1-2003

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Citation

BENOIT, Kenneth, & MARSH, Michael.(2003). Campaign spending in the local government elections of 1999. *Irish Political Studies, 18(2)*, 1-22.
Available at: https://ink.library.smu.edu.sg/soss_research/4048

CAMPAIGN SPENDING IN THE LOCAL GOVERNMENT ELECTIONS OF 1999

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ABSTRACT

For the first time in Irish electoral history, the 1999 local elections required candidates to publicly declare their campaign expenditures. Drawing on these data, we explore patterns in campaign spending and assess their impact, both on candidate success and on turnout. First, examining the elections contested by 1,838 candidates from 180 local constituencies and 34 councils, we identify both partisan and geographic spending patterns, and examine how well these can be explained as a function of political and demographic variables. Second, we model and estimate the effects of expenditure on individual electoral outcomes. The findings clearly indicate that even at the relatively miniscule spending levels found in Irish local elections, spending is positively and significantly related to electoral success. Finally, we explore the impact of expenditure on overall turnout and find a clear positive effect of per capita expenditure on turnout.

Introduction

For the first time the 1999 local elections required all candidates to disclose their spending in competition for the seats to be filled on 34 county and county borough councils. Following the introduction of the Local Elections (Disclosure and Expenditure) Act,[1] all candidates were required 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). These regulations were part of a growing trend towards the regulation of electioneering in Ireland, prompted initially by the Labour Party's concerns about equality, and facilitated by the disclosures from the McCracken, Flood and Moriarity

Irish Political Studies, Vol. 18, No. 2, Winter 2003, pp. 1–22
ISSN 1364-2987 print/1743-9078 online
DOI: 10.1080/1364298042000227622

Tribunals. Information about the sources of candidates' and parties' income and election expenditure is no longer considered something – in the words of a former party secretary – in which no one is interested. Following the introduction of disclosure, spending limits and some state support for parliamentary, presidential and European Parliament elections in 1997, an act was introduced to cover disclosure in local elections. Prior to the 1999 local elections, the financing of local elections in Ireland had been essentially unregulated.

Disclosure is supposed to prevent individuals and companies from exchanging money for political favours. Spending limits, combined with partial state support for electioneering costs, it is usually argued, provide a fairer competitive environment in which the message or the personality is more important than how much is spent in communicating them. In the absence of concrete information on candidate spending, however, we have had little idea of just how much was spent (beyond ballpark figures occasionally supplied by the parties themselves (see e.g. Farrell, 1993)). Nor had we reliable information on the degree of inequality in spending between candidates, or most important of all, whether such spending had any effect on voting behaviour.

The availability of data on the 1999 local elections provides us with the first opportunity to examine candidate and constituency level spending, and to estimate the impact that such spending had on various outcomes of the electoral process in Ireland. This is also the first opportunity to study the effects of campaign spending under the single-transferable vote (STV) electoral system. In this article, we not only characterise campaign spending in the Irish local elections of 1999 but also explain its determinants and assess its electoral consequences. In other words, we describe who spent what and where, and estimate the consequences of spending in terms of electoral success: how much does a vote (or a seat) cost? We separate this effect by party, examining which parties spent the most, and which parties received the greatest electoral returns on their spending investments. Finally, we examine the effect of expenditure on turnout, estimating the consequences of both overall spending and spending per capita.

The article proceeds as follows. First, we briefly describe the political and institutional context of the Irish local government elections that took place on 11 June 1999. Then, we characterise the data generated by this event before proceeding to analyse it for patterns in the geographic and partisan distribution of spending. Following that, we look at the effects of campaign spending, addressing the issue of whether money matters, and if so, how much it matters, for both votes and turnout. Finally, we conclude with a discussion of the results.

The Context of Local Elections

The Irish governmental system is very centralised 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 the 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 the local level and then using that as a basis for a national career (but usually retaining the local authority seat as well).[2]

As with all other elections in Ireland, those to local councils are fought in multimember constituencies using the system of the single transferable vote. Typically there are several constituencies within each local authority area, each electing between three and seven members. The smallest constituency has only a little over 3,000 electors and the largest no more than 50,000. As parties typically nominate one candidate more than the number of seats they expect to win, incumbents in the larger parties will be faced with at least one challenger from their own party as well as incumbents and challengers from other parties.

Our dataset consists of electoral and expenditure data gathered for candidates participating in local elections held in Ireland in 1999. The stakes in this election were seats on 34 county, city and borough councils, elected from a total of 180 constituencies. Following the passage of the Local Elections Act, 1999, we wrote to the 34 different councils requesting information for our dataset. From these, all but four responded, providing spending for 1,579 of 1,837 candidates, from 161 of 180 constituencies.

The Expenditure Act of 1999 set no limits on local campaign spending, but required that candidates record and declare all campaign expenditures incurred between the government polling day order and the actual polling day. It also required that certain other expenditures incurred outside the campaign 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 and is related to the local election. General-purpose party activities such as party election broadcasts are not included.[3]

Candidacy and Spending Patterns

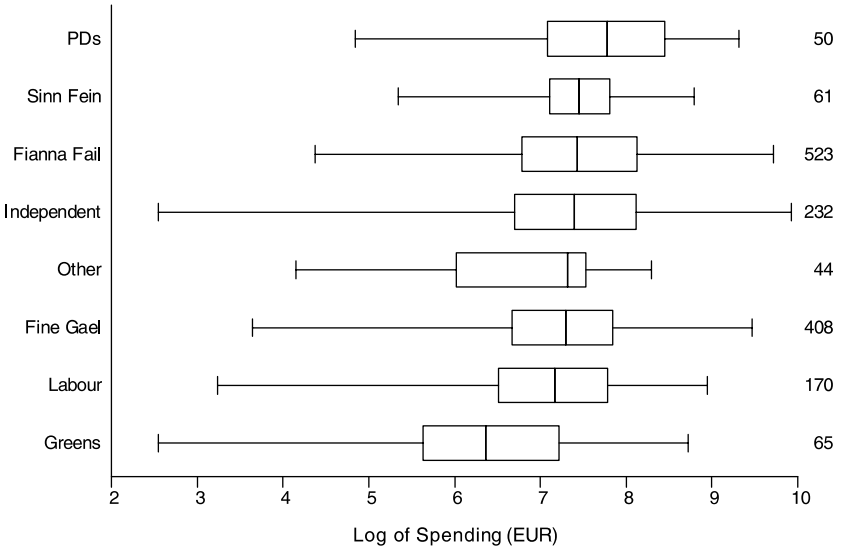
Overall Candidacy and Spending

We start by describing the range and magnitude of spending and then consider explanations for differences in spending between candidates. What is immediately clear from the data is that spending by candidates varies widely but overall is at quite a low level. While a handful of the biggest-spending candidates exceeded €10,000 in expenditure, the median value of spending was only €1,502, with an inter-quartile range of €733 to €2,750. (It is worth recording the evidence to the Flood Tribunal of local councillors receiving several thousand pounds each from property developers, ostensibly for the campaign funds. Such sums are considerable in this context, particularly allowing for inflation since the early 1990s.) Votes, as measured in percentages, were also relatively low in constituencies, with the average candidate receiving just 9.8 per cent of the constituency first-preference votes, and with 90 per cent of candidates receiving less than 18 per cent of first preference votes in their constituencies. There were between four and 17 candidates per constituency, with a median of ten candidates. Most parties fielded multiple candidates, averaging 2.8 candidates per constituency overall, with some parties (notably Fianna Fáil) fielding even more. Of the candidates running under the same party label in a constituency, one or more were frequently incumbents, especially for

TABLE 1
CANDIDATES, SPENDING, AND VOTES IN THE 1999 IRISH LOCAL ELECTIONS

	Candidates			Constituency vote (%)		Candidate spending (€)	
Party	Total	Mean (per constituency)	Median (per consistuency)	Mean	SD	Mean	SD
Fianna Fáil	607	3.7	3	11.5	5.7	2,477	2,402
Fine Gael	461	2.9	2	11.2	6.0	1,926	1,711
Labour	214	1.9	1	8.9	6.3	1,737	1,569
PDs	62	1.4	1	8.0	4.7	3,335	2,798
Sinn Féin	68	1.1	1	8.1	4.9	2,057	1,450
Greens	83	1.0	1	5.3	4.0	982	1,211
Independent	290	2.6	2	7.4	6.6	2,419	2,498
Other	52	1.6	1	5.0	5.3	1,437	1,011
Overall	1,837	2.8	3	9.8	6.2	2,158	2,124

FIGURE 1
PARTISAN DISTRIBUTION OF SPENDING



Fianna Fáil and Fine Gael. Table 1 summarises these characteristics both overall and by individual party.

There are some notable differences in spending between the parties. Progressive Democrat candidates average over €3,000 per candidate, Greens only €982 and the rest somewhere in between. Fine Gael's candidates spend less than Fianna Fáil's, as we might expect. The latter has almost always been more successful at raising money to spend in national elections, but it is more surprising that the average spent by an independent is nearly as high as that for Fianna Fáil candidates. However, the range of spending by independents is also very large, with independents (and Greens) providing most of the very low spenders and the very high ones. In contrast, Sinn Féin candidates vary least in their spending. This is clear in Figure 1, which displays spending by parties in graphic form. The width of the 'boxes' in each case indicates the range of the middle 50 per cent of candidates from that party, while the 'whiskers' indicate the range of the remaining candidates. In all cases there is a skew to the left, with a number of low spending candidates pulling the distribution in that direction. Note there is relatively little difference (with the exception of the Greens, who are low, and the PDs, who are high) in the spending by the median candidate across parties.

TABLE 2
CANDIDATE DATA BY INCUMBENCY STATUS

Party	Challengers			Incumbents		
	Total	Mean spending	SD spending	Total	Mean spending	SD spending
Fianna Fáil	370	2,597	2,399	237	2,292	2,401
Fine Gael	290	1,870	1,625	171	2,019	1,849
Labour	156	1,458	1,338	58	2,525	1,892
PDs	45	2,739	2,509	17	4,725	3,026
Sinn Féin	61	2,178	1,472	7	1,126	858
Greens	77	860	1,011	6	2,552	2,347
Independent	233	2,125	2,171	57	3,462	3,228
Other	47	1,438	1,052	5	1,431	520
Overall	1,279	2,046	1,996	558	2,405	2,367

By Incumbency Status

As we discuss shortly, incumbency is widely thought to be related to the advantages that spending potentially brings a candidate, and it is at least possible that incumbency itself is a powerful attractor for those wishing to supply campaign funds. Table 2 shows spending by incumbency. It is apparent that in general, incumbents do spend more, but the difference is small, less than €360 on average. There are also exceptions to this, most notably in the case of Sinn Féín where non-incumbent candidates – challengers – spent almost twice as much as the incumbents. Fianna Fáil candidates who were challengers also spent slightly more than incumbent councillors, while within Labour and the Progressive Democrats incumbents spent much more than challengers: on average €1,000 and €2,000 more respectively. Independent incumbents also outspent challengers by the substantial margin of €1,300. We have no firm evidence to account for these variations. However, it seems possible that they could stem from tactical expenditure by some parties who targeted funds at seats they hoped to win rather than those they already held, and of the greater likelihood of challengers in some parties, notably Fianna Fail, of winning a seat in favourable national conditions and thus being able to attract, or risk, more money. This is something that future research could explore.

By Council

When it comes to where money is spent, there is a big geographical difference. Table 3 shows the variation in spending by council. If we look at the

TABLE 3
SPENDING BY COUNCIL

County	Candidates	Mean spent	SD spent	Mean log spent
S. Dublin	63	4,187	3,798	7.85
Dublin	133	3,588	2,833	7.78
DL-Rathdown	61	3,569	2,484	7.77
Fingal	58	3,472	2,160	7.93
Kerry	56	3,126	1,950	7.87
Cork CC	95	2,839	2,543	7.56
Galway CC	57	2,473	1,878	7.52
Meath	55	2,398	1,933	7.42
Sligo	45	2,294	1,154	7.60
Mayo	57	2,255	1,792	7.37
Roscommon	49	2,193	1,334	7.49
Donegal	68	2,167	2,174	7.34
Limerick CC	53	2,132	2,221	7.26
Tipperary SRC	54	2,010	1,670	7.32
Kildare	62	1,714	1,795	7.02
Leitrim	36	1,703	896	7.33
Wexford	41	1,603	990	7.19
Wicklow	50	1,576	1,458	7.00
Limerick Corp.	49	1,480	2,180	6.74
Clare	64	1,466	948	7.05
Longford	35	1,414	1,234	6.94
Tipperary NRC	36	1,372	881	7.04
Waterford Bo	32	1,318	1,030	6.73
Cavan	44	1,293	981	6.89
Offaly	44	1,114	930	6.73
Kilkenny	48	1,100	1,704	6.55
Louth	62	1,079	872	6.70
Laois	50	847	699	6.43
Carlow	43	802	555	6.39
Monaghan	35	535	278	6.16
Galway Bo	42	–	–	–
Waterford CC	48	–	–	–
Westmeath	39	–	–	–
Cork Borough	73	–	–	–

No spending data were provided from Cork Borough, Galway Borough, Waterford County Council, or Westmeath.

spending of the average candidate, we can see there is a considerable difference between Monaghan at the bottom and Dun Laoghaire-Rathdown at the top of the spending league. In Monaghan the average candidate spends about one-eighth of what is spent by the average candidate in Dun Laoghaire. Spending is higher in the heavily populated Dublin councils than it is elsewhere. Again, as with parties there is a considerable range across candidates in each council, as the standard deviations make clear. This is particularly marked in Limerick City, in Donegal and in Kilkenny, in all of which the standard deviation exceeds the mean.

Explaining Variation in Spending

We have already hinted at the reasons why one candidate might spend more than another. Here we will outline these more explicitly. The first is the issue of supply: candidates availing of more funds can be expected to spend more. While we have no measure of how much money is available to candidates, we might expect those who are experienced political figures to be able to attract more money. In particular we might expect incumbents to have more to spend. A second set of explanatory factors are those of demand: candidates will spend as the need arises. Much attention has been given in studies of other countries to the issue of marginality in this respect, with evidence suggesting that parties spend their money rationally, targeting funds to marginal seats. Studies of British (Pattie, Johnston and Fieldhouse, 1995), Canadian (Carty and Eagles, 1999; Eagles, 1993) and Australian (Forrest, 1997; Forrest, Johnston and Pattie, 1999) elections all concluded that spending was targeted at marginal constituencies. The same strategic thinking might be expected of individuals: those who feel safe and those who feel they have no chance will spend little, and those who think the marginal spending will make the difference to their election will spend most. The concept of marginality in the Irish context is an awkward one that has defied any agreed operationalisation. Yet it is evident that certain features of the constituencies in which the elections take place may increase or decrease the need for high expenditure. Constituency population is perhaps important here. It is important to remember that there are huge differences in the populations served by different councils. Ranging from 22,307 in Leitrim to 360,641 in South Dublin, councils in 1999 had a median registered electorate of 69,743 and an inter-quartile range of 42,448, 103,868. Those with very large electorates may justify higher spending by candidates who cannot hope to exploit personal contact to the same degree they might in a less populous constituency. The density of the population may also be a factor here: large empty constituencies may justify more expenditure on posters, leaflets and newspaper advertising than small, more crowded ones.

We have gathered together some measures of these factors and modelled their relationship to spending in Table 4. This shows the impact of the number of electors and the political experience of the candidate on spending, both for all candidates, and for the candidates of each party. These and subsequent regressions use ordinary least squares with robust standard errors to control for heteroscedasticity. Because the spending variable is skewed in relation to the voting data, we use instead its natural logarithm (except where noted). The importance of constituency population is consistently positive, showing that overall an increase

TABLE 4
THE DETERMINANTS OF SPENDING, OVERALL AND BY PARTY

Variable	All parties	Fianna Fáil	Fine Gael	Labour	PDs	Sinn Féin	Greens	Independent	Other
Registered voters (1000s)	0.02* (0.003)	0.03* (0.005)	0.02* (0.006)	0.02* (0.007)	0.04* (0.016)	0.02* (0.011)	0.03 (0.021)	0.00 (0.011)	0.02 (0.018)
TD	0.11 (0.109)	0.02 (0.129)	0.02 (0.172)	–0.05 (0.201)	–	–1.34* (0.303)	–	1.12 (0.323)	–1.06* (0.351)
Senator	0.28* (0.134)	0.31* (0.193)	0.20 (0.227)	–0.10 (0.117)	0.26 (0.300)	–	–	–	–
Mayor	–0.18 (0.248)	–0.62* (0.087)	0.00 (0.401)	–	–	–	–	–	–
Incumbent	0.25* (0.050)	–0.13 (0.074)	0.16 (0.091)	0.37* (0.145)	0.61* (0.199)	–0.49 (0.303)	1.95* (0.598)	0.68 (0.146)	0.85* (0.316)
Dublin	0.46* (0.086)	0.87* (0.096)	0.45* (0.146)	0.91* (0.151)	0.71* (0.239)	0.66* (0.180)	–0.03 (0.573)	–0.05 (0.306)	0.22 (0.409)
Constant	6.73* (0.060)	6.87* (0.083)	6.83* (0.112)	6.39* (0.146)	6.49* (0.332)	6.87* (0.220)	5.34* (0.407)	7.16 (0.179)	6.39* (0.387)
SEE	0.997	0.802	0.875	0.874	0.728	0.623	1.548	1.137	0.986
R^2	0.11	0.29	0.08	0.31	0.52	0.44	0.11	0.08	0.08
N	1,554	523	408	170	50	61	66	232	44

Notes: *=significant at p≤0.05. Dependent variable: log(spending). OLS regression of votes on candidate spending as a percentage of total spending, incumbency, and registered voters. Regression standard errors in parentheses are heteroscedasticity-corrected.

in the electorate of 1,000 registered voters is associated with an average increase in logged spending of 0.02. Interpreting the effect in euro terms using simulations to provide first differences, this means that a move from the lower to the upper quartile range in constituency size (at the constituency level, from roughly 10,000 to 20,000 electors) would cause a candidate to spend on average about €258 more, although these effects are approximate since electorate size varies only at the constituency level while spending varies with each candidate.[4]

Examining the determinants of spending by party we find similar results. Independent of the constituency size effect, once again Dublin expenditure is much higher. When it comes to the political experience of the candidate, we note (as already shown at bivariate level) the importance of incumbency and also the importance of a place in the Senate. We also note the fact that TDs do not spend more money than other candidates. However, what is striking is that only the Dublin and constituency size effects hold across parties. Incumbency is not significant either for Fianna

Fáil or Fine Gael, and while Fianna Fáil senators spend more, Fine Gael senators do not. Mayors spend less, but this is not a stable result across parties. What we may be seeing here is simply a diversity of strategies across parties. What is clear is that the political experience of a candidate has no consistent relationship to that candidate's spending.

The Question of Spending Effects

Prior Expectations

Explaining where spending takes place is an important issue, but an even more important question is whether spending actually matters. In general elections there are spending limits; in local elections, at present, there is merely greater transparency. While the conventional wisdom is almost certainly that spending matters, there has not been a firm understanding as to how much it matters. The academic literature generally supports the basic assumption that it does, but it also contains a wide range of conclusions about when, where and how much spending 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 United States 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. In Ireland, where there may be several incumbents from the same party in a constituency, incumbent–challenger contrasts may be less evident. In addition, the relatively minor sums of money involved raise a more basic question: can spending really matter at such low levels?

There are in fact good reasons to expect that money does matter in local elections, and that there will be a positive link between expenditure and electoral success. Given the nature of the electoral system, candidates must look for a personal vote, since the party vote will not be enough, particularly where they must 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 recognises 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 pictures appear in the same publications

with 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. Hence we might generally expect the expenditure of challengers to matter more than that of incumbents.

Yet there are also 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 constituencies are too small, and the sums spent too trivial. Little funding is required to publicise a candidate's activities in a constituency of a few thousand voters. Candidates do not, for the most part, attract sizeable 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 sizeable 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.

How to Model Spending Effects

The key problem in estimating the effects of campaign spending on the vote is that of *endogeneity bias* – the problem that while votes are influenced by spending, candidates also make decisions to spend based on their expectations about the votes. This can lead to a paradoxical situation in which the most heavily contested constituencies – where the smallest vote margins may occur – are also those where the greatest spending takes place. Conversely, incumbents who are expecting to win easily are likely to spend little. The result is endogeneity bias in the simple correlation of spending with vote outcomes, at least in analyses that do not somehow correct for the 'reactive' nature of spending decisions.[5]

Most solutions to this estimation problem employ an instrumental variables approach, which involves predicting expenditure with a range of other variables and using the predicted (versus actual) values in the subsequent analysis of spending and success. The exogenous instruments employed include lagged spending (Green and Krasno, 1988, 1990; Gerber 1998), previous political office held by challengers (Green and Krasno 1988), challenger wealth (Gerber 1998), demographics (Cox

and Thies 2000; Gerber 1998) and independent forecasts of the expected closeness of the outcome (Abramowitz 1991; Erikson and Palfrey 2000). Because such measures are generally unavailable in the Irish local context, we have used an alternative formulation based on shifting the focus from absolute spending to a candidate's relative share of spending in a constituency.

The logic of the shift to relative spending is as follows. For a candidate to perform well relative to all other candidates, the candidate's votes should be responsive to his or her share of the total campaigning done in that constituency. Since spending is a direct measure of campaigning, this implies that a candidate's *share* of spending in the constituency, 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 his or her rivals should receive a greater share of the vote than other candidates. Conversely, a candidate that under-spends 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 constituencies (with different size shares because of different numbers of candidates) will produce a relationship as measured by our model.

In the Irish multi-party 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 wherein most competition takes place against candidates of other parties – we can use a variation of the same formulation of relative spending. Candidates who 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 constituency as the independent variable, and use this to explain variation in the candidate's share of her party's vote in that constituency. 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 the probability that a candidate will win 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 constituency magnitude of 5, this means that in the median constituency (where ten candidates compete), approximately half win seats, making

TABLE 5
THE EFFECTS OF SPENDING, OVERALL AND BY PARTY

Variable	All parties	Fianna Fáil	Fine Gael	Labour	PDs	Sinn Féin	Greens	Independent	Other
Ln(% spending of constituency total	2.63* (0.205)	2.29* (0.327)	2.01* (0.422)	2.33* (0.720)	2.39* (0.615)	3.27* (0.979)	1.93* (0.953)	3.38* (0.595)	1.76* (0.429)
Incumbent	5.62* (0.828)	2.42* (1.146)	3.03* (1.533)	6.76* (2.779)	17.37* (5.657)	20.86* (10.324)	0.85 (1.202)	9.33* (3.402)	30.17* (1.731)
Incumbent × ln(% spending of constituency total)	–0.26 (0.395)	0.68 (0.560)	0.90 (0.721)	–0.19 (1.374)	–5.13* (2.211)	–8.13 (4.487)	1.85 (0.933)	–1.92 (1.411)	–6.24* (1.216)
Constant	4.53* (0.487)	–0.11* (0.023)	–0.11* (0.034)	–0.04 (0.035)	–0.13* (0.043)	0.03 (0.056)	0.09 (0.058)	–0.04 (0.048)	0.05 (0.045)
Electorate (1000s)	–0.08* (0.014)	6.77* (0.804)	7.08* (1.151)	3.36* (1.413)	4.14* (1.357)	0.49 (2.698)	1.22 (1.516)	1.07 (1.374)	–0.04 (1.117)
SEE	4.982	4.665	4.951	4.701	3.348	4.623	3.855	5.843	2.835
R^2	0.32	0.28	0.33	0.35	0.47	0.18	0.29	0.29	0.79
N	1,498	519	400	160	49	61	51	218	40

Notes: *=significant at p≤0.05. Dependent variable: percentage of valid votes. OLS regression of votes on candidate spending as a percentage of total constituency spending, incumbency and registered voters. Sample excludes cases where candidate's percentage of the constituency spending was less than 1 per cent. Regression standard errors in parentheses are heteroscedasticity-corrected.

the winning of a seat a relatively 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 chance of being elected.

Estimating the Consequences of Spending

Spending Effects on Inter-party Votes

Table 5 shows the impact of spending on success, using the *share* of spending to predict vote share rather than spending as such.[6] We are interested here in both the coefficient for spending, which tells us how much spending matters, and in the coefficient for the interaction term showing spending × incumbency, which tells us whether the spending effect is different for challengers from that for incumbents. From the estimates it is immediately clear that spending matters, both in statistical and substantive terms. Because it is difficult to interpret the coefficients directly, given the logarithmic transformations, we have computed some first differences for changes in spending. In practical terms an increase in spending from two per cent to five per cent of the total will increase the average candidate's vote share by over two

per cent. But the marginal effect diminishes. An additional increase from five per cent to ten per cent of the total will increase the vote share by a little under two per cent. As for the interaction of incumbency and spending, this is not statistically significant. In other words, the spending effect is no different for incumbents than for challengers, a result that is fairly consistent across all parties. Only in the case of the PDs, where the interaction term is just about significant is there any exception. The coefficient is also strikingly similar, ranging from 1.93 for the Greens to 3.38 for independents. In other words, spending gives least advantage to the Greens (a good thing for that party, given its low spending) and most to independents (who have no party label to help them). It is also notable that incumbents start with a much higher average share of the votes, as indicated by the positive and statistically significant coefficients on the dummy values for the incumbency variable (5.62). This holds for all but the Greens, and even there the coefficient is positive even if it is not significant.

Effects on Intra-party Votes

When it comes to intra-party competition we observe a similarly strong and direct effect of spending (Table 6). Candidates that spend more than

TABLE 6
INTRA-PARTY RELATIVE SPENDING EFFECTS BY PARTY

Variable	Total	Fianna Fáil	Fine Gael	Labour	Independent
Ln(% spending of constituency total	0.45* (0.031)	0.35* (0.044)	0.45* (0.49)	0.15 (0.111)	0.57* (0.064)
Incumbent	6.53* (1.675)	7.14* (2.116)	5.87 (3.112)	20.15 (11.495)	15.06* (5.354)
Incumbent × ln(% spending of c onstituency total)	0.06 (0.047)	0.02 (0.071	0.07 (0.082)	0.04 (0.211)	–0.10 (0.014)
Registered voters (1000s)	–0.01 (0.048)	–0.07 (0.060)	0.03 (0.094)	–0.21 (0.155)	–0.07 (0.145)
Constant	16.00* (1.394)	16.85* (1.694)	16.61* (2.414)	34.38* (6.367)	14.52* (3.699)
SEE	14.901	12.063	13.624	18.893	18.187
R^2	0.34	0.2804	0.353	0.2625	0.4484
N	1,253	529	398	104	184

Notes: *=significant at p≤0.05. Dependent variable: won a seat (yes/no). First differences produced using CLARIFY. Coefficients for Greens and Other could not be estimated due to perfect prediction of outcomes. Regression standard errors in parentheses are heteroscedasticity-corrected.

their own party 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.) Some strong effects emerge from the spending share variable, although once again we fail to observe any statistically significant effect for the interaction of this marginal spending effect with incumbency. A one percentage point increase in spending as a share of the party's total spending can be expected to bring a candidate an average increase of 0.45 percent of the share of the party's first preference votes in that constituency. Hence a five per cent change in spending share would increase a candidate's vote share of his party's votes by 2.25 per cent. This is again fairly consistent across parties (at least those with enough cases for analysis), although it is too small to be significant in the case of Labour. Given that the interquartile range for a candidate's share of the party spending in the constituency was about 22–72 per cent, a change from the bottom to the top of this range represents a gain of 22.3 per cent of the share of the party's first-preference votes in the constituency, an increase almost certain to be decisive. The conclusion is clear: Spending not only matters generally, but outspending one's own party rivals is an important method of outranking them in the intra-party preference rankings.

Effects on Probability of Victory

The above analysis suggests that spending increases a candidate's vote share but candidates may require second, third, fourth and even lower preference votes to win election. The only way we can model the impact of spending on these lower-order preferences is to examine whether candidates actually succeed in being elected or not. Moreover, the essential point of spending (at least for a candidate) 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 7. This analysis confirms that election spending makes a strong contribution to victory prospects. To assess in substantive terms what these coefficients mean, once again we have computed first differences for changes in the key independent variables. As in previous results, the marginal effect of spending on the probability of winning a seat is greater for challengers than for incumbents. For challengers, the effect of increasing the share of constituency spending from two per cent to five per cent is to increase the probability of winning a seat by 0.10; this increases by an additional 0.10 when changing from five per cent to ten per cent of spending. Overall, a challenger may

increase his probability of victory by 0.34 when increasing his share of constituency spending from two per cent to 25 per cent. For incumbents, the changes are less dramatic, although this is largely explained by the fact that incumbents start out with a much higher probability of winning a seat, regardless of spending. Nonetheless, our calculations based on Table 7 show that an incumbent can increase his probability of victory by 0.11 by increasing his share of constituency spending from two per cent to 25 per cent.

For the first time 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 just 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 generally have a much higher expected probability of winning a seat than do challengers. More election spending can be expected to increase an incumbent's vote share, but it is possible that this has diminishing returns when it comes to being elected as vote share rises close to or above the electoral quota. On average the differential between challengers and incumbents ranges from twice to three times the marginal gain for chal-

TABLE 7
LOGIT REGRESSION OF WINNING A SEAT ON RELATIVE SPENDING, INCUMBENCY AND CONSTITUENCY SIZE

Variable	All parties	Fianna Fáil	Fine Gael	Labour	PDs	Sinn Féin	Greens	Independent	Other
Ln(% spending of constituency total)	0.64* (0.094)	0.38* (0.153)	0.38* (0.184)	0.79 (0.425)	1.98* (0.894)	1.65* (0.695)	1.05 (0.653)	0.82* (1.197)	1.05 (1.197)
Incumbent	2.92* (0.427)	1.56* (0.683)	1.84* (0.184)	4.30* (1.474)	21.69 (12.545)	7.83 (4.429)	–	2.84*	–
Incumbent × ln(% spending of constituency total)	–0.35 (0.188)	0.26 (0.315)	0.14 (0.374)	–0.88 (0.676)	–6.98 (4.256)	–3.02 (2.017)	–	–0.55	–
Registered voters (1000s)	0.01 (0.007)	0.00 (0.011)	0.00 (0.014)	0.06* (0.021)	–0.02 (0.041)	0.01 (0.035)	0.06 (0.050)	0.04 (0.105)	0.00 (0.105)
Constant	–2.02* (0.258)	–0.86* (0.418)	–0.94 (0.505)	–3.80* (1.024)	–5.65* (2.430)	–4.80* (2.092)	–4.94* (2.092)	–3.49* (4.094)	–4.97 (4.094)
Log likelihood	–849.6310	–289.1880	–224.1221	–78.2068	–18.0551	–33.8171	–120.5305	–120.5347	–7.1180
N	1,498	519	400	160	49	61	51	218	36

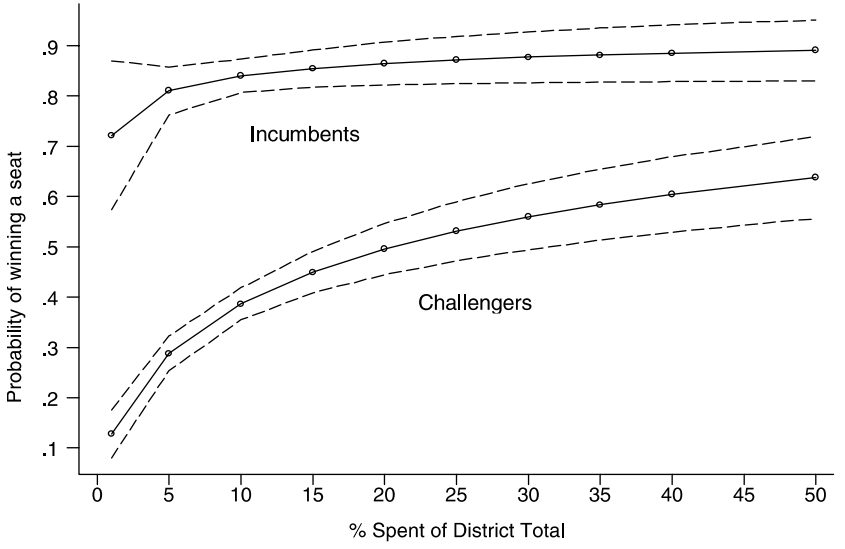
Notes: *=significant at $p<=0.05$. Dependent variable: won a seat (yes/no). First differences produced using CLARIFY. Coefficients for Greens and Other could not be estimated due to perfect prediction of outcomes. Regression standard errors in parentheses are heteroscedasticity-corrected.

lengers. 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.

When we look at the relationships within individual parties we see less consistency than in previous tables. While none of the spending coefficients are significantly different from others, we do see the pattern observed before, which is that spending appears to matter more for some parties than others, with independents, PDs and SF at one extreme and the Greens at the other. Why this should be so is less clear, but it could well be that supporters of the former group of parties are somewhat more candidate centred than supporters of the Greens, and to a lesser extent, Fianna Fáil and Fine Gael. The incumbent/challenger differences are also unstable, and appear in most parties to fall below conventional levels of significance.

To display the relationship between a candidate's share of spending in the constituency and the predicted probabilities of winning a seat as clearly as possible, Figure 2 plots the relationship between the probability of winning a seat to a candidate's share of constituency spending for the all values of spending share actually observed in the elections. For challengers and incumbents, the solid lines show the expected values, and the dashed lines show the range of two standard errors on either side of the

FIGURE 2
EFFECT OF INCREASING PERCENTAGE OF SPENDING ON PROBABILITY OF WINNING A SEAT, COMPARING CHALLENGERS AND INCUMBENTS



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 change in spending share: moving from two per cent to five per cent of the spending basically doubles a challenger's chances of winning a seat. Once again, even the marginal effect of spending *a few euros more* has a substantial payoff in electoral terms at the lowest levels of expenditure.

Spending and Turnout

While money may help individuals and parties, it is also worth asking how it might do so: by taking votes from other candidates and parties, or by taking vote share away from them. In other words, does spending work by converting votes from other candidates, or by mobilising new voters to support the higher spending candidates? We cannot pin this down in detail, but we can examine the record to see how spending is linked to turnout. If there is no link, then this would suggest that the mechanism is one of conversion; if there is a link, then this suggests that at least some of the effect comes through mobilisation. Of course spending in itself may be something of a proxy for other things, notably the extent of local activity. (This is the typical interpretation placed on local spending in British research (e.g. Pattie, Johnston and Fieldhouse, 1995)). It could be that in constituencies where spending is very high, it is because politics is very competitive; where seats are safe, it is low, and there is little activity. Any positive results may thus lend themselves to several interpretations.

We have included only a simple model here, which seeks to estimate the impact of two different measures of spending on turnout. One is total spending – that is, how much all candidates together spend in a constituency. The second is total spending per capita: how many euros the candidates spend relative to the number of electors. The determinants of turnout have been widely explored and we do not intend to go over that ground here. Suffice it to say that, for some combination of reasons, turnout in Ireland is lower in Dublin than elsewhere. (See Lyons and Sinnott, 2003 for a review.) We have thus introduced a dummy variable for Dublin as a control for these various factors.

The model is estimated in Table 8. The results indicate that there is a strong positive link between spending and turnout, although this is spending per capita and not spending in total. As spending per capita rises – measured here as total spending divided by the registered electorate –

TABLE 8
EXPLAINING TURNOUT AT THE CONSTITUENCY LEVEL

Variable	Coefficient	SE
Constant	52.73*	1.460
Dublin	–18.46*	1.522
Total spending (1000s)	–0.24*	0.059
Spending per registered elector	7.31*	0.841
SEE	7.54	
R^2	0.63	
N	161	

Notes: * = Significant at p<=0.05. Dependent variable: percentage turnout. OLS regression with robust standard errors.

so does turnout, measured as a percentage. Although our model would seem to be underspecified – since so many myriad factors are known to influence turnout – we find that with just spending and a dummy variable for Dublin, we were able to explain a remarkable 63 per cent of the variance in turnout (indicated by the R^2 of 0.63). The negative coefficient on total spending, –0.24, indicates that for every additional thousand euros spent in a constituency, turnout decreases on average by 0.24 percent. Considering that the interquartile range of constituency spending is roughly €12,000, €28,000, this means that a shift from the bottom to the top quartile decreases turnout by 3.36 per cent on average. For spending per registered elector, however, there is a strong, positive effect, even when holding total spending constant. With an interquartile range of approximately 0.9, 1.6, a shift in this variable from the bottom to the top quartile means an increase in turnout of 5.1 per cent. Taken together, these results indicate that it is not the total amount of campaign expenditure spent that matters for increasing turnout, but rather the amount of spending relative to the number electors at whom the spending is targeted. Spending more money on posters, advertising, leaflets and so on appears to bring the election itself to the attention of the voters and gets more of them to the polls. Drawing conclusions for policy, these findings raise the question of whether limits on spending in the context of local elections might not introduce some perverse consequences.

Conclusions

This article has examined candidate spending in an Irish election for the first time. We have explored who spends money, where they spend it and what the consequences are of variations in spending. Our essential substantive conclusion is that spending matters. It matters in particular for

the candidates. The god of elections is a mercenary one who rewards those most who make the largest monetary sacrifices. The candidates who spend a larger share in their constituencies win a larger share of the constituency vote. This applies both in general terms and within parties. It also applies to both challengers and 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. Candidates who outspend their political friends, as well as candidates who outspend their political enemies, show every sign of winning a larger share of the vote. Not surprisingly, contributing more to constituency spending also means that a candidate is more likely to have his or her name announced as a winner when the votes are counted. Furthermore, the relationship between spending and electoral success is confirmed even though spending in this context is miniscule by almost any standards. Even in the thinly populated constituencies used in Irish local elections, money matters.

In absolute terms it might appear that that the spending effects we have measured here are relatively small. But in this context, where the median candidate share of the constituency vote is just 8.6 per cent of the constituency vote, even small gains in voter support can be decisive. Generalising from Table 2, for a challenger the effect of doubling spending from €500 to €1,000 is an additional 1.27 per cent 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 per cent, a decisive increase in these elections. These examples involve small changes in votes, but the absolute differences in spending are also small, indicating that shifts in vote share are very responsive to changes in relative spending.

If we think of these results against the background of differential party spending shown in Table 1, it appears some parties have a clear advantage. The average PD spends over €2,000 more than the average Green. In crude terms, this could be worth about three per cent of the vote share. On this account those parties like the Greens and Labour, who spend less, are putting themselves at a real competitive disadvantage vis-à-vis the PDs, Sinn Féin and Fianna Fáil, who spend more. However, this may not be so damaging to the Greens, whose candidates' successes seem less prone to the effects of spending, while for Sinn Féin and independent candidates, spending may be more important. The important lesson of this is that it should not simply be assumed that the marginal effect of spending is the same for all parties.

Our second major result is that spending also matters for the elections themselves: more money, at least more money per capita, helps to mobilise voters. We would not want to generalise this too far beyond our data but the link between spending and turnout does merit further research.

It also raises questions about the value of legal limits on campaign spending. While differential access to campaign funds may well disadvantage some parties and deliver an electoral playing field that is more than a little uneven, placing low limits on spending could have a negative effect on mobilisation and turnout. The best option for democracy could be to ensure moderately high levels of spending with a significant input of public funds but that is unlikely to be a popular measure with either the electorate, or a government comprising the main beneficiaries of the current system.

A natural extension of the analysis will be to see how much spending matters in a parliamentary election in the same national context. Data are now available on the 2002 general election. We have started to explore the political context of spending since more information is readily available about expected results in particular constituencies in a national election (Benoit and Marsh, 2003b). Our expectation is that if seats can also be 'bought' in the general election the price will be somewhat higher.

Acknowledgements

This is one of several joint papers on campaign finance by the authors, and the ordering of their names reflects alphabetic convention. A version of the paper was reviously presented at the 2002 Annual Conference of the Political Studies Association of Ireland, 18–20 October, Jury's Hotel, Belfast. We thank Matthew Kerby for research assistance. A full replication dataset is available from the authors.

Notes

1. 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. See also Whelan (2000).
2. The law has now been changed so that dual office holding at the local and national levels is no longer permitted.
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. This is because in a constituency with 10,000 electors, and all of the other variables set to their means, the expected value of ln(spending) is 7.100; for 20,000 electors, this value was 7.293. Transforming back to raw euros, the result is exp(7.293)-exp(7.100)= €258. Here and in the discussion that follows, the predicted probabilities and first differences we report were computed using CLARIFY, available from ⟨http://gking.harvard.edu/stats.shtml⟩. Exact code to produce the point estimates can be found in our replication dataset.
5. This problem – what Cox and Thies (2000) refer to as the 'Jacobson effect', or the tendency of endogeneity bias to produce a negative correlation between spending and votes – is explored in detail in Benoit and Marsh (2003a), including the use of instrumental variables to control for simultaneity bias.
6. Here we again 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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