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# The Campaign Value of Incumbency: A New Solution to the Puzzle of Less Effective Incumbent Spending

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*A puzzle in research on campaign spending is that while expenditure is positively related to votes won, this effect is far more strongly, or even exclusively, enjoyed by challengers rather than by incumbents. We unearth a new explanation for the puzzle, focusing on the hidden, yet variable, campaign value of office perquisites which incumbents deploy in their campaigns to win votes. When these variable office benefits are unobserved, then the effect is to make observed incumbent spending less effective than spending by challengers. Using data from the 2002 Irish general election, where incumbency was assigned a variable campaign value and included in declared campaign spending, we are able to demonstrate this hidden incumbency effect and estimate its relationship to electoral success, in terms of overall votes, share of votes, and probability of winning a seat. Contrary to previous research showing ineffective incumbent spending, we find that when the campaign value of office is also measured, public office value "spending" is not only very effective in winning votes, but also seems to be more effective than regular incumbent spending.*

Research investigating campaign effects points to an empirically supported consensus: that money spent helps candidates get elected. The nonpartisan Center for Responsive Politics reports that the candidate who spent the most money won in 93% of House of Representatives races and 67% of Senate districts in the 2006 U.S. Congressional elections.[1] Recent extensions to other contexts, furthermore, have demonstrated positive spending effects in a variety of national, local, and multiparty settings.[2] The extensive literature on campaign spending covers a multitude of issues (see, for example, Stratmann 2005), but the central one is whether spending money brings electoral success, in the sense of being positively linked both to votes and to the possibility of winning a seat (Carty and Eagles 1999; Cox and Thies 2000; Erickson and Palfrey 1996; Forrest 1997; Forrest, Johnston, and Pattie 1999; Green and Krasno 1988; Jacobson 1980; Johnston and Pattie 1995; Palda and Palda 1993).

An important question on which there is less consensus, however, concerns the difference between spending effects for challengers and incumbents. Jacobson's (1978) early work into U.S. House elections in the 1970s found that incumbent spending was ineffective in generating additional votes, despite observing a strong positive return from challenger spending, even when controlling for endogenously determined "reactive" spending, where incumbent spending was driven by the size of the challenger threat. Subsequent studies controlling for this effect have generally also found that incumbent spending is less effective than challenger spending (Abramowitz 1988, 1991; Ansolabehere and Gerber 1994; Green and Krasno 1988; Jacobson 1990), with a few exceptions (Gerber 1998; Moon 2006). Extensions to other countries, furthermore,

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[1] "2006 Election Analysis: Incumbents Linked to Corruption Lose, but Money Still Wins." The Center for Responsive Politics, November 9, 2006. http://www.opensecrets.org/pressreleases/2006/PostElection.11.8.asp.

[2] Examples include New Zealand (Johnston and Perry 1983); Britain, especially Scotland and Wales (Johnston and Pattie 2002; Pattie, Johnston, and Fieldhouse 1995); Canada (Carty and Eagles 1999); Australia (Forrest 1997); France (Palda and Palda 1998); and Irish local elections (Benoit and Marsh 2003).

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have demonstrated that this regularity seems to hold in many other national contexts. Less effective incumbent spending has also been observed in non-U.S. contexts in British (Johnston and Pattie 2006; Johnston, Pattie, and Johnston 1989) and Irish (Benoit and Marsh 2003) local elections, and national elections in Canada (Carty and Eagles 1999; Eagles 1993), Australia (Forrest 1997; Forrest, Johnston, and Pattie 1999), France (Palda and Palda 1998), and Korea (Shin et al. 2005). As a whole, these findings suggest that there is something fundamentally different about campaign effects for incumbents versus those that operate for challengers.

This difference has posed something of a puzzle, important not just for researchers, but also for ongoing policy debates in contexts such as the United States (Ansolabehere and Gerber 1994) or France (Palda and Palda 1998), where reformers consider the implications of such findings on the likely consequences of introducing campaign subsidies or spending limits. In the U.S. case the amounts of money spent are comparatively vast—for instance, $477.9 million of individual spending in the 2006 U.S. House of Representatives elections, and $382.8 million of individual spending from the Senate race in that year[3]—where incumbency clearly offers huge electoral advantages, with typical reelection rates to Congress of 95% or better.

Exactly *why* might incumbents receive less return on spending than challengers? One explanation is simply that incumbents are already "saturated" with the sort of recognition brought about by campaign spending, and hence additional spending adds little to the voters' knowledge or support (Jacobson 1978, 469). Nonetheless, incumbents must respond to strong challengers, especially to counter negative campaigns, and these responses will require spending (Gerber 1998). Incumbents may also bolster their electoral prospects by advertising new issues and services to gain a competitive advantage over challengers (Moon 2006, 705). A more plausible explanation concerns the competitiveness of the contest: if marginal incumbents need to spend more heavily in order to compete effectively against strong, high-spending challengers, their spending will merely appear to be less effective. Indeed, since Jacobson (1978) first demonstrated this effect, researchers have sought exogenous instruments for spending to control for the consequences of endogenous or "reactive" spending or attempted through case selection to minimize the effects of endogenous spending (e.g., Erikson and Palfrey 2000). Even with controls for marginality, however, incumbent spending still does not appear to be as effective as challenger spending. Because there are no firm theoretical reasons to explain why campaigning by incumbents should be less effective than that by challengers, once the determinants of spending are accounted for, this leaves a conundrum. The mystery has been addressed recently by Moon (2006, 720), who presents and tests a model explaining that safe incumbent spending is less effective than marginal incumbent spending because safe incumbents have to buy extreme voters whereas marginal incumbents can easily buy swing voters. While Moon's finding suggests that spending by marginal incumbents is at least as effective as that of challengers, it does not fully solve the puzzle of ineffective spending by safe incumbents.

In this article we focus on a different aspect of the spending puzzle: the notion that incumbency spending may appear to be less effective only because incumbent spending effects are "hidden" from recorded expenditure since they derive from the variably realized perquisites of office. Jacobson's (1978) explanation may be essentially correct—that incumbent spending brings fewer additional votes because the basic advantages of incumbency have already saturated candidates with votes—but this does not mean that candidate use of these basic incumbency advantages is invariant. Our contention is that the use of incumbency perquisites is not only variable, but constitutes one of the primary means by which incumbents will fight challenger threats. Furthermore, when incumbent seats are marginal, incumbent candidates will draw more on these perquisites, supplementing observable spending with campaign activities deriving from the variable value of their public offices. Because use of these perquisites—such as staff time, reimbursable travel, public appearances related to office activities, and frequently postage—is typically not costed as campaign expenditure, they are unobserved in existing studies of campaign spending effects.

We test our explanation using data on campaign expenditures from the 2002 general election in Ireland. This dataset is unique. All candidates were required to record and declare all campaign expenditures, but at the very end of the campaign a High Court ruling required incumbents also to cost and declare the financial value of their incumbency perquisites used during the three-week campaign period. The effect of this ruling was to establish a rare natural experiment for testing our explanation of incumbent spending effects. Incumbents would have used office perquisites throughout the campaign, not knowing they would need to be declared as expenditure, but then were required to reconstruct and declare these following the end of the campaign as a result of the unexpected

[3] Based on data from the Federal Election Commission, January 9, 2007. See http://www.opensecrets.org/overview/stats.asp?Cycle=2006.

court ruling. The campaign value of public office that would normally have remained invisible, in other words, was effectively revealed by the Court decision after these benefits had been deployed in the campaign, providing a setting wherein the normally hidden campaign "spending" accruing to office can be precisely measured and its effects on electoral success estimated.

In what follows we describe more fully the puzzle of less effective incumbent spending, explaining why hidden office perquisites may be responsible for the finding—now documented in many contexts—that incumbent spending appears to be less effective than challenger spending. Before explaining the model and our findings from the Irish election data, we also briefly describe the Irish electoral context. Our findings offer an answer to the puzzle that may apply in all contexts.

> Incumbents, exploiting the extensive communication resources available to every member of Congress, saturate their districts with information about themselves, their virtues and services, before the formal campaign begins. Further campaigning thus produces, at best, very modest additional gains in support. Challengers, in contrast, typically begin the campaign in obscurity. Because voters are demonstrably reluctant to vote for candidates they know nothing about, challengers have a great deal to gain by making themselves better (and, of course, more favorably) known to the electorate. Their level of campaign activity. . .thus has a strong influence on how well they do at the polls. (Jacobson 1990, 334–35)

## Why Incumbent Spending Effects Might Differ

Two different possible reasons may explain why weaker marginal returns on campaign spending are typically observed for incumbents. The first concerns the fixed advantage of incumbency, which brings bonus votes to incumbent candidates and is not affected by higher rates of additional spending in campaigns or by perceived marginality. The second concerns the notion of marginality and the endogeneity of incumbent spending.

### Fixed Levels of Incumbency Advantage

Incumbents enjoy sizeable advantages over challengers, and the "incumbency advantage" has been widely established. Measured in the context of the U.S. Congress, for instance, incumbents gain at least a 5% average vote advantage just for being incumbents (Alford and Brady 1993; Erikson 1972; Gelman and King 1990). Incumbents control resources worth tens, if not hundreds, of thousands of dollars every year, and these resources are inevitably used for purposes of reelection. Indeed, most members of the U.S. Congress are said to be engaged in a "continuous campaign" (Mayhew 1974, in Jacobson 1978, 470), a strategy also followed by some parties in other contexts (such as the Liberal Democrats in Britain; see Cutts 2006). In light of the enormous advantage enjoyed by incumbents in being able to use their offices for campaigning purposes, states Jacobson (1978, 470), it is not surprising that campaign spending should matter more to challengers than to incumbent candidates.

Nearly identical arguments have been advanced for why incumbent spending by British MPs appears less effective than spending by their challengers (Pattie, Johnston, and Fieldhouse 1995, 975). The analogy drawn by Denver and Hands (1997) is squeezing juice from an orange: incumbents have little left to squeeze since they did well (enough to win) in the previous contest, while challengers typically start with a full, unpressed fruit from which much more juice can be extracted with the same level of squeeze. The past success of incumbents at winning large vote shares, in other words, makes it more difficult for their campaign activities to generate votes, something that does not hold for challengers who start with much lower levels of support (Denver and Hands 1997). The strong version of this claim goes even further, asserting that the fixed advantages of incumbency mean that all the juice has already been extracted, and that "incumbents gain nothing in the way of votes by spending money in campaigns" (Jacobson 1985, 41).

A positive effect from incumbent spending—albeit less effective than that for challengers—has nonetheless been found by subsequent research that accounts more fully for the endogenous determinants of challenger spending (e.g., Ansolabehere and Gerber 1994; Erikson and Palfrey 1998, 2000; Green and Krasno 1988). If office holding provides an incumbent candidate with the widespread name recognition that challengers must "buy" through spending in campaigns, then it might be possible to control for this effect—assuming it varies—by introducing name recognition for each candidate as a control. Jacobson (1978) incorporated such a variable into his study, yet still found that incumbent spending was relatively ineffective.

### Different Responses to Marginality

Another principal reason why incumbent spending may be less effective than challenger spending concerns the reactive nature of spending decisions by incumbents. Incumbents may tend to spend in campaigns only when facing a threat to their seat from a strong challenger, when they go on to win only by narrow margins. When incumbent seats are safe, by contrast, incumbents spend relatively little and win by large margins. When no distinction is made between safe and marginal incumbent seats, then results tend to show a zero or even negative relationship between incumbent spending and vote share. Challengers, on the other hand, tend to spend in campaigns regardless of perceived marginality, for several reasons. Less experience means their spending is less rationally efficient, and challengers of safe incumbents also typically overestimate their chances of winning in the first place (Erikson and Palfrey 2000, 603). There is also what Erikson and Palfrey (2000, 603) call an asymmetry in the two-way relationship between (perceived) votes and spending: "For favored incumbents, the cycle is negative: New spending increases the incumbent's vote, which dampens the value of spending further. For underdog challengers, the cycle is positive: New spending increases their vote, which amplifies the value of spending further" (603–4).

As a consequence, the inclusion of safe districts—a fairly typical case for many incumbents, at least in the U.S. context where success rates for incumbents regularly exceed 90%—tends not to affect the effectiveness of challenger spending, while at the same time attenuating or even reversing the positive effect observed from spending by incumbents. This result, called the "Jacobson effect" by Cox and Thies (2000), reveals a fundamental simultaneity bias that most researchers since Jacobson have attempted to control for by using exogenous instruments for spending. Other researchers have selected their samples according to whether districts were perceived as marginal or safe (e.g., Erikson and Palfrey 2000; Moon 2006) and generally find that incumbent spending was more effective in contests where incumbent seats were considered marginal.

## The Campaign Value of Incumbency

Our argument departs from both of these explanations in seeing the weaker observed link between spending and incumbency as deriving from a different relationship between office perquisites and success in winning votes. The essence of the argument is this: Incumbency advantages are responsible for the weakened ability of spending to generate additional votes for incumbent candidates, but these advantages are variable rather than fixed, depending on how incumbents draw on them for campaign-related activities aimed at mobilizing supporters, winning over undecided voters, generating or renewing positive publicity for themselves and their policies, and so on. Incumbents will make variable use of these resources, which consist of perquisites such as office administration, telephone campaigns, postal privileges, transportation, and free publicity for office-related activities, as needed in response to the demands of electoral competition. Safe incumbents will mobilize and employ their incumbency advantages for election-related purposes to a lesser extent than will marginal incumbent candidates under threat from strong challengers.

This explanation still does not account for why incumbent spending might appear to be less effective than challenger spending, but our argument continues: The measure of the campaign for incumbents consists both of traditional, officially recorded "campaign spending" and also of a potentially large, unobserved portion of variable incumbency advantages that have the same consequence as campaign spending, but that are unobserved as such. Previous studies have measured these effects only as a dichotomous variable, which amounts to a huge measurement error since the campaign value of incumbency is not fixed, but variable. An equivalent treatment of challenger spending, to make the comparison, would be to use a dummy variable indicating that they either spent some money or spent nothing—an approach that would yield highly noninformative estimates of spending effects. Our argument is that treating incumbency advantages simply as a dummy variable commits a similarly egregious error for incumbents and thereby renders the estimates of incumbency advantage similarly noninformative.[4]

Consider an explanatory variable $x_i^*$ representing a candidate's total campaign spending, which includes both directly observed campaign spending $x_i$ as well as typically unobserved campaign value of incumbency, $p_i$ (which we will refer to henceforth as "public office value"). Putting aside the issue for the moment of the simultaneity bias caused by reactive spending, consider the following simple model of $y_i$, the votes received by candidate $i$:

$$y_i = \alpha_C + \alpha_I^* I_i + \beta_C x_i + \beta_I^* I_i(x_i + p_i) + \varepsilon_i^* \quad (1)$$

[4]This point is different from the main problem identified in previous studies of campaign spending effectiveness: that bias in the estimation of spending effects arises from simultaneity or endogeneity caused by spending being determined by expected vote outcomes. We discuss this problem in more detail below.

where the $\alpha$ and $\beta$ terms represent intercept and slope estimates for challenger and incumbent spending effects. If we add an additional parameter $\beta_P^*$ to equation (1) for the term $I_i\, p_i$ to represent the effect of public office value for incumbents only, then we have

$$y_i = \alpha_C + \alpha_I^* I_i + \beta_C x_i + I_i\left(\beta_I^* x_i + \alpha_P^* p_i\right) + \varepsilon_i^* \quad (2)$$

Omitting the variable $p_i$, which we are claiming is the approach of existing studies of spending effects, is equivalent to estimating a reduced equation where $p_i = 0$ (and the stars are removed to indicate that the coefficients for incumbent spending effects exclude $p_i$):

$$y_i = \alpha_C + \alpha_I I_i + \beta_C x_i + \beta_I I_i x_i + \varepsilon_i \quad (3)$$

Since it will always be true that $x_i^* = (x_i + p_i) \geq p_i$, this means the reduced model assumes that $\alpha_I^* = \alpha_I$ and that $\beta_I = \beta_I^* = \beta_P^*$. The fixed advantage incumbency argument, however, states that $\alpha_I$ (the electoral juice already squeezed from the orange of preexisting office) will be high and that $\beta_I^* = 0$. Our contention is that while this may be true for regular campaign expenditure, when the campaign value of incumbency $p_i$ can be measured then the effects of the variable use of this campaign good $\beta_P^* > 0$. Only when $p_i$ is not measured do we observe a coefficient for incumbent spending $\beta_I$ (from equation 3), whose value will be near zero. When this coefficient is confused with $\beta_I = \beta_I^* = \beta_P^*$, then the wrong conclusions will be drawn about the effects of campaign spending, since we expect that $\beta_P^* > \beta_I$.

Our contention is that this confusion of the effect of observed, regular spending ($x_i$) with the effect of regular spending *plus* the unobserved, variable campaign value of incumbency ($p_i$) is partly responsible for the puzzle of less effective incumbent spending. This problem has been present in all previous studies of campaign spending effects, for the simple reason that it has been nearly impossible to categorize and observe these values. Ansolabehere and Gerber (1994) represent the most ambitious coding of campaign spending categories to date, for instance, using a dataset of how general election candidates in the United States spent their campaign funds in the 1990 U.S. House elections. They found that the average incumbent spent $464,480 and the average challenger $139,230. Challengers spent 60% of their budgets on voter contacts, while incumbents spent just 40% (Ansolabehere and Gerber 1994, 1115). This finding is puzzling, as a critical part of incumbents' efforts to gain or maintain voter support should be making contact with voters. Considering our argument, however, this evidence is consistent with the explanation that incumbents are using their public offices—through perquisites not recorded as campaign expenditures—in order to maintain voter contacts, and hence the two-to-one difference between challenger and incumbent spending on this vital aspect of campaigning.

While this argument might attract interest or sympathy, it would be of little practical value unless we had a way to test it. Fortunately we do: the Irish general elections of 2002 provide a context in which we can do just that.

## Data: The Irish General Elections of 2002

Our dataset consists of constituency- and candidate-level data gathered on 463 candidates for the 2002 elections to the Irish *Dáil*, the lower chamber of 166 seats. Irish elections take place in a multiparty context using the Single-Transferable Vote (STV) electoral system, with constituency sizes ranging from three to five. Three features make the Irish case particularly interesting as an applied experimental setting for testing our argument about the campaign value of incumbency.

First, STV provides a rich set of information on expressed preferences in a multicandidate, multiparty context that can be linked to spending effects.[5] Not only are first-preference votes likely to represent sincere expressions of voter choice, but also secondary and lower-order preferences provide information on preferences that might be influenced by campaigning. Furthermore, since between three and five legislators are elected in each of 42 constituencies,[6] there is ample variation in the outcome of actually winning a seat—something accomplished by more than a third of all candidates—to form an informative quantity of interest to be explained. This also means that roughly a third—a total of 144 in 2002—of candidates were incumbents. In 2002 six politically significant parties (plus a number of independents) competed for seats. The 1997–2002 government was made up of *Fianna Fáil* and its coalition partner the Progressive Democrats. The main opposition parties were *Fine Gael*, Labour, the Greens, and *Sinn Féin*. The semiproportional nature of STV ensures that there is a considerable amount of meaningful variation in the percentage of votes received by each candidate, without huge landslides that often distort electoral data in some single-member plurality elections. The constituency-level percentage of

[5] For details on the operation of the Single-Transferable Vote (STV) electoral system in Ireland, see Gallagher (2005).

[6] To be exact, 16 were three-seat, 12 were four-seat, and 14 were five-seat districts. Electorate size ranged from 47,394 registered voters to 107,894, with a mean electorate of 73,506.

candidates' first-preference votes in 2002, for instance, had a median of 8.2%, meaning that the typical candidate received between 8% and 9% of the first-preference votes in his or her district. Considering that one-third of all candidates were elected, this means that small shifts in the vote are meaningful in the context of Irish elections and therefore provide a sensitive response variable for the analysis of spending effects. While first-round preference votes do not tell the whole story under STV, they do emerge as a strong predictor of whether a candidate won a seat and, as we shall see shortly, they are strongly linked to candidate spending.

A second attractive feature of the Irish data comes from the context of spending and the nature of the electoral campaign. Campaign regulations applied for the first time to general elections in Ireland in 2002 require that candidates record and declare all campaign expenditures incurred.[7] Furthermore, campaigning is restricted in numerous ways that level the playing field and make differences in spending by different candidates in different contests more directly comparable. First, the campaign period is defined explicitly and limited in length, beginning with the government's polling day order and finishing on polling day. This was just three weeks in 2002, from April 25 to May 17. Second, the candidates are limited to travel, speaking, and print advertisements, and candidate advertising on TV and radio is prohibited. Finally, total spending was limited both for candidates and national political parties, fixed at levels that are paltry by comparison to U.S. elections: €25,394 per candidate in three-seat constituencies, €31,743 per candidate in four-seat constituencies, and €38,092 per candidate in five-seat constituencies. Despite these low legal ceilings, however, most actual spending was well beneath the limit, with the median candidate spending only 40% of his or her allowable amount, and just 5% of candidates spending 80% of more of the allowable limits. While in other contexts, candidates have been observed to spend at or close to the legal limit (e.g., Denver and Hands 1997, 179; Johnston and Pattie 2006, 292), in Ireland spending varies meaningfully and is not artificially censored by legal ceilings, even for incumbents.

It is a third feature of the Irish elections of 2002, however, that provides a unique opportunity to observe the effects on votes of the campaign value of incumbency. This has to do with a landmark interpretation of Irish campaign expenditure law delivered by the High Court in its ruling in *Kelly v. The Minister for the Environment & the Attorney General* on May 16—the last day before the election itself. This ruling held that facilities made available by the Irish state to incumbents during the election campaign should be counted as campaign expenditure and that all incumbents must therefore place a financial value on the office-related perquisites that had been used during the campaign period, regardless of whether they were explicitly directed at campaigning activities.[8] These campaign-valued incumbency benefits included the value of their offices in the parliament, staff, state-paid travel, and free use of phones and state-paid postage. Not only were all sitting legislators who ran in the 2002 elections (a total of 144 candidates) required to disclose this information, but sitting senators (8) and county Councilors (42)[9] were also required to do so. Because this ruling came only after the campaign had run its course, incumbents had drawn on the variable campaign value of their public offices without knowing that it would later be recorded and classified as "spending" during the campaign. The timing and nature of the ruling, then, acted to make the Irish 2002 general election into an ideal applied experiment for observing the difference between regular spending by incumbents—held not to have an effect by Jacobson and others—and the normally unobserved public office value that could be deployed for the purposes of campaigning, which we believe will show a strong positive linkage with votes received.

Of course, campaign disclosure requirements apply only to expenditures incurred during the relatively short official campaign period of three weeks, whether these expenditures derive from public office or not. By our own description of the nature of incumbent advantages, it is quite plausible that the real campaign occurs throughout the interelection period by exploiting office benefits that make a "continuous campaign" possible, and when political promotion activities by parties and candidates is not subject to limits. We view it as likely, however, that

[7]Candidate spending consists of both a personal and a party component, which are aggregated here. The legislation requires that expenditures are itemized into categories. Regulations also require that certain other expenditures incurred outside the campaign period—notably commissioning an opinion poll within 60 days of the election—must also be declared. Party expenditure only counts where it is additional to what is normal and is related to the election in a district; general-purpose party activities such as party election broadcasts are not included. While parties do spend significant amounts on their candidates in each constituency, there is no significant tradition of spending by private association in support of particular parties or candidates in Irish elections. While the 2001 Act seems to define such spending as an election expense, in reality it is far from clear how such "soft-money" spending would be identified and allocated to any particular candidate.

[8]Kelly v. The Minister for the Environment & the Attorney General (2002). http://www.courts.ie/Judgments.nsf/AllJudgments/8F9609237B58153E80256CC40033DDAB?opendocument&COUB72YGXK.

[9]Two of these councilors, Pat Rabbitte and Éamon Gilmore, were also incumbent legislators, both from Labour.

**Table 1 Descriptive Data on Spending and Votes, by Incumbency Status**

| | All | Challengers | Incumbents |
|---|---|---|---|
| Total candidates | 463 | 320 | 143 |
| Median candidates per constituency | 12 | 12 | 11 |
| Mean constituency vote % | 8.2% | 4.1% | 15.4% |
| (SD constituency vote %) | (7.2%) | (5.6%) | (5.4%) |
| Regular spending mean | €12,368 | €10,669 | €16,169 |
| (SD regular spending) | (€7,948) | (€8,499) | (€4,710) |
| Public spending mean | €1,917 | – | €1,917 |
| (SD public spending) | (€4,308) | – | (€4,308) |

spending recorded during the official campaign is a direct indicator of unrecorded spending that takes place before the campaign. We also must assume, of course, that candidates, especially incumbents valuing their office perquisites, are doing so honestly and accurately. In any case, current regulations restrict us to observing only expenditures officially declared by candidates during the official campaign period, and to assuming this accurately reflects their actual expenditure,[10] and that it is also representative of any campaign-related activities they have undertaken prior to the official campaign period—although such "restrictions" are hardly unique to our study.

Our focus here is on the total spending recorded by candidates, separating out regular campaign spending ($x_i$) from public office value "spending" ($p_i$). Table 1 provides summary information on spending and first-preference votes, comparing incumbents and challengers. We see from Table 1 that incumbents spent significantly more than challengers, almost twice as much on average, and that incumbents also received significantly more first-preference votes.

## Modeling Spending Effects under Single-Transferable Vote

Numerous attempts have been made to estimate the relationship between campaign expenditure and the share of a candidate's vote. As Cox and Thies (2000, 40) state, the question is not whether, but only *how much* money matters. The most extensive examination of this relationship has taken place in the context of U.S. politics, although there are now many other studies (noted previously) that examine the link in other countries. With the exception of Benoit and Marsh (2003), however, none have estimated spending effects under the STV electoral system. In this section we describe our model of spending effects under STV and explain the choice of variables used to estimate the spending-votes relationship.

Our objective is to estimate the coefficients in a version of equation (2), where we add a series of control variables in addition to spending, and consider spending $x_i$ as endogenous. This model can be specified as:

$$y_i = \alpha_C + \alpha_I^* I_i + \beta_C x_i + \boldsymbol{\beta}_Z \boldsymbol{z_i} + I_i\left(\beta_I^* x_i + \beta_P^* p_i\right) + \varepsilon_i^* \quad (4)$$

where the $\boldsymbol{z_i}$ indicates a matrix of control variables, and where the levels of spending $x_i$ and $p_i$ are also endogenously determined by the matrix of explanatory variables (instruments) $\boldsymbol{w_i}$:

$$x_i = \boldsymbol{\delta}_C \boldsymbol{w_i} + \nu_i^1 \quad (5)$$

$$p_i = \boldsymbol{\gamma}_C \boldsymbol{w_i} + \nu_i^2 \quad (6)$$

## Dependent Variable: Measuring Electoral Success

Our primary focus is on explaining variation in electoral success $y_i$ of candidates as a function of spending, which represents the electoral advantage produced by campaign expenditure. There are several ways to measure electoral success, however, and we employ three methods here. First, we consider the absolute number of votes won by

[10]The Standards for Public Office Commission provides extensive and explicit guidelines for what must be reported and how, especially with regard to the issue of public office valuation. All reports must be publicly sworn and witnessed by candidates, and section 35 of the Electoral Acts allows for severe penalties for false or misleading reports, including fines and up to three years of imprisonment, and subsequent loss of office. Our examination of spending, as well as personal experience by the authors in scrutinizing receipts and expense filings by several candidates in separate legal proceedings, gives us strong confidence that no systematic misreporting exists in the expenditure data.

candidates as a measure of electoral success, since these units are easily understood and compared. Second, we consider the *share* of the vote obtained by each candidate in his or her constituency. In candidate-focused STV elections, this means politicians compete not only against those from other parties, but also against other candidates from one's own party. Vote share is the most commonly used measure of electoral success from previous studies of this type (e.g., Cox and Thies 2000; Erickson and Palfrey 1996; Green and Krasno 1988; Jacobson 1980, 1985, 1990). A final way to examine electoral success is to treat the dependent variable as dichotomous, examining whether spending positively affects a candidate's probability of getting elected—ultimately the outcome of greatest interest to candidates themselves. Approximately one-third of all candidates competing in the 2002 Irish elections were elected, and using a version of equations (4) and (5) to allow for a dichotomous response model, we can estimate the contribution of spending to the chances of winning a seat. This measure takes account of second- and lower-preference votes won by a candidate.

## The Problem of Endogenous Spending

Besides electoral outcome, the other endogenous variable in our model is spending itself. It is now widely understood that candidates' decisions on how much to spend are related to their expectation of the *need* to spend, a problem that produces endogeneity bias if not properly controlled for. This bias causes a particular problem when estimating the effects of incumbent spending, since incumbents are the most likely to engage in this form of "reactive" mobilization and expenditure of resources when they feel threatened by a strong challenger. The result is that spending is observed to increase at the same time that vote margins decline, causing the Jacobson effect: the tendency of endogeneity bias to produce a zero or even negative correlation between spending and votes.

Several methods exist for dealing with the endogeneity of spending. Some previous research into spending effects in other contexts has used instrumental variables that provide exogenous proxies for the observed spending, although it is notoriously difficult to find useful instruments for spending that are also uncorrelated with the spending-votes equation. Variables that have been applied as instruments include lagged spending (Gerber 1998; Green and Krasno 1988, 1990), previous political office held by challengers (Green and Krasno 1988), challenger wealth (Gerber 1998), and state population (Gerber 1998). In a different national context, Cox and Thies (2000) used various district-level characteristics, including previous votes and previous offices and positions held by the candidates, as exogenous determinants of candidate spending in a two-stage regression.

As in the United States and other contexts, spending by Irish candidates can be expected to vary with the expected marginality of the campaign. Irish candidates, and perhaps even more so, Irish parties, just as any others, think strategically about the resources they devote to their campaign. Irish national elections also take place in a relatively information-rich context. The districts are in any case small, but parties and candidates themselves, as well as the local and national press, use polling data. Incumbents and their parties may not see the need to expend huge resources to defeat a weak challenge and may spend most when they perceive their seat to be under real threat. Parties are also likely to direct spending on behalf of candidates to where it is most likely to protect or win marginal seats rather than secure safe ones. Coupled with the evidence from other national contexts already cited, we therefore have reasons that Irish spending will be commensurate with the perceived marginality of the contest.

Our solution to the possibility of this form of spending endogeneity follows the instrumental variables approach (per equation 5), drawing on exogenous measures of party strength as well as some candidate characteristics to model spending decisions, and then using the predicted spending to estimate spending effects on the vote using two-stage least squares (2SLS). Despite the incentives for candidate-centered voting in Ireland, voting remains highly structured by parties (Marsh 2006), and we argue that the variable we use, party strength in the previous election, has the potential to operate much as marginality should be expected to in the spending literature from the U.S. context. Previous party strength is calculated as the vote won by the *party* in the previous general election (1997). This is measured in terms of the number of quotas won by all of a party's candidates in a constituency, where the quota refers to the number of votes sufficient to win a seat.[11]

Another set of factors explaining spending levels focuses on supply: candidates with more funds available can be expected to spend more. Table 2 shows the results of an OLS regression of spending on the party strength variable as well as several candidate and constituency-level characteristics. It examines both candidates' "regular," nonpublic office value spending ($x_i$) as well as candidates' "public office value" spending (corresponding to

[11]The quota in the Irish STV system is defined as the valid vote divided by one more than the number of seats, plus 1. Hence, in a four-seat constituency, a vote share of 20% would amount to (almost) one quota.

**Table 2 Predictors of Spending Used as Instruments**

| | (1) Regular Spending | (2) Public Office Value "Spending" |
|---|---|---|
| Party strength in previous election | **4,322.0** | **2,118.2** |
| | (543.2) | (248.5) |
| Constituency electorate size (1,000s) | 22.4 | −24.4 |
| | (19.1) | (13.7) |
| Dublin constituency (0/1) | 523.1 | 228.4 |
| | (684.9) | (499.8) |
| Candidate office: Senator (0/1) | 553.9 | 1,433.1 |
| | (4,215.6) | (710.8) |
| Candidate office: Councillor (0/1) | **5,944.2** | **−1,074.7** |
| | (1,096.1) | (233.2) |
| Constant | **6,194.9** | 1,818.6 |
| | (1,444.8) | (1,092.1) |
| *N* | 450 | 450 |
| Adjusted R-squared | 0.27 | 0.19 |
| Root MSE | 6836.95 | 3920.14 |

Robust standard errors with clustering in constituencies. Sample includes only 450 candidates because there was one less constituency in the previous (1997) election.

$p_i$ from equation 4). Since previous studies have posited that previous electoral results and previous office holding influence candidates' fundraising ability, and hence spending, we have controlled for whether candidates also held separate offices such as Senatorial or local Councillor positions. We also believe candidates might spend more in denser, larger constituencies, and hence we include a dummy variable for the much denser constituencies in the Dublin area as well as a measure of the electorate (in 1,000s). Electorate size effectively determines constituency size (seats), but provides a superior (ratio level) measure.

Table 2 indicates that these variables exert an effect on spending generally as expected, with candidates from parties who did well in the previous election spending more from both regular and public office-valued sources. Candidates who were incumbent councillors also spent significantly more of regular expenditures, although not public office expenditures, while for Senators the converse was true. The main conclusions to be drawn are that spending can be explained by a series of variables that are arguably exogenous to the votes-spending relationship, at least where individual candidates are concerned. In the tests based on regressions that follow, we use the variables in Table 2 as instruments to predict each of the three types of spending, and use these predicted levels of spending in the second-stage analysis.

## Control Variables

Incumbents tend to receive more votes than other candidates, independent of their spending. This advantage may derive from inherent differences in candidate or party quality, responsible for their election in the first place; but it also partly captures the fixed campaign advantages of incumbency, such as the free press coverage that most challengers would lack. We control for this effect by also including a dummy variable for whether the candidate occupied a seat in the Dáil at the time of the election campaign. Furthermore, because previous studies indicate that the electoral value of spending differs for incumbents and nonincumbents, we also include an interactive term for spending based on incumbency. All other control variables (from Table 2) are assumed to operate indirectly on vote share through determining spending.[12]

[12]Levitt (1994) also recommended longitudinal controls for spending, in order to fix candidate quality and district-level factors constant, but such measures are unavailable in the Irish context. The bias that Levitt attributes to many cross-section studies, furthermore, depends on vote-related determinants of fundraising ability, something that relatively small legal spending limits—less than the sticker price of most candidates' automobiles—make far less important in Ireland. Johnston and Pattie's (2006) study implementing a version of Levitt's design, furthermore, found no differences between the baseline model and that controlling longitudinally for "candidate quality" and other district-level factors, a finding they partly attribute to spending limits.

# Results: Estimates of Campaign Spending Effects

In this section we examine three relationships whereby spending might make a difference: the effect of spending on total votes; the effect of spending share on vote share; and the effect of spending on the probability that a candidate won a seat.

## Spending Effects on Votes

If spending has a positive effect on votes as we expect, then we should observe a statistically significant and positive relationship between spending and votes received in competition with all other candidates. Furthermore, we expect to observe that for incumbents there is an additional, positive effect from public office value "spending," an effect that is normally hidden and that explains why when only regular spending ($x_i$) is observed, spending effects measured for incumbents appear to be weak or nonexistent. From the framework of equation (4), in other words, we expect to estimate $\beta_I^*$ and $\beta_P^*$ separately, and to find that $\beta_P^*$ is positive and significant relative to $\beta_I^*$.

Our first specification uses a two-stage least-squares model to control for endogenous spending, similar to that employed by Green and Krasno (1998), employing the independent variables from Table 2 as instruments. Because no instruments are ever entirely satisfactory when it comes to predicting spending, however, we also estimate the relationship of spending to votes using OLS. Our key coefficients of interest are $\beta_C^*$, $\beta_I^*$, and $\beta_P^*$, which represent the average change in the vote expected from spending one euro more, for challengers, regular spending by incumbents, and the variable campaign value of incumbency, respectively. Because each candidate competes against others in district contests, we use a variant of the Huber-White correction for heteroskedasticity that relaxes the assumption of error independence within the 42 electoral districts where candidate data are observed.[13] We examine unlogged spending in euros and use absolute votes received as the measure of electoral success, because the distribution of spending by candidates is single-peaked and approximately symmetric, making a logarithmic transformation of this variable unnecessary. One advantage is that this approach yields an estimate of spending effects that is very easily understood: the marginal cost, in euros, of an average vote.

[13]All details of the 2SLS estimations as well as a complete replication dataset are available from the authors at http://www.kenbenoit.net/cvi_AJPS/.

Table 3 shows two pairs of estimates (with standard errors in parentheses), one each for regular spending and public office value spending. The first pair shows the results from 2SLS estimations using the instruments from Table 2, while the second pair shows the OLS regression results. In all models, spending and incumbency show statistically significant effects in the expected directions. Looking at the effects of regular spending first (Models 1 and 3), if we consider the 2SLS results, then the effect of spending an additional euro for challengers is to result in an average gain of 0.37 votes; this effect is 0.20 when only the OLS results are considered. For incumbents, however, the effect is 0.24 votes per euro (0.37–0.13) as estimated by 2SLS and .16 as estimated by OLS. If we consider that the true estimates for challenger spending effects lie in between the 2SLS and OLS estimates, then on the margin challenger spending is between one-and-a-half and two times more efficient at winning votes than is incumbent spending. In other words, estimates of the effects of regular spending in the campaign $x_i$ spending effects where the variable campaign value of incumbency $p_i$ cannot be measured or separated show the same weaker effects of spending for incumbents as found in the majority of the previous research (e.g., Abramowitz 1988, 1991; Ansolabehere and Gerber 1994; Green and Krasno 1988; Jacobson 1990).

Models 2 and 4, on the other hand, show what happens when we also consider the normally hidden effects of public office value spending ($p_i$). The effects of public spending are estimated at 0.22 and 0.10 from the 2SLS and OLS models, respectively—in other words, at least as effective as regular incumbent spending, and by the 2SLS results more effective in winning votes as regular incumbent spending. In the framework of equation (3) the results show that $\beta_P^* > 0$, and that—also as expected—$\beta_P^* > \beta_I$. The statistically and substantively significant effect measured for public spending is a strong indication that public office does indeed have a campaign value and that much of this effect is variable rather than fixed. The weaker effect of incumbency spending still applies to regular spending, but incumbents make up for their relative lack of return by deploying their incumbency benefits in the campaign. We see this effect graphically in Figure 1, which shows bivariate plots of votes by (predicted) challenger spending, incumbents' "regular" spending in the campaign, and incumbents' campaign activities realized through public office value. While incumbent spending has a zero to negative effect, incumbent public spending has a strong positive relationship to votes that is close in magnitude to that observed for challengers.

The conclusion is clear: incumbency helps one get elected, not only because incumbents receive more votes,

**FIGURE 1 First-Preference Votes by Predicted Candidate Spending.** Shaded region indicates 95% confidence interval.

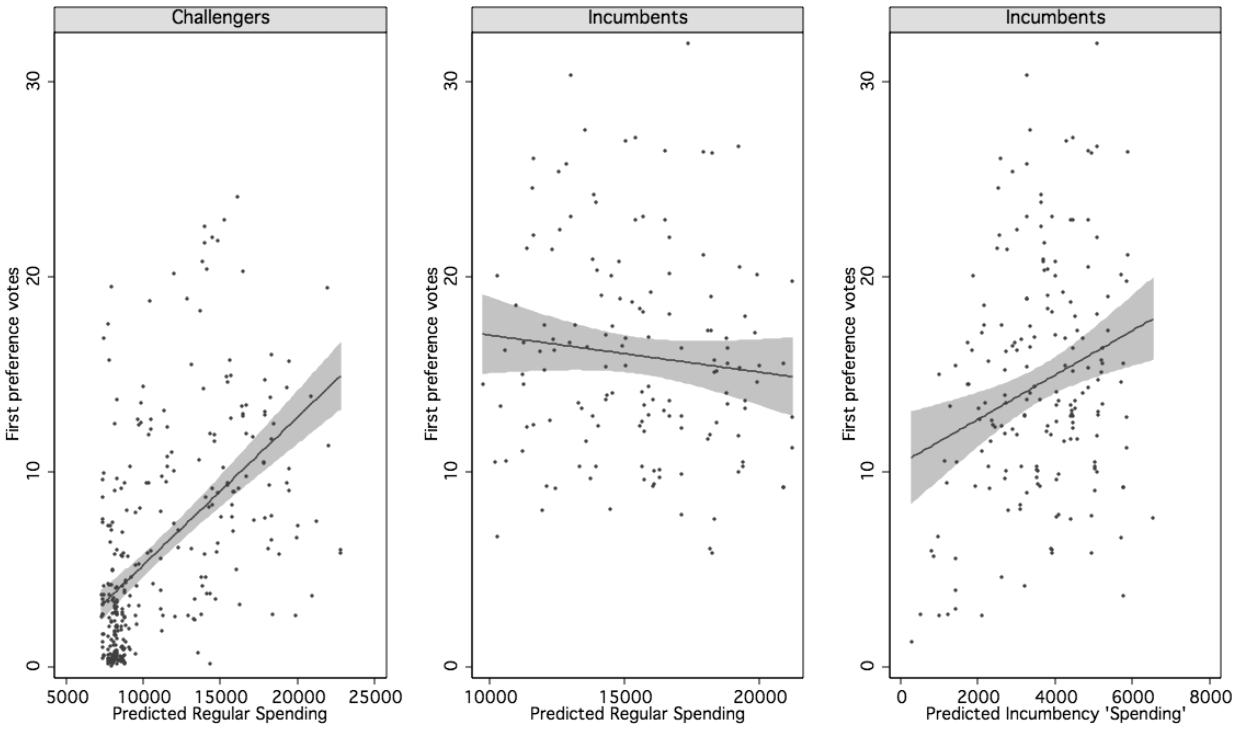



**TABLE 3 First-Preference Votes as a Function of Absolute Spending**

| Dependent Variable: Total Votes | (1) Regular Spending Only: 2SLS | (2) Regular Plus Public Spending: 2SLS | (3) Regular Spending Only: OLS | (4) Regular Plus Public Spending: OLS |
|---|---|---|---|---|
| Regular spending | **0.37** | **0.30** | **0.20** | **0.20** |
| | (0.03) | (0.03) | (0.02) | (0.02) |
| Incumbency × Regular spending | **−0.13** | **−0.14** | **−0.10** | **−0.10** |
| | (0.06) | (0.06) | (0.05) | (0.04) |
| Public office value spending | | **0.22** | | **0.10** |
| | | (0.09) | | (0.03) |
| Incumbency status (0/1) | **4,805.95** | **4,690.26** | **4,896.58** | **4,366.57** |
| | (986.06) | (966.62) | (631.92) | (647.63) |
| Constant | **−1,352.03** | **−860.43** | **498.22** | **488.77** |
| | (292.16) | (332.85) | (122.21) | (122.80) |
| Observations | 450 | 450 | 463 | 463 |
| Adjusted R-squared | 0.59 | 0.59 | 0.65 | 0.66 |
| Root MSE | 1993.67 | 1982.24 | 1841.88 | 1809.30 |

Robust standard errors with clustering in constituencies. Bold coefficients are significant at $p \leq .05$ level. For the 2SLS regressions, the spending variables instrumented as per Table 2. All spending measured in euros.

regardless of spending (observe the estimated coefficients ranging from 4,367 to 4,897 votes for the incumbency variable in Table 3), but also because of the resources that are mobilized and expended that come from the perquisites of office. If we could observe the effects of this type of expenditure elsewhere—as we have the opportunity to do in the Irish case—then we have a large missing piece of the puzzle as to why the vast

**TABLE 4 Vote Share as a Function of Spending Share, Constituency Level**

| Dependent Variable: Constituency Vote % | (1) % Regular Spending: OLS | (2) % Regular Plus % Public Spending: OLS |
|---|---|---|
| % Regular spending of constituency total | **0.78** | **0.77** |
| | (0.044) | (0.043) |
| Incumbency × % Regular spending | **−0.17** | **−0.14** |
| | (0.070) | (0.069) |
| % of Public office spending | | **0.53** |
| | | (0.082) |
| Incumbency status (0 or 1) | **8.67** | **6.55** |
| | (0.754) | (0.799) |
| Constituency size (3, 4, or 5) | **−0.99** | **−0.74** |
| | (0.141) | (0.111) |
| Constant | **4.99** | **3.88** |
| | (0.716) | (0.578) |
| Observations | 463 | 463 |
| Adjusted R-squared | 0.73 | 0.76 |
| Root MSE | 3.74 | 3.55 |

Spending is percentage of all candidates' spending in constituency; OLS uses robust standard errors with clustering for constituencies.

bulk of previous empirical work finds incumbent spending to be less effective: because the campaign advantage of incumbency is variable, but is wrongly treated as dichotomous.

## Spending Share Effects on Vote Share

Even under the STV system where voters assign ordinal preferences to candidates, outperforming one's rivals remains the surest path to winning elections. Candidates are hence rightly concerned not only with how many votes they receive, but also, and perhaps even more importantly, with their *share* of the vote. Because spending share is zero-sum, furthermore, it means that marginal contestants in a close contest will be unable to register large spending shares relative to one another, mitigating or eliminating the possible Jacobson effect. This was demonstrated by Benoit and Marsh (2003), who showed not only that outspending one's competitors in a constituency is positively related to a candidate's vote share, but also that focusing on relative spending may mitigate endogeneity effects because of its zero-sum nature. If spending matters, then outspending one's competitors should put a candidate ahead in votes against the other candidates, even measured using OLS.

Table 4 shows OLS estimates of the impact on electoral success of relative spending, measured by the candidate's spending as a share of spending by all candidates in the constituency. We control for constituency size, since the number of candidates, a quantity directly influenced by the number of seats to be won, will influence both vote and spending share. Table 4 reports estimates for both regular spending and for the effects when public office spending is also considered. Overall, the conclusions closely parallel those from Table 3. First, we see again that regular spending matters, but that spending effects are less for incumbents than for challengers: 0.78 versus 0.61, respectively. Taken on their own, these are impressive results, indicating that challengers can gain 0.78% of a vote share for every 1.0% more spending in a constituency. Second, as shown in Model 2, we also see that there is a strong, separate effect for public office spending (0.53), indicating once again that incumbents with access to this form of campaign expenditure have a definite advantage over their challenger rivals and that this effect is variable rather than fixed. Not only do those who spend more tend to win more of the overall vote, but also campaigning by incumbents that makes use of the perquisites of office seem to get an additional, significant return on their activities.[14]

[14] A feature of elections that complicates this part of the analysis in particular is the success of parties in managing their vote within a constituency. To maximize their chances of success, parties will often try to spread their vote across their candidate slate. This is

## Spending Effects on the Probability of Victory

A final way in which the efficacy of spending can be assessed is by examining how spending affects a candidate's probability of winning a seat. Under STV, spending has even more potential to contribute to a candidate's chances of winning a seat, because a positive campaign may contribute to the lower-order preference votes that a candidate can receive during transfers. With a median district magnitude of 4, this means that in the median district where 10 candidates competed, almost half win seats, making the winning of a seat an extremely responsive outcome measure in our dataset. If campaign spending matters in Irish elections then we should also observe a clear positive relationship between spending and a candidate's chances of being elected.

Table 5 shows the impact of spending on a candidate's chances of winning a seat. As the dependent variable is now dichotomous we have used a probit model, with spending in euros as our main independent variable. The estimates show that regular spending has an effect on a candidate's chances of success as the coefficient for spending (0.0000911) is both statistically and substantively significant. The effect of regular spending for incumbents is smaller, although the interactive coefficient is not statistically significant. Public office spending, however, exerts almost as much of a positive effect on the outcome as regular challenger spending, with a coefficient of 0.0000894. This finding, consistent with our previous two sets of analyses, indicates that the use of public offices in campaigns yields a strong, positive effect on a par with regular spending by challengers.

To further elucidate these results and to compare effects, we have also predicted the probabilities of winning a seat, and the standard errors associated with this prediction (obtained through parametric bootstrapping using CLARIFY). Table 6 spells out the meaning of the expected change in the probability of winning a seat given a variety of spending differences. As Table 6 indicates, a change in total spending from €5,000 to €15,000 (a range capturing roughly the interquartile range of regular spending) increases a challenger's probability of winning a seat by 0.16 (s.e. 0.020), but does not change an incumbent's probability by a statistically significant amount (0.15, s.e. 0.101). When incumbents increase their use of public office value from €5,000 to €15,000, however, they increase their probability of winning a seat by 0.16 (s.e. 0.030), an effect equal to that of regular challenger spending. In other words, there is a statistically significant effect of using public office for campaign purposes, and this effect is just as efficient as regular challenger spending. This can be seen clearly in Figure 2, which plots the returns in terms of the probability of winning for the three types of spending examines in Table 5. The upper line and shaded region show the effect for public office value spending by incumbents, and the lower line and shaded region shows the same effect for challengers' regular spending. The incumbent curve converges to very high probability regions at lower spending levels, but this is because incumbents have a higher overall probability of winning a seat regardless of spending. As can also be seen from Figure 2, the dashed line (and dotted confidence intervals) shows the weak and statistically insignificant electoral gains from incumbents' regular spending.

In addition to aiding interpretation of our results, Figure 2 also has striking implications for the workings of incumbency advantages. In short, it suggests that incumbents who exploit their offices for significant

**TABLE 5 Probit Regression of Winning a Seat on Spending and Incumbency**

| Indep. Variable | (1) Two-step Instrumented Probit Regression |
|---|---|
| Regular spending | **0.0000911** |
| | (0.0000124) |
| Regular spending × Incumbency | −0.0000509 |
| | (0.0000308) |
| Public office spending | **0.0000894** |
| | (0.0000280) |
| Incumbency (0 or 1) | **1.9598160** |
| | (0.4645040) |
| Constant | **−2.2384888** |
| | (0.1857474) |
| Observations | 463 |
| Log-(pseudo)likelihood | −180.52 |

Spending variables are predicted from a first-stage regression on instruments identical to those used in Tables 3–4.

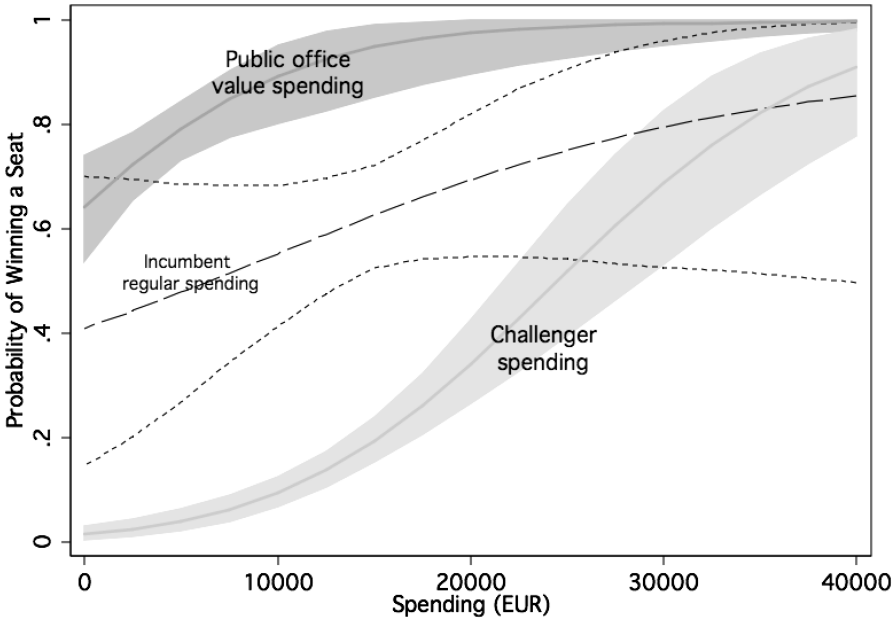
done by "bailiwicking"—giving each candidate his or her own area of the constituency to campaign in—and by asking supporters to vote No. 1 for one candidate in one area and another elsewhere. To the extent this works it can deliver an extra seat for a party, but of course it can also serve to reduce intraparty variance in candidates' votes. We would still expect "stronger" candidates to win more votes and have a better chance of election (winning also more lower preferences), but margins may be smaller than they would be with no party "interference." Indeed, because bailiwicking introduces additional noise not directly related to spending, it should have the effect of biasing our estimates of spending effects downward. Because a candidate's chances of being elected are also heavily influenced by second- and third-preference votes, furthermore, the models focusing on the probability of winning a seat as a dependent variable will be relatively immune to bailiwicking.

**TABLE 6 First Differences for Changes in Spending on Probability of Winning a Seat, by Spending Type**

| Change in Spending (€) | | Increase in Probability of Winning a Seat | | | | | |
|---|---|---|---|---|---|---|---|
| | | Challenger Regular Spending | | Incumbent Regular Spending | | Incumbent "Public" Spending | |
| From: | To: | Mean | S.E. | Mean | S.E. | Mean | S.E. |
| 1,000 | 5,000 | **0.021** | (0.0040) | 0.056 | (0.0347) | **0.117** | (0.0385) |
| 1,000 | 25,000 | **0.500** | (0.0680) | 0.328 | (0.2142) | **0.312** | (0.0568) |
| 5,000 | 15,000 | **0.155** | (0.0201) | 0.148 | (0.1006) | **0.156** | (0.0304) |
| 5,000 | 20,000 | **0.302** | (0.0438) | 0.215 | (0.1457) | **0.183** | (0.0300) |

First differences produced using CLARIFY, based on predicted spending as estimated from Table 5.

**FIGURE 2 Effect of Spending on Probability of Winning a Seat, Comparing Challenger Spending, Incumbent Spending, and the Variable Campaign Value of Incumbency.** Shaded region (or short dashed region for incumbent regular spending) indicates 95% confidence region. Predicted probabilities and standard errors estimated using CLARIFY, based on regressions in Table 5.




campaign value—beyond about €8,000–10,000 euros' worth in our dataset—were almost certain to be reelected. Not only do the results shed light on the puzzle of (apparently) less effective incumbent spending, but also they suggest that this is one of the primary means by which incumbents are able to return themselves so successfully to office: because incumbency benefits derive from office perquisites, and these perquisites can be mobilized very effectively in election campaigns where, as a form of campaign spending, they have strong, positive effects on an incumbent's chances of getting reelected.

## Conclusions and Implications for Campaign Finance Reform

Our investigation of the relationship between campaign spending and electoral success has demonstrated three

key findings. First, spending has a strong, positive relationship to candidate electoral success, as demonstrated in the multiparty, multimember Irish context. Not only does spending more bring in additional votes, but also outspending one's opponents means coming ahead of them in the share of votes. Spending is also strongly and positively related to the probability that a candidate will win a seat. Second, there is a difference between the effectiveness of regular spending during campaigns for incumbents and challengers, as found by most previous research. Our estimates show that the effectiveness of regular spending is between 30% and 200% more effective for challengers than for incumbents. Third and most importantly, we found that when the variable campaign value of incumbency can be measured, this normally hidden use of office perquisites makes for a highly effective form of campaign expenditure for incumbents, and brings the effectiveness of incumbent spending up to that of challenger spending. The electoral advantages of incumbency are not fixed, according to this finding, but vary according to the degree to which they are deployed for the purposes of campaigning. Put another way, our results demonstrate that incumbency perquisites have a clear campaign value. Our estimates show that the magnitude of its effectiveness is far greater than that for regular spending by incumbents, and in some respects is as effective as regular spending by challengers. The solution to the "puzzle" of less effective incumbent spending, then, is not that incumbent campaigning is actually less effective at the margin, but rather that incumbents are able to exploit their office benefits for campaign purposes in ways that are as effective as regular campaigning by challengers who lack the ability to seek votes through use of their public offices.

Our findings related to the variable campaign value of incumbency have direct implications for the ongoing debate over campaign finance reform. The argument from previous findings of less effective incumbent spending is that spending limits would hinder competition by disadvantaging challengers (e.g., Jacobson 1978; Palda 1993). Challengers would be less able to win votes through (more effective) campaigning, and incumbents would benefit even more from the fixed advantages of office, such as name recognition and free public exposure, further consolidating their already well-entrenched positions. Our findings add a new layer to this argument, since we have shown that the electoral advantages from incumbency are not fixed, but variable in ways that translate directly into campaign value. These perquisites, such as franking privileges, phone calls, research and administrative staff, and free travel, are designed to help incumbent legislators fulfill their legislative functions, but can also be used effectively for campaign purposes, both during and before the campaign period. Challengers, on the other hand, have no such perquisites to draw upon and are limited (in most electoral contexts) to officially prescribed spending methods during a brief official campaign. The implication is that ceilings on campaign spending, in the absence of special treatment of incumbent use of office benefits for campaign purposes, would hurt challengers even more than previously suspected. It is not simply that challengers will be hurt more by limitations on expenditure, because this expenditure brings them more votes on the margin that it does incumbents, who "start with an advantage due to their notoriety" (Palda and Palda 1998, 167). It is also that incumbents are able to use the variable benefits of their offices to win votes and that this form of effective spending will provide an unrestricted and unregulated form of spending for incumbents only, at least in the absence of special regulations such as in the Irish case.

In the context of the debate between proponents of spending limits versus campaign subsidies for challengers, our demonstration of the campaign value of incumbency suggests two possibilities for campaign finance reform designed to create a more fair and level playing field. First, it suggests that spending ceilings can have dramatic and negative potential effects for challengers, in the absence of also applying expenditure regulations to incumbents' use of office for campaign purposes, requiring these benefits to be defined as campaign expenditure and subject to regulation in the same manner as nonoffice-derived expenditures. This treatment should apply to all forms of regulation, such as limits on the type of campaigning as well as disclosure, but would make a particular difference in contexts where campaign spending is limited—something that takes place in about a quarter of all countries (IDEA 2003, 207).

A second suggestion is more drastic: the only fair method to level the playing field between incumbents and challengers may be to block incumbent candidates from using their offices for campaign purposes altogether, at least during the official campaign period. This is the approach taken by the Scottish Parliament, for instance, which states that during the period from dissolution (the act which marks the beginning of the campaign period) until the election of the next parliament, there are no MPs and hence they cannot be entitled to use of any parliamentary resources during the campaign. This complete prohibition on using office resources for campaigning extends even to

nonphysical resources such as use of parliamentary e-mail accounts.[15]

Of course these two suggestions only work when campaigning takes place during officially defined campaign periods. In the United States, where campaigning may start a year or more before an election, such regulations would be difficult or impossible to implement. Campaign regulations of almost any kind, in fact, are difficult to apply to political activities that occur outside a formally defined campaign period. Incumbent candidates in particular have access to office perquisites that may be used for improving their prospects of reelection well in advance of official campaigning. While this feature of elections has long been acknowledged, our findings have confirmed that these perquisites become effective means of campaigning that help incumbents get reelected.

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[15]See "Guidance for Members and Their Staff during an Election Campaign," The Scottish Parliament, Version 2 May 2003, at http://www.scottish.parliament.uk/corporate/spcb/guide-gen/.


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