

Agency Problems in Political Campaigns: Media Buying and Consulting*

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Abstract

Advertising expenditures in congressional campaigns are made not directly by campaigns themselves but indirectly through intermediary firms. Using a new dataset of revenues and costs of these firms, we study the markups that these firms charge candidates. We find that markups are higher for inexperienced candidates relative to experienced candidates, and PACs relative to candidates. We also find significant differences across the major parties: firms working for Republicans charge higher prices, exert less effort, and induce less responsiveness in their clients' advertising expenditures to electoral circumstances than do their Democratic counterparts. We connect this observation to the distribution of ideology among individual consulting firm employees, arguing that these higher rents incentivize consultants to work against their intrinsic ideological motivations. The internal organization of firms reflects an attempt to mitigate this conflict of interest; firms are composed of ideologically homogeneous partners, and are more likely to work for ideologically proximate clients.

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1 Introduction

Despite recent increases in the use of online communications and in-person contact, television advertising remains the primary mode of communication between campaigns and voters. Because of their relatively high cost, television advertisements are the largest single use of campaign contribution dollars: in 2010-2014, direct television advertising costs - the amounts charged by broadcasters and cable operators to run ads - accounted for just over a quarter of all expenditures in Congressional campaigns. But campaigns do not pay these costs directly. Almost without exception, the tasks of production and placement of TV ads are outsourced to privately-owned, for-profit intermediary firms: political media consultants.¹ When the cost of this intermediation is included, the share of total 2010-2014 campaign expenditures accounted for rises to 47 percent.²

It is only a slight exaggeration, then, to say that to the extent that fundraising ability is an essential skill of high-quality candidates in modern Congressional campaigns, it is essential in order to be able to pay media consultants. While there are voluminous literatures in political science on campaign fundraising and campaign advertising, political scientists have paid relatively little attention to the firms that actually produce nearly all campaign advertisements, and that handle a sizable share of all campaign funds raised. This omission is important because, as with any principal-agent relationship, the interests of the firms and those of their clients may not always align. Given the ubiquity of media consultants in modern campaigns and the large shares of campaign budgets they command, conflicts of interest between firm and client have the potential to generate real consequences for the conduct of electoral campaigns.

¹See Figure 1 for a breakdown of TV advertising expenditures made directly by candidate committees versus indirectly through media consultants.

²Other types of private consulting firms, which provide services such as polling, direct mail, voter contact, and so on, account for a substantial chunk of the remainder; see Sheingate (2016) for estimates of the size of the political consulting industry as a whole.

As Enos and Hersh (2015) note in a different but related context, it is not necessary that the agents (media consultants) be intentionally undermining the goals of their principals (campaigns) in order for a principal-agent problem to exist and to influence the strategy of principals. All that is required is that there be some strategic dimension on which candidate interests and firm interests diverge. For example, media consultants who earn a markup over costs on television advertising purchases³ have an obvious incentive to recommend allocating more campaign resources to these purchases, regardless of whether there might be more cost-effective uses for the funds, such as door-to-door canvassing or get-out-the-vote efforts. Even if advertising is the candidate's best use of marginal campaign funds, every dollar spent to pay the consultant's fees is a dollar not used to influence voters. Another important example of divergence of interest is in candidate recruitment, an area where consultants have some influence thanks to their frequently close connections to party organizations (Kolodny and Logan, 1998; Kolodny and Dulio, 2003). Profit-driven consulting firms have a clear incentive to value candidates with strong fundraising ability - e.g., candidates who are themselves wealthy or have networks of wealthy friends (Carnes, 2013) - highly relative to candidates with other kinds of political skills.

These divergences of interest might not matter if candidates and media consultants interacted on a level informational playing field, where candidates could fully discount any profit-driven biases in consultants' advice. But most consulting firms work on multiple campaigns per election cycle (Nyhan and Montgomery, 2015; Martin and Peskowitz, 2015), meaning that firms benefit from economies of scale which allow them to develop expertise in functions - such as advertising production - which a single campaign usually does not have the capacity to carry out in-house.

³Grossmann (2009) shows that there are a variety of contract structures employed in the consulting industry. While some firms charge flat fees or include victory bonuses, the modal contract style among media consulting firms involves the firm taking a proportion of candidate expenditures.

They can also accumulate campaign experience much faster than any individual candidate. As a result, principals at experienced firms are, relative to candidates, campaign experts. As in other situations where decision-makers consult with more-informed experts (Krishna and Morgan, 2001), it may be very difficult for candidates to separate consultants' bias from their expertise.

Because the potential for conflict of interest depends on the existence and magnitude of rents accruing to consulting firms, we first measure media consultants' profits systematically. We document that profitability varies with candidates' ability and incentive to closely monitor firm performance, consistent with the agency perspective. Finally, we show that the internal organization of media consulting firms - involving ideologically homogeneous firms who work for ideologically aligned clients - reflects an awareness of and an attempt to mitigate this potential for conflict of interest.

Summary of Results We quantify the magnitude of the agency problem by examining variation in candidates' disbursements to media consulting firms, conditional on total advertising expenditures. We are able to measure both the inputs and the outputs of media firms, and focus our attention on variation in the losses (from the candidates' perspective) that occur in between. Using a new dataset from Nielsen Media Research (Nielsen), we estimate the cost of the total television advertising expenditures for each political campaign in our sample. We then regress total campaign expenditures to media consultants, derived from Federal Elections Commission (FEC) expenditure reports, on the Nielsen advertising expenditures. The resulting coefficient estimate can be interpreted as one plus the average markup among the set of firms in the sample. We then allow the estimated markup to vary along several dimensions: the level of district ex ante electoral competitiveness, the partisanship of candidates, and the incumbency status and previous campaign experience of candidates. We also compare the markups paid by candidate committees to those paid by non-candidate PACs and "super PACs."

We first show that media consultants representing candidates in uncompetitive races are able to extract more financial surplus from the campaign by charging higher markups than consultants in competitive races. This finding is consistent with the fact that in a safe seat election, there is more financial slack and the candidate's incentives to monitor are weaker. Second, there is no statistical difference in the markups that media consultants charge incumbents and challengers. This pattern results from the combination of countervailing supply- and demand-side forces. While incumbents have larger budgets and greater electoral security, and hence reduced incentives to carefully monitor expenditures, for the same reasons they are also more attractive as clients, leading to greater competition for their business from consulting firms. We do find that for a given candidate, markups decline from the candidate's first to her second and subsequent campaigns, suggesting a role of campaign experience in candidates' ability to monitor their consultants' activities.

Third, we find that Republican media consultants are able to extract larger rents than their Democratic counterparts. This finding holds not just at the level of the campaign, but also at the level of the individual ad spot: Republican candidates pay higher effective prices to advertise on the same program in the same market on the same date than their Democratic counterparts. Republican media consultants appear to be working less hard on their clients' behalf to negotiate the best prices for media time: they spread advertising purchases over significantly fewer ad spots and programs. As we discuss and document below, these findings are consistent with the relative scarcity of conservatives in the political consulting marketplace.

Finally, we show that PACs pay substantially higher markups on television advertising than do candidate committees.⁴ This difference is consistent with the agency perspective, in that PAC

⁴To be clear, the direct costs of advertising are potentially higher for PACs, which are not covered by FEC lowest unit rate regulations, than for candidates. What we measure is not the price paid for the advertising time but the *markup* over that price charged by the consulting firm to the client. The PAC-candidate difference in markup is reflective of differences in consultant-client bargaining power, not in the underlying costs of advertising.

leadership is more diffuse, and monitoring ability weakened, compared to that of a traditional campaign organization. In the context of a Super PAC, where the candidate cannot communicate with Super PAC leadership or remove them from their positions, the candidate's monitoring ability is weakened still further.

After documenting the patterns in consultant rents present in the data, we investigate whether the industry has evolved organizational or contractual mechanisms to mitigate the potential for divergence of interests between firm and client. One partial solution to these agency problems lies in the possibility that political consulting firms are mission-oriented organizations. Besley and Ghatak (2005) demonstrate that aligning the mission of an organization with the motivations of agents improves organizational performance and reduces the need for strong monetary incentives. As a result, employees and organizations will exhibit assortative matching where individuals work in organizations with an aligned mission. Consistent with this perspective, consulting firms are relatively homogenous ideologically. While previous research has documented that consulting firms tend to work exclusively with candidates from one of the major political parties (Kolodny and Logan, 1998; Nyhan and Montgomery, 2015), we are the first to examine directly the ideologies of consulting firm employees and to contrast this distribution with other professional service firms. We demonstrate that consulting firms are ideologically specialized within the parties: there are relatively liberal and relatively conservative Democratic firms, for instance, who tend to work for relatively liberal or relatively conservative Democratic candidates.

When analyzing the ideological composition of consulting firms, we make explicit comparisons between consulting and law and lobbying firms. To the extent that ideological homophily is an important component of the formation of social and professional networks (McPherson et al., 2001), the structure of ideologically homogenous political consulting firms may be simply due to homophily

rather than an attempt to ameliorate agency problems in the political consulting marketplace. To isolate the effect of agency issues specific to political consulting, we contrast the ideological structure of political consulting firms with law firms, an industry that is not directly engaged in political work, and lobbying firms, an industry where firms are directly engaged in political work, but of a different form than political consulting. In the context of lobbying, financial motivations as opposed to intrinsic motivations are likely to be more prevalent among employees. In striking contrast to lobbying firms, the density of the average firm employee ideology is bimodal in the consulting industry.⁵ The difference between the ideological composition of lobbying and consulting firms is surprising given the role of personal connections and certification in serving as intermediaries between special interest groups and policymakers (Hirsch and Montagnes, 2015) but is explained by the differences in agent motivation across the industries.

Related literature While the data we use are from very recent election cycles, the importance of agency problems in the candidate-consultant relationship is not limited to recent political history. In fact, these issues were central during the creation and evolution of the political consulting industry. As Sheingate (2016) shows in his definitive history of the American political consulting industry, since the earliest days of the industry consultants were ideologically homogenous and worked almost exclusively with ideologically aligned clients. “The financial rewards notwithstanding, early consultants were not simply political mercenaries lacking in partisan commitment” (p. 131). Early consultants were cognizant of the potential agency problems between campaigns and consultants. In fact, this feature of the contemporary organization of the consulting industry was in part a response to the presence of ideological diversity within advertising firms. In the 1950s,

⁵Moreover, this finding on the internal ideological heterogeneity of lobbying firms is consistent with the activities of lobbying firms. Figure 5 of Kang and You (2015) illustrates that almost all commercial lobbying firms contact both Democratic and Republican members of Congress.

much political work was performed by conventional advertising firms. However, concerns about moral hazard and electoral sabotage were so severe that in 1960 the Republican National Committee created its own internal advertising firm, Campaign Associates, by handpicking ideologically sympathetic advertising executives from the nation's leading advertising companies (p. 148).

Our findings speak to several literatures in American politics. Scholars have recently turned attention to the role of extended party networks in the recruitment of candidates, the advancement of policy goals and members' self interest (Koger et al., 2009; Bawn et al., 2012). Political consultants are an important component of the broader party network and our work highlights how their incentives affect campaign strategy. An emerging literature analyzes variation in the content of political advertising and advertising strategies across campaigns. Nyhan and Montgomery (2015) demonstrate that political consultants exert measurable influence on the content of their clients' political communication. Lovett and Peress (2015) study the ability of campaigns to target advertising on television program and conclude that persuasion is the primary purpose of television advertising in their analysis of the 2004 presidential election. Our findings identify important differences in the utilization of advertising targeting across parties.

This paper also contributes to an emerging literature on agency problems in contemporary political campaigns. Enos and Hersh (2015) analyze how the differences in the interests of volunteer campaign activists and the candidate manifest themselves in Barack Obama's 2012 ground campaign. They show that Obama campaign volunteers are systematically more liberal and have different issue priorities than both the average Democratic and undecided voter. Enos and Hersh (2015) argue that these extreme volunteers are likely to be less successful at persuading uncommitted voters than more moderate voters and that the Obama campaign was unable to allocate these volunteers or control the content of their canvassing activity to ameliorate these agency problems.

Their theoretical approach is complementary to ours, but we focus on the difference in objectives between a candidate, who is primarily concerned with maximizing the probability of electoral victory, and media consulting firms, which are concerned with winning but also have financial objectives that can be unaligned with those of the candidate. Franz et al. (2016) examine another type of agency problem concerning the difference in incentives between candidate and outside group campaigns, asking whether outside group advertising campaigns faithfully reflect the issues that candidates run on. They find that multi-issue nonmembership groups employ similar issue content to the candidates that they support, while there is less congruence for single-issue membership groups. In some of our analyses, we examine potential differences in advertising strategy across candidate and PAC campaigns that emanate from agency problems, but our focus is on how the effective cost of advertising varies across candidates and PACs.

Our findings also reveal important asymmetries in how campaigns are contested. Most perspectives on campaign finance implicitly assume that the transformation function from a dollar of campaign funds to campaign spending is symmetric across candidates. By examining how markups vary across candidate types, we are able to quantify the cost in excess markups that inexperienced candidates pay relative to experienced candidates and Republicans relative to Democrats. If campaign advertising influences election outcomes, variation in markups across candidates exert a previously hidden drag on candidates' campaign efforts.

2 Data

We utilize three primary sources of data, each of which is described in detail below. First, we collected data on candidates' expenditures on consulting firms from the database of FEC expenditure

reports maintained by the Center for Responsive Politics. Second, we use data from Nielsen Media Research covering the universe of advertising spots aired by political campaigns in the 2010, 2012, and 2014 election cycles. Finally, we use Adam Bonica’s Database on Ideology, Money in Politics, and Elections (Bonica, 2013) for information on the individual ideology of political consultants, lobbyists, and lawyers.

2.1 FEC Expenditures

To construct our dataset of expenditures to media consulting firms, we searched the FEC expenditure data collected by the Center for Responsive Politics for expenditures whose descriptions contained variants of the keywords “advertising,” “media,” or “production,” and did not contain keywords indicating that the expense related to some non-television (e.g., outdoor or online) form of advertising. We next excluded payments made directly to vendors such as local television affiliates or cable providers.⁶ We then identified firms whose names appeared in the “recipient” field in at least five expenditure records identified in the previous step; after manual cleaning to remove non-consulting firms and a name regularization process used by Martin and Peskowitz (2015), this left us with a sample of 238 firms. Finally, we went back and searched for *any* expenditure made to any of these 238 firms by a federal candidate, regardless of description. We aggregated the resulting set of expenditures to the level of firm-candidate-election cycle. Because the advertising data only identify the sponsoring candidate and not the intermediary firm, some of our analyses use a coarser aggregation of total spending on all firms by candidate-election cycle. We exclude presidential candidates from the sample, focusing on expenditures in congressional campaigns.

⁶These excluded expenditures form the basis of the comparison in Figure 1.

2.2 Advertising Expenditures

Our advertising data come from a proprietary database maintained by Nielsen Media Research. The data contain every television advertisement aired by a political campaign or interest group in the 2010, 2012, and 2014 election cycles, covering all 210 Designated Market Areas (DMAs) in the United States. Each observation is an individual advertising purchase, corresponding to a single date on a single program and station. The data contain information on the media market, date, time, program and station on which the ad ran; the number of impressions;⁷ gross ratings points (GRPs);⁸ cost in dollars; and price per 1000 impressions (CPM). We matched the advertising data to candidates by the “Advertiser” field provided by Nielsen. In some analyses, a candidate’s total spending on advertising, total quantity of ads purchased in units of impressions, or total number of spots purchased are aggregated to the level of candidate-election cycle.

2.3 Individual Consultant and Candidate Ideology Scores

Bonica (2014) develops a correspondence analysis approach to estimate the ideologies of private citizens from their campaign contributions, in a common space with candidates for office. These scores are useful for our analysis because they cover challengers as well as incumbent candidates, and because by putting consultants on the same scale as candidates, we can easily compute measures of ideological distance or similarity. We use these estimated “CF Scores” as our measure of individuals’ ideology. The DIME data includes fields for the occupation and employer of individual contributors. We first flagged potential matches using both the political consultant occupation code and fuzzy

⁷Impressions are the standard measure of advertising quantity. Because different programs may have vastly differently-sized audiences, the value of a 30 second spot may vary dramatically across programs. Prices are quoted in per-impression or per-1000-impression terms to normalize by audience size across programs.

⁸GRPs represent the fraction of households in a market expected to have seen the spot; one GRP corresponds to one percent of a market’s TV households.

string matching of the employer field to our set of firm names, and then handmatched the resulting potential matches to consulting firms. We also gathered a parallel set of lobbyists and lawyers for comparison purposes; these were extracted by matching the corresponding occupational category from FEC records to the DIME database.

3 Analysis

Our first results compare congressional candidates' advertising costs, measured from the Nielsen sample, to their expenditures to media consulting firms, measured by the FEC expenditures data. Figure 1 shows that less than one percent of total expenditures by federal candidates for the purpose of purchasing television advertising are paid directly from the campaign committee to a provider (either a local network affiliate or a cable system operator). Almost all such expenditures are paid indirectly through the third-party media consulting firms that are the focus of this article.

Of course, there are obvious efficiency reasons for campaigns to delegate this task. Specialist firms are often vertically integrated, bundling together ad production services with spot purchasing, and they may have expertise in negotiating with TV affiliates or understanding the demographics of different programs and media markets that in-house campaign staff lack. Given the nearly-uniform choice of campaigns to delegate, it appears that these efficiencies are significant. Nonetheless, delegation always comes with a trade-off in the fact that the agent's interests may not coincide perfectly with the principal's: the advertising strategy that would be chosen by a profit-maximizing middleman ad buyer is very unlikely to match the preferred strategy of a vote-share- or victory-probability-maximizing congressional candidate.

We begin by quantifying the average markup in our sample of campaigns. Table 1 reports coef-

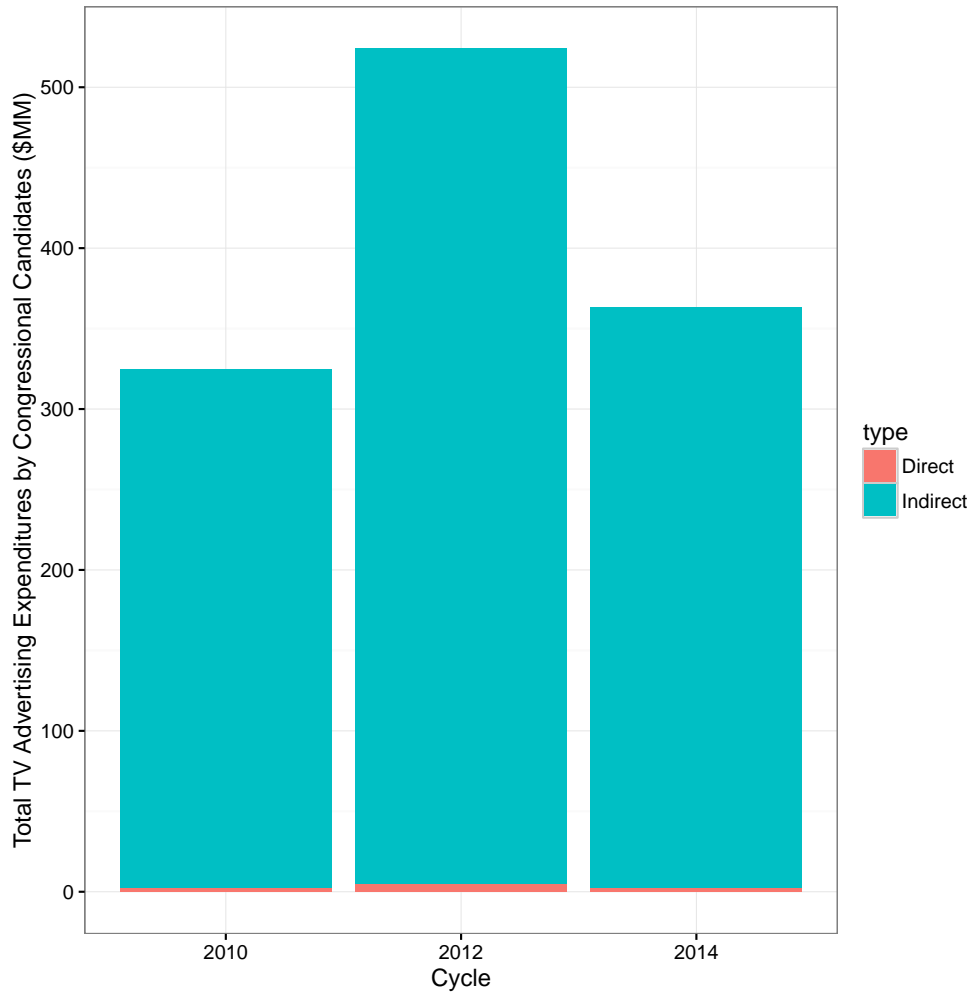


Figure 1: Direct and indirect media expenditures by congressional campaigns over the 2010-2014 election cycles.

ficient estimates and standard errors from the regression of total expenditure by a single candidate in a single election cycle to any of the 238 media consulting firms (the left-hand side variable) on the total amount spent on TV advertising by the same candidate in the same election cycle (the right hand side variable). The leftmost column of the table is a bivariate regression with no additional regressors other than a constant; the following columns allow the intercept to vary at various levels of aggregation. The overall fit of the regression is quite good, with R^2 exceeding 0.8 even in the bivariate regression, suggesting that purchasing TV advertising is in fact the major activity of the firms in the sample.

The coefficient estimates in Table 1 can be interpreted as one plus an average markup; e.g., depending on the set of fixed effects used a campaign must pay a consulting firm between \$1.41 and \$1.44 to produce \$1 worth of advertising. The remaining 41 to 44 cents are presumably used by the consulting firm to pay staff and overhead costs or retained as profit. With standard errors clustered at the level of the candidate, we can reject the null of zero average markup in all specifications at the 5 percent significance level except for the candidate fixed effects model. The constant terms in the regression are all positive, indicating that firms still earn gross profits even if the variable cost of advertising is passed through to clients with no markup.

Table 1: Regression of FEC expenditures to media consulting firms on Nielsen TV ad expenditure.

	Total FEC Expenditure to Media Firms				
Nielsen Advertising Expenditure	1.435***	1.435***	1.411***	1.424***	1.438***
	(0.110)	(0.110)	(0.343)	(0.119)	(0.169)
Fixed Effects:	None	Year	Candidate	District	District-Year
N	1,264	1,264	1,264	1,264	1,264
R ²	0.801	0.801	0.989	0.907	0.913

*p < .1; **p < .05; ***p < .01

Cluster-robust standard errors in parentheses (clustered by candidate).

The estimates in Table 1, of course, pool across many kinds of candidates in different electoral circumstances. Our next set of results examines how the the effective markup over advertising costs, varies across various candidate- and election-level dimensions. Because markups are a clear instance where the interests of firms and candidates diverge, variation in markups corresponds to variation in the balance of bargaining power between firms and candidates.

3.1 Variation in Advertising Markups

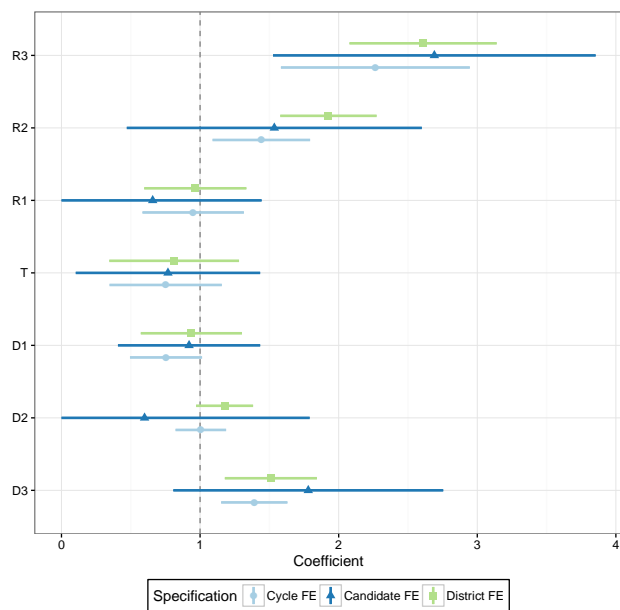
We first investigate how markups vary according to the ex-ante competitiveness of the race in which expenditures take place. We measure ex-ante competitiveness using the widely-used Cook Political Report race ratings published in February of each election year.⁹ Cook rates races on a seven point scale. The most competitive races are rated “Tossup;” this category forms the excluded baseline category in our regression results. Races that favor Democrats are rated, in increasing order of favorability, “Lean Democrat (D1),” “Likely Democrat (D2),” and “Solid Democrat (D3);” there are three symmetric categories for races that favor Republicans. To ease comparison of the coefficient estimates across the specifications, we report the regression results graphically. We include the full set of results for the underlying regressions in tabular form in the Online Appendix.

Before moving to our main focus of variation in markups, it is worth noting how the *levels* of media consultant expenditure vary with competitiveness. The coefficient estimates in Table A.1 show that, as expected, the mean levels of expenditure to media consulting firms decline as the race is expected to be less competitive.¹⁰ The typical candidate in a D3 rated race spends nearly \$500,000 less on media consultants than does the typical candidate in a “Tossup” race. This pattern

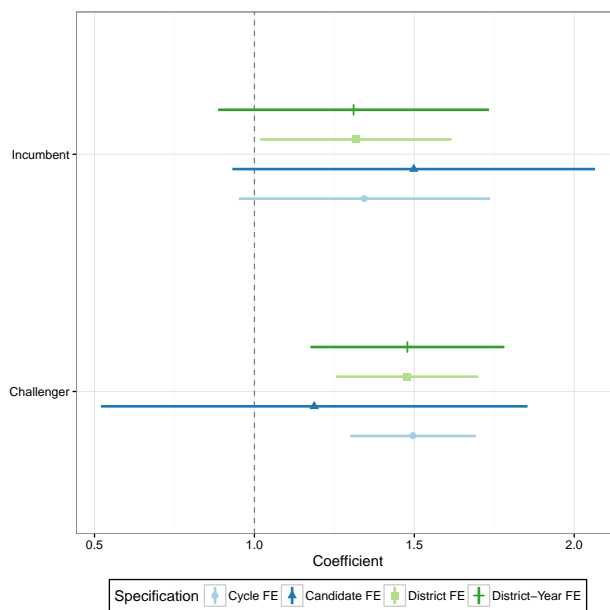
⁹Figure A.1 shows that essentially all general election advertising purchases are made within 10 weeks of the general election, implying that the competitiveness ratings are made well before advertising occurs.

¹⁰This finding is mirrored in the results of Martin and Peskowitz (2015) using a sample of all political consulting firms, not just media buyers and strategists.

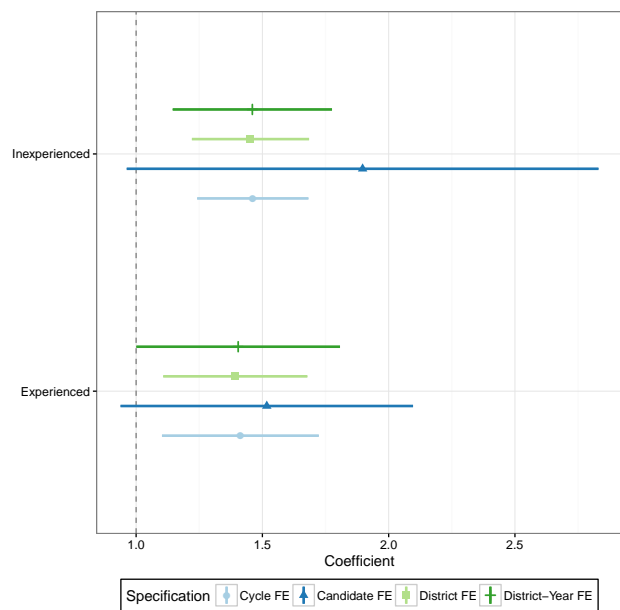
(a) Interactions with expected competitiveness.



(b) Interactions with incumbency status.



(c) Interactions with with campaign experience.



(d) Interactions with party.

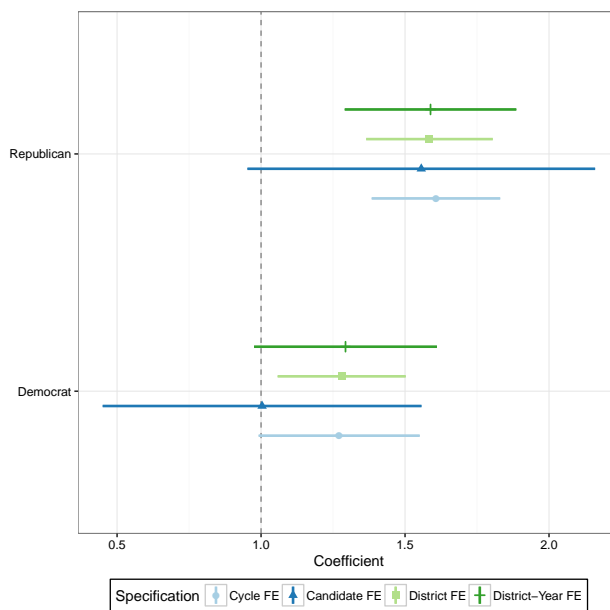


Figure 2: Estimates of coefficients on advertising expenditure on media consultant payments, interacted with candidate or election characteristics. Each panel presents point estimates and 95percent confidence intervals from a set of regression specifications that include fixed effects at varying levels. Output from the same regressions is also presented in tabular form in the Appendix.

naturally emerges from the strategic calculus of office-motivated candidates: if advertising effects (in terms of votes converted per dollar spent) are roughly constant, then the marginal effect on the probability of victory of an additional advertising dollar in an ex-ante competitive race is much greater than that in an ex-ante uncompetitive one. Consequently, candidates in competitive races allocate more effort to fundraising and spend more on advertising.

Comparison of the estimates on the interaction terms with advertising expenditures, shown in Figure 2a, indicates that the effective markups earned by consulting firms are higher in less competitive races as compared to more competitive races. That is, although consultant *revenues* decline, variable *profits* increase in less competitive races. Once district fixed effects are included in the specification, all rating interactions are positive, indicating that markups are lowest in the most competitive races.¹¹ In fact, the point estimates on the advertising effects in “Tossup” and “Lean” rated races are less than one; the point estimates for all “Likely” and “Solid” races exceed one. We generally cannot reject the null of zero average markup in the more competitive group, and can for the less competitive group. The exception is the candidate-fixed-effects specification, where the estimates are much less precise due to the relatively small amount of within-candidate variation in electoral circumstances present in this short, three-election-cycle panel. Nonetheless, the pattern of point estimates is the same as in the other specifications.

Another factor that might be expected to alter candidates’ incentives to monitor their agents is incumbency status. Incumbents tend to have much larger “war chests” of campaign cash available, reducing the need to carefully control campaign expenses. And the incumbency advantage means that incumbents will typically face less competitive elections than challengers. Figure 2b shows, however, that this pattern is not evident in the data. While incumbents’ total expenditures on

¹¹All panels in Figure 2 show total effects of advertising expenditure on consultant revenue for the indicated subgroup, e.g., the main advertising effect plus the relevant interaction term.

media consulting firms are higher (as evidenced by the main incumbency effect reported in Table A.2), consistent with their larger average budgets, the marginal advertising costs do not differ significantly between incumbents and challengers on average.

It is possible that the null finding here reflects opposing pressures from each side of the market: on the demand side, incumbents have larger budgets and hence less need for careful monitoring, which may allow more slack for high consultant fees. On the supply side, for reputational reasons discussed in Martin and Peskowitz (2015), incumbents are more attractive clients for consulting firms. Incumbents are likely to have more firms competing for their business, increasing their bargaining power and driving down prices.

An alternative way of operationalizing differences in candidate experience across candidates is to employ an indicator for whether the candidate has previously run a federal campaign. Non-incumbents who have previously run unsuccessful campaigns for congress are characterized as having previously run a campaign.¹² Once again, we estimate the same set of regressions as in our incumbent results but now we interact Nielsen advertising expenditures with the previous campaign experience indicator. The point estimates, shown in Figure 2c, indicate lower margins for experienced candidates in all four specifications. In the specification that includes candidate fixed effects, the magnitude of the point estimate is fairly large, representing a 37.9 percent decrease in markups for experienced candidates, and this difference is significant at the 5 percent level. The results from this candidate fixed effects specification suggest that candidates learn from previous campaigns and are more effective at monitoring media consulting firms as they become more experienced.

We next examine whether markups systematically differ across candidate and PAC advertising purchases. Our perspective suggests that the scope for media intermediaries to extract rents will be

¹²Obviously, all incumbents are also classified as experienced by this definition.

larger in PAC than candidate campaigns. In a candidate-run campaign, the candidate themselves maintains ultimate responsibility for how money is spent and will typically have stronger incentives to monitor than a PAC campaign. Furthermore, in some instances PACs are operated by strategists who also have financial interests in the media intermediary firms that the PAC uses to purchase advertising (Ball, 2016). For example, in our data we find that the American Crossroads PAC and Crossroads GPS Super PAC - two of the heaviest PAC advertisers in the sample - frequently engaged the Crossroads Media Group to purchase advertising on their behalf, directing a total of more than \$200 million to the firm in 2010-2014. In these cases, the strategist may have strong personal financial incentives to direct PAC funds to the media consulting firms they own and to permit relatively high markups. Table 2 shows that, indeed, the average markup is dramatically higher for PACs as compared to candidate committees: PACs pay an average of \$2.51-\$2.69 to generate \$1 worth of advertising.

Table 2: Regression of FEC expenditures to media consulting firms on Nielsen TV ad expenditure: PACs.

	Total FEC Expenditure to Media Firms		
Nielsen Advertising Expenditure	2.690*** (0.412)	2.683*** (0.414)	2.514** (1.222)
Fixed Effects:	None	Year	PAC
N	214	214	214
R ²	0.817	0.818	0.954

*p < .1; **p < .05; ***p < .01

Cluster-robust standard errors in parentheses (clustered by PAC).

Finally, Figure 2d shows the variation in margins across candidates from the two major parties. The marginal advertising cost paid by Republican candidates is consistently estimated to be larger than that paid by Democrats, by about 30 cents on the dollar. We can typically reject that the

two slope coefficients are equal at standard levels of significance.¹³ This difference is substantively large, as it implies that marginal contributions to Democratic candidates can be converted into roughly 30 percent more advertising impressions seen by voters compared to marginal contributions to Republican candidates. If TV advertising has nonzero impact on election outcomes (Huber and Arceneaux, 2007; Gerber et al., 2011), then, the per-dollar effectiveness of Democratic contributions is much higher. A substantially larger share of Republican contribution dollars are being captured by consulting firms compared to their Democratic counterparts. Noting that the consulting firm market is split along partisan lines, with Democratic firms and Republican firms serving exclusively Democratic and Republican candidates, respectively (Nyhan and Montgomery, 2015), we next examine whether there are measurable differences between the two sets of firms on other measures of behavior.

3.2 Additional Evidence on Partisan Differences

One major function of media consultants is advising candidates on media strategy: how much, where, and when they should advertise. As noted earlier, candidates' interests dictate that ad spending should vary with anticipated race competitiveness: all else being equal, ad spending is more valuable in close races than in uncompetitive contests. On the other hand, consultants who are compensated on the basis of the client's total media expenditures have an interest in keeping those expenditures as high as possible, regardless of the electoral environment.

Figure 3 examines which of these patterns is evident in the data across the two parties. The results show partisan differences in total television advertising spending with competitiveness (again measured by the Cook forecasts). Each row interacts an indicator for the party of the sponsoring

¹³Figure A.2 in the Appendix shows the cross-party difference in slopes graphically.

candidate with dummies for each of the Cook categories.¹⁴ The 12 possible combinations are reordered so that symmetric effects (e.g., being a Democrat in an R3 race vs. being a Republican in a D3 race, the least favorable situation) are adjacent. Results from this regression are also presented in the Appendix in Table A.5.

The consistent pattern that appears is that Democratic ad spending is more responsive to changes in race competitiveness than is Republican spending. For instance, Democratic candidates in R3 races (races they are very likely to lose) spend on average nearly \$800,000 less on TV ads than Democratic candidates in Tossup races. Republican candidates in the symmetric situation, running in a D3 rated race where they are heavy underdogs, spend a not-statistically-significant \$200,000 less on average than in races they have a chance to win. Republican firms that earn a percentage of the client's expenditures thus do better on two dimensions than their Democratic counterparts: their margins are higher, and the base level of spending is less variable.

While the evidence in Figure 3 is suggestive that the distribution of rents between candidate and consultant favors consultants more on the Republican side than the Democratic, it is not conclusive. It is possible that the true optimal response curve of ad spending to competitiveness is flatter for Republicans than Democrats, and this pattern would appear even in the absence of intermediary firms. For example, differences in the structure of media markets across districts where Democrats and Republicans are favored may be explaining some of the variation across the parties.

In contrast, our next result examines variation in a measure that candidates have a clear interest in keeping low: the per-impression price paid for advertising.¹⁵ The higher the price paid, the fewer voters who can be reached given any budget for advertising. One major function of media

¹⁴Again, Tossup races form the omitted category.

¹⁵Prices are normalized to per-impression units so that they can be compared across different time slots and programs with differently-sized audiences.

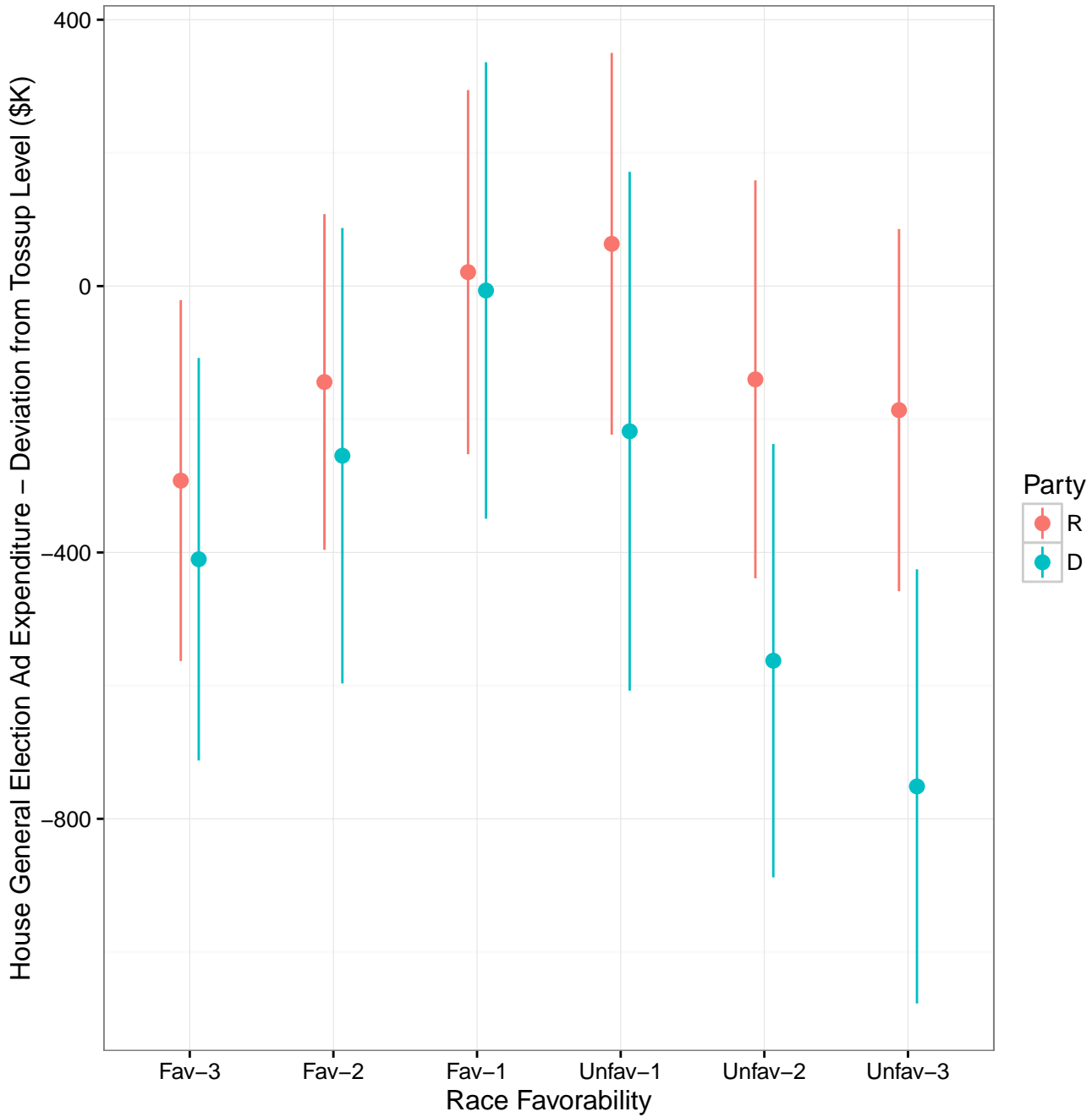


Figure 3: Estimated differences from Tossup level in total TV ad expenditure, by party. Cook February forecasts are reordered for comparability across parties: The Democratic candidate in a D3 race is coded as Fav-3, whereas the Republican candidate in a D3 race is coded as Unfav-3, and so on. The unit of the Y-axis is thousands of dollars.

consultants is selecting the most cost-effective programs and times on which to advertise, a task with which in-house campaign staff are unlikely to be familiar and the consultant’s expertise is potentially valuable. Table 3 shows that Republican consultants do a worse job for their clients on this dimension. The average price per impression paid by Republican advertisers is higher (columns 1, 3, and 5 of the table), and they get smaller quantity discounts (columns 2, 4, and 6). The median per-impression price in the data is 10 cents, meaning that the Democratic cost advantage is estimated to be between 0.5 and 8 percent of the median. Again, this is a substantively large penalty that reduces the per-dollar effectiveness of Republican contributions.

Table 3: Regressions of average ad price on party and ad quantity.

	Nielsen Average Ad Price					
Republican	0.008*** (0.003)	0.006** (0.003)	0.0005 (0.002)	-0.002 (0.002)	0.002 (0.002)	-0.001 (0.002)
Ad Quantity x Dem.		-0.050*** (0.009)		-0.063*** (0.010)		-0.064*** (0.012)
Ad Quantity x Rep.		-0.029*** (0.010)		-0.041*** (0.009)		-0.045*** (0.011)
Fixed Effects:	None	None	District	District	District-Year	District-Year
N	1,264	1,264	1,264	1,264	1,264	1,264
R ²	0.050	0.064	0.745	0.754	0.869	0.877

*p < .1; **p < .05; ***p < .01

Cluster-robust standard errors in parentheses (clustered by candidate).

Consistent with the hypothesis that Republican consultants are exerting less effort to obtain the best prices for their clients, Table 4 shows the average number of ad spot purchases (“buys”) that a candidate’s agent makes by party. The two control variables included are the total advertising quantity purchased, and the number of firms hired by the candidate (a single candidate can potentially, and in the data often does, hire more than one media consulting firm). For a given level of advertising purchased, Republican firms break it into several hundred fewer individual spot

purchases. The median number of spot purchases in the data is 755, so the party effect estimated here is large relative to the typical advertising purchasing strategy.

Table 4: Regressions of number of ad buys on party and ad quantity.

	Number of Ad Buys		
Republican	-100.231 (96.595)	-275.853*** (88.781)	-333.790*** (115.267)
Ad Quantity	0.020*** (0.002)	0.021*** (0.002)	0.021*** (0.002)
Number of Firms	167.121*** (36.374)	135.539*** (32.141)	161.032*** (46.196)
Fixed Effects:	None	Candidate	District
N	1,264	1,264	1,264
R ²	0.802	0.923	0.935

*p < .1; **p < .05; ***p < .01

Cluster-robust standard errors in parentheses (clustered by candidate).

Of course, advertising prices vary with audience demographics as well as size, and it is conceivable that a candidate would prefer to pay a higher per-impression price if that meant reaching a more desirable audience (e.g., one more likely to turn out to vote or more persuadable). Advertising prices are especially sensitive to audience income, and given that higher income households are more likely to be Republican voters, an alternative explanation for the Table 3 results is that Republican candidates simply need to target a more upscale (and more costly) audience. A related concern is that if Republicans are more concentrated than Democratic audiences then it may be in the interest of Republican candidates to purchase fewer spots.¹⁶ Additionally, campaign strategists have found that Democrats watch more television than Republicans (Seelye, December 6, 2004) so these partisan differences may in part reflect differences in how core supporters consume media.

¹⁶However, this perspective appears to be inconsistent with the motivations of campaign advertisers. Lovett and Peress (2015) find that television advertising in the 2004 presidential campaign was primarily driven by a desire to persuade uncommitted voters. If similar motivations prevail in congressional campaigns, candidates of both major parties will target similar programs.

We address these possible differences in the advertising environment across parties by disaggregating the data to the spot level. Table 5 shows the variation in price per 1000 impressions (CPM) paid across parties, using increasingly fine-grained fixed effects to hold audience attributes constant.¹⁷ Column 1 compares spots within the same media market, the same channel, and the same year. The difference is a statistically significant 38 cents. Column 2 uses variation only within the same program, channel, market, and year. Audience attributes such as demographic composition are measured and reported to advertisers at the program level, so this comparison holds such demographic variation fixed. There is still a positive and significant difference in the price paid by Republican advertisers.

Finally, while audience demographics (at least as observed by advertisers) do not vary within the program-year, in the context of elections it is possible that some days may be more desirable than others: two days before an election is a much more desirable spot than five months due to the short-lived persuasive effects of advertising (Gerber et al., 2011). Candidates may be willing to pay more for the same number of impressions on these more desirable days.¹⁸ Column 3 uses variation only within the same market, the same channel, the same program, and the same air-date. Including this many fixed effects reduces the power, but the point estimate of the Republican effect is still positive even within this highly restricted comparison. These results illustrate that the differences across parties in the cost of advertising are not due to cross-party variation in the types of advertisements that candidates optimally purchase, but instead appear to be the result of

¹⁷Under Federal Communications Commission regulations, candidates are entitled to purchase advertising at the lowest unit rate during the 60 days before a general election and the 45 days before a primary election. However, ads purchased at the lowest unit rate are preemptible by competing ad purchasers willing to pay higher rates so it is not always in the interest of candidates to purchase advertising at the lowest unit rate.

¹⁸Figure A.1 in the Appendix shows that there is indeed a cross-party difference in the timing of ad purchases relative to the election date, with Republicans tending to load more purchases immediately prior to the election date and Democrats spreading purchases somewhat more evenly throughout the campaign.

differences in behavior on the part of media purchasing consultants.

Table 5: Regressions of ad price (CPM) on party.

Nielsen Ad Price (Dollars per 1000 Impressions)			
Republican	0.382*** (0.147)	0.247*** (0.086)	0.149 (0.110)
Fixed Effects:	Channel-Market-Year	Show-Market-Year	Show-Market-Date
N	810,415	810,415	810,415
R ²	0.089	0.487	0.847

*p < .1; **p < .05; ***p < .01

Cluster-robust standard errors in parentheses (clustered by Designated Market Area). An observation is an individual ad buy. The dependent variable is the price of the ad spot, measured in dollars per 1000 impressions.

4 Consultant Ideology and the Internal Organization of Firms

The results of the previous section provide evidence that, at least in certain situations, media consulting firms are able to exploit their intermediary position to extract rents from candidates. This observation raises the question of whether the market has evolved organizational forms to guard against this possibility. One potential solution, which Sheingate (2016) demonstrates has been a part of the industry since its early days, is to organize consulting firms such that they are made up of individuals who are intrinsically motivated to act in the interest of the client (i.e., getting a particular type of representative elected to Congress). Consulting firms might be able to signal their trustworthiness and lack of incentive to exploit the client by selecting employees who are ideologically homogenous and aligned with the client’s ideology; a firm made up of such individuals would face intrinsic costs that could restrain the profit-maximizing desire to enrich itself at the cost

of the client’s electoral prospects.

We examine this possibility using the data on individual consultant ideology scores from Bonica’s DIME described in the data section. Table 6 shows regressions of several summary measures of within-firm ideology variation. We compare the average intra-firm ideological heterogeneity of political consulting firms to two other kinds of professional-services firms made up of individuals with comparable skills: law firms and lobbying firms. We limit the sample to firms that are of similar size to the typical consulting firm in the sample (less than 25 employees in the DIME data) and include flexible controls for firm size in that range¹⁹ to remove mechanical variation due purely to the number of individuals in the summary statistics. The results show that regardless of the measure used, consulting firms are more homogeneous than their counterparts in the two comparison industries.

Table 6: Comparison of within-firm ideological heterogeneity measures by industry.

	Max-Min	IQR	MAD	Variance
Lawyers	0.299*** (0.052)	0.150*** (0.034)	0.128*** (0.030)	0.121*** (0.038)
Lobbyists	0.217*** (0.051)	0.151*** (0.034)	0.110*** (0.029)	0.048 (0.038)
Year Fixed Effects:	Y	Y	Y	Y
Firm Size Dummies:	Y	Y	Y	Y
N	4,882	4,882	4,882	4,882
R ²	0.417	0.223	0.054	0.023

*p < .1; **p < .05; ***p < .01

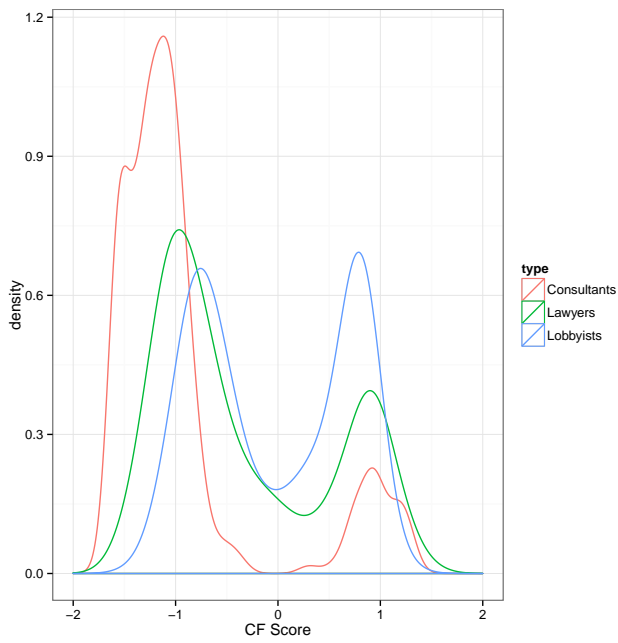
Standard errors in parentheses. The sample is all firms with at least two and no more than 25 employees identified in the contribution records. All regressions include a full set of dummies for year and firm size. The outcome measures are four summary statistics of the set of individual ideology scores within each firm: the minimum to maximum range; the interquartile range; the median absolute deviation; and the variance.

¹⁹The specification involves separate dummy variables for every possible firm size in the included range, e.g. a dummy for 2 employees in the DIME data, 3 employees, 4 employees, . . . up to 25 employees.

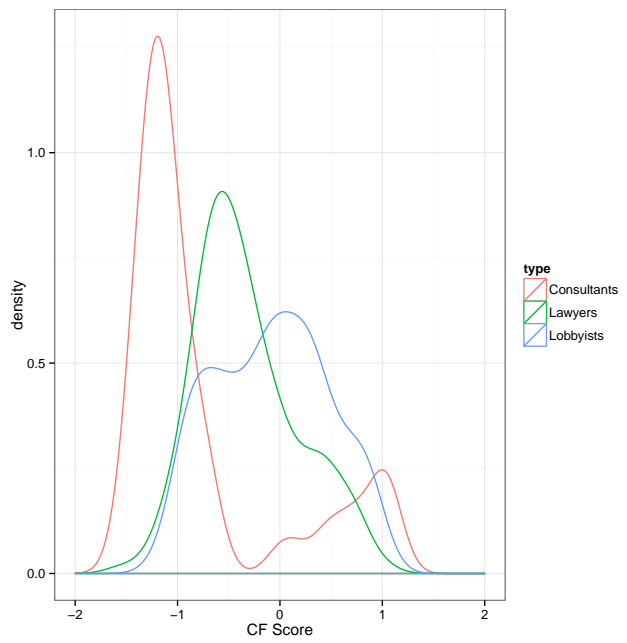
Figures 4a and 4b provide a visualization of the forces generating this difference. Figure 4a shows that the distribution of individual consultants looks similarly bimodal, as compared to the distributions of individual lobbyists and lawyers. Lawyers and especially lobbyists are more conservative than consultants, but there are very few “centrists” who give equally to candidates on both ends of the spectrum in either group.

Figure 4b, however, shows that while the distribution of consulting *firms* - constructed by averaging CF scores across all employees within each firm - is still quite bimodal, the distribution of lobbying and law firms looks nearly unimodal, with a large mass close to the zero point of the scale. While the pools of *individual* consultants, lobbyists and lawyers are similarly polarized, law firms and lobbying firms mix individuals with different ideological preferences, leading to firms with average values close to zero. Employees of consulting firms, on the other hand, appear to be selected to fit an ideological profile.

Finally, we test the second part of the hypothesis - that firms work for ideologically aligned candidates in order to align principal and agent incentives - in three ways. First, Table 7 regresses a binary indicator for the existence of a hiring relationship between a firm and a candidate in a particular cycle on the ideological distance between firm and candidate, measured as the absolute difference between the candidate’s CF score and the median CF score of the firm’s employees in that cycle. We consider the universe of possible matches to be all firm-candidate pairs where the candidate hired at least one media consulting firm in that cycle, and the firm worked for at least one candidate from the same party in that cycle. The resulting estimates show that ideological distance is a strong predictor of the likelihood of a match between firm and candidate. In terms of magnitude, the range of the CF score measure is -5 to 5, with most of the mass between -2 and 2. A one-point increase in ideological distance - roughly equivalent to half the within-party range -



(a) Individual CF scores.



(b) Firm-average CF scores.

Figure 4: Comparison of the individual- and firm-level distributions of ideology, as measured by Bonica CF score, in the political consulting, lobbying, and law industries.

leads to half a percentage point decrease in the probability of a match, a sizeable drop given that the base probability is about 3 percent.

Table 7: Regressions of probability of match between candidate and firm as a function of ideological distance.

Firm-Candidate Match			
Ideological Distance	-0.005*** (0.001)	-0.004*** (0.001)	-0.005* (0.003)
Fixed Effects:	None	Candidate	Firm
N	124,739	124,739	124,739
R ²	0.0005	0.015	0.034

*p < .1; **p < .05; ***p < .01

Cluster-robust standard errors in parentheses (clustered by candidate). All three columns are linear probability models where the outcome is the existence of nonzero expenditures from candidate to firm in a given cycle. Ideological distance is computed as the absolute difference between a candidate's CF score and the median CF score of the firm's employees.

Second, we compare the ideological heterogeneity of firms' 2012 client lists (measured by the median absolute deviation of clients' CF scores in 2012) to the heterogeneity that would result if the firm worked for a random sample of the same size as the actual client list of candidates from the same party. For every firm in the sample, we first compute the median absolute deviation among the firm's actual observed clients. We then construct a new simulated client list for the firm by sampling candidates at random from within the set of same-party candidates running in 2012. Figure 5 plots the distribution of the real and simulated heterogeneity measures. The figure shows that actual client lists are more ideologically homogeneous than would be expected if firms had no particular ideological niche within the party and simply drew clients uniformly from the party's set of candidates.

Third, in Figure 6 we plot median firm ideology against candidate ideology, for the set of firm-

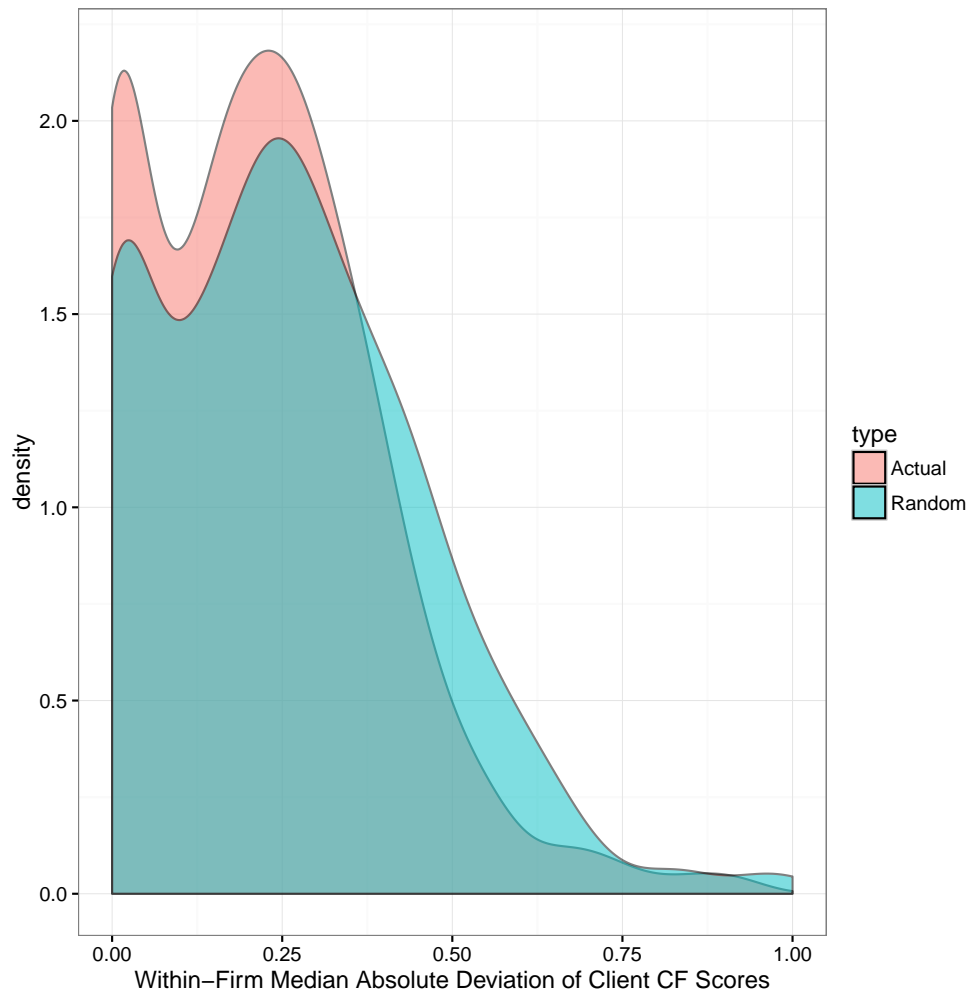


Figure 5: The density of ideological heterogeneity of firms' client lists, compared to a baseline where firms work for clients selected at random from the same party.

candidate matches that we observe in the data. There is clearly a positive relationship, but there is also a striking partisan asymmetry: Democratic candidates almost never hire a firm whose median employee has a conservative CF score, but the inverse situation is fairly common. This result connects to the distribution of individual consultant and firm-average ideology scores in Figures 4a and 4b. There simply are far more consultants, and consulting firms, on the Democratic side than the Republican. This relative scarcity of Republican-aligned consultants may be driving the greater profitability of those firms documented in the previous section.

5 Discussion

The profitability of the “business of politics” (Sheingate, 2016) has important consequences for the functioning of the electoral system. For one, the margins earned by media consultants over and above the direct cost of advertising influence the potential effectiveness of campaign contributions: the larger the margins, the more costly it is for a candidate to reach any particular quantity of advertising. Our results have demonstrated robust and substantial differences across the parties in the size of consultants’ markups, a fact that implies that in a race between two equally well-funded candidates, the Republican candidate is actually at a sizable disadvantage in terms of the quantity of advertising she can expect to obtain.

Second, media consultants play an important strategic and advisory role in campaigns (Nyhan and Montgomery, 2015). To the extent that consultants earn positive markups on their clients’ advertising expenditures, their financial incentives provide a clear bias towards recommending higher levels of advertising expenditures, regardless of the client’s particular circumstances. The larger are the equilibrium markups, the greater the temptation will be to make this recommendation even if

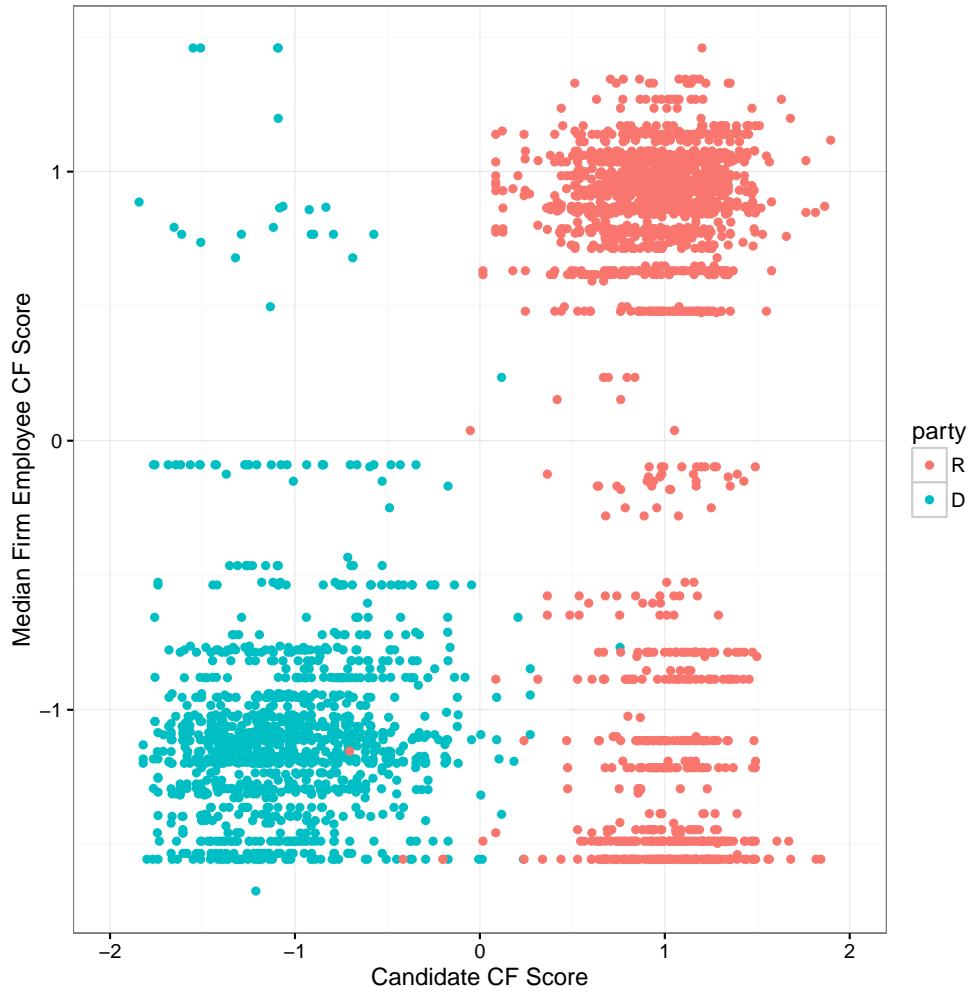


Figure 6: Firm ideology vs. candidate ideology, for firm-candidate pairs observed in the data.

additional expenditures - coming, as they must, at the cost of additional candidate effort diverted to fundraising and away from other activities - might not yield positive returns for the client on the margin. These results provide additional evidence of the potential for principal-agent conflict in contemporary political campaigns (Enos and Hersh, 2015).

Given the reputation for campaign expertise cultivated by established media consulting firms and their central role in modern campaign strategy, candidates are unlikely to be able to completely discount this profit-driven bias in consultant advice. This problem may be especially acute for novice challenger candidates with little campaign experience of their own. We show that the higher rents available to Republican candidates are mirrored in advertising strategies pursued by Republican campaigns that favor consultant interests.

Nonetheless, candidates do not appear to be entirely unaware of the potential for agency problems in the market for media consultants. Over time, the market has evolved several organizational features which provide some defense against conflicts of interest. Firms are ideologically segmented, a fact which they signal through ideological selection in both employee hiring and in the development of their client lists. In turn, candidates are much more likely to hire firms they perceive to be ideologically close. By demonstrating the ideological commitment of their employees, firms are able to signal that they are intrinsically motivated to achieve the client's goals - getting an ideologically friendly member elected to congress - and hence mitigate potential profit-driven interest conflicts. These mechanisms appear to be better established among Democratic firms, an observation driven by the relative scarcity of ideologically compatible Republican consultants.

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Online Appendix

Table A.1: Regressions of FEC expenditures to media consulting firms on Nielsen TV ad expenditure X race competitiveness.

	Total FEC Expenditure to Media Firms		
Nielsen Ad Exp.	0.752*** (0.207)	0.768** (0.338)	0.813*** (0.239)
Nielsen Ad Exp. x D3	0.639*** (0.241)	1.013* (0.574)	0.698** (0.290)
Nielsen Ad Exp. x D2	0.254 (0.212)	-0.169 (0.813)	0.364 (0.262)
Nielsen Ad Exp. x D1	0.002 (0.205)	0.152 (0.249)	0.124 (0.191)
Nielsen Ad Exp. x R1	0.199 (0.278)	-0.112 (0.416)	0.151 (0.285)
Nielsen Ad Exp. x R2	0.691*** (0.244)	0.767 (0.584)	1.114*** (0.295)
Nielsen Ad Exp. x R3	1.508*** (0.405)	1.908*** (0.718)	1.787*** (0.363)
D3	-472,694.200*** (148,268.500)	-814,068.000*** (305,067.300)	-604,483.400*** (229,676.500)
D2	-147,017.200 (157,369.100)	-337,434.700 (379,076.600)	-352,667.900 (250,799.600)
D1	83,648.490 (159,620.800)	-265,882.700 (268,379.100)	-109,717.700 (200,160.200)
R1	-75,925.810 (179,014.400)	-7,739.770 (329,526.800)	-240,882.300 (251,559.500)
R2	-439,551.300*** (151,165.600)	-504,471.300* (256,312.300)	-717,743.800*** (235,948.600)
R3	-600,826.800*** (153,722.300)	-754,500.100*** (266,995.500)	-708,667.200*** (238,858.400)
Fixed Effects:	None	Candidate	District
N	823	823	823
R ²	0.609	0.937	0.790

*p < .1; **p < .05; ***p < .01

Cluster-robust standard errors in parentheses (clustered by candidate).

Table A.2: Regressions of FEC expenditures to media consulting firms on Nielsen TV ad expenditure X incumbency.

	Total FEC Expenditure to Media Firms			
Nielsen Ad Exp. x Challenger	1.496*** (0.100)	1.187*** (0.340)	1.477*** (0.113)	1.478*** (0.155)
Nielsen Ad Exp. x Incumbent	1.344*** (0.200)	1.498*** (0.289)	1.317*** (0.153)	1.310*** (0.216)
Challenger	280,731.800*** (51,719.170)			
Incumbent	488,171.200*** (115,348.400)	-178,565.600 (232,070.900)	320,687.600*** (101,084.400)	422,210.900** (166,034.000)
Fixed Effects:	None	Candidate	District	District-Year
p-value for I=C	0.495	0.478	0.265	0.357
N	1,264	1,264	1,264	1,264
R ²	0.804	0.990	0.910	0.916

*p < .1; **p < .05; ***p < .01

Cluster-robust standard errors in parentheses (clustered by candidate).

Table A.3: Regressions of FEC expenditures to media consulting firms on Nielsen TV ad expenditure X campaign experience

	Total FEC Expenditure to Media Firms			
Previous Federal Campaign	120,955.100 (107,148.100)	53,637.760 (195,535.100)	197,851.900** (97,193.690)	247,217.200* (149,381.100)
Nielsen Ad Exp. x No Prev. Fed. Camp.	1.462*** (0.112)	1.897*** (0.477)	1.453*** (0.118)	1.460*** (0.161)
Nielsen Ad Exp. x Prev. Fed. Camp.	1.413*** (0.158)	1.517*** (0.295)	1.393*** (0.146)	1.404*** (0.206)
Fixed Effects:	None	Candidate	District	District-Year
p-value for Exp. = Inexp.	0.785	0.039	0.641	0.733
N	1,264	1,264	1,264	1,264
R ²	0.802	0.991	0.908	0.914

*p < .1; **p < .05; ***p < .01

Cluster-robust standard errors in parentheses (clustered by candidate).

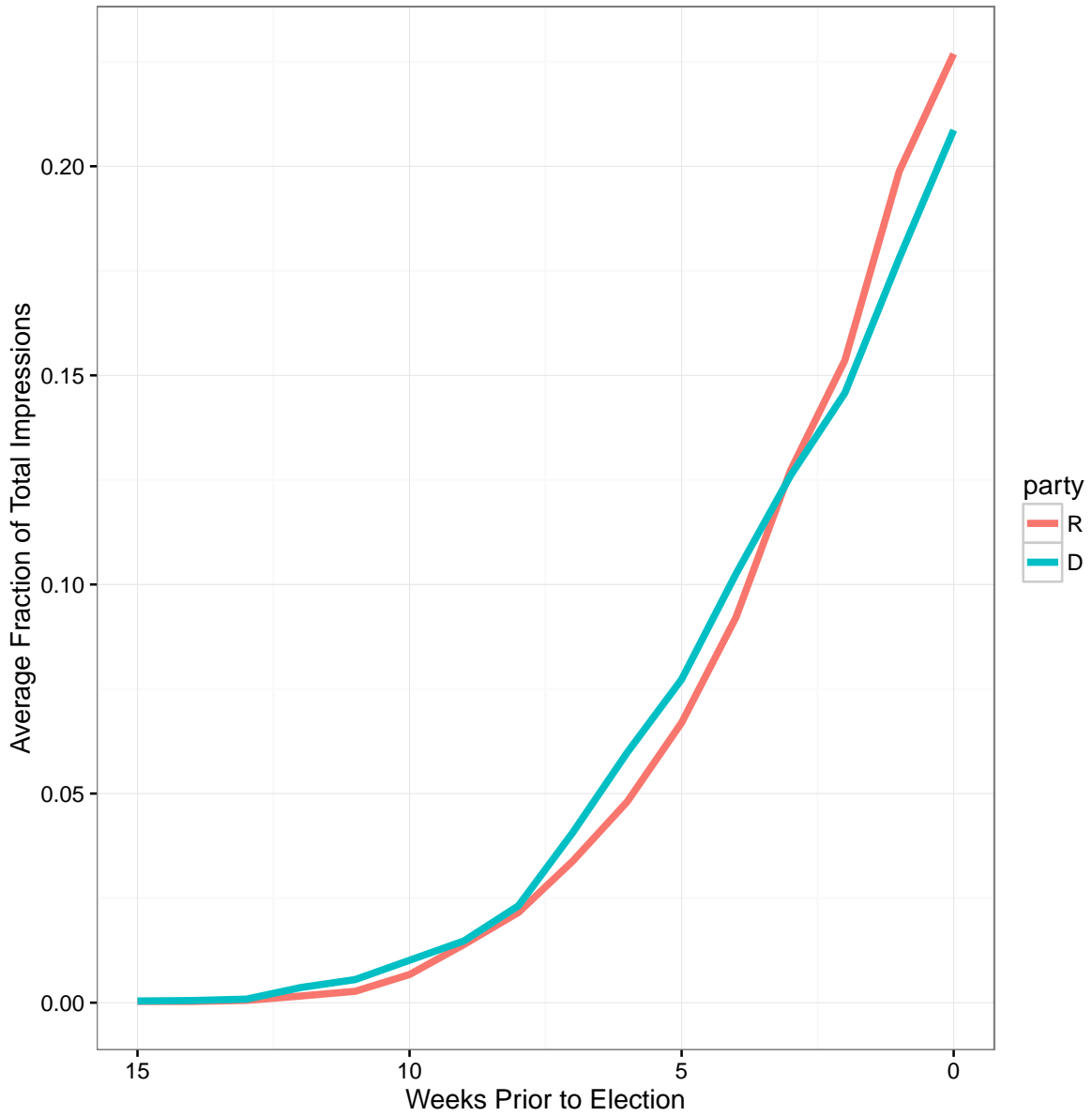


Figure A.1: The timing of advertising purchases relative to the election date, by party. The Y axis measures the fraction of total advertising impressions by candidates belonging to each party that are made in each week prior to the general election. The plot includes only general election advertising purchases.

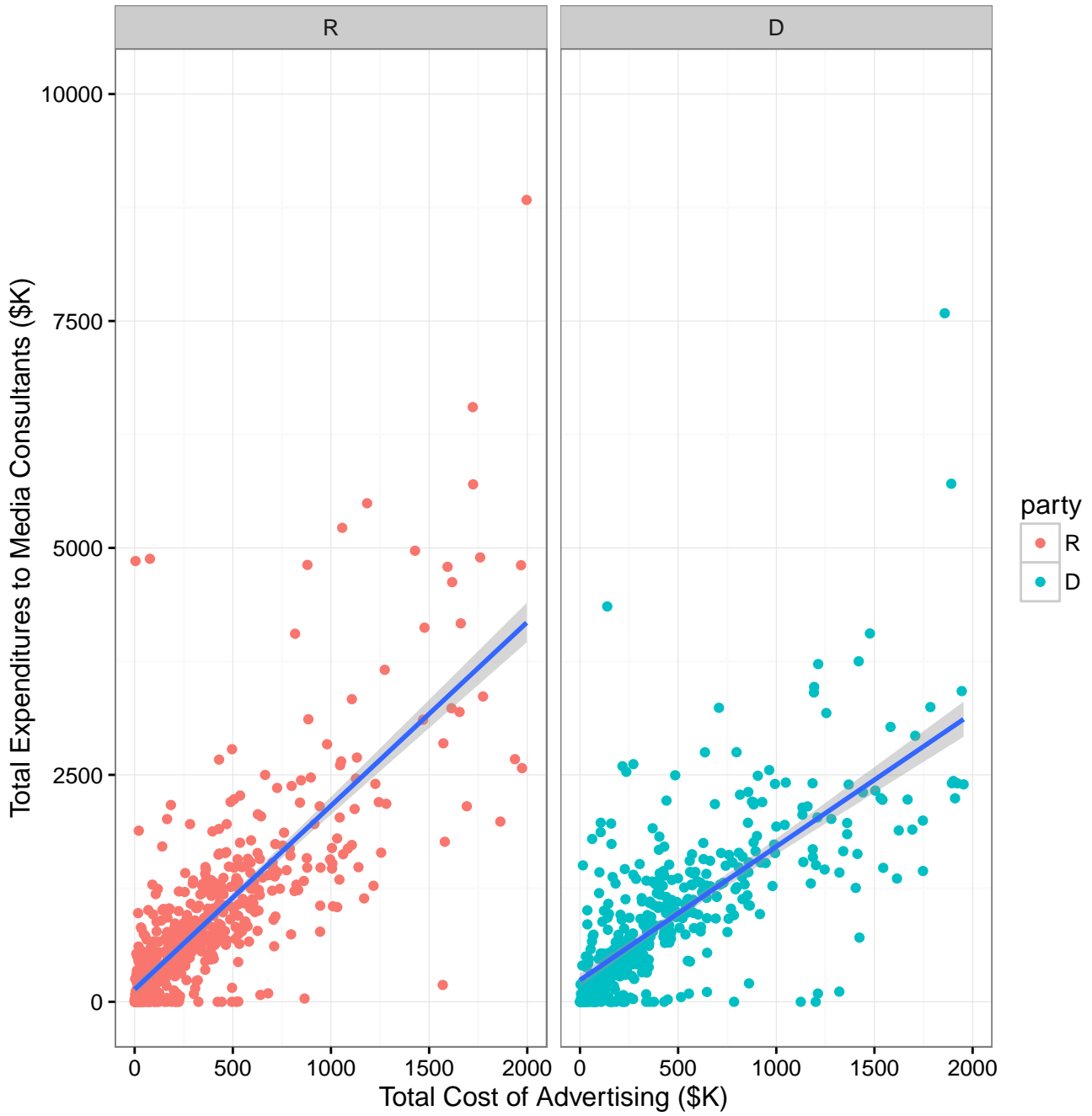


Figure A.2: Consulting firm revenues against advertising output, by party. Each point is a candidate-election cycle; the blue line is the least squares fit.

Table A.4: Regressions of FEC expenditures to media consulting firms on Nielsen TV ad expenditure x party.

	Total FEC Expenditure to Media Firms		
Nielsen Ad Exp. x Democrat	1.265*** (0.146)	1.272*** (0.117)	1.285*** (0.166)
Nielsen Ad Exp. x Republican	1.608*** (0.114)	1.583*** (0.114)	1.586*** (0.154)
Republican	-49,657.560 (111,174.000)	-75,948.240 (79,550.390)	-73,514.940 (112,953.500)
Fixed Effects:	None	District	District-Year
p-value for D=R	0.064	0.009	0.041
N	1,274	1,274	1,274
R ²	0.813	0.914	0.920

*p < .1; **p < .05; ***p < .01

Cluster-robust standard errors in parentheses (clustered by candidate).

Table A.5: Regressions of Nielsen TV ad expenditure on race competitiveness, by party.

	Nielsen Ad Expenditure		
D3 x Dem.	-758,496.600*** (167,998.000)	-698,714.700* (422,588.500)	-410,275.600*** (154,037.700)
R3 x Rep.	-497,660.700*** (80,802.660)	-360,040.300 (236,553.000)	-291,905.300** (138,074.700)
D2 x Dem.	-452,802.000*** (173,465.100)	-489,825.900 (480,077.200)	-255,038.500 (174,267.200)
R2 x Rep.	-341,581.500*** (87,832.220)	-180,287.700 (212,574.700)	-143,886.500 (128,472.900)
D1 x Dem.	-264,163.100* (159,405.800)	-134,976.800 (473,218.000)	-6,683.030 (174,671.600)
R1 x Rep.	-153,724.900* (92,558.710)	35,777.750 (210,334.300)	20,970.870 (139,356.100)
R1 x Dem.	-431,577.500** (197,420.100)	-314,468.200 (492,732.400)	-217,945.300 (198,522.300)
D1 x Rep.	-170,330.900 (107,140.400)	68,257.580 (331,492.300)	63,395.330 (146,084.600)
R2 x Dem.	-755,354.900*** (166,790.500)	-505,449.400 (534,070.900)	-562,403.100*** (165,804.700)
D2 x Rep.	-300,449.100*** (78,534.410)	-146,954.400 (268,897.300)	-140,196.900 (152,145.300)
R3 x Dem.	-902,887.200*** (165,475.400)	-1,411,702.000 (1,221,425.000)	-751,160.700*** (166,076.400)
D3 x Rep.	-430,684.300*** (90,919.560)	-128,376.400 (237,523.200)	-186,783.800 (138,302.500)
Fixed Effects:	None	Candidate	District
N	823	823	823
R ²	0.236	0.879	0.641

*p < .1; **p < .05; ***p < .01

Cluster-robust standard errors in parentheses (clustered by candidate).