

Constituency Campaigning in the Age of Data

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The application of “big data” by the Obama campaigns of 2008 and 2012 has been touted as a revolution in American politics (Germany, 2009, 2014; Issenberg, 2012a, 2012b). Given the successes of Obama, it is unsurprising that all three major Canadian federal parties—the Conservatives, the Liberals, and the NDP—contested the 2015 general election armed with large-scale data management tools. Indeed, the Conservatives have been using a comprehensive voter database since 2004 (Flanagan, 2007). Canadian constituency campaigns, however, have significant independence from their party’s central campaign (Carty, 2004); consequently, we sought to investigate the question: *how is data perceived and used in constituency campaigning in Canada?*

In this paper we develop a framework for analyzing the use of data by constituency campaigns and present findings from a case study of three major political parties in a single constituency during the 2015 election. While the national parties clearly sought to reap the benefits of a data-driven campaign, we observed significant variation in how this was implemented at the constituency level. The small and meagrely resourced NDP campaign put very little emphasis on either collecting or using data about voters. The Conservatives perceived data about voters as a significant campaign resource and made efforts to collect it, but campaign decisions remained guided by tradition and intuition. The Liberals, on the other hand, aggressively collected data about voters and about their own activities and relied on that data for almost all campaign decisions. From these findings, we derive insights into why campaigns use data, what causes

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Canadian Journal of Political Science / Revue canadienne de science politique

51:1 (March / mars 2018) 135–154 doi:10.1017/S0008423917001135

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and/et la Société québécoise de science politique

variations in such use and how the use of data may affect the structure of Canadian parties.

Constituency campaigning in Canada

Previous examinations of constituency campaigns in Canada have focused on one of three broad topics. First, significant work examines the resources employed by campaigns, and to what effect. This includes the impact of financial contributions on electoral success and/or party organization (Colletto et al., 2011; Eagles, 1993, 2004), or on the significance of constituency level efforts for electoral outcomes (Carty and Eagles, 1999). The literature highlights financial assets and volunteers as key campaign resources; increases in either of these resources have been found to positively correlate with electoral outcomes (Carty and Eagles, 1999).

A second major focus of the literature is the relationship between local and national party organizations. This relationship, described by Carty (2004) as a franchise model, is one in which both the local and central (national or provincial) campaigns have their own spheres of activity in which they are largely autonomous, creating a “stratarchical” rather than hierarchical organizational structure. As Carty and Cross (2006) explain: “The party in public office determines both parliamentary and electoral policy and disciplines its membership; the party on the ground determines just who becomes (and stays) a member of the party in public office” (8398).

This is significant because it highlights the relationship between the central campaign, which creates the overall political environment in which the constituency campaign operates, and the constituency campaign itself, which runs the “ground game” during the election: identification of support, communication of message and mobilization of vote on election day (Carty and Eagles, 1999). Traditional perspectives of electoral campaigning in Canada have viewed the constituency campaign as “submerged” under the central campaign’s all-encompassing media campaign; from this view point, constituency campaigns are merely “miniature replicas of the national race” (Fletcher and Bell, 1991: 185). Carty and Eagles (2005: 137) dispute this “nationalization thesis,” arguing instead that constituency campaigns vary, reflecting variable geographic, political, and socio-economic factors in each riding.

A third major focus of the constituency campaigns literature is the nomination process by which candidates are chosen by parties. Sayers (1999) argues that the type of nomination process determines the types of candidates nominated and, in turn, the types of campaigns they run. Contested and open nomination processes, for instance, are more likely to produce a local notable candidate who runs a large, locally financed but perhaps inexperienced campaign. Closed but contested nominations,

Abstract. This paper examines how Canadian constituency campaigns perceive and use data in elections. We apply a conceptual framework for data-driven campaigning, developed from existing literature, to participant observations and interview responses from the Conservative, Liberal and NDP campaigns in a single riding during the general election of 2015. The rhetoric of “big data” notwithstanding, we find significant variation in the extent and nature of the use of data at the constituency level, and that the increasing use of data in electioneering may have a centralizing effect on traditionally stratararchical political party organization.

Résumé. Cet article examine la perception et l'utilisation des données à l'occasion des campagnes de circonscription au Canada. Nous appliquons un cadre conceptuel pour les campagnes guidées par données, élaboré à partir de la documentation existante, aux observations des participants et aux réponses obtenues aux entrevues lors des campagnes des partis conservateur, libéral et néo-démocrate dans une seule circonscription au cours de l'élection générale de 2015. En dépit de l'argumentation sur les « mégadonnées », nous constatons une variation significative dans l'étendue et la nature de l'utilisation des données à l'échelon de la circonscription et que l'utilisation croissante des données dans les manœuvres électoralistes peut avoir un effet centralisateur sur l'organisation traditionnellement stratarchique du parti politique.

meanwhile, are likely to nominate a party insider who will rely on committed party workers with campaign experience. Contested but closed nominations result in a star candidate who runs a highly funded professional campaign well-connected to the national or regional organizations. While Sayers' work predicts who will be nominated and the types of individuals that will make up the campaign, as well as the level of financial and volunteer resources available, it cannot tell us *what* the team will do with those resources.

Where does data fit within this context? One question is whether data should be conceived of as a resource alongside volunteers and finances and, if so, what impact this has on constituency campaigning. Another question is whether data-as-resource affect the relationship between local party organizations (electoral district associations, candidates and electoral volunteers) and central party organizations. While the Canadian campaign literature was largely established before the data innovations of the Obama campaigns, Carty and Eagles (1999) made a prediction about the impact of new technologies on this relationship: “It seems to us equally plausible that the diffusion of computer technology, the availability of geographic information systems containing rich data on constituency electorates, and the spread of campaign professionals into the trenches of constituency electoral battles, will strengthen these local forces, empowering rather than enslaving local party organizations” (83).

Despite this prediction, and notwithstanding observations about the shift towards politics as marketing (Delacourt, 2013), there is a lack of

research into the impact of data on constituency campaigning and party structure in Canada.

Data and election campaigns

All election campaigns rely on information about the electorate, but not all campaigns necessarily use data, that is, “a description of something that [can be] recorded, analyzed, and reorganized” (Mayer-Schonberger and Cukier, 2014: 78). The literature on applications of data in campaigning is fragmented because it either discusses information technology writ large (Bimber, 2014; Germany, 2009, 2014; Medvic, 2011; Norquay, 2008) or because it focuses on relatively narrow uses of data, particularly microtargeting (Barocas, 2012; Bennett, 2015; Franz, 2013; Johnson, 2010). In response to this fragmentation, we have drawn on this literature to propose a three-fold conceptual framework for understanding how election campaigns might perceive and employ data.

Perceiving data as a resource

Almost unremarked in the discussions of the large-scale collection of voter data in American presidential politics (Bennett, 2015; Franz, 2013; Issenberg, 2012a, 2012b; Rubenstein, 2014) is that those campaigns understood data as a resource in its own right on par with volunteer time or money. In contrast to Bennett (2015), we do not assume that campaigns necessarily perceive data in this way. Organizations that do so, however, will invest in infrastructure to manage it and/or expend effort to collect and collate it.

Data generation

The literature suggests that campaigns may collect or generate data, as defined above, in three different modes and that these are independent of one another. Campaigns may employ one or more modes simultaneously.

- a. *Integrating known voter data:* The easiest way for parties to generate data about voters is to organize and integrate existing stores of data, and then add new data as they are collected (Johnson, 2010).

National parties and local riding associations, for example, have long had information about donors, volunteers, party members and people who could be relied upon to put up a lawn sign. Only relatively recently have parties in the US and Canada begun transforming this information into data and integrating it into databases that could link together what the

party knew about a specific person as a donor, a volunteer, a party member *and* a voter and organize that data geographically (Flanagan, 2014; Issenberg, 2012a). Integrative data programs are defined by their reliance on “hard” facts, such as voting records provided by Elections Canada, party membership or donor rolls and the identification of voters as confirmed supporters, confirmed opponents or undecideds.

- b. *Inferring unknown voter data:* In the absence of hard data about each voter, campaigns may make inferences about them through the use of probabilistic models (Barocas, 2012; Bennett, 2015; Bimber, 2014).

As more individual-level data become commercially available, it becomes possible to create a predictive voter model that examines hundreds of data points about *every individual voter* and, by comparing those to a handful of known voter identifications, makes probabilistic inferences about each individual’s voting intentions (Bimber, 2014; Issenberg, 2012b).

- c. *Tracking campaign activities:* As campaigns increasingly use customized IT platforms in the routine operation of their campaigns (Germany, 2009, 2014; Medvic, 2009), it becomes increasingly easy to automatically generate data about one’s own campaign activities (Bimber, 2014; Norquay, 2008). This, in turn, allows campaign leadership to better direct volunteer effort while also increasing their ability to monitor and analyze the campaign’s progress and effectiveness (Germany, 2009, 2014; Issenberg, 2012a, 2012 b).

Data-driven decision making

A data-driven campaign is one in which decisions are guided by the use of data rather than by instinct, guesswork, intuition, tradition or rules of thumb (Bimber, 2014; Issenberg, 2012a, 2012b; Johnson, 2010; Karpf, 2013). Micro-targeting, for example, refers to the use of individual-level data to tailor a campaign’s message and effort, in theory enabling an agent of the campaign to say the right thing to the right person, wasting no effort with either the wrong message or the wrong audience.¹ Many scholars note a shift from intuition-based campaigning to a culture of evidence and testing (Bimber, 2014; Johnson, 2010; Karpf, 2013) that may emerge from the turn towards professionalization noted by Carty and Eagles (1999). Data may inform campaign decisions in myriad ways (such as where or whom to canvass, or how a few hours of the candidate’s time might best be used), but we should not assume that it will be used this way.

There are thus a number of different ways in which a constituency campaign might employ data. The archetypical data-driven campaign would perceive data as valuable resources, generate them through multiple modes, and use them to guide decision making. With this as a reference

point, we can turn to examining the behaviour of constituency campaigns. Given the range of possible uses of data, what do Canadian constituency campaigns *actually* do?

Methodology

Answering this question requires an in-depth knowledge of constituency campaign activities that would be difficult to obtain through the traditional large-*n* survey because of three problems. First, campaign operatives have clear incentives to (mis)represent their campaign in the best possible light. Second, given that the use of data is relatively new, campaign operatives do not all share the same language for what they are doing and can struggle to communicate their activities clearly. Third, campaign operatives may misunderstand the tools they are using and thus confidently claim to be doing things that they are not. Consequently, we chose to employ participant observation, an underused method in political science (Gillespie and Michelson, 2011) to gain firsthand access to the inner world of the constituency campaign. This method, borrowed from anthropology and sociology, has been used with great success by American researchers studying campaign activities (Nielsen, 2012).

For this project, we engaged in participant observation with the Conservative, Liberal and NDP campaigns in a single riding, that of West Vancouver–Sunshine Coast–Sea-to-Sky, during the 2015 federal election. Participant observation requires researchers to build both relationships and trust. As such, it is generally undertaken on a single case in which the researcher has developed significant connections (Gillespie and Michelson, 2011). In this case, we were able to draw upon our professional standing as faculty members at the only university in the riding and on pre-existing relationships in the community to establish trust with all three campaigns. The single-case approach, necessitated by our choice of method, means that we sacrifice easy generalization in order to achieve rich, nuanced observations of campaign behaviour.

To make those observations, different researchers worked with the Liberal and Conservative campaigns. This allayed concerns in both campaigns that information would leak to rivals despite the confidentiality measures in place for the project. (The NDP was more comfortable with those measures and did not object to the presence of a researcher who was also working with the Conservatives; the Conservatives, meanwhile, did not view the NDP as a significant rival in the riding.) Acting as campaign volunteers, we took part in data training sessions, phone-banked, door-knocked, organized GOTV efforts, hung out in headquarters and scrutinized with each campaign, keeping field notes of these activities. Our goal was to make ourselves available like any other campaign volunteer,

showing up when asked, keeping in touch with campaign leadership and dropping in to the campaign headquarters regularly. This gave us firsthand knowledge of the tools and techniques of each campaign and created the trust required for true access and participation (Gillespie and Michelsen, 2011) without risking that we would become so involved that we affected campaign decision making. We then bolstered this participatory research with a dozen elite interviews with campaign managers, paid staff and well-placed volunteers in order to fill the gaps in our direct experience. We subsequently examined our field and interview notes from the standpoint of the conceptual framework developed above, with the goal of determining which of the theoretical uses of data were actually taking place in the campaigns we observed.

Those campaigns were undertaken in a riding made up of seven main communities: West Vancouver, Bowen Island, Squamish, Whistler, Pemberton, Gibsons and Sechelt. West Vancouver accounts for just over a third of the riding's electors and is two hours' drive from Pemberton, with Squamish and Whistler between them; Bowen Island, Gibsons and Sechelt can only be reached by ferry from West Vancouver. This creates logistical challenges for the campaigns, which must engage with voters outside of their home communities (West Vancouver for the Liberals and Conservatives, and Gibsons for the NDP.)

The riding was perceived as a safe seat by the Conservative party, a winnable riding by the Liberal party and a faint hope riding by the NDP. In the previous election the Conservative incumbent, John Weston, had been comfortably re-elected with 45.53 per cent of the vote. The Liberal and NDP candidates received 22.47 per cent and 23.59 per cent, respectively, with the Greens following at 7.06 per cent. In 2015, however, the Liberal party had recruited the popular former mayor of West Vancouver, Pamela Goldsmith-Jones, as a candidate. Believing that this would allow them to break into the traditionally conservative areas of West Vancouver, and given that the rest of the riding has historically leaned towards the left, the Liberals thus perceived the riding as a winnable seat. Meanwhile, electoral redistribution prior to the 2015 election removed Powell River, a mill town with a significant union base, from the riding; this deprived the NDP of its main support centre and relegated the riding to what the campaign called the "orange wave" (faint hope) category.

Given these differences, it is unsurprising that the campaigns themselves differed. As Sayers and later Carty and Eagles predicted, the campaigns also reflected the type of candidate nominated. Weston was the incumbent and his campaign clearly relied on "constituency staff and their own established presence" (Carty and Eagles, 2005: 73) in the riding. The campaign was well-financed, spending roughly \$199,000, and campaign volunteers generally had significant experience. Perhaps because the riding was seen as safe, however, there were no professional

staff. On the opposite end of the spectrum, the NDP riding association president, Larry Koopman, represented the party as a “stopgap candidate” (Sayers, 1999). It was clear that Koopman felt an obligation to ensure that the NDP banner was raised in the riding. As Sayers predicted, financial resources were limited and volunteers were in short supply.²

Goldsmith-Jones, the Liberal candidate who ultimately won the seat, does not fit quite as neatly into Sayers’ model (1999). Rather than a “local notable,” after her victory in the contested open nomination process, the party (both locally and nationally) treated her as a star candidate. While there were elements of the parochial and locally independent style as would be predicted for campaigns run by local notables chosen through such contests, her campaign was also highly professionalized, with an experienced campaign manager and several staff paid for by the central party organization, consistent with Sayers’ “star candidate” archetype. The campaign also had significant locally raised funds, ultimately spending roughly \$177,000.

Our single-case comparison research design, combined with these variations between the campaigns, means that our analysis can only be said to demonstrate how these specific constituency campaigns used data under the particular conditions of this riding. It seems likely that there is as much variation within parties from one constituency to another as there is between parties in this one constituency, a point to which we return below.

Observations

Over the course of eight weeks, we observed an election contest that resulted in a defeat for the Conservative incumbent and a victory for a first-time Liberal candidate (with 55 per cent of the vote). Analyzing those observations through the conceptual framework proposed above highlights significant variation across the campaigns as to how data was perceived and employed.

Perceiving data as a resource

Our observations indicate that, on a national level, the Conservatives, Liberals and NDP clearly perceive data as a resource. All three have invested considerable effort in building national infrastructures to manage large data holdings, and the national campaign provides tools and training to local campaigns to enable them to gather more such data and make use of them. The best known of these systems is the Conservative party’s Constituent Information Management System (CIMS), which dates from 2004 (Flanagan, 2007). The Liberal party used a platform called Liberalist, which appears to have been in limited service in the 2011

election but for which many functions were apparently in full-scale operation for the first time in 2015. The NDP also entered the 2015 election with a new platform, tested in by-elections, called Populus. This replaced an earlier system known as NDPVotes.

All of the platforms appear to assign different levels of access to users based on their roles in the campaign organization; users in leadership positions have access to functions which are simply not visible to campaign volunteers. Among these are the ability to generate reports from the database to list, for example, all people who have either volunteered or been identified as a strong supporter, within the last five years, in a specified geographic area. Because of our positions within each campaign, our direct experience with these higher-level functions varied; nonetheless, we observed enough to know the broad outlines of their capabilities.

While technical details of these systems were not available to us, from a user standpoint they are highly similar. A web-based interface allows an authenticated user to search for voters by name in their assigned riding and to see a record of that voter's contacts with the party (have they ever volunteered, have they ever donated, have they taken a lawn sign), the party's contacts with that voter (either simply whether or not the voter is a supporter, or a comprehensive list of how and when they were contacted), and their voting history. The interface also includes volunteer management tools that allow users to sign up for phone banks, door knocking, or other events. Both the Liberal and Conservative campaigns used a mobile application (MiniVAN and CIMS2GO, respectively), running on volunteers' smartphones or tablets, to allow volunteers to enter data about voters directly into the database from the field instead of recording data on pre-generated paper forms and then later entering it manually, as was the case with Populus.

These data infrastructures shape the activities of volunteers both by providing them with data to support a given campaign task and by controlling what data a volunteer can record. For voter canvassing, volunteers are given data to direct their efforts, such as a list of addresses on a given street and, for each address, a list of voters who reside there. These systems also give volunteers a simple, standardized way to record data such as a voter's level of support, for example, by tapping an icon of a happy face for supporters, a neutral face for undecided voters, and a frowning face for hostile voters in the case of CIMS2GO. MiniVAN and CIMS2GO both had the ability to record other information about voters, such as whether or not they wanted a lawn sign or should be approached to donate. In the case of the Conservative campaign, volunteers were told not to bother with these fields; the Liberals, on the other hand, wanted their volunteers to collect as much information as possible, including ethnicity and whether voters had children under six.

Both apps carefully structure what kinds of data volunteers can enter: it was possible to correct mistaken entries in CIMS2GO, for example, but in neither app could a volunteer delete the name of a voter from a specified address if that person no longer lived there, nor add new names. CIMS2GO displayed total numbers of doors knocked, phone calls made and signs placed for all volunteers in the riding and also used the geolocation features of most smartphones continuously while in use, suggesting that the exact geographic position and movements of each volunteer could be recorded.

Though there are minor variations between them, all of the databases that lie behind apps like MiniVAN and CIMS2GO share a key characteristic: they are centrally managed and national in scope, such that information entered into them anywhere in Canada, by any branch of the party, is retained and controlled by the national party organization.

The fundamental input for these databases is the national list of electors, which is regularly produced and distributed by Elections Canada. The national parties may also acquire some data through bulk purchase (telephone numbers, for example, may be purchased from telephone companies; market research firms such as Environics have long offered a variety of demographic market segmentation datasets); such data can be automatically merged with the list of electors. The lion's share of the data in these systems, however, must be collected by constituency campaign organizations. The degree to which they do so is variable, and the quality and extent of data available to a particular constituency campaign depends greatly on how much effort previous campaigns in that riding have invested in data gathering. The campaigns that we observed varied considerably in the extent to which their leadership perceived data as a resource worthy of such effort. For the local Liberal campaign, data were a crucial resource. The campaign manager had previously worked in the data office of the national organization, and under his leadership considerable effort was put into both gathering and acting upon data about voters and about the campaign itself to the point that the campaign team included a dedicated data manager.

Volunteers in the Conservative campaign, meanwhile, referred to the party's data advantage in conversation, and clearly thought that this was an asset to them in the election. When asked, they clarified that the data they meant concerned individual supporters; email addresses, for example, and data about the issues that people cared about, made it easy for the campaign to attempt to reproduce the same winning coalition of voters from 2011. This understanding of data as a resource was evident in the campaign's door knocking and phone canvassing, in which we were told the purpose of the interaction was to determine if a person was a Conservative supporter or not, rather than to persuade them to vote Conservative.

In the much smaller NDP campaign in the riding, the campaign leadership saw the national party's database infrastructure as being useful for generating lists of supporters and volunteers. There was, however, little effort put into systematically collecting or generating data. Volunteers doing door-to-door canvassing, for example, were given walk sheets generated by Populus from the list of electors, but it was clear that the campaign saw their efforts as being primarily about raising the profile of the campaign rather than collecting voter identification data. Another campaign in a similar situation might have seen the 2015 election as an opportunity to develop data about the voters in the riding as an investment for future elections, and indeed some respondents from the Conservative and Liberal campaigns suggested that they had done exactly this in other contexts. The NDP made no such attempt. Consequently, our observations suggest that the local NDP campaign did not conceive of the data themselves as a resource in the same way as the Liberals or Conservatives.

Generating data

The campaigns that we observed generated data in various ways, but only one, the Liberal campaign, engaged in all three modes of data creation we describe: integrating known voter information, inferring unknown voter information and tracking one's own campaign activities.

Integrating known voter data

All parties' databases support integrative data creation in that they allow for new information gleaned about a specific individual through direct contact to be recorded as a data point. They also allow for tracking of voter behaviour over time, notably whether or not a specific individual had voted in past elections. In our sample, the Conservative and the Liberal campaigns invested considerable effort in generating known voter data, so much so that data gathering seemed to be the primary activity of both campaigns.

The Conservative and Liberal campaigns had local volunteers canvass door to door with the goal of identifying supporters. This was complemented by volunteer or paid telephone canvassing. The efforts of local volunteers produced uneven results, however. We observed that it was very hard for volunteers to confirm a person's name without alienating them on the doorstep, so the accuracy of the data recorded—which is in theory linked to names on the list of electors—was suspect. In particular, Conservative volunteers seemed unconcerned about the potential for recording incorrect data.

Two things make this voter identification effort noteworthy in comparison to traditional practices. First, the results are recorded as data, that is, in a quantified, systematic fashion intended to enable easy tabulation,

reorganization and analysis. Second, data generated in the writ period are combined with existing data, such as an individual's voting history, past party membership, past donations and other contacts with the party. Such contacts need not necessarily be election-related: Respondents informed us that Conservative members of Parliament are instructed to record data based on interactions with constituents, as well as constituent responses to leading surveys placed in parliamentary mailings available to MPs. It is this ease of analysis and chronological depth that distinguish integrative data generation from more traditional methods of recording the results of voter contact efforts.

In the NDP campaign, we observed little systematic effort to generate new data by integrating existing voter information in Populus with data gathered through door-to-door canvassing. Walk sheets were generated for door knocking, but there was relatively little emphasis placed on recording voters' level of support on the walk sheets, or in recording that data in Populus afterwards. The NDP campaign appeared to place much greater emphasis on raising the visibility of their campaign through leaflet drops, mainstreeting by the candidate and Burma Shaving (having crowds of volunteers waving signs at high-traffic locations).

Inferring unknown voter data

We neither observed, nor had any indications from well-placed respondents, that the local Conservative or NDP campaigns were making use of any kind of predictive voter modelling. Indeed, though our locally based approach makes it impossible to know for certain the full extent of a national campaign's efforts, it appears that neither of these parties has data infrastructure designed to allow such voter modelling to be carried out. While CIMS does allow a numerical score ranging from negative 15 (indicating a hostile voter) to positive 15 (indicating a committed supporter) to be assigned to each individual voter, these scores appear to be based on interactions with that voter—quite different from a probabilistic assessment that is inferred from other data about that voter.

The Liberal party, meanwhile, had a full-fledged predictive voter modelling program that ranked *all* voters into ten tiers, with tier 1 denoting voters who were all but certain to be Liberal supporters, and tier 10 denoting voters who were all but certain to be hostile. These predictions were made on the basis of individuals' past contacts with the party, voting behaviour and other demographic data, the full extent of which our respondents were unable or unwilling to discuss, but which seemed to include commercially purchased bulk data. A predictive ranking is made for *every* individual voter. Hard IDs, based on direct voter contact, not only complement this information about the specific individual contacted; they are also used to check the accuracy of the predictive model itself. Predictive voter modelling

was usually referred to simply as “analytics,” defined by a key respondent as “the use of data... all the data we collect and process, in order to predict behaviour.” Both a person’s probability of voting and their probability of being a Liberal supporter were calculated.

Tracking campaign activity

The integrative platforms of all three parties allow incidental tracking of the campaign’s efforts; the Conservative party, for example, uses CIMS to coordinate between central and local phone banks, since both phone banks update the same database and can generate their call lists by filtering out voters who have already been contacted. This is not the same, however, as deliberately developing data about one’s own campaign for their own sake. Both the Conservative and Liberal parties have infrastructure for doing this, though in our observations only the Liberal campaign seemed to make use of it.

For the Conservative party, most of the capability to track the efforts of campaign volunteers comes from CIMS2GO. The app is clearly intended to be the main tool with which volunteers engage with the campaign, and the leaderboard and geo-surveillance functions described above have obvious applications to tracking a campaign’s activities. Given all of this, we were surprised that the local Conservative campaign did not appear to use any of these features to track their campaign efforts. So far as we observed, progress in door-to-door canvassing was recorded simply by highlighting streets that had been canvassed on wall maps of the riding; the only tracking of phone banking appeared to be recording which voters had been called and reached, rather than when or by whom.

The Liberal campaign, on the other hand, was able to track their progress against internal campaign targets because of the features of Liberalist and MiniVAN. Moreover, the central party could also track their effort and distributed regular summaries of which local campaigns were leaders and which were laggards; of overall number of doors knocked and voters contacted; and so forth. At any given time, the local and national campaigns could readily determine which areas of the riding had not been canvassed and, when new paid staff became available, dispatch them to those areas. By election day, the local campaign knew exactly how many confirmed supporters they had, and because of this, decided to include not only confirmed supporters but also unconfirmed but highly probable Liberal supporters in their voter mobilization effort in certain areas.

The local NDP campaign, meanwhile, kept track of their efforts in a more traditional way (much like the Conservatives), highlighting maps on walls and using Populus, albeit in a less systematic way, to keep track of which voters had been contacted. Given that the campaign was

significantly smaller in scale than either the Liberals or the Conservatives, there was little need for any more systematic efforts at management.

Data-driven decision making

As we note above, merely recognizing that data are a resource and then expending effort to generate it does not necessarily a data-driven campaign make. What matters is that the campaign leadership make decisions about what to do, based on analysis of data, and in this we found significant variations between the three campaigns we observed. All campaigns began by looking at polling divisions where they had significant vote share in previous elections as a guide to focus their efforts; not all campaigns went significantly beyond this in terms of making decisions based on data.

The rhetoric of data dominance notwithstanding, the Conservative campaign only occasionally based decisions on data; CIMS2GO directed volunteers towards some doors and not others (though campaign members gave conflicting explanations as to why) and voter identification data was used to direct voter mobilization efforts on election day. Despite a preoccupation with voter contact, however, the Conservative campaign was a decidedly traditional one. Decisions about where in the riding to canvass, for example, were based largely on intuitive judgments of where the party's supporters were, with West Vancouver and more affluent areas of a few other communities getting the vast majority of attention. Although the constituency campaign had access to significant amounts of data about voters, they were not used to inform decision making.

The Liberal campaign, by contrast, was heavily shaped by data both about voters and about itself. The national party had a predetermined number of supporters that it believed the local campaign would need to identify in order to carry the riding, and voter contact efforts were geared towards this target. The local campaign received daily lists of priority polling divisions in the riding, developed by the analytics team at central party offices, and these lists were used to direct the day's canvassing. Entire towns were ignored until late in the writ period because analytics suggested that canvassing there was not the most efficient allocation of scarce volunteer resources. What the campaign did, and its awareness of what it had already done, was heavily reliant on data, and all of it built to an election day voter mobilization effort that relied on systematic use of hard voter IDs, predictive models and tracking of volunteers.

Although the NDP campaign did use Populus to generate a list of target polls for mobilization efforts on election day, it is unclear whether this list was much different from the target polls the campaign identified at the outset of the writ period based purely on past election results. The local campaign, as we observed it, seemed driven more by tradition than by data. This may well have been an effect of the riding being a faint hope

for the NDP; we are aware that considerable effort was invested in other ridings. Nonetheless, the observed variations in the perception and use of data among the local campaigns in our riding give rise to some interesting implications for our understanding of constituency campaigning in Canada.

Discussion and Implications

We observed a very wide range of approaches to data in Canadian constituency campaigns in 2015. These led us to ask three questions: *Why do campaigns use data? What causes variation in data use across campaigns? Does the use of data affect the structure of Canadian parties?* While our single-case methodology prevents us from making generalized statements in response to these questions, we are in a position to offer some preliminary insights for further investigation.

Why do campaigns use data?

The obvious reason to invest effort in data would be to increase electoral competitiveness. But does it really make a significant difference? Certainly, the successes of the Obama campaigns' data use have appeal to northern partisans of all stripes: We were told that all three main national parties had hired former Obama campaign staffers to consult on data use. Nonetheless, it seems unlikely that the Liberal party's victory either locally or nationally was entirely due to data-driven campaigning. Much of the victory could easily be attributed to more traditional political forces such as a star candidate, strategic voting, or message salience.

Indeed, the application of data is seen even by professionals as offering only marginal gains. As one respondent put it, the job of a campaign is threefold: raise the profile of the candidate; identify supporters; and turn out the vote on election day. "If you do a poor job of the first two, then you have no choice but to rely on analytics," he said. If, as Flanagan (2014) observes, elections are won at the margins, then one might expect that intensive use of data would allow parties to eke out slim victories in a few close ridings rather than produce landslides.

The drive towards data is also a reaction to the scarcity of other campaign resources, particularly volunteers. Respondents in all campaigns noted a general decline in the number of volunteers for election campaigns over the last two decades. At the same time, respondents from all campaigns indicated that their parties had a renewed interest in volunteer-intensive forms of voter contact, notably door-to-door canvassing (likely in response to experimental findings in the US indicating that these have the highest impact on voter turnout (see Green and Gerber, 2008). To employ such tactics with fewer volunteers requires an ability to target

efforts with as much precision as possible using either integrated or inferred voter data. Such data can also yield benefits in raising funds from small donors, as the successive Obama campaigns (Bimber, 2014) and the Conservative party (Flanagan, 2014) have discovered. Applying data about voters and about one's own campaign can also allow parties to campaign effectively even in areas where they have no local volunteers at all. We observed professional staff from outside the riding being dispatched to canvass communities they had never visited before, armed only with data about which houses to visit and which ones to skip. Regardless of the accuracy of those data, they enabled the staffers to take on a task that might previously have been seen as impossible. Data thus hold out the promise of doing more with less, a prospect equally attractive to campaign managers as that of decisive advantage.

What causes variation in data use across campaigns?

Data are now an established element of how Canadian federal political parties contest elections. The central organizations of the Liberal, Conservative, and New Democratic parties perceive data as a resource; their capacity to generate it and make use of it, however, is dependent on volunteer and staff willingness, and technological skill at the constituency level and, if our constituency is a guide, both willingness and skill vary considerably.

In our riding, the Liberal campaign was the only one being provided significant support in both financial and human resources from the national campaign. The campaign was consequently highly professional, with at least four paid staff members, including the campaign manager and deputy campaign manager. These experienced operatives were well versed with Liberalist and understood data as a long-term resource that would serve the party in future elections. We were told, however, that not all Liberal campaigns (particularly those in faint hope ridings or safe seats) would have been so focused on data. The Conservatives and the NDP, on the other hand, did not receive support in the form of paid staff from headquarters. While data were clearly important to the Conservatives, both the Conservative and NDP campaigns appeared shaped by long-term volunteers doing things the way they had always been done.

Thus professionalization appears to be a key variable explaining variation in data use across campaigns and this is likely linked to the competitiveness of the riding and the candidate type under Sayers's model: highly competitive ridings with star candidates are more likely to gain access to professionals from headquarters. While professionalism may determine data use in constituency campaigns now, however, this may not long remain true for two reasons. First, given the newness of this technology, professionals could be acting as technology leaders, teaching volunteers

how to use data in constituency campaigning whenever they are present. As such, the variation in use between professionals and volunteers may decrease as this information is integrated into the traditional repertoire of constituency campaigns. Moreover, the bulk of the volunteers in this riding for all three parties were seniors, whereas the Liberals' paid staffers were in their 20s and 30s, leading us to suspect that generational factors may also affect the extent to which local campaigns generate and exploit data. As (or if) volunteers from younger generations replace aging baby boomers, it is conceivable that there will be even greater uptake in data exploitation at the constituency level. Consequently, it seems likely that all parties will see variation in the use of data across ridings depending on the demographics of volunteers and the degree to which past or current campaigns are professionally managed. This further supports our finding that while data are conceived by national parties as an independent resource, they are, like volunteers or money, unevenly distributed in the constituencies.

Does the use of data affect the structure of Canadian parties?

Carty and Eagles (1999) speculated that technology might increase the autonomy of the constituency campaign in relation to the central organization. As Coletto and colleagues (2011) noted with respect to financial resources, the way in which data are managed has implications for party structure. It is clear that the emphasis on data collection was a strategic decision of the central wings of all parties we observed. Moreover, while the burden of gathering voter identification data rests with constituency campaigns, the data in each party's infrastructure are owned by the national party and access is granted to local entities at the national party's discretion. These infrastructures are designed in ways that increase the capacity for surveillance and control of constituency campaigns by the central campaign organization. We argue therefore that data-driven campaigning has the capacity to fundamentally change the relationship between riding and national branches of the party.

This was evident in the Liberal campaign, which was by far the most data-driven in this riding and also the most influenced by the national organization. A list of priority polls received daily from national headquarters determined where local volunteers were sent to canvass. While this appeared efficient, it also meant that local knowledge that would have previously been important to campaign decision making was ignored. In Squamish, for example, the highest density polling division, composed of townhouses and apartments inhabited by middle income Canadians to whom the party's messaging was chiefly directed, was not extensively canvassed. Less dense polling divisions consisting of single family homes, which would have been middle class in Ontario but which are more likely to

house Conservative supporters in the high-priced Vancouver area, were canvassed extensively. In Whistler, meanwhile, volunteers were at times sent to polling divisions with significant numbers of vacation homes inhabited only for a few weeks every year and not to the neighbourhoods where residents actually lived. Had the campaign acted on the knowledge of local volunteers instead of relying on numbers sent from Ottawa, this could have been avoided. Instead, the central party's directives ruled the day.

Meanwhile, the highly detailed tracking of local activity allowed the central party to micromanage the campaign. As previously noted, the central party distributed regular comparisons of different constituency campaigns' progress, such as number of doors knocked. One respondent said he could see no other purpose of such comparisons than to "berate" them for lagging behind other ridings. For the Liberals, the biggest protector of local autonomy was their highly regarded professional campaign manager, whose reputation for winning afforded him considerable latitude from the directives of the national campaign. But, since he himself was a paid party operative from outside of the local riding association, he is hardly evidence of local empowerment. Though the Conservative national organization appeared to have little interest in such micromanagement, its technological infrastructure also enables it.

Data have emerged as another resource in the arsenal of Canadian election campaigns. Sought by the major parties as a source of (perceived) electoral advantage, the ability of the central party to acquire and wield data relies on the capacity and willingness of constituency campaigns. Thus, like money and volunteers, data are likely to continue to be unevenly distributed across the electoral landscape, and variation within parties may be as large as variation between them. Further, while Carty and Eagles (1999) were correct in predicting that computer technology, geo-linked data and professional operatives would change the way campaigns operate at the constituency level in Canada, we find that these have the opposite effect than they anticipated: They increase the power of the central organization in proportion to the perceived importance of data at the constituency level. As campaigns become more data driven, then, it is possible that Canadian parties will cease to be conventionally stratarchical, at least where elections are concerned.

Endnotes

- 1 It is indicative of the confusion in the literature on this topic that the term "micro-targeting" sometimes refers to the mere creation of probabilistic voter models, and other times refers to the use of the resulting data in campaign decision making. We use the latter interpretation.
- 2 As of time of writing, the NDP campaign had not filed its financial returns, but it clearly had very few funds available during the election.

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