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Campaign Spending Effects in the Irish Local Elections of 1999

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ABSTRACT

Although perceived by candidates and parties as important in affecting political outcomes, the link between spending and success in multi-candidate, multiparty election campaigns remains unproven. Not only are there relatively few studies of campaign spending effects in multi-party systems, there are none examining the effect under the Single Transferable Vote (STV) electoral system. Our study examines spending effects in the Irish local elections of 1999 using STV with district magnitudes between 3 and 7 seats, contested by a median of 10 candidates in each district. Using detailed data on 1,838 candidates from 180 local constituencies and 30 councils, we provide precise estimates of the relationship between campaign spending at the candidate level in each district and electoral success, including the probability of winning. In a context where spending is miniscule relative to other contexts, and takes place under a completely different electoral system, our results echo previous studies from other contexts showing a strong effect of challenger spending and only weak effects of incumbent spending. Once allowance is made for the endogeneity of incumbent spending, however, we find a much less substantial difference between the effectiveness of spending by challengers and by incumbents, except on the marginal effect of spending on the probability of winning, where challenger spending is shown to be much more important.

KEY WORDS ■ campaign spending ■ candidate elections ■ Ireland ■ STV

Introduction

The assumption underlying the legislation on party and campaign finance introduced in most liberal democracies in the past 50 years is that money matters. While national approaches to controlling the effects of money on

elections differ, the standard repertoire includes spending disclosure, spending limits and the provision of state funding. Disclosure legislation accepts the electoral consequences but seeks to lessen policy consequences by at least forcing parties and candidates to show how much they spend and explain where it came from. Spending limits take this a stage further, ostensibly enforcing a level playing field for all, although particularly where these limits are high considerable inequality may persist. Finally, public funding provides all candidates with financial resources, although normally those who are more successful get more money.

The academic literature on the impact of spending in election campaigns generally supports the basic assumption that money matters, but, as we might expect, contains a wide range of conclusions about when, where and how much it matters. And, in the light of this, some conclude that measures such as spending controls actually have pernicious rather than benign consequences by reinforcing the incumbent advantage. The largest portion of the literature is focused on the USA and so deals with the spending of candidates rather than parties, with congressional elections being the major type of election considered. The most widespread finding here, first pointed out by Jacobson (1978), is that spending matters quite a lot, but that it matters primarily for challengers. Questions remain as to the value of spending by incumbents.

There have been many subsequent analyses that have sought to answer these questions. A central problem, identified by Jacobson, is that there are almost certainly some strategic considerations in the raising and spending of money by candidates which may obscure the real impact of campaign spending on electoral success, especially for incumbents. Simply put, incumbents may spend 'reactively' when compelled to do so by strong challengers, precisely in those districts where their vote margins are small or even negative. This yields what Cox and Thies (2000) refer to as the 'Jacobson effect': the problem of observing weak or even negative spending effects for incumbents, because of the simultaneous influence of the expected vote on their spending. To correct this problem, previous studies have used a variety of instrumental variables as substitutes for spending. While most efforts leave Jacobson's original conclusions unchanged (see, e.g., Abramovitz, 1991) others have suggested incumbent spending matters significantly (Gerber, 1998; Green and Krasno, 1988), even if it has less impact than challenger spending. Using a rather different approach, which modelled the relationships separately according to how close the race was expected to be, Erikson and Palfrey (2000) also came to the conclusion that whereas challenger spending always matters, incumbent candidate spending matters too, but only in close contests.

Outside the USA the focus has more typically been directed on parties, asking where do parties spend their money and what good does it do. Studies of British (Johnston and Pattie, 1995), Canadian (Carty and Eagles, 1999; Eagles, 1993) and Australian elections (Forrest, 1997; Forrest et al.,

1999) all concluded that spending was targeted at marginal districts and that it helped secure additional votes for the party doing the spending, even allowing for the methodological problems noted above. With the partial exception of Australia, all these countries share a common electoral system that sees one candidate per party in each constituency, and the candidate with the most votes wins. Yet in many if not most countries of the world, neither of these two features characterizes elections. A study of French elections (Palda and Palda, 1998), which dealt with candidates rather than parties and concluded that challenger spending matters more than incumbent spending, also fits into the single member district, majority vote model.

In contrast, Cox and Thies's (2000) study of Japanese elections and Samuels's (2001a, b) work on Brazil provides a rather more challenging set of circumstances. In Japan, at least until recently, and in Brazil, candidates must compete with rivals from their own party as well as those from other parties. Spending decisions are necessarily more complex. Moreover, since there may be several incumbents from the same party in a district, incumbent-challenger contrasts may be less evident.

This article seeks to add to the literature by exploring the effects of spending on electoral support in the context of Single Transferable Vote (STV) elections to local councils in Ireland. Our test of spending consequences in this context has two advantages. First, because it involves candidate-based elections from multimember districts in a multiparty context, STV provides a rich context for testing spending effects. Because candidates must compete against other candidates from their own party as well as from rival parties, incumbents are always at some risk of being unseated, making nearly every district contest 'competitive'. Furthermore, the use of ordinal preferences under STV to elect multiple candidates per district means that candidates will also compete fiercely for second, third and lower preference votes to increase their chances of getting elected. Second, by examining *local* elections, we have chosen a context where money spent may have more immediately discernible consequences. At the same time, however, it makes our test more challenging given the increasingly national-centred nature of campaigns, emphasizing party leaders and party images, channelled through national media, particularly television. Can local campaigns really matter? Moreover, the Irish local elections we examine, where median candidate spending was just €1,500, raise a serious question: can spending really matter at these low levels? In short, if our results demonstrate a link between spending and electoral success in the Irish local context, we would consider this strong evidence for the argument that election money matters generally.

Local Elections in Ireland: The Institutional Context

The Irish governmental system is centralized and local authorities have relatively little power, particularly since 1977 when the ability to collect a local

property tax was removed. Money is handed down from central government with many strings attached. However, local authorities do have influence over environmental matters, in particular land-use planning, water and local roads. Local government is also the major recruiting ground for national political office, with politicians normally making their name at local level and then using that as a basis for a national career (but usually retaining the local authority seat as well).¹

As with all other elections in Ireland, elections to local councils are fought in multimember constituencies using the STV system. (For a good description of the workings of this system in Ireland, see Sinnott, 1999.) Typically, there are several districts within each local authority area, and each elects somewhere between 3 and 7 members. The smallest district has only a little over 3,000 electors and the largest no more than 50,000. Voters are faced with a ballot containing the names (and party labels) of all the candidates in alphabetical order and are asked to indicate a preference ordering, starting with '1' and continuing as far as they wish to go. Those candidates meeting a quota (defined as: (valid votes cast/seats + 1) + 1) are declared elected. Lower preference votes are used to allocate the remaining seats. Parties typically nominate one candidate more than the number of seats they expect to win, so in the larger parties incumbents will be faced with at least one challenger from their own party as well as incumbents and challengers from other parties. Indeed, it is common both in local and in general elections for incumbents to lose out not to a rival from another party but to a running mate from their own. Sometimes this is the main source of change in personnel. Thus any incumbent must have one eye on threats from within the party and the other on threats from outside it, while challengers will consider a similar range of opportunities. For instance in the Donegal constituency for Donegal County Council, a sitting Fianna Fáil councillor lost out to a Fianna Fáil challenger but the party kept its four seats. In the same area, Fine Gael, which held two seats but saw one incumbent retiring, lost one of its seats to a new independent candidate and saw its remaining incumbent councillor defeated by a challenger from within the party. Hence three of the eight Donegal seats were filled by non-incumbents, but only one seat changed its partisan designation.

Prior to the 1999 local elections, the financing of local elections in Ireland was essentially unregulated. Following the introduction of disclosure, spending limits and some state support for parliamentary, presidential and European Parliament elections in 1997, local elections were made subject at least to regulations on disclosure in 1999 under the Local Elections (Disclosure and Expenditure) Act.² This set no limits to spending – it was introduced by the most wealthy and largest party – but required all candidates to furnish local authorities with details of expenditure incurred in the time between the government issuing the polling day order and the actual polling day (about four weeks). In addition, certain sorts of expenditure incurred outside that period – notably commissioning an opinion poll

within 60 days of the election – must also be declared. Expenses incurred by agents of the candidate must also be included. The restriction of disclosure to the campaign period of course ignores the money that might have been spent in the years since the previous elections (in 1991), but that applies to most, if not all, parliamentary election expenditure data in one way or another. Party expenditure only counts where it is additional to what is normal outside an election setting and is related to the local election. General-purpose party activities such as party election broadcasts are not included.³

Our empirical evidence consists of electoral data gathered for each candidate participating in local elections held in Ireland in 1999. The stakes in this election were seats on 30 county councils, elected from a total of 180 constituencies. Following the passage of the Local Elections Disclosure Of Donations And Expenditure Act, 1999, we wrote to the 30 different county councils requesting information for our dataset. From these, all but two responded, providing spending data for a total of 1,579 of 1,837 candidates, from a total of 161 of 180 constituencies.

The sums disclosed represent personal expenditure by candidates (although some of this would have been given by their party) as well as party spending on behalf of the candidates. Party spending will tend to benefit all the candidates in that constituency; conversely, some of the candidates' own expenditure will tend also to promote the party, including perhaps the candidates' own-party competitors directly by mentioning them and asking voters to give them a preference vote as part of a party slate of candidates. This minor effect, however, does not invalidate the core expectation in this article: that individual candidate spending will result in electoral benefit for that candidate. To the extent that parties themselves decide to spend more money directly or indirectly, probably because they think it will help win important seats, that will also show up in increased local candidate spending.

What is agreed by commentators on Irish electoral politics, even if most evidence is anecdotal, is that local campaigns matter, both in general and in local elections (Marsh, 2000). While some shifts in vote shares can be accounted for in national terms – such as a popular leader, or an incompetent government – we typically see huge local variation around national trends. Obviously local circumstances can vary, with events like hospital closures, the arrival of a new factory or closure of an existing one helping or hurting particular parties, but it would generally be believed that the quality of a candidate's record of local achievement is important. There is evidence that local party activity matters. Gallagher and Marsh (2002: 135–9) estimated that the existence of active local Fine Gael members had a positive impact on that party's vote in local and general elections. The number of party activists may reflect the vitality of individual candidates, but it also serves to underline the significance of the grass roots campaign. We will see whether local spending can also make a contribution.

Spending and Success: Some Expectations

There are some good reasons for expecting that money does matter in these elections, and that there will be a link between expenditure and electoral success. Given the nature of the electoral system, candidates must look for a personal vote, particularly when they have to compete with other candidates from their own party. While candidates cannot buy advertising on radio and television, they are able to spend money putting up posters, circulating leaflets and placing advertisements in newspapers to ensure the voter recognizes their name on polling day and thus awards them a higher preference.

Following this point, challengers may need to spend more to do this than will incumbents. Councillors will have used their time since the previous election (in 1991) ensuring their press releases appear in the local newspapers, and that their picture appears in the same publications with some regularity. Most challengers will not have been able to do that, although where national politicians are running for local office they will of course have done so as part of their national duties. (In Ireland it might well be said that 'all politics is local'.) Hence we might generally expect the expenditure of challengers to matter more than that of incumbents.

Yet there also exist grounds for suspecting otherwise. The incumbency advantage in larger-scale elections may be grounded in part in the differential resources available to incumbents and challengers. Members of local authorities have access to relatively few resources.

More radically, it could be argued that expenditure will not matter at all. The districts are too small, and the sums spent too trivial. Little funding is required to publicize a candidate's activities in a district of a few thousand voters. Candidates do not, for the most part, attract sizable donations from interest groups anxious to buy access or favours because there is little that they can do. Although an ongoing Tribunal of Inquiry into planning matters in the Dublin area has discovered some very sizable sums donated to the 'campaign funds' of some local councillors in Dublin by property speculators, few would suggest similar sums were given to most candidates in most local authorities, and local council office is rarely a trophy that the very rich want to spend their own money to acquire. What we have here then is a fairly extreme case: small-scale elections to relatively powerless bodies but fought under an electoral system that provides a strong incentive for a personal vote.

A Model of Local Spending Effects Under STV

Data

Before we frame the question of whether money matters in the Irish local context, it is worth describing the range and magnitude of spending.

Spending by candidates varies widely at a relatively low level. While a handful of the biggest-spending candidates exceeded €10,000 in expenditure, the median value of spending was €1,502, with an interquartile range of €733 to €2,750. Votes, as measured in percentages, were also relatively low in districts, with the average candidate receiving just 9.8 percent of the district first-preference votes, and with 90 percent of candidates receiving less than 18 percent of the first round preference votes in their districts. These votes were distributed among candidates ranging from 4 to 17 in number per district, with a median 10 candidates per district. Finally, most parties fielded multiple candidates in each district, averaging 2.8 candidates per district overall, with some parties (such as Fianna Fáil) fielding even more. Of the candidates running under the same party label in a district, one or more were frequently incumbents, especially for Fianna Fáil and Fine Gael. These characteristics are summarized overall and by individual party in Table 1.

The Problem of Endogenous Spending

As already mentioned, in other contexts where researchers have attempted to measure the effects of campaign spending on the vote the key problem has been that of *endogeneity bias* – the problem that while votes are influenced by spending, candidates (or parties) also make decisions to spend based on their expectations about the votes. This is particularly a problem for estimating the consequences of incumbent spending, since incumbents are the most likely to engage in this pattern of ‘reactive’ spending. Incumbents may spend almost nothing, and win by a large margin, when they face no serious challenger. When an incumbent is threatened by a serious challenger, however, his spending will increase at the same time that his vote margin decreases. This causes a problem that Cox and Thies (2000) refer to as the ‘Jacobson effect’ – the tendency of endogeneity bias to produce a negative correlation between spending and votes.

Previous research has generally dealt with the problem of endogeneity by using instrumental variables that provide exogenous proxies for the observed spending. 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), state population (Gerber, 1998) and independent forecasts of the expected closeness of the outcome (Abramowitz, 1991; Erikson and Palfrey, 2000). In a different national context, Cox and Thies (2000) used various district-level characteristics as exogenous determinants of candidate spending in a two-stage regression. Other methods of avoiding endogeneity bias include Erikson and Palfrey’s (2000) tests of spending effects in only close races, where both incumbent and challenger are expected to spend heavily. Firm consensus remains elusive; however, once the problem of endogeneity bias is removed, positive effects for spending

Table 1. Candidates, spending and votes in the 1999 Irish local elections

| Party | Total N | District candidates Mean | District incumbents Mean | District vote % | | Spending (€) | | | | | | | |
|-------------|---------|-----------------------------|-----------------------------|-----------------|-----|--------------|-------|-------------|-------|-------|------------|-------|-------|
| | | | | | | All | | Challengers | | | Incumbents | | |
| | | | | | | Mean | SD | N | Mean | SD | N | Mean | SD |
| Fianna Fáil | 607 | 3.7 | 1.5 | 11.5 | 5.7 | 2,477 | 2,402 | 321 | 2,597 | 2,399 | 209 | 2,292 | 2,401 |
| Fine Gael | 461 | 2.9 | 1.1 | 11.2 | 6.0 | 1,926 | 1,711 | 259 | 1,870 | 1,625 | 154 | 2,019 | 1,849 |
| Labour | 214 | 1.0 | 0.5 | 8.9 | 6.3 | 1,737 | 1,569 | 130 | 1,458 | 1,338 | 46 | 2,525 | 1,892 |
| PDs | 62 | 1.4 | 0.3 | 8.0 | 4.7 | 3,335 | 2,798 | 35 | 2,739 | 2,509 | 15 | 4,725 | 3,026 |
| Sinn Féin | 68 | 1.1 | 0.1 | 8.1 | 4.9 | 2,057 | 1,450 | 54 | 2,178 | 1,472 | 7 | 1,126 | 858 |
| Greens | 83 | 1.0 | 0.1 | 5.3 | 4.0 | 982 | 1,211 | 64 | 860 | 1,011 | 5 | 2,552 | 2,347 |
| Independent | 290 | 2.6 | 0.5 | 7.4 | 6.6 | 2,419 | 2,498 | 184 | 2,125 | 2,171 | 52 | 3,462 | 3,228 |
| Other | 52 | 1.6 | 0.2 | 5.0 | 5.3 | 1,437 | 1,011 | 40 | 1,438 | 1,052 | 4 | 1,431 | 520 |
| Total | 1,837 | 2.8 | 0.91 | 9.8 | 6.2 | 2,158 | 2,124 | 1,087 | 2,046 | 1,996 | 492 | 2,405 | 2,367 |

are generally observed for incumbents as well. Such are the conclusions of Green and Krasno (1988), Gerber (1998) and Erikson and Palfrey (2000). Cox and Thies (2002) also found significant spending effects in the Japanese context, irrespective of incumbency.

In the Irish context, we expect spending also to be partially endogenous, but we expect the nature and magnitude of the problem to differ from that observed in other contexts. First, in local Irish elections, there are very few truly 'safe' incumbents. Conventional wisdom, indeed, is that every seat is marginal. As we have indicated, an incumbent faces many challengers, from within and outside of his party, and there is no simple way to formulate clear expectations for all of the pairwise contests. In multimember constituencies where challengers come from all across the spectrum, competition becomes more uniform. In their study of spending effects in multimember districts, Cox and Thies (2000) found that the Jacobson effect faded as district magnitude increased to a maximum of 5 in the Japanese context. Given that the Irish district median magnitude is 5, with a median of 10 candidates competing, we expect to observe only weak incumbent simultaneity effects, if any.

A second reason why endogeneity bias is likely to be less prevalent in Irish elections is the mechanism of the STV. Unlike any other context where spending effects have been studied, in Irish elections candidates compete for ordinal preference votes rather than a single, categorical vote. Most candidates depend on receiving transfers of votes from the ballots whose first preference votes went to someone else, compelling them to campaign effectively even when they do not expect to come in first. This provides a much greater potential for campaigning to have an effect on votes, and hence the possibility of winning a seat, than in other contexts where non-ordinal voting methods are employed.

Finally, it is quite possible that incumbent spending simply is less effective on the margin, for the reasons we outline in the previous section. Incumbents will have spent many years (actually 8 in this instance) serving their constituents, courting publicity and generally ensuring their names are well known.⁴ By the time of the campaign there may be diminishing marginal returns on expenditure, representing a real difference in marginal effect rather than an estimation problem due to simultaneity bias.

Our investigation into the relative patterns of expenditure shows, unlike similar results from other contexts, that there is no clear relationship between incumbency and spending. Table 1 presents the means of spending for each party, in addition to total mean spending of incumbents versus challengers. Mean incumbent spending is slightly higher than the mean for challengers, at €2,405 versus €2,046. Broken down by party, spending patterns tend to vary. In regression models (not shown) echoing Table 1, incumbency shows no consistent pattern across parties, being positive for most parties, negative for the largest party, Fianna Fáil, and not significant for the second largest party, Fine Gael.⁵ Challengers in Sinn Féin spent much more on

average than did incumbents from that party; while for the Greens the result was the opposite.⁶

As a first approach to measuring campaign spending effects, and to see whether the Jacobson effect is observable in a simple approach to estimating spending effects in our dataset, we present Table 2, which shows the results of an OLS regression of the vote share a candidate receives on (logged) spending,⁷ incumbency and the size of the district (measured in thousands of registered voters) as a control variable. In order to test the possibility that spending might also affect votes by increasing turnout, we have also estimated the effect of spending on the candidate vote as a proportion of the electorate. This alternative response variable captures not just

Table 2. OLS regression of votes on spending, incumbency and registered voters

| <i>Dependent variable:</i> | <i>% valid votes</i> | | <i>Votes as % of electorate</i> | |
|--|----------------------|-----------|---------------------------------|-----------|
| | <i>Coeff.</i> | <i>SE</i> | <i>Coeff.</i> | <i>SE</i> |
| <i>Variable</i> | | | | |
| ln(spending) | 1.83 | 0.147 | 1.04 | 0.083 |
| Incumbent \times ln(spending) | -0.62 | 0.316 | -0.71 | 0.166 |
| Incumbent | 9.88 | 2.298 | 8.18 | 1.232 |
| Constant | -1.81 | 0.995 | -0.17 | 0.595 |
| Electorate (1000s) | -0.18 | 0.015 | -0.17 | 0.008 |
| SEE | | 5.07 | | 2.86 |
| R ² | | 0.31 | | 0.37 |
| N | | 1,549 | | 1,549 |
| Change in dependent variable for challengers | | | | |
| As spending increases from €500 to €1,000 | 1.27 | 0.103 | 0.72 | 0.059 |
| As spending increases from €1,000 to €1,500 | 0.74 | 0.060 | 0.42 | 0.034 |
| As spending increases from €1,500 to €2,000 | 0.53 | 0.043 | 0.30 | 0.024 |
| As spending increases from €2,000 to €3,000 | 0.74 | 0.060 | 0.42 | 0.034 |
| As spending increases from €3,000 to €4,000 | 0.53 | 0.043 | 0.30 | 0.024 |
| As spending increases from €4,000 to €5,000 | 0.41 | 0.033 | 0.23 | 0.019 |
| As spending increases from €500 to €5,000 | 4.20 | 0.343 | 2.41 | 0.195 |
| Change in dependent variable for incumbents | | | | |
| As spending increases from €500 to €1,000 | 0.84 | 0.202 | 0.24 | 0.108 |
| As spending increases from €1,000 to €1,500 | 0.49 | 0.118 | 0.14 | 0.063 |
| As spending increases from €1,500 to €2,000 | 0.35 | 0.084 | 0.10 | 0.045 |
| As spending increases from €2,000 to €3,000 | 0.49 | 0.118 | 0.14 | 0.063 |
| As spending increases from €3,000 to €4,000 | 0.35 | 0.084 | 0.10 | 0.045 |
| As spending increases from €4,000 to €5,000 | 0.27 | 0.065 | 0.08 | 0.035 |
| As spending increases from €500 to €5,000 | 2.78 | 0.671 | 0.79 | 0.358 |

Sample excludes cases where candidate's percentage of the district spending was less than 1 percent. Regression standard errors are heteroskedasticity-corrected; first differences and SEs are produced using CLARIFY. Regression coefficients in bold are those significant at the $p < 0.05$ level. The change from €500 to €5,000 is approximately the difference between the 5th and 95th percentiles of candidate spending.

the potential converts from other parties, but also a candidate's ability to mobilize and turn out potential voters who may be undecided or voting for the first time (Pattie et al., 1995).

The results in Table 2 seem to echo the classic finding of Jacobson: a strong effect of spending for challengers, and a weaker effect for incumbents. The interactive effects of incumbency on logged spending are both statistically and substantively significant, reducing the effect of spending substantially for incumbents. The intercept for incumbents, however, is also substantially higher, at 9.88 when the dependent variable is percentage of votes, and 8.18 when the dependent variable is votes as a percentage of the electorate. To aid in substantive interpretation, we have also calculated first differences using the method of statistical simulation from estimated parameters, for both challengers and incumbents.⁸ The change from €500 to €5,000 in spending is approximately the change from the 5th to the 95th percentile of candidate spending in our data. For votes measured as percentage of valid votes, the total challenger effect measured this way is 1.5 times greater than the incumbent effect. When votes are measured as percentage of the electorate, the differential is even higher: more than three times greater for challengers. The difference between the two models is preliminary evidence that challenger spending is more effective than incumbent spending at mobilizing additional voters through increasing turnout. This particular effect is something that, to our knowledge, has not been investigated in any previously published study.

While other factors might account for the lower estimated effect of incumbent spending, the reason might also be that incumbent spending occurs reactively in the manner described by the Jacobson effect. We therefore regard these results as preliminary indications that simultaneity might be present in the data, despite our initial reasons to expect otherwise. It is suggested in the literature on the United States (Ansolabehere and Gerber, 1994) that incumbent effects are approximately a third of those of incumbents, and our measure using votes as a percentage of the electorate, when comparing the expected change in votes as spending is increased from €500 to €5,000, echoes that finding. The question is therefore raised quite clearly in our context: is incumbent spending less effective, or is the problem one of endogeneity bias? To answer this question properly we take an alternative approach that deals better with the possible simultaneity in the spending behaviour of incumbents.

How to Model Spending Effects

An ideal solution would be to control for expectations of marginality as available to the candidates who make spending decisions in anticipation of need. For instance, in the US context, Abramowitz used scores from *Congressional Quarterly*, as did Erikson and Palfrey. The problem in the Irish context is the lack of availability of viable instruments that can explain

spending. Expectations of marginality, if held, tend to be informal and local and cannot be systematically measured. Furthermore, other local variables linked to demographics (e.g. Cox and Thies, 2000; Pattie et al., 1995) are unavailable in Ireland.⁹ For this reason we have sought an alternative formulation based on relative spending. Our specification is twofold, depending on whether we are looking at inter- or intra-party effects. In both cases, we shift the focus from absolute spending to a candidate's relative share of spending in a district.

For a candidate to perform well relative to all other candidates, her votes should be responsive to her share of the total campaigning done in that district. Since spending is a direct measure of campaigning, this implies that a candidate's *share* of spending in the district, rather than the absolute level spent, should affect the share of the vote that candidate receives. If spending actually can help candidates gain more votes, then a candidate that outspends her rivals should receive a greater share of the vote than other candidates. Conversely, a candidate that underspends should have a below-average vote share. Furthermore, when candidates spend equally, then they should receive roughly equal vote shares. Indeed, observing proportionality of spending shares to vote shares across a range of districts (with different size shares because of different numbers of candidates) will produce a relationship as measured by our model.

In the Irish multiparty context candidates are also competing against other candidates from the same party. To model the *intra-party* effects of spending – a subset of the total effect in which most competition takes place against candidates of other parties – we can use a variation of the same formulation of relative spending. Candidates that spend more than others from their own party should receive a proportionally greater share of the first preference votes given to that party. To model this relationship we therefore treat the candidate's share of the party's spending in the district as the independent variable, and use this to explain variation in the candidate's share of her party's vote in that district. If spending matters, then a candidate that outspends her party rivals should receive a greater share of the first-preference votes in return.

A final way in which the efficacy of spending can be assessed in the Irish context 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 5, this means that in the median district (where 10 candidates compete), approximately half win seats, making the winning of a seat an extremely responsive outcome measure in our dataset. If campaign spending matters in the local STV elections then we should observe a clear positive relationship between spending and a candidate's chances of being elected.

The Efficacy of Spending

Effects on Inter-Party Votes

Table 3 shows the impact of spending on success, this time using the *share* of spending to predict vote share rather than spending as such.¹⁰ As expected, the alternative formulation eliminates the difference between the marginal effects of incumbent and challenger spending. In either vote formulation, the coefficients for the interaction of incumbency and the log of percentage spending are not statistically significant. Similar conclusions can be drawn from the computation of first differences for changes in spending. For the given change in spending, the expected value of the vote for incumbents is within two standard errors of the same expected value for incumbents.

Substantively, the results affirm strikingly that spending matters for both incumbents and challengers. Increasing the share of spending in a district from 2 percent to 25 percent – representing approximately the change from the 5th to the 95th percentiles for the percentage of spending in the district – increases a candidate's expected vote share in a district by an expected 6.68 percent of the district vote for challengers and 5.98 percent for incumbents. Given that the median percentage of votes a candidate received was 8.6 percent, these expected changes in the votes are decisive. Also interesting is that the greatest changes occur at small levels of shifts in spending share – from 2 percent to 5 percent in both measures of votes. This indicates that not only is vote share responsive to relative spending in the elections we examine, but also that at very low levels, it is also responsive to small increases in absolute expenditures, in this case measured in the hundreds of euros.

As with the results in Table 2, we also find that incumbents start with a much higher average share of the vote, as indicated by the positive and statistically significant coefficients on the dummy values for the incumbency variable (5.62 and 3.59 for the two models we estimate). As a graphical indication of the similarity of the marginal effects for incumbents and non-incumbents, but the difference in average vote share of each group at any given level of spending, we offer Figure 1. This pair of scatterplots show the fitted relationship between logged spending share and vote share for (a) challengers and (b) incumbents. There is almost no visible difference in the magnitude of the slopes between the two graphs, although the intercept for incumbents is substantially higher.

Effects on Intra-Party Votes

When it comes to intra-party competition we observe a similarly strong and direct effect of spending. Candidates that spend more than their own party

Table 3. OLS regression of votes on candidate spending as a percentage of total district spending, incumbency and registered voters

| <i>Dependent variable:</i> | | <i>% valid votes</i> | | <i>Votes as % of electorate</i> | |
|--|--|--------------------------------|---------------|---|-----------|
| <i>Variable</i> | <i>Coeff.</i> | <i>SE</i> | <i>Coeff.</i> | <i>SE</i> | |
| ln(% spending of district total) | 2.63 | 0.205 | 1.39 | 0.115 | |
| Incumbent × ln(% spending of district total) | -0.26 | 0.395 | -0.35 | 0.227 | |
| Incumbent | 5.62 | 0.828 | 3.59 | 0.470 | |
| Constant | 4.53 | 0.487 | 3.87 | 0.271 | |
| Electorate (1000s) | -0.09 | 0.014 | -0.13 | 0.008 | |
| SEE | 4.98 | | 1.86 | | |
| R ² | 0.32 | | 0.37 | | |
| N | 1,498 | | 1,498 | | |
| | | <i>Change in % valid votes</i> | | <i>Change in votes as % of electorate</i> | <i>SE</i> |
| 574 | Change in dependent variable for Challengers | | | | |
| | As spending increases from 2% to 5% | 2.42 | 0.187 | 1.27 | 0.101 |
| | As spending increases from 5% to 10% | 1.83 | 0.141 | 0.96 | 0.077 |
| | As spending increases from 10% to 15% | 1.07 | 0.083 | 0.56 | 0.045 |
| | As spending increases from 15% to 20% | 0.76 | 0.059 | 0.40 | 0.032 |
| | As spending increases from 20% to 25% | 0.59 | 0.046 | 0.31 | 0.025 |
| | As spending increases from 2% to 25% | 6.68 | 0.515 | 3.50 | 0.279 |
| | Change in dependent variable for Incumbents | | | | |
| | As spending increases from 2% to 5% | 2.17 | 0.314 | 0.95 | 0.178 |
| | As spending increases from 5% to 10% | 1.64 | 0.238 | 0.72 | 0.135 |
| | As spending increases from 10% to 15% | 0.96 | 0.139 | 0.42 | 0.079 |
| | As spending increases from 15% to 20% | 0.68 | 0.099 | 0.30 | 0.056 |
| | As spending increases from 20% to 25% | 0.53 | 0.077 | 0.23 | 0.043 |
| | As spending increases from 2% to 25% | 5.98 | 0.866 | 2.62 | 0.491 |

Sample excludes cases where candidate's percentage of the district spending was less than 1 percent. Regression standard errors are heteroskedasticity-corrected; first differences and SEs are produced using CLARIFY. Regression coefficients in bold are those significant at the $p < 0.05$ level. The change from 2 to 25 percent is approximately the difference between the 5th and 95th percentiles of candidate's percentage of district spending.

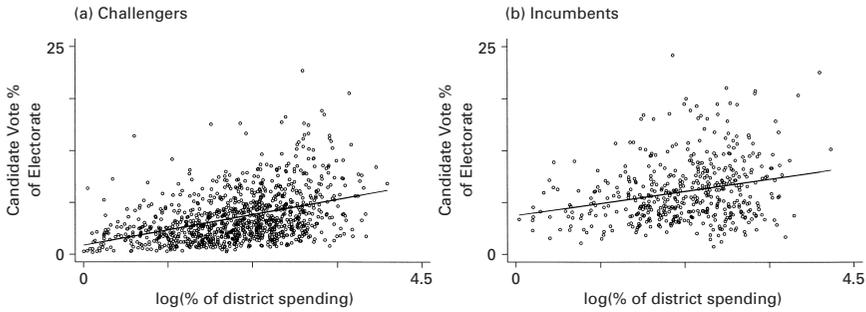


Figure 1. Candidate vote as a proportion of the electorate, by log of candidate percentage spending, for (a) challengers and (b) incumbents

competitors win more first preference votes than their same-party rivals. Because the independent and dependent variables are both percentages of quantities shared among candidates, we do not log the transformed spending variable. Our goal in modelling the relationship between spending share and vote share is to measure the degree of responsiveness in vote share as expenditure share is increased. In the results shown in Table 4, interpretation is straightforward. A one percentage point increase in spending as a share of the party’s total spending brings a candidate an average increase of 0.45 percent of the share of the party’s first preference votes in that district. Given that the interquartile range for a candidate’s share of the party’s spending in the district was about 22 to 72 percent, a change from the bottom to the top of this range represents a gain of 22.3 percent of the share of the party’s first preference votes in the district – again a decisive shift. Once again we fail to observe any statistically significant effect for the

Table 4. Intra-party effects: OLS regression of candidate’s percentage of the party vote on candidate’s percentage of total party spending in the district

| <i>Dependent variable: Candidate’s percentage of total party vote in the district</i> | | |
|---|---------------|-----------|
| <i>Variable</i> | <i>Coeff.</i> | <i>SE</i> |
| Percent spending of party total | 0.45 | 0.031 |
| Incumbent | 6.53 | 1.675 |
| Incumbent × % spending of party total | 0.06 | 0.047 |
| Electorate (1000s) | −0.01 | 0.048 |
| Constant | 16.00 | 1.394 |
| SEE | 14.901 | |
| R ² | 0.34 | |
| N | 1,253 | |

Sample excludes candidates who ran in their district as the only candidate from their party. Robust standard errors reported. Standard errors are heteroskedasticity-consistent.

interaction of this marginal spending effect with incumbency. In other words, it appears that the marginal effect of spending on success within a candidate's party is approximately the same for challengers and incumbents.

Effects on Probability of Victory

So far we have dealt only with first preference votes, yet under the STV electoral system candidates may require second, third, fourth and even lower preference votes to win elections. The only way we can model the impact of spending on preferences in general is to focus on whether candidates actually succeed in being elected or not. Moreover, the point of spending is not so much to win a greater share of the vote but to win a seat. To examine success in these terms we use logit regression rather than OLS, since our dependent variable is dichotomous.

The effect of relative spending on the probability of victory is reported in Table 5. This analysis confirms that election spending makes a strong contribution to victory prospects. There appears to be a weaker effect for incumbents, as measured by the negative interaction term of incumbency with the logged share of spending, although the coefficient fails to meet the conventional 0.05 level of statistical significance ($p = 0.066$). The coefficient on the incumbency variable alone, however, is highly significant, indicating that incumbents have generally a much higher expected probability of winning a seat than do challengers.

In order to characterize more fully the difference that spending is expected to make on a candidate's expected probability of winning a seat, Table 5 provides predicted probabilities of this outcome for given changes in spending share. On average, the differential between challengers and incumbents ranges from twice to three times the marginal gain for challengers. Nonetheless, the standard errors for these simulated expected values are much higher for incumbents, meaning that the effects of these differences are associated with much greater uncertainty.

To show the relationship between a candidate's share of spending in the district and the predicted probabilities of winning a seat, we have plotted a series of fitted values in Figure 2. For challengers and incumbents, the solid lines show the expected values, and the dashed lines the range of 2 standard errors on either side of the expected values. The increase in the probability of victory is clearly much more dramatic for challengers, although the explanation stems mostly from the relatively high starting point of incumbents: regardless of spending, incumbents have a much higher probability of re-election. The interesting feature once again is the responsiveness of the probability of winning at very low levels of shifts in spending share: moving from 2 percent to 5 percent of the spending basically doubles a challenger's chances of winning a seat. Once again, even the marginal effects of spending an additional few hundred euros has a substantial pay-off in electoral terms at the lowest levels of expenditure.

Table 5. Logit regression of winning a seat on relative spending, incumbency and district size

| <i>Dependent variable: Candidate won a seat? (Yes/No)</i> | | |
|---|--|-----------|
| <i>Variable</i> | <i>All cases</i> | |
| | <i>Coeff.</i> | <i>SE</i> |
| ln(% spending of district total) | 0.64 | 0.094 |
| Incumbent | 2.92 | 0.427 |
| Incumbent × ln(% spending of district total) | -0.35 | 0.188 |
| Registered voters (1000s) | 0.01 | 0.007 |
| Constant | -2.02 | 0.258 |
| Log-likelihood | -849.631 | |
| N | 1,498 | |
| | <i>Change in probability of winning a seat</i> | |
| Change in dependent variable for challengers | | <i>SE</i> |
| As spending increases from 2% to 5% | 0.10 | 0.011 |
| As spending increases from 5% to 10% | 0.10 | 0.013 |
| As spending increases from 10% to 15% | 0.06 | 0.009 |
| As spending increases from 15% to 20% | 0.05 | 0.007 |
| As spending increases from 20% to 25% | 0.04 | 0.005 |
| As spending increases from 2% to 25% | 0.34 | 0.044 |
| Change in dependent variable for incumbents | | |
| As spending increases from 2% to 5% | 0.05 | 0.029 |
| As spending increases from 5% to 10% | 0.03 | 0.017 |
| As spending increases from 10% to 15% | 0.01 | 0.008 |
| As spending increases from 15% to 20% | 0.01 | 0.005 |
| As spending increases from 20% to 25% | 0.01 | 0.004 |
| As spending increases from 2% to 25% | 0.11 | 0.063 |

Robust standard errors. First differences produced using CLARIFY.

Conclusion

We have examined the impact of spending in an Irish election. It adds to the limited literature available on spending effects in multicandidate constituencies, and is unique in addressing spending effects under the STV system. In addition, we have dealt with the simultaneity problem in a novel fashion by examining not spending *per se* but shares of spending. It is obviously important to explore the significance of campaign spending effects in any national context where spending controls are being debated, but it is also important for scientific reasons to expand the range of institutional contexts across which generalizations can be made. While the context is far more complex than it is in the USA, and the sums spent are minute in

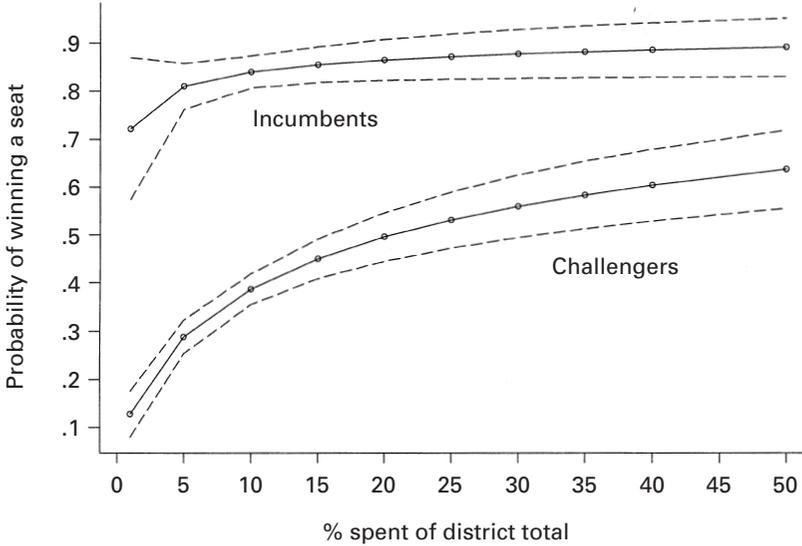


Figure 2. Effect of increasing percentage of spending on probability of winning a seat, comparing challengers and incumbents. Dashed lines indicate 2 standard errors. Predicted probabilities and standard errors estimated using CLARIFY, based on regressions in Table 5.

comparison, the basic finding is that spending matters for incumbents as well as for challengers once allowance is made for the endogenous nature of spending.

Thus our essential substantive conclusion is that spending matters. Candidates who spend a larger share in their districts win a larger share of the district vote. This applies both in general terms and within parties. It also applies to both challengers and to incumbents, although the latter appear to begin with a head start and have to spend more to push their chances of re-election much higher than they are initially. Not surprisingly, contributing more to district spending also means that a candidate is more likely to have her name announced as a winner when the votes are counted. These results hold even in the thinly populated Irish local constituencies, where spending is tiny by almost any standards.

In absolute terms, it might appear that the spending effects we have measured here are relatively small, but in the context of Irish local elections, where the median candidate share of the district vote is just 8.6 percent of the district vote, even small increases can be decisive. Generalizing from Table 2, for a challenger the difference in expected votes from doubling spending from €500 to €1,000 is an additional 1.27 percent of the vote. For a tenfold increase to €5,000 – still not much in absolute terms – a challenger's expected gain of the vote share was 4.20 percent, a decisive increase

in these elections. These examples involve small changes in votes, but the absolute differences in spending are also small. And in the multiparty context of Irish local elections, even a few percentage points can mean the difference between winning and losing, the difference that can be made *for a few euros more*.

Our study has two findings that should be of general interest beyond the context of Irish local politics. First, what we have observed here is, in a microcosm, the process by which spending drives electoral success even at the local level, where spending is measured in terms that are, by comparison, minute. As a litmus test for the ability of campaign spending to affect election outcomes, our argument is that if we can observe effects in this context, then this is strong evidence that campaign spending does matter generally. Second, this article offers a preliminary look at the impact of spending in an STV election, something that no previous study of campaign spending has examined. A natural extension of the analysis would be to see how much spending matters in a parliamentary election in the same national context. Because obtaining reliable instruments for spending is likely to be just as difficult in other multiparty contexts, we also imagine that the approach taken here of examining relative, rather than absolute, spending may have useful applications elsewhere. In particular we intend to examine in future research the effects of spending in STV elections to the Irish Dáil, something now possible owing to the mandatory disclosure of candidate and party spending in the general election of May 2002. We also intend to explore the political context of spending, since more information is readily available about expected results in particular constituencies in a national election. Our expectation is that if seats can also be ‘bought’ in the general election the price will be somewhat higher.

Notes

Author ordering is alphabetical. We thank Matthew Kerby for research assistance. A full replication dataset is available from the authors. We thank our panel participants from the annual meeting of the Midwest Political Science Association, Palmer House Hilton and Towers, Chicago, IL, USA, 25–28 April 2002, and the Canadian Political Science Association’s annual meeting in Toronto, 29–31 May 2002, where previous versions of this article were presented.

- 1 The current government has declared its intention to outlaw the dual mandate in advance of the 2004 local elections.
- 2 The Act was explained to all candidates in a circular letter (F26/99) from the Department of the Environment, and that interpretation has been followed here.
- 3 There is no significant tradition of spending by private associations in support of particular parties or candidates in Irish elections. While the 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.

- 4 Not all incumbents will have been in office for the full eight years. Some councillors die in office, others resign, for a variety of reasons. In all such cases new members from the party of the previous incumbent are co-opted onto the council. We have no figures to indicate how many incumbents won office through co-optation, but we estimate that it is no more than a small percentage.
- 5 Because many candidates also hold other offices, we also attempted to control for the possible effects of this. Other offices include being a member of the Irish lower house of parliament, the Dáil (TD), the upper house or Seanad (a Senator), or a local Mayor. The coefficients on these dummy variables were significant only for Fianna Fáil, which was the only party whose candidates held such offices in enough numbers to make it possible to observe effects. Senators spent a bit more, while Mayors spent less. The most consistent effect is that spending increases with the size of the district, measured by the number of thousands of registered voters. This effect is consistent with the previous findings of Gerber (1998), who used state population size as an instrument for spending, and of Cox and Thies (2000), who controlled for district magnitude.
- 6 For much more detail on the spending by various Irish parties and the differences between them, see Benoit and Marsh (2002).
- 7 Following the widespread practice in the literature on campaign research – essentially universal when regression analysis is used – we have logged the raw spending variable. This has the general effect of reducing skew, reducing the effect of extreme outliers caused by a few very big spenders, and generally inducing a much greater normality to the distribution of spending. Throughout the article we use the natural logarithm (denoted ln) rather than the decimal logarithm.
- 8 This method follows the approach described by King et al. (2000) and is produced using the CLARIFY software. It can be used to produce expected values and first differences for arbitrary settings of the independent variables, including the effects of variables whose coefficients do not meet conventional levels of statistical significance.
- 9 Demographic data are not available because of poor matches between political and census districts, but even if they were we would not expect them to provide useful predictions of party and candidate votes.
- 10 Here we use the natural logarithm of percentage spending in order to reduce skew in the data, although none of our results depend on this transformation.

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