. This suggests that the major independent expenditure groups active in campaigns share the parties' seat-maximizing objective. It is possible that aggregating the spending behavior of all outside groups obscures important differences, however. For example, the League of Conservation Voters may skew their support towards candidates who are especially sympathetic to their policy goals and the DSCC in turn compensates for the bias by more strongly supporting other Democratic candidates. Additional research is required on the spending patterns of party groups compared to independent groups.

Finally, categorizing the expenditures of candidate committees and independent expenditure committees revealed how modern campaigns allocate their resources. In Senate campaigns media is what matters most, and Senate candidates are losing control of their media. This project makes the suitable comparisons between candidate and independent expenditure group spending by categorizing the expenditures of candidates and independent expenditure groups by type of activity. It has been shown that as early as 2010, just months after the *Speechnow.org* federal court decision that created Super-PAC's, outside advertising dollars were evenly matching candidate advertising dollars in competitive contests. Given the even larger independent expenditures in the 2014 cycle and the probable scale of independent expenditures in 2016, independent groups are likely the dominant authors of campaign communications in current competitive U.S. Senate elections.

References

Aldrich, J. H. 2011. *Why Parties?: a second look*. University of Chicago Press.

Ansolabehere, Stephen, and Alan Gerber. 1994. "The mismeasure of campaign spending: Evidence from the 1990 US House elections." *Journal of Politics* 56 (4): 1106–18.

Bawn, Kathleen, Martin Cohen, David Karol, Seth Masket, Hans Noel, and John Zaller. 2012. "A Theory of Political Parties: Groups, Policy Demands and Nominations in American Politics." *Perspectives on Politics* 10 (03): 571–597.

Berke, Richard L. 1998. "Interest Groups Prepare to Spend on Campaign Spin." *New York Times* (January 11).

Blumenthal, Paul. 2014. "Domecrats Used Twitter Too, To Coordinate With Outside Groups." *Huffington Post* (November 20).

Brox, Brian. 2013. *Back in the Game: Political Party Campaigning in an Era of Reform*. Albany, NY: State University of New York Press.

Confessore, Nicholas. 2014. "Outside Groups With Deep Pockets Lift G.O.P." *New York Times* (November 5).

Corrado, Anthony. 2014. "The Regulatory Environment of the 2012 Election." In *Financing the 2012 Election*, ed. David Magleby. Washington, DC: Brookings Institution Press.

Damore, David F., and Thomas G. Hansford. 1999. "The Allocation of Party Controlled Campaign Resources in the House of Representatives, 1989-1996." *Political Research Quarterly* 52 (2): 371–385.

Downs, Anthony. 1957. *An Economic Theory of Democracy*. New York, NY: Harper & Row.

Fowler, Erika Franklin, and Travis N. Ridout. 2012. "Negative, Angry, and Ubiquitous: Political Advertising in 2012." *The Forum* 10 (4): 51–61.

Franz, Michael M., Joel Rivlin, and Kenneth Goldstein. 2006. "Much More of the Same: Advertising Pre- and Post-BCRA." In *The Election After Reform: Money, Politics, and the Bipartisan Campaign Reform Act*, ed. Michael J. Malbin. Lanham, MD: Rowman and Littlefield.

Freedman, Paul, Michael Franz, and Kenneth Goldstein. 2004. "Campaign Advertising and Democratic Citizenship." *American Journal of Political Science* 48 (4): 723–741.

Fritz, Sara, and Dwight Morris. 1992. *Handbook of Campaign Spending*. Washington, DC: Congressional Quarterly Press.

Gerber, Alan S., James G. Gimpel, Donald P. Green, and Daron R. Shaw. 2011. "How Large and Long-Lasting Are the Persuasive Effects of Televised Campaign Ads? Results from a Randomized Field Experiment." *American Political Science Review* 105 (1): 135–150.

Gonzales, Nathan L. 2015. "What Happened to The Rothenberg Political Report?" *Roll Call* (January 12).

Herrnson, Paul, Kelly Patterson, and Stephanie Perry Curtis. 2014. "Financing the 2012 Congressional Elections." In *Financing the 2012 Election*, ed. David Magleby. Washington, DC: Brookings Institution Press.

Herrnson, Paul S. 2009. "The roles of party organizations, party-connected committees, and party allies in elections." *The Journal of Politics* 71 (04): 1207–1224.

Issacharoff, Samuel, and Pamela Karlan. 1998. "The Hydraulics of Campaign Finance Reform." *Texas Law Review* 77: 1705–1738.

Jacobson, Gary C. 1985. "Party Organization and Distribution of Campaign Resources: Republicans and Democrats in 1982." *Political Science Quarterly* 100 (4): 603-625.

Jacobson, Gary C. 2010. "A Collective Dilemma Solved: The Distribution of Party Campaign Resources in the 2006 and 2008 Congressional Elections." *Election Law Journal* 9 (4): 381–397.

Koger, Gregory, Seth Masket, and Hans Noel. 2009. "Partisan Webs: Information Exchange and Party Networks." *British Journal of Political Science* 39: 633–653.

Krumholz, Sheila. 2015. *Races in Which Outside Spending Exceeds Canddiate Spending, 2014 Election Cycle*. Center for Responsive Politics.

La Raja, Raymond J. 2008. *Small Change: Money, Political Parties, and Campaign Finance Reform*. University of Michigan Press.

La Raja, Raymond J. 2012. "Why Super PAC's: How the American Party System Outgrew the Campaign Finance System." *The Forum* 10 (4): 91–104.

Long, J. Scott. 1997. *Regression Models for Categorical and Limited Dependent Variables*. Thousand Oaks, CA: Sage Publications.

Magleby, David B. 2011. "Electoral Politics as Team Sport." In *State of the Parties*, ed. John C. Green and Daniel J. Coffey. 6th ed. Lanham, MD: Rowman and Littlefield.

Mattingly, Phil. 2014. "The Super PAC Workaround: How Candidates Quietly, Legally Communicate." *Bloomberg Businessweek* (August 28).

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

Moody, Chris. 2014. "How the GOP Used Twitter to Stretch Election Laws." *CNN.com* (November 17).

Morris, Dwight, and Murielle E. Gamache. 1994. *Handbook of Campaign Spending: Money in the 1992 Congressional Races*. Washington, DC: Congressional Quarterly Press.

Ornstein, Norman J., Thomas E. Mann, Michael J. Malbin, Andrew Rugg, and Raffaela Wakeman. 2013. *Vital Statistics on Congress*. Washington, DC: Brookings Institution.

Parker, Ashley. 2014. "Outside Money Drives a Deluge of Political Ads." *New York Times* (July 27).

Schwarz, Mildred A. 1990. *The Party Network: The Robust Organization of Illinois Republicans*. Madison, WI: University of Wisconsin Press.

Skinner, Richard M. 2007. *More Than Money: Interest Group Action in Congressional Elections*. Rowman and Littlefield.

Skinner, Richard M, Seth E Masket, and David A Dulio. 2012. "527 Committees and the Political Party Network." *American Politics Research* 40 (1): 60–84.

Sulkin, Tracy. 2011. *The Legislative Legacy of Congressional Campaigns*. New York: Cambridge University Press.

Tokaji, Daniel P., and Renata E. B. Strause. 2014. "The New Soft Money." Mortiz College of Law: Ohio State University.

Vavreck, Lynn. 2009. *The Message Matters: The Economy and Presidential Campaigns*. Princeton, NJ: Princeton University Press.

Weissman, Steve, and Ruth Hassan. 2006. "BCRA and the 527 Groups." In *The Election After Reform: Money, Politics, and the Bipartisan Campaign Reform Act*, ed. Michael J. Malbin. Rowman and Littlefield.

Wooldridge, Jeffrey M. 2002. *Econometric Analysis of Cross Section and Panel Data*. Cambridge, MA: MIT Press.

Appendix

Campaign Expenditures

Coding campaign expenditures by the type of activity, even with computer assistance, is a labor-intensive process. FEC forms provide activity codes for committees to use when reporting their expenditures, but committees almost never actually use them. Committees must write in descriptions of the expenditures, however. Campaign expenditures are coded using these brief descriptions.

The first step is to automatically code a large portion of the expenditures based on the appearance of certain character strings. The character strings for each category are as follows:

Mass media `advertis, ads, spot, television, tv, video, radio, newspaper, media, broadcast, adwords`

Direct contact `field, printing, email, fundraising, direct, postage, database, canvass, list, gotv, data, telemarketing, blast`

Other `salar, payroll, office, rental, account, catering, taxes, equip, administrati, reimbursement, void, shipping, travel, bank, refund, meal, event, meeting, mileage, wages, gas, hotel, lodging, air, rent, legal, insurance, copies, photo, survey, poll, research, taxi, vehicle, transportation, lease, fuel, transaction, food, computer, credit, parking, fee, ticket, donation, consult, utilities, event, deliver, beverage, blackberry, bonus, bookkeeping, maintenance, business, stickers,` `buttons, signs, banners, yard, t-shirts, breakfast, lunch, dinner, snacks, cell, cleaning, clerical, employ, tax, reception, storage, water, subscription`

Some situations required more complex instructions. For example, "phone" and "bank" appearing alone indicated *other* expenses, but "phone bank" was a *direct* expense. Any expenditure not coded based on character strings or tagged for multiple categories was inspected and coded by a human researcher. In addition, certain keywords such as "cable," "postage," and "phone" were always manually inspected. For example, "postage" sometimes described purchasing postage for office use – properly coded as *other* – and sometimes was listing the expense for the postage for a batch of direct mail – properly coded as *direct*. Additional information in the expenditure report could be used to determine the proper coding, or absent additional information, postage expenses greater than $500 were assumed to be *direct* and small postage expenses were coded as *other*. "Cable" in some cases refers to the office cable bill, and in other times is part of a description of a cable TV spot buy.

The automatic process coded roughly three-quarters of the expenditures in each file. The accuracy of the automated coding has been spot-checked by manually verifying random draws of expenditures, but a more thorough and systematic verification is still ongoing.

Coding media is a fairly easy process. Expenses related to mass media are well described and distinctive. Production costs are sometimes ambiguous and require looking up payees to determine of the production was of advertising or print materials. Mailings and invitations for fundraisers are considered direct contact but costs associated with fundraising events are considered other. Expenses related to managing lists were coded as direct, while more general tech expenses were coded as other. Sample ballots were also coded as direct, since these are usually mailed or left behind during canvassing. Production of physical materials with a main purpose as leave-behinds in canvassing or as mailed items are coded as direct contact. Consulting, even when identified as specific for a task (e.g. GOTV consulting, media consulting) was coded under other.

Race Ratings

The Rothenberg & Gonzales Political Report rates the likelihood of each party winning the presidency, House, Senate, and gubernatorial contests using a nine-point scale, from safe Republican to safe Democrat (the ratings for each race are shown in Table 7). In this project the ratings act as a summary measure of political professionals' judgement of the level of risk and opportunity for each party in each contest. In the words of Nathan Gonzales, editor and publisher of the report, "We interview more than 150 congressional candidates every cycle and talk with key partisan decision-makers in Washington and astute political observers in the states. We also rely heavily on data, including past electoral history and trends, current polling (public and private, partisan and nonpartisan), as well as national surveys" (Gonzales 2015).

Is the race competitiveness variable endogenous to the spending variables in this study? Gonzales makes no mention of campaign spending when describing how ratings are determined, but campaign spending could be factored into the ratings through Rothenberg's discussions with "key partisan decision-makers . . . and astute political observers." Surely, spending can affect competitiveness at the margins or else campaigns don't matter and all campaign spending is irrational. However, Linda McMahon's $25 million in media spending in Connecticut in 2010 couldn't turn that race into one that was especially close, and race ratings did not clearly respond to her spending. In addition, there is little evidence that the Rothenberg staff update or alter race ratings based on suddenly announced large media buys or other campaign activity. Instead, polls, and past performances in the states are the strongest drivers of these ratings. For these reasons I expect that the competitiveness ratings are sufficiently independent of political spending to be included together in statistical models.

Table 7: Competitiveness Ratings of Senate Campaigns

Toss Up:	Colorado (2012), Massachusetts (2012), Montana (2012), Nevada (2010 and 2012), North Dakota (2012), Virginia (2012), Wisconsin (2012)
Tilting:	Arizona (2012), Connecticut (2012), Illinois (2010), Indiana (2012), Kentucky (2010), Missouri (2010), Pennsylvania (2010), Washington (2010), Wisconsin (2010), West Virginia (2010)
Competitive:	California (2010), Connecticut (2010), Florida (2012), Maine (2012), Missouri (2012), Ohio (2010 and 2012)
Less Competitive:	Arkansas (2010), Delaware (2010), Florida (2010), Hawaii (2012), Indiana (2010), Louisiana (2010), Nebraska (2012), New Mexico (2012), North Carolina (2010), New Hampshire (2010)
Non-Competitive:	Alaska (2010), Alabama (2010), Arizona (2010), California (2012), Delaware (2012), Georgia (2010), Hawaii (2010), Iowa (2010), Idaho (2010), Kansas (2010), Maryland (2010 and 2012)), Michigan (2012), Minnesota (2012), New Jersey (2012), North Dakota (2010), New York (2010 [2 races] and 2012), Oregon (2010), Pennsylvania (2012), Rhode Island (2012), Texas (2012) Utah (2010 and 2012), Vermont (2010 and 2012), Washington (2012), West Virginia (2012)
Uncontested:	Mississippi (2012), Oklahoma (2010), South Carolina (2010), South Dakota (2010), Tennessee (2012), Wyoming (2012)

Sources: Rothenberg & Gonzales Political Report and FEC Candidate Disbursement files