The Cost of Democracy: The Determinants of Spending on the Public Administration of Elections

Dr. Alistair Clark,
Newcastle University
E: alistair.clark@ncl.ac.uk
Tw: @ClarkAlistairJ

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Abstract

In democracies, elections are the only process which involves the whole eligible population in deciding upon their leadership, policy direction and representatives. The governance of the electoral process is complex, requiring considerable administrative and organizational capacity. Poor performance in any of these areas can lead to large numbers of voters being disenfranchised and the integrity, legitimacy and outcome of elections undermined. The governance of the electoral process is therefore of key interest. Providing sufficient capacity to manage a national electoral process is expensive. Whether in democratizing countries or established democracies, surprisingly little scholarly literature assesses the key questions of: how much does electoral democracy cost; and what drives the cost of electoral governance? These are crucial questions for democracies, political science and public administration, yet research is often hampered by a lack of consistent data (Montjoy, 2010). Using rare comprehensive nationwide data from Britain, this paper's major contribution is to begin to identify some of the drivers impacting on the cost of electoral governance in advanced democracies. To do so, it presents an overview of influences on spending on electoral administration. It develops a multivariate model, utilising electoral, socio-economic, organisational and administrative data. The findings establish empirically a range of determinants of greater spending, and hence capacity, in electoral governance. They also highlight the pressures electoral administrators are under in an age of public spending austerity.

The Cost of Democracy: The Determinants of Spending on the Public Administration of Elections

Running elections is a complex process which requires considerable administrative and organizational capacity. Among many other things, an electoral register must be established, ballot papers printed, staff employed and trained, and polling stations set up. Such organizational capacity is expensive. Yet, whether in democratizing countries or established democracies, surprisingly little scholarly or practitioner literature assesses the twin questions of: how much electoral democracy costs; and what drives the cost of administering national elections? These are crucial and important questions for democracies, and also for scholars of democracy. Without considerable spending on election administration, elections could either not be held, or would be open to question with regard to the integrity of the process. While a rare IFES/UNDP (2005) report did much to categorize and estimate election costs, it was less successful in examining in detail how various costs were funded and capacity built in election administration on the ground. Others have noted that even within the same state, election costs are seldom recorded consistently, thereby limiting the potential for research and theory building in this area (Montjoy, 2010).

The original contribution of this paper builds on these insights to explore this crucial relationship between spending on election administration and the organizational activities and capacity which that spending contributes to in an advanced democracy. It does so by bringing together rare but rigorous and extensive funding data from the UK Electoral Commission and UK government on three different electoral contests including the biggest test for electoral administrators, that of national elections. Britain is typical of many advanced democracies, most notably the United States but also smaller democracies like Ireland, in that local electoral officials have the main responsibility for delivering elections. Consequently, there is variation in standards of electoral administration and spending on such capacity. Britain is therefore an excellent case study for building both theory and knowledge about the relationship between electoral spending and organizational capacity in electoral administration. Evidence from such a case can be utilized to interrogate the relationship between spending on elections and administrative capacity in other advanced democracies.

The paper proceeds as follows. The first section briefly addresses the relationship between public service capacity and election administration. The second section examines the little that is known about spending on electoral administration. The third part describes the data deployed in this study, while the fourth section goes on to provide an overview of election spending before moving on to analyse election spending determinants by developing a public sector cost analysis of spending on the 2014 European election in Britain. The conclusion reflects on the article's significance for comparative scholarship on electoral administration and integrity.

Capacity, Resources and Electoral Administration

Public service capacity is normally defined in terms of the ability of bureaucracies to deliver their services to those that they are serving (Andrews et al., 2006; Christensen and Gazely, 2008; Polidano, 2000: 808). The question of resources is regularly highlighted as important. Meier (1997: 195) suggests that bureaucracies perform best when, in addition to being given

clear goals by representative institutions they are provided with adequate resources and the autonomy necessary to apply their expertise to the problem they are addressing. Christensen and Gazley (2008: 267) suggest that the key strength of an organization lies in its ability to attract and absorb resources, while Andrews and Boyne (2010: 444; also Andrews et al., 2006) point to the ability of public managers to ensure that funding and spending plans are in place to ensure effective and consistent delivery of their service over time.

Arguably the capacity of electoral administration is the most fundamental branch of a country's public administration in the provision of representative democracy. Tasked by their country's legislative institutions with delivering elections, effective election administration is crucial to ensuring voters can vote, have their vote counted and thus hold governments to account. Montjoy (2008: 789) consequently points to electoral administrators being 'both the agents and managers of the ultimate accountability mechanism'. As Alvarez and Hall (2006: 491) explain:

> Elections are where the public makes primary decisions that affect all citizens … It is where public preferences manifest themselves in decisions about who will run all levels of government and … even how the government will be run. Yet the history of election administration is one where frequently ill-equipped, poorly-trained, part-time administrators have been trusted with managing this critical democratic function.

The scale and complexity of organization necessary to deliver elections is considerable (see: Alvarez and Hall, 2006; Montjoy, 2008; Mozzafar and Schedler, 2002). Typically the electoral process can be divided into four periods: pre-campaign; campaign; polling day; and post-election. Pre-campaign, an electoral register has to be compiled, poll workers recruited, voting equipment purchased and tested, ballot papers printed and polling station locations identified and organized. During the campaign, if advance voting is permitted, this must be organized and administered. On polling day, the election itself has to be run, staff turn up for work and be supervised, polling stations and ballot boxes secured and, in many countries, the count begun. Post-election, results need to be audited and certified, any challenges administered and lessons learned before the whole process begins again.

Most of these tasks, all vital to the smooth operation of elections, are periodic in nature. Electoral processes are run to almost inevitably short timescales, with the vast majority of staff being non-specialists recruited and trained only for the short term conduct of the election (Clark and James, 2017a). The need for administrative efficiency potentially conflicts with questions of political neutrality and public accountability (Mozzafar and Schedler, 2002: 8-9). Administrative efficiency can be prone to errors and mistakes, something which Birch (2011: 14 and 26) labels 'mispractice' and others consider 'malpractice' (Vickery and Shein, 2012; Norris, 2013).[1]

Any difficulties are likely to lead to perceptions of the electoral process being, at best, not uniform, and at worst, threatening the entire credibility or integrity of the process. Elklit and Reynolds (2005: 148) suggest this matters less, and that credibility survives, if errors are random and do not impact upon the outcome. Widespread scepticism and distrust about the political process in advanced democracies means, however, that such difficulties should not be taken lightly since they have the potential to further undermine confidence in political systems. Having the capacity in all these areas to ensure the effective administration of the electoral process is crucial to maintain public confidence.

The Cost of Elections

Election administrators must work with a wide range of resources when ensuring they have the capacity to prepare and deliver elections. These include human resources, technical capacity and expertise. However, more often than not, what is meant when resources are mentioned relates to the amount of money spent on administering elections.

The complex activities that contribute to running elections are expensive. Without adequate funding, election staff and experts could not be employed, ballot papers could not be distributed, or voting and counting technology purchased. Elections therefore require considerable levels of public expenditure. For example, the 2010 Australian federal election cost upwards of A$161m to administer. This had risen to A$198m in the 2013 federal contest. The 2011 Canadian election cost around C$291m, while the national election four years later had risen to C$443m. Even elections other than those to the national parliament are costly. The 2011 UK-wide referendum on electoral reform, a single-question ballot, is reported to have cost around £75 million, while just one American state, Wisconsin, spent $37 million to administer five elections in 2012, including presidential primaries, the general election, and a number associated with a recall contest (Australian Electoral Commission, 2011; 2013: 65; Elections Canada, 2011: 44-45; 2015: 35; Electoral Commission, 2012; Pew, 2012).

While there has been plenty of analysis of spending on election campaigns (e.g. Jacobson, 1978; Johnston and Pattie 2014), little scholarly work examines the administrative cost of elections. On the rare occasions this is discussed, it tends to be mentioned only in passing, with the suggestion that insufficient spending has a negative impact on levels of performance in electoral administration. For example, Birch's (2011: 26) comparative study indicates a link between a lack of resources and incidences of electoral 'mispractice'. Pastor (1999) highlights a link in developing countries between weak spending on public administration and performance in the electoral process. Similar links have been made in advanced democracies. Hall and Tokaji (2007) point to US electoral administration being underfunded, a point also strongly made by Gerken (2009: 118) in her arguments for better data collection to judge election quality. Alvarez and Hall (2006: 496) highlight the link between spending and capacity by showing how insufficient funding leads to difficulties in recruiting poll workers. Low pay and a demanding workload mean that many fail to turn up to work, leading to obvious unhelpful consequences for election quality. Money is certainly an important motivator for some poll workers (Clark and James, 2017a). Increasing demands from new legislation, technology and developing practice all stretch scarce electoral administration resources even further—as do current austerity policies across many advanced democracies (Montjoy, 2010; James and Jervier, 2017).

Following this logic, the corollary is that increased resources should lead to better performance in election management. Highton (2006: 68) concludes his study of voting lines by arguing that 'administering elections requires ample resources. Administering them well requires even more'. Pastor (1999: 17-18) links an adequately resourced Electoral Commission with 'a far greater likelihood of conducting an election that is free and fair'. Most importantly for the argument of this paper, Hale and Slaton (2008: 843) suggest that increased US federal funding would improve local capacity in election administration. These assertions are seldom backed with extensive data. In two rare data-driven exceptions, Clark (2014; 2017) uses extensive election funding data alongside a measure of election administration performance to

argue that higher levels of election spending does lead to higher levels of administrative performance. Even if the performance gains in advanced democracies are likely to be relatively incremental, increased spending may be likely to lead to even greater improvements in democratizing countries.

A range of costs can be incurred administering elections. An extensive IFES/UNDP (2005: 15-16) report has identified the various different costs involved. At least three important distinctions must be made. The first, and arguably key, distinction relates to the division between *personnel costs* and *operational costs*. Secondly, there is also an important difference between *fixed costs* and *variable costs*. The former relate to the day-to-day and ongoing running costs of electoral administration, independent of the costs of any specific election. Variable costs in contrast are those related to the actual conduct of a specific election. The third distinction in categorizing costs is between *integrity costs* and *core costs*. In short, integrity costs relate to questions of voter and ballot security, whereas core costs are those relating to the general conduct of election independent of any security or integrity measures that may be necessary. Separating out such election costs is not however always easy. As Montjoy (2010) has noted, even within the same US state, costs are not always recorded consistently or comprehensively. IFES/UNDP (2005: 15) similarly note that 'it is not always easy to split budgets and assign costs to different elections', a particular problem in many advanced democracies where often elections for multiple levels of government are held either concurrently or in the same electoral cycle.

In what is publicly reported, it is not always clear what the difference between operational, variable and core costs are. It is nevertheless possible to get some tentative comparative sense of the relationship between personnel and operational costs. Staffing accounts for a considerable part of spending on election administration, although there is clearly variation in different jurisdictions. Thus, around a third of the 2011 and 2013 Australian federal election budgets was spent on 'employee expenses' (Australian Electoral Commission, 2011; 2013). Of the US$21.1 million spent on three elections in Wisconsin in 2012 around 59 per cent of costs went on poll worker wages and staff salaries (Government Accountability Board, 2012). This is a similar proportion to the 60 per cent noted by James (2012: 213) in his brief discussion of election costs in Virginia. However, it is not always the case that even this general distinction between personnel and operational costs is easily available, or evident. For example, reports on Canadian elections include staffing and personnel costs alongside costs for various goods and services that might otherwise be classed as operational costs, such as printing electoral lists and renting polling stations (Elections Canada, 2011: 44-45; 2016: 38). While labour costs were the single largest item in Montjoy's (2010: 870) description of election spending in Contra Costa County California, accounting for approximately 36 per cent of costs in 2008, these were not available in his other case in Weld County, Colorado.

One way of establishing whether variations in election spending are either on the high or low side is to establish how much is spent on election administration per elector. IFES/UNDP (2005: 21-22) provided a sense of how much elections cost to run in various types of democracies in the mid-2000s. They suggest that stable advanced democracies, such as the US and Western Europe, will spend between $1-3 per elector. Democracies with less experience of multi-party electoral competition they suggest will spend more, somewhere between $3-7 per elector. Finally, in post-conflict or emerging transitional democracies, costs are likely to be higher still, somewhere above $8 per elector. Quite how reliable or up to date these indicators are is debatable. Analysis of the 2013 Australian and 2015 Canadian elections

suggests an average cost per elector of approximately US$13.50 in Canada (C$17.04) and US$7.40 in Australia (A$9.48) (Australian Electoral Commission, 2013; Elections Canada, 2016).[2] This is somewhat higher than IFES/UNDP estimated for stable democracies.

A final issue is whether or not election costs are increasing or declining. There are two sets of pressures on election costs. On the one hand, there is an increasing imperative in advanced democracies to reduce public spending. Spending on election administration is consequently far from a priority. For example, the Australian government and parliament regularly pressure the AEC to reduce costs (IFES/UNDP, 2005: 19). Elsewhere, minimizing costs is often given as a justification of holding different levels of election concurrently. The ending of various federal funding initiatives in the US are likely to have reduced the amount available for US electoral administration (Montjoy, 2010). Particularly, but not exclusively, in advanced democracies, length of electoral institutionalization is highlighted as important in building expertise and capacity while at the same time reducing costs (IFES/UNDP. 2005: 46-47). On the other hand, a number of pressures are combining to increase the cost of elections. These include the need to pay reasonable wages to polling staff to ensure they turn up for work, the increasing need for new technology and the expertise to support it, and the trend towards early or postal voting (Gronke et al., 2007; 2008; IFES/UNDP, 2005; Montjoy, 2010). Technology, sometimes suggested by advocates and voting machine vendors as being the key to reducing costs, often ends up being more expensive than expected. Consequently, 'a perfect storm of election finance' has the potential to adversely affect election quality in advanced democracies (Montjoy, 2010: 873).

Data and Approach

An insight into many of these broad issues can be provided by examining spending on election administration in Britain. Like a number of advanced democracies, most obviously the USA, elections are run by local authorities who have discretion within statutory requirements for how elections are implemented. Consequently, considerable variation is evident to test these ideas against. British election administration has historically largely been taken for granted. This has gradually changed due to two factors. Firstly, there have been a number of high-profile difficulties in British electoral administration in recent years which have served to highlight the fragile nature of election quality (see: Clark, 2014; 2015; 2017; Denver et al., 2009; Stewart, 2006; Watson, 2011; Wilks-Heeg, 2009). James (2013; also Watson, 2011; Wilks-Heeg, 2009) notes that British electoral administration is underfunded and that this is impacting upon the service received by electors. It also impacts upon local authorities; they can wait up to two years to be refunded by government for spending on national elections. Clark's (2014; 2017) examination of the relationship between election quality and spending in the 2009 European and 2010 general elections in Britain suggests that the more spent on EA, the higher level of performance British returning officers (ROs) have. As in other countries where problems have been evident, these difficulties have highlighted the need for much more knowledge on British electoral administration. Interrogated analytically, such knowledge from Britain can then inform broader international debates around the costs of electoral administration in advanced democracies.

Secondly, since the Political Parties, Elections and Referendums Act (PPERA) 2000, the UK has had an independent Electoral Commission responsible for oversight of numerous aspects of the electoral process. The commission reports to parliament, but essentially operates

independently, making it something of a hybrid in the standard threefold classification of Electoral Management Bodies (EMBs). The Electoral Commission was given the role of overseeing election process spending in the Electoral Administration Act (EAA) 2006. Consequently, information about election funding has gradually become publicly available. In parallel with this, recent UK governments have taken an interest in electoral administration. Labour governments between 1997-2010 sought to boost turnout (James, 2012). Conservative-led governments from 2010 have implemented individual electoral registration (IER), and also focused on combatting rare cases of electoral fraud. As part of this interest, the UK Cabinet Office has also been collecting and publishing data on electoral administration funding.

Nonetheless, the actual delivery of electoral administration in Britain remains the responsibility of local government. The Electoral Commission has no formal powers of direction over the local returning officers (ROs) and electoral registration officers (EROs) who are ultimately responsible for delivering the elections.[3] Consequently, there are inevitable variations in delivering electoral administration which need to be explained. Funding is provided for national elections (General, European and Police and Crime Commissioners) by the UK government, whereas the costs of local elections and electoral registration have to come from local authority budgets (Electoral Commission, 2010; Cabinet Office, 2016). The Cabinet Office has also provided additional funds for implementation of the new individual electoral registration (IER) system.

Response rates for the surveys deployed in this article were very high. The 2007-11 surveys by the Electoral Commission had a response rate of around 80%, while the 2014 Cabinet Office survey with 382 responses had a rate of 100% (Electoral Commission, 2010; Clark, 2016; Cabinet Office, 2016). The Electoral Commission surveys were designed with leading UK experts on public finance, the Chartered Institute of Public Finance and Accountancy (CIPFA). This surveys were audited by CIPFA. The data collected by the Cabinet Office was also extensive, although not directly comparable, since both organisations asked different questions and made different distinctions. The initial Electoral Commission data makes a distinction between subjective and objective expenditure in its 2007-09 data between gross expenditure (subjective) and that net of income (objective). The former is utilised here. It does not make the same distinction in its 2009-11 data. The proxy used for total spending in the 2014 Cabinet Office data is the total amount that local authority election administrators could reclaim from the Cabinet Office (Maximum Recoverable Amount (MRA) Total). The data cited are from the 2008-09 and 2010-11 Electoral Commission surveys and the 2014 Cabinet Office survey. Any difficulties notwithstanding, the data are extensive and reliable for current purposes.

Overview

Elections are widely perceived to be getting more expensive across many democracies, as noted above. Figure 1 provides an overview of the cost of conducting elections and referendums in Britain over the decade from 2007-2017. This suggests several things. Firstly, it confirms that elections are becoming more expensive in Britain. The 2017 general election was estimated to have cost £143m to administer, a similar amount to the 2016 EU Referendum, while the conduct of elections in general election year 2010-11 was £106.7m. Adjusting for inflation does not account for all of that increase. The Bank of England's inflation calculator suggests that in 2016 prices, the 2010 general election would only have cost around £125.5m to

Figure 1: British Election / Referendum Costs, 2007-2017 (£m)
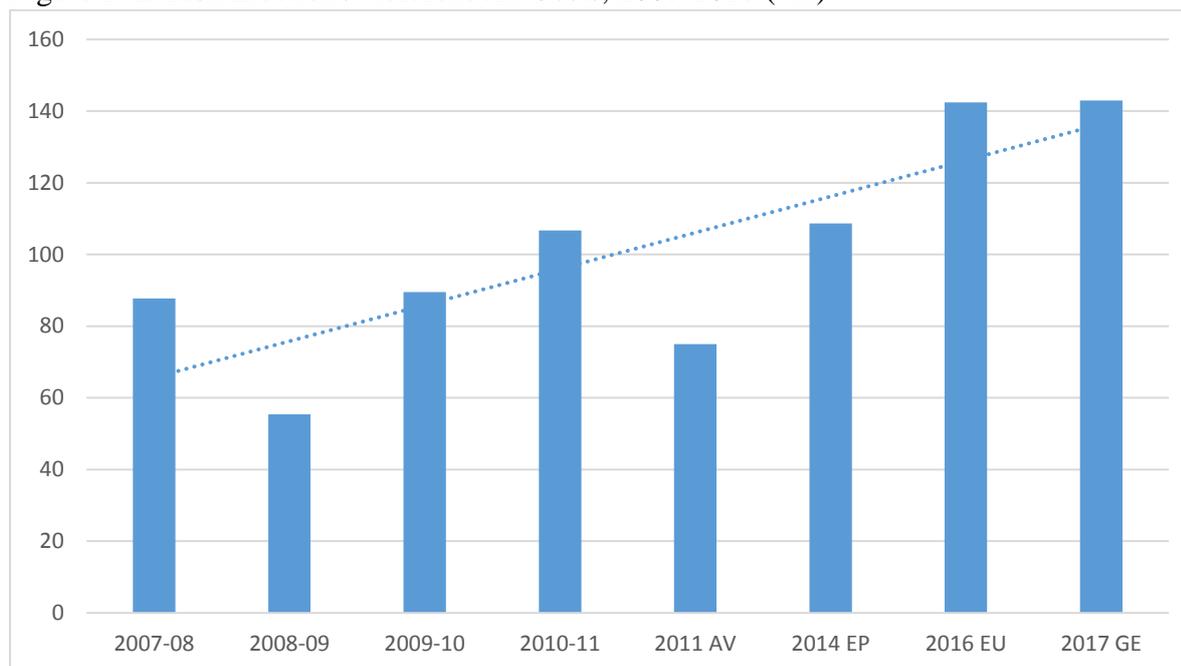
Sources: Electoral Commission (2010, 2012a, b) Cabinet Office, 2016; House of Commons, 2016; BBC, 2017. Note: the 2011 AV, 2014 EP, 2016 EU and 2017 GE estimates include Northern Ireland.

Table 1: British Election / Referendum Costs, Per Elector & Vote 2007-2017 (£s)

	2007-08	2008-09	2009-10	2010-11	2011 AV	2014 EP	2016 EU	2017 GE
Cost per elector	1.72	1.19	1.98	2.33	1.65	2.33	3.06	3.05
Cost per vote	-	-	-	-	3.90	6.57	4.24	4.44

Sources: Electoral Commission (2010: 32, 2012a, b; 31) Cabinet Office, 2016 & author's calculations. Note: the 2011 AV, 2014 EP, 2016 EU and 2017 GE estimates include Northern Ireland.

administer.[4] Secondly, the pattern of spending is, as might be expected, higher in general election and high turnout event electoral years, such as 2010-11, 2016 for the EU referendum and 2017 for the 'snap' general election.[5] It is lower in years where electoral events with lower turnouts might be expected, such as 2009-10 and 2014 when European elections were held. Thirdly, even in years with no major national electoral events such as 2008-09, electoral administration still incurs costs, whether for running local elections, by-elections or local referendums, albeit at a much lower level.

This picture of increasing electoral costs is confirmed by the upper row in table 1. This reports the cost per elector for each year considered. Albeit with year on year variations, the picture is also one of a steady increase in costs, to around £3 per elector in the 2016 EU Referendum and 2017 general election. Again, inflation does not wholly account for the difference between the 2010-11 and 2017 general elections years; at 2016 prices, the 2010 contest would have cost £2.74 instead of the around £3 that the 2016 events cost. Election

administrators must, of course, plan for a certain level of turnout in each contest. When the actual level of turnout is factored in by considering cost per actual vote (bottom row in table 1), British elections appear even more expensive, with the 2011 and 2016 referendums all costing around £4 per voter. The figure for the 2014 European election suggests that there is an excess cost incurred by election administration in low turnout events. Costs are incurred because electoral infrastructure still needs to be set up and paid for, even if a high turnout is unlikely. Turnout in the 2014 European elections was only 35.5%. Had turnout been higher, cost per vote would have been lower.[6] Encouraging higher turnout is, from this perspective, not only politically desirable, but also leads to more cost efficient elections.

Table 2: Total Amounts Spent on EA by Local Authorities (£s)

	Min	Max	Mean	S.D.	N
2008-09	151	2,057,303	359,537	254,137	298
2010-11	0	1,443,560	289.804	204,652	306
2014	10,730	947,423	174,182	114,179	381

Note: 2008-09 Subjective expenditure, Total Electoral Administration Total; 2010-11 Conducting Elections Total; 2014 MRA Total, Northern Ireland excluded.

Table 2 outlines the descriptive statistics for election spending by British local authorities. These figures do not include registration costs. As highlighted by the standard deviations, considerable variation exists in the three different datasets, not least because they all use different measures of spending. Averages varied from £359,537 in the first dataset, to £174,182 for the actual costs of the 2014 European election. Crucially, while some councils spend little, in 2008-09 six councils spent over £1 million, while in 2010-11 five councils also spent over £1 million. Of these high-spending councils, only two spent over £1 million in both 2008-09 and 2010-11. Size seems crucial as these were the UK's largest local authority, Birmingham, and Scotland's largest city, Glasgow, which had large electorates of around 750,000 and 450,000 respectively at that time. Other local authorities spending over £1 million were either large cities or large rural areas which will likely incur extra expenditure because of the area to be covered.[7]
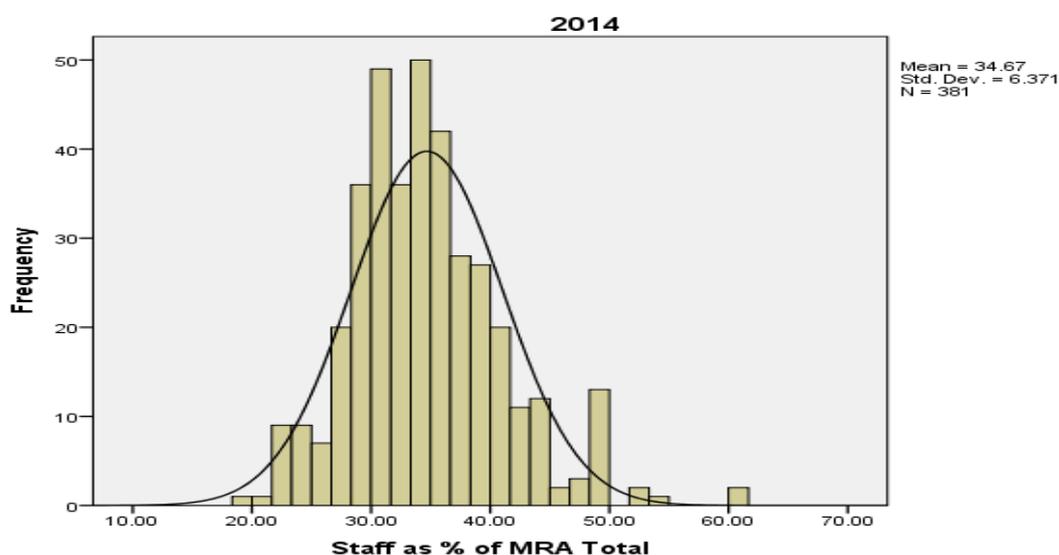
There is also considerable variation in spending per elector when this is examined by the local authorities that implement elections. This varies by election. Based on the subjective total electoral administration spend including registration, the 2008-09 average was £3.09, with a maximum of £6.38 and a standard deviation of £1.05. This crept up in the 2010-11 data which covered the 2010 general election, to an average of £4.33 with a standard deviation of £1.48 and a maximum of £10.70. Given that elections are getting more expensive in general, it appears surprising that this fell in 2014. This is likely an artefact of different categorisations being used in the Cabinet Office data, a second order election and electoral registration activity not being included. The average local authority spent £1.57 with the maximum spent per elector being £6.43 and a standard deviation of £0.55.

The distinction between staffing and operational spending is a crucial one. Without staff, there is no capacity to administer elections. With its simple first-past-the-post electoral system, the UK does not incur much in the way of costs for technology. Instead, paper ballots are issued, whether in polling places or by post, and counted by hand. Staff are therefore crucial, whether they are polling clerks, presiding officers running polling stations, counting staff or their supervisors employed temporarily for the elections, or the core elections services team. Typically, core electoral services teams are small. The Electoral Commission (2012: 15)

suggests a total of around 1,300 people across Britain were employed in such teams in just under 400 local authorities between 2009-11. Electoral services teams had an average size of just under three people. Sizeable national disparities were evident with Scottish teams averaging just under six members, and electoral services in England averaging half that at only 2.6. Interestingly, and potentially as a consequence of such disparities, Scottish electoral administration performed at a higher level in 2010 than its English and Welsh counterparts (Clark, 2015).

When including the temporary staff needed to run the election, staffing is expensive even if those staff working on election day as polling clerks are only paid around the minimum wage (Clark and James, 2017b). In the 2008-09 data, while some councils spent little, the mean amount spent on staffing was £166,898 with one council (Birmingham) spending over £1.2 million. In 2010-11, the period which covered the 2010 general election, while two councils spent under £10,000, at the other end of the scale, two councils again spent over £1 million on staffing (Glasgow and the London borough of Kensington and Chelsea), with a mean of £200,500. By comparison, in the 2014 European election, staffing costs across Britain varied from as low as £2,390, with three councils spending below £10,000 on staffing, to a high of £340,494 (Glasgow) with a mean of £60,217.[8] Differences between the three datasets are likely to be accounted for by the fact that the 2008-09 and 2010-11 data covered whole years, while the 2014 data related just to the conduct of that specific election. Each dataset also asked and categorized staff differently, with this being particularly disaggregated into different types of staff in the 2014 data.

Figure 2: Proportion of EA spending on staffing

Staffing translates into a sizeable proportion of election administration spending across British local authorities. Nonetheless, there is considerable variation across councils. Figure 2 provides an illustration of the proportion spent on staffing by councils in the 2014 data. The 2008-09 data indicates a mean of 45% of expenditure going on staffing, with a standard deviation of 15.7. By contrast, figure 2 shows that the 2014 data has a mean of 35% and a standard deviation of 6.4. In 2014, the proportion spent on staffing ranged from, at the low end,

around 20 per cent, to just over 60 per cent at the high end. Most local authorities spent however somewhere between 28-40 per cent of the total amount on staffing. One the one hand, this apparent reduction on spending on staffing between 2008-09 and 2014 may indicate pressure on staffing as a result of reduced budgets and austerity (Clark and James, 2016; James and Jervier, 2017). On the other, it is also likely to be an artefact of the differences in data collection evident between the Electoral Commission and Cabinet Office datasets noted above. It does however provide a useful benchmark for future estimates of staffing electoral administration in advanced democracies.

Drivers of EA Spending

Despite having provided an overview of electoral administration spending, the issue of what the main drivers of such spending are remains opaque. If there is little literature on the costs of electoral administration spending, there is even less on what the key drivers of such spending may be. There is little in legislation about the formula through which spending amounts are calculated and the Cabinet Office are somewhat opaque about this.[9] Transparency and analysis is therefore crucial.

One obvious point is that electoral law will be crucial. Who is enfranchised, and the consequent size of the electorate being administered is likely to determine some of the demands, and costs, incurred by electoral administrators. IFES/UNDP (2005: 17) suggest a number of factors that may drive costs. In an ideal world, these include: the political environment, the number of elections to be funded, and whether these are concurrent or standalone; whether funding is for the Electoral Management Board (EMB) or the practical running of the elections; distinctions between core and integrity costs, and direct and diffuse costs incurred by different organisations involved in delivery; the funding source; and cost evolution over time to include investments and amortizations. Given the rarity of data on election spending, most of this information is likely to be either unavailable or extremely difficult to access.

More practically, Hill (2012) proposes what she calls a public sector cost model to examine the drivers of election administration finance. This is an ordinary least squares (OLS) regression with two groups of independent variables, which are run together. The first set relate to the cost or production function. These are things which have to be done to implement the election. She highlights the population being served, voting technologies, the need for bilingual election materials, costs imposed by legal requirements, levels of absentee voting, and polling sites as key issues perceived to be driving costs in her study of Californian election administration spending. The second set of independent variables relate to the demand function. This reflects 'income and socioeconomic factors that would potentially affect the demand for election administration' (Hill, 2012: 611). These include factors long associated with turnout: higher income; higher levels of education; age; and the ethnic make-up of the area being administered.

Some of the variables that Hill deploys, such as on voting machines and technology, or the Help America Vote Act (HAVA), have no equivalents in the British context. Yet, other variables do have equivalents, such as socio-economic demand variables, in addition to some of the production variables related to population and various aspects of running the elections. Consequently, four production cost variables are deployed here. Firstly, Hill (2012) suggests that the level of absentee ballots is important in determining some costs. The British equivalent

is the number of postal voters each local authority had in 2014. Secondly, whether or not the local authority is administering elections for a different level of government concurrently was also suggested to be important (Hill, 2012). Concurrent elections in Britain have been shown to impact negatively on election quality (Clark, 2017). A dummy variable for whether or not the local authority was holding another election at the same time as the 2014 European elections is therefore deployed. Thirdly, the number of physical polling locations needed to enable electors to cast their ballot is important in determining costs. The number of polling stations per local authority is therefore utilised to capture this aspect. Finally, although Hill deploys both population size and precinct electorate as independent cost variables, this is not optimal since there is likely to be a correlation between both. The whole population is not registered to vote. Registered electorate is therefore likely to be more appropriate and utilised on its own.

In terms of demand variables, Hill (2012) deploys three which have a British equivalent. These are percentage minority population, percentage of population aged 65+, and percentage of population who completed high school. Her fourth variable captured levels of local property taxation. In this study, the following are utilised as demand variables. The percentage non-white population captures any extra demands put on election administrators by, for example, having to provide bilingual material or particular cultural practices to look out for (Hill et al, 2017). The percentage of population aged 60+, the percentage of students, and a composite variable of higher occupational groups intended to capture income and status are all deployed as proxies for populations more likely to turnout. All are measured at the level of the local authority, and taken from Census 2011 data. The age variable is constructed by adding all age groups of 60+. Similarly, the higher occupational variable combines levels of higher managerial, administrative and professional occupations with higher professional and large employers higher managerial categories in the census data. The descriptive statistics for both production and demand variables are shown in table 3.

Table 3: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Production Cost					
Postal Voters	381	42	92795	18932.18	13510.734
Polling Stations	381	4	467	100.67	63.019
Combined elections	381	0	1	-	-
Electorate	381	1669	715014	118740.4	78103.7
Demand					
Age 60+ %	380	8.40	38.00	23.9755	5.03456
Minority non-white %	380	.80	71.30	9.6971	12.27034
Higher status composite %	380	8.00	70.90	20.5255	7.65143
Full time students %	380	1.20	27.70	7.9511	3.63337
Independent					
MRA Total (£)	381	10730	947423	174182	114178
MRA per elector (£)	381	0.69	6.43	1.57	0.55

Two exploratory OLS regressions were undertaken. The first utilises the total maximum recoverable amount (MRA) as the dependent variable. The second, following Hill's (2012) practice, uses the amount spent per elector, expressed in terms of MRA per elector as the

dependent variable. Descriptive statistics for both independent variables are also outlined in table 3.

Table 4 presents the results of these regressions. Taking the MRA Total regression first, each of the production cost variables is statistically significant at the p<.01 level. Numbers of postal voters, polling stations and the size of the electorate are all positively correlated with the total spent on electoral administration. For every extra polling station for example, the results suggest an additional £850 was spent in 2014, while every additional voter led to a £0.60 increase and every additional postal voter to a £0.86 increase. Combined elections have two potential outcomes. They might be expected to lead to less spending since the infrastructure is already in place. Economies of scale may therefore exist if elections are held together. Such an argument is often given to justify holding combined electoral contests. Alternatively, it might be that concurrent elections imply greater spending and costs since staff will need to work longer to count votes, more ballots will need to be printed and so on (Clark, 2017). The results based on the 2014 data suggest the economies of scale argument was the case, with a negative relationship between combined elections and the amount spent.

Table 4: Regressions on 2014 European Election Spending

	B	(S.E.)	Beta	B	(S.E.)	Beta
	MRA Total			MRA/Elector		
Constant	44062.574	(18895.75)*		1.557	(.205)**	
Production Cost						
Postal Voters	.867	(.289)	.102**	4.834E-6	(.000)	.118
Polling Stations	850.461	(66.474)	.469**	.003	(.001)	.376**
Combined elections	-70393.02	(4362.447)	-.305**	-.686	(.047)	-.615**
Electorate	.600	(.074)	.410**	-3.919E-6	(.000)	-.555**
Demand						
Age 60+ %	-1309.23	(585.716)	-.058*	.008	(.006)	.075
Minority non-white %	-118.412	(233.246)	-.013	.006	(.003)	.135*
Higher status composite %	781.086	(238.867)	.052**	.008	(.003)	.116**
Full time students %	367.118	(620.506)	.012	-.011	(.007)	-.072
Adj. R²	.909			.541		
N	379			379		

 Note: Statistical significance ** p<0.01; * p<0.05.

By contrast, only two of the demand variables were statistically significant when regressed against the MRA total. Surprisingly the age variable suggests a negative relationship between the percentage of people aged 60+ administered by the local authority which is

significant at the p<.05 level, but as might be expected, a positive relationship between levels of higher status occupations in that local authority and election administration spending. This was significant at the p<.01 level. The ethnicity and students/education variables were not statistically significant.

To corroborate these findings, the regression was repeated with the amount spent per elector as the dependent variable. There were two main differences in the results to this analysis from the first regression. Firstly, of the production variables, the amount of postal voters was no longer significant. Secondly, with the demand variables, while the higher status occupation variable remains statistically significant at the p<.01 level, the age variable drops out of significance. Instead, the minority variable becomes statistically significant at the p<.05 level, and evidences a positive correlation with spending per elector.

Both analyses were also run using electorate density, expressed as the number of electors per hectare, as an independent production cost variable instead of the size of the local authority electorate. The logic in doing so was to attempt to capture the interaction between electorate and the size of area administered. This offered a rough approximation of the effects of administering elections for an urban or rural local authority. Indeed, it might have been hypothesised that there may be economies of scale in highly populated urban areas, which are less easy to benefit from with more dispersed electorates. The findings (not shown for space reasons) however were not statistically significant.

Focusing only on those variables which are significant in both analyses suggests that the production side of the equation is, at least tentatively, more likely to drive election spending by local authorities. Numbers of polling stations, whether combined elections are held, and the size of the electorate were all crucial as production costs in both analyses. Spending on election administration therefore can be argued to provide crucial capacity to run these contests in terms of the physical presence of providing election infrastructure, but this can cut in different directions as there may be cost savings to be made in places. In terms of demographics, what matters in determining this capacity seems to be the size of the electorate, rather than necessarily its composition. To the extent that its composition was statistically significant, high status occupations, a proxy for class and income, was most likely to be crucial in both analyses from the demand side. Given the profile of who votes, this confirms what might have been expected.

Conclusion

Cowling (2013) correctly observes that election administration 'is a massive, extraordinary and complex operation: the biggest manifestation of civil society any of us are likely to see'. It is a fundamental yet not well understood area of electoral politics. This paper has provided vital insights to this fundamental area of public administration in electoral democracies. Integration of approaches to the capacity of public administration with extensive, original and rigorous data on election spending from public bodies, which have not been previously utilised for academic research, enables some very important insights into this vital democratic function. These include the proportion spent on staffing elections, and the fact that costs in one important advanced democracy have been driven in an important national election by the need to provide capacity, notably on the ground close to electors. This helps underline the assertions made by some (e.g. Highton, 2006) that greater spending would improve capacity to deliver higher quality elections. It provides benchmarks which can be tested in other jurisdictions and also

helps address questions regarding the perceived cost pressures on electoral administrators in advanced democracies.

Crucially the paper has also opened a range of important issues that require further research and debate. Questions abound. For example, are there other influences on spending on election administration that may be usefully included in a more advanced public cost model of election financing? Comparatively, are the benchmarks on electoral costs for different democracies established by IFES/UNDP (2005) still fit for purpose, or need further updated work at the international level. The figures highlighted in this paper, for Britain and elsewhere, suggest that they need rethought and that cost pressures are more than just the result of inflation even where election administration is well established. This may be even more the case in less advanced democracies.

Following from this, the paper underlines the importance of two further important issues, even if somewhat indirectly. The first is the urgent need for greater transparency, both domestically and internationally, around the issue of funding election administration. Such spending provides capacity to administer such contests. Withholding or misallocating funds therefore affects the delivery of elections. As has been seen in the United States and elsewhere, the partisan delivery of elections impacts negatively on election integrity and fairness. Only with greater transparency can this, to some degree at least, be diagnosed. Even if after the event, it provides the ability to make future funding decisions on as equitable a basis as possible. Secondly, as the data deployed here demonstrate, there is a pressing need to develop some common standards for accounting and recording spending on elections. In the three datasets utilised in this paper, two collected by the same organisation and all part of public administration in the same state, three different sets of distinctions have been made. This impacts upon the ability to compare developments and trends over time both within and across countries. Working on consistent approaches to recording such data is an important issue going forward if academics and practitioners are to understand the funding of elections, the capacity it brings and its impact on election integrity and performance.

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[1] Distinguishing it from 'malpractice', which Birch defines as the 'manipulation of electoral processes and outcomes so as to substitute personal or partisan benefit for the public interest'. (Birch, 2011: 14 & 26).

[2] Converted on 14/7/2017 at the rates of A$1=US$0.78 and C$1=US$0.79.

[3] There are slightly different arrangements in Scotland and Northern Ireland, with the Scottish Electoral Management Board (EMB), and the Electoral Office of Northern Ireland (EONI) both having some responsibilities but with local authorities effectively responsible on the ground for delivery.

[4] See: http://www.bankofengland.co.uk/education/Pages/resources/inflationtools/calculator/default.aspx [14/7/2017].

[5] This is likely to cost more when the figures are finally announced because the UK government gave assurances that there would be no general election in 2017. Many electoral administrators booked holidays on the strength of this assurance, only to have to cancel them when the government backtracked. The Cabinet Office subsequently promised to refund such expenses to electoral administrators.

[6] Calculations for spending per vote are not made for 2007-2011 because they each cover a year's worth of electoral administration spending and are not specific to actual elections. The 2011 and 2016 referendums, 2014 European and 2017 general elections are estimates for specific events and cost per elector is therefore both a possible and meaningful indicator. Estimates here for the 2014 European election differ from the Cabinet Office estimate. The calculation in this paper is based on a total amount of £108.7 million divided by a UK electorate of 46.5 million and 16.5 million votes cast. The Cabinet Office (2016: 25) estimates are cost per elector of £1.47 and cost per vote of £4.12.

[7] The others were in 2008-09, Wandsworth, Liverpool, Sheffield and Bradford, while in 2010-11 they were Ealing, Durham and Fife.

[8] 2008-09 variable - subjective total electoral administration employees total. 2010-11 variable - Total Electoral Administration Employees (TEAEmpTotal). The 2014 variable is a composite of costs for the various staff categories contained in the data – presiding officers, poll clerks etc – and the associated expenses involved in staffing elections such as travel & subsistence and superannuation.

[9] For example, the Parliamentary Elections (Returning Officers Charges) Order 2015 contains amounts per constituency for returning officers' charges, with no indication of how these amounts are calculated.