Electorate Size and Representational Communication in Canadian Cities

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Abstract

Electorate size is recognized to affect a wide range of democratic processes and outcomes. This is particularly true at the local level of government where amalgamations have been common in recent years. Here, we explore the extent to which electorate size affects how city councillors communicate with their constituents in order to learn about those constituents' needs and preferences. We hypothesize that councillors cope with increases in electorate size by using face-to-face methods of communication less and mediated forms of communication, including social media, more. Drawing on original interview and survey data with Canadian city councillors, we find that councillors tend to rely on face-to-face meetings, telephone calls, and email to communicate with constituents, but are less likely to use social media to do so. However, we find no evidence to support the hypothesized relationships between electorate size and representational communication.

Keywords: Canada, city politics, political science, representation, councillors, social media

Résumé

La taille de l'électorat affecte un large éventail de processus démocratiques et ses résultats. C'est particulièrement vrai au niveau local des gouvernements municipaux au cours des nombreuses fusions des dernières années. Cet article, examine dans quelle mesure la taille de l'électorat affecte la façon dont les conseillers municipaux communiquent avec les électeurs afin d'en apprendre davantage sur les besoins et préférences de ces derniers. Notre hypothèse de base est que les conseillers face à l'augmentation de la taille de l'électorat utilisent moins des méthodes de communication face-à-face au profit d'une utilisation accrue de forme de communication médiatisée, y compris les médias sociaux. S'appuyant sur les données de l'enquête et des entrevues avec les conseillers municipaux, nous constatons que ces derniers ont tendance à se fier à des réunions face-à-face, des appels téléphoniques et des courriels pour communiquer avec les électeurs. Ils sont donc moins susceptibles d'utiliser les médias sociaux. Toutefois, nous n'avons trouvé aucune preuve à l'appui de l'hypothèse d'une relation entre la taille de l'électorat et le type de communication utilisé pour communiquer avec les électeurs.

Mots clés : Canada, politique municipale, sciences politiques, représentation, conseillers, médias sociaux

In order for elected officials to act as representatives, they must first learn what the needs and preferences of their constituents are. The ways in which they go about doing so are shaped by both the ecological and institutional settings they are elected and serve within. Councillors in Canadian city governments act as representatives within a range of settings. Councillors serve in ecological settings ranging from villages to megacities, and within institutional settings characterized by ward, at-large, and mixed methods of election and representation. Both affect what Oliver (2012) refers to as the size of the electorates councillors must serve, which has consequences for how representatives behave because larger jurisdictions are thought to involve more mediated, less personal forms of communication whereas smaller-sized jurisdictions are thought to involve more face-to-face contact between representatives and those they represent. As electorates grow, representatives are expected to employ more mediated, remote forms of communication to keep in touch with their constituents, and the nature, if not the quality, of local democracy changes as a result.

We draw on original data derived from interviews with and a survey of Canadian city councillors to explore how councillors learn about the needs and preferences of their constituents within the context of varying electorate sizes. We ask: how does the size of the electorate councillors must represent—which is affected by both city population and the presence of wards or at-large methods of election—influence the approaches councillors take to communicating with and learning about the needs and preferences of their constituents? In addressing this question, we make a unique contribution to the ongoing scholarly discussion of how electorate size affects both the practice and quality of local democracy (see e.g. Dahl and Tufte 1973).

Electorate size is naturally related to the population of cities (see Cancela and Geys 2016). The relationship between population and the nature and conduct of local democracy is well established and studied (see e.g. Dahl and Tufte 1973; Denters et al. 2014; Put and Maddens 2015). This debate, however, has taken on greater significance in recent years given the seemingly worldwide trend toward merging existing municipalities into larger cities. Municipalities have merged in, for example, Canada (Sancton 2000), Denmark (Hansen 2015), Japan (Horiuchi, Saito and Yamada 2015), and the United Kingdom (John 2010). As the number of large cities has grown as a result of such amalgamations, investigating the relationship between population size and both the nature and quality of local democracy has become more pressing.

The major democratic trade-off of population growth identified by Dahl and Tufte (1973) is between system capacity—the ability of the municipality to achieve what citizens want it to achieve—and citizen effectiveness, which refers to the ability of citizens to directly control government decisions. Theorists have hoped amalgamations might lead to greater municipal capacity (e.g. Baldersheim and Rose 2010; Boyne 1995) but citizen control and thus efficacy and democratic satisfaction may correspondingly decrease; indeed, van Houwelingen (2017) and Hansen (2015) find that citizen participation and satisfaction respectively decrease as population size increases.[1] Similarly, it is expected that councillors' electorate population will be related to how they conduct their representational duties, including how they communicate with their constituents.

Electorate size is also related to whether the unit of election and representation employed is a geographically defined ward (as in ward systems of election) or the city as a whole (as in at-large systems of election). Councillors elected in wards are more likely to be responsive to smaller, geographically defined electorates than councillors elected at-large, who must compete against other candidates in citywide elections. As Welch and Bledsoe (1988: 55) observe, at-large systems "…are designed to encourage members to look upon the city as a whole as their primary constituency rather than smaller groups of neighbourhoods, fellow ethnics, partisan, or other constituents." Koop and Kraemer (2016) confirm this to be the case with Canadian city councillors: 95 percent of councillors elected at-large report that their primary representational focus is on their "city as a whole."

This analysis therefore speaks to the contested nature of both democracy and representation in Canadian cities. These cities followed the turn-of-the-century U.S. reform movement which rejected constituency-based forms of representation, instead favouring at-large systems of election and representation that were seen to be inimical to the patronage and corruption associated with wards (e.g. Anderson 1972; Steward and Smith 2007). The result of this partial infiltration of reform movement ideas in Canadian cities is diversity in civic institutions: Canadian cities employ ward, at-large and hybrid systems to elect councillors (Sancton 2011). This leads to diversity in elective institutions that may be related to diversity in how councillors communicate with their constituents. Indeed, ward and at-large systems are linked to variation in a substantial number of democratic outcomes, including the proportion of women, African-American representatives, and Hispanic representatives

elected (Herrick and Welch 1992; Sass 2000; Welch 1990); rates of municipal taxation and spending (e.g. Langbein et al. 1996); and, councillors' democratic perspectives and behaviours (e.g. Koop 2016; Welch and Bledsoe 1988).

Conceptualizing communication between elected officials and those they seek to represent is central to any model of representation. Pitkin's well-known cycle of representation, for example, stipulates that such communication must take place both (1.) when the elected official learns about what the needs and preferences of her constituents and (2.) after she has acted on those needs and preferences in the representative body in order to establish a reputation for responsiveness to her constituents (Pitkin 1967: 209). Communication is thus an intrinsic aspect of representation.

This places the representational onus on elected officials to open the lines of communication with their constituents and solicit their needs and responses. The ways they do so are myriad: through town halls or surgeries (Fenno 1977); in surveys or newsletters inviting feedback that are sent to constituents (e.g. Jackson and Lilleker 2007); via storefront constituency offices that invite visitors (e.g. Franks 2007); by making themselves available while at public events (Jewell 1982: 20); or, through social media or other online forms of communication (Williamson 2009). Elected officials may not initiate but will solicit communication through publication of their office phone numbers or email addresses in local media outlets.

While representatives communicate with their constituents in a variety of ways, an important distinction can be made between mediated and unmediated (or face-to-face) communication for elected officials and their constituents. Mediated communication involves the use of a communication technology—a letter, phone call, or email—that separates those communicating. Face-to-face communication involves shared space, a two-way flow of information between those communicating, and the use of non-verbal and symbolic cues that enrich the act communication. Mediated communication, in contrast, is separated: participants do not share a common contextual space, do not necessarily engage in two-way communication, and lack non-verbal cues (see Thompson 1994). While face-to-face communication is both richer and more satisfying to participants (see Nardi and Whittaker 2002), mediated communication has the advantage of having the potential to overcome physical distance between participants, and allows for communication with a much larger number of participants. Movement by elected officials from face-to-face to mediated communication with their constituents therefore necessarily changes the nature of the representational process, and may lessen its quality.

We therefore reasonably expect that an increase in the size of the population representatives must communicate with will produce a shift from face-to-face to mediated forms of communication. Oliver (2012: 48), for example, draws our attention to how electorate size can shape communication within the context of local election campaigns by demonstrating how campaigns in smaller population centres are likely to emphasize personal connections with voters while campaigns in larger population centres necessarily develop large-scale campaigns that reach out to large number of voters with mediated forms of advertising. It is reasonable to expect that, in the same way that candidates adapt their communications to the size of the electorate they are hoping to be elected in, so too do elected officials adapt their representational communication to the size of the electorate they represent.

We therefore derive two hypotheses from the relevant scholarly literature and from the theoretical expectations outlined below:

1. As electorate size increases, councillors are more likely to report that mediated forms of communication are important to learning about the needs and preferences of their constituents; and, conversely,

2. As electorate size decreases, councillors are more likely to report that face-to-face forms of communication are important to learning about the needs and preferences of their constituents.

The subsequent methodology section discusses the elite interviews and councillor survey that produced the data used in the analysis for this paper. This section also addresses how the data selected was operationalized for analysis in this paper. The analysis section summarizes councillors' priorities with respect to how they learn about the needs and priorities of their constituents, and tests the two hypotheses presented above regarding the

relationship between electorate size and how councillors communicate. The concluding section returns to the broader theoretical issues raised here and considers potential limitations to this work.

Methodology and Data

A sequential exploratory multi-method research design was developed to guide data collection for this project (see Creswell 2003: 211). This research design is characterized by two stages. The first involves qualitative data collection and analysis. This analysis then informs the subsequent quantitative analysis in the second stage, which is then followed by integration of the data collected at both stages. Like other multi-method designs, this research design leverages the strengths of both qualitative and quantitative methods of data collection and analysis. It is particularly appropriate here because the representational behaviours of Canadian councillors are under-explored: qualitative data collection in the first phase is therefore appropriate to generate theory about this phenomenon.

The two methods of data collection employed in this project were elite interviews with city councillors and, subsequently, a survey of Canadian city councillors. Interviews were conducted both in-person and by telephone throughout 2012 and 2013. The interview format was semi-structured, which allowed for both the creation of comparable data and for interviewees to expand on their answers in ways that enriched their overall explanations (see Small 2009). Councillors were invited to participate in order to maximize variation on a number of variables that were as a result of a literature review thought to influence representational approaches and perceptions. These included institutional (e.g. ward versus at-large units of representation), ecological (e.g. city size and density), and personal (e.g. gender, time in office) variables. Councillors from Montreal (including borough councillors), Ottawa, Toronto, and Greater Vancouver (Burnaby, Coquitlam, Delta, Richmond, Surrey, and Vancouver) were interviewed. Ultimately, 52 interviews were conducted with councillors and variation was achieved on all variables of interest.

Responses in these surveys were accordingly used to generate potential responses in a subsequence online survey of sitting municipal councillors, which was conducted in February 2014. All councillors in Canadian cities with populations over 20,000 with online contact information were sent invitations. Out of 1841 invitations, 589 councillors responded, for a response rate of 32 percent. This response rate is similar to or better than response rates in other surveys of representatives (e.g. Herrick 2011).

The survey asked a number of questions about councillors' perceptions of the representational process and their own practices in this respect. The dataset generated from the survey was subsequently combined with data on the institutional and ecological characteristics of each city.

The dependent variables for this study derived from several questions asked of councillors regarding how they communicated with their constituents. In our survey, councillors were asked, "In your experience, how important are each of the following to learning about the needs and wishes of your constituents?" The available options, which were derived from the interviews from this project, were:

- Written letters from constituents;

- Emails from constituents;

- Phone calls from constituents;

- Social media, such as Facebook or Twitter;

- Meetings with constituents in your city hall or constituency office;

- Meetings with public groups such as community associations; and,

- Speaking to constituents while out in public.

Councillors rated each option as "Very Important," "Important," "Somewhat Important," or Not Important."
Responses to each of these items were subsequently combined to create two scales that correspond to the

distinction between face-to-face and unmediated communication types addressed above. The face-to-face scale included the measures for meetings with constituents and public groups as well as speaking to constituents in public. The mediated scale included measures for receiving letters, emails and phone calls. Cronbach's Alpha was high for both scales (.708 for the face-to-face scale and .803 for the mediated scale), indicating internal consistency. Social media is a mediated form of communication, but was treated as a separate category. The result was three communication types that are treated as dependent variables for this analysis: mediated, unmediated, and social media.

The primary independent variable of interest for this analysis is electorate size. Our *electorate* variable provides a summary of electorate size that incorporates both population and the unit of election employed in the city. *Electorate* is calculated differently for councillors elected at-large and in wards. For those elected at large, the variable is simply the population of the city in which they are elected. This reflects how citizens throughout the city may vote for these councillors, and they may act as representatives for all citizens.[2] In contrast, the variable for councillors elected in wards is the city population divided by the total number of wards in the city, yielding an approximation of the total number of citizens each councillor is responsible for representing. This measure reflects that only ward residents are permitted to vote for candidates for council, and councillors face incentives to engage in representational behaviours with respect to the number of residents in their ward, not the residents in the city as a whole.

Findings

We begin by presenting the raw frequencies for the dependent variables: the ways that Canadian councillors engage in communication with their constituents. Table 1 presents the frequency distributions for each question, organized by communication type:

Table 1. Frequencies of Responses (Column Percentages)

	Mediated			Face-to-Face			Social Media
	Letters from constituents	Emails from constituents	Phone calls from constituents	Speaking to constituents in public	Meetings with constituents	Meetings with public groups	
Very Important	209 (39.3)	306 (55.7)	328 (60.4)	349 (64.2)	246 (46.5)	235 (43.0)	76 (14.9)
Important	233 (43.8)	208 (37.9)	192 (35.4)	160 (29.4)	89 (35.7)	211 (38.6)	177 (34.6)
Somewhat Important	74 (13.9)	32 (5.8)	23 (4.2)	33 (6.1)	70 (13.2)	91 (16.6)	162 (31.7)
Not Important	15 (2.8)	2 (0.4)	0 (0.0)	2 (0.4)	22 (4.2)	10 (1.8)	88 (17.2)
Don't know	1 (0.2)	1 (0.2)	0 (0.0)	0 (0.0)	2 (0.4)	0 (0.0)	8 (1.6)
Total	532	549	543	544	529	547	511

Some methods of learning about the needs and preferences of constituents are immediately evident from table 1. A majority of councillors rated three forms of communication—speaking to constituents in public, receiving phone calls, and receiving emails—as very important to learning about the needs and preferences of their constituents. 64.2 percent of councillors felt that speaking with constituents in public was a very important way of communicating with them. Similarly, 60.4 percent felt that reactive, mediated forms of communication were important to keeping in touch with constituents: telephone calls were very important, while 55.7 percent

thought the same of emails from constituents. Councillors were less likely to identify receiving letters from constituents and meetings with constituents and public groups as very important methods of learning about the needs and preferences of their constituents. Still, very few councillors rated any of these forms of communication as "not important," which perhaps reflects the method in which the responses to the questions were drafted.

Roughly a third of councillors saw social media as an important means to keeping in touch with constituents. Nevertheless, councillors were notably less enthusiastic about this means of communication than of the others— only 14.9 percent of councillors identified this means of communication as very important to them. This was a lower proportion than the number of councillors who reported that social media was not important to them: 17.2 percent. It is clear that social media has not yet become a crucial aspect of councillors' overall representational strategies.

We now turn to the bivariate test of the relationship between our dependent variables and our independent variable, *electorate*. We hypothesize that greater electorate size leads to less face-to-face communication and more mediated communication between councillors and constituents: the coefficients should therefore be negative for face-to-face communication and positive for both mediated communication and social media.

Spearman correlations were calculated for *electorate* and the three dependent variables.[3] Table 2 summarizes results of these bivariate tests, including the statistical significance of each coefficient:

Table 2: Bivariate Relationships

	Face-to-Face Communication	Mediated Communication	Social Media
Electorate	.002 (.968)	-.088 (.050)	.104 (.020)

This analysis produces results that both substantiate and contradict our hypotheses. Statistically significant results are observed in two cases. First, electorate size is *negatively* correlated with mediated communication (R_s = -.088, p = .050). This contradicts our hypothesis: we expected increased population size to be associated with an increase in the importance of mediated forms of communication. Second: electorate size is positively related to use of social media (R_s = .104, p = .020). This result is in line with our hypotheses: as the size of the electorate councillors must serve increases, they are more likely to turn to mediated forms of communication such as social media. These bivariate tests produce mixed outcomes to the hypothesized relationships between electorate size and representational communication.

Finally, we test the effect of electorate size on representational communication in a multivariate analysis, by controlling for the effects of other variables. We do so in an OLS regression in which the importance of face-to-face, mediated and social media communication with constituents are regressed on electorate size as well as several control variables we suspect also influence councillors' methods of communication.

Five control variables are included in this multivariate analysis.[4] Three variables relate to the councillors themselves. The first is a dummy variable summarizing whether the councillor ran with a party or slate. The effect of this variable on the three types of communication employed is difficult to predict with certainty. On one hand, parties may engage in substantial outreach and communication between elections, reducing the need for councillors to do so themselves (e.g. Larsson 2016). Furthermore, where they are present, municipal parties structure political competition and vote choice in Canadian cities (e.g. Cutler and Matthews 2005). It may therefore be less important for re-election-oriented councillors within the context of a party system to develop an identity apart from their party, resulting in an overall lower priority placed on representational communication. On the other hand, individual councillors may feel the need to develop a local "personal vote" apart from their parties, and their communication activities may reflect that (e.g. Christensen 2010).

It is similarly difficult to predict the influence of running with a party or slate on councillors' use of social media to communicate with their constituents. On one hand, party candidates are more likely to be subject to

discipline, and may therefore be less likely to embrace the often freewheeling conservational nature of social media for fear that they will be sanctioned by their parties for their online postings (e.g. Fingas 2017). On the other hand, the stifling effect of discipline may lead councillors to embrace the potential of social media for forthright communication between them and their constituents free of interference from party officials.

The second individual-level variable is age. It is well established that age affects social media and overall internet use, with younger Canadians being more likely than older Canadians to embrace these new communication technologies (Statistics Canada 2013). Accordingly, we expect that age will be related to social media use on the part of councillors, with younger councillors being more willing than their older counterparts to use this communication technology. In contrast, we might expect older councillors to stick to more "old-fashioned" face-to-face and mediated forms of communication.

Third, a dummy variable summarizing progressive ambition—whether the councillor intends to pursue public office at the provincial or national level—is included. Elected representatives who intend to pursue higher office spend more time keeping abreast of concerns in their districts and engaging in "show horse" behaviours such as being visible in their districts in order to establish a local reputation for responsiveness (Maestas 2003; Hibbing and Thomas 1990). We therefore expect that ambitious councillors will be more likely to engage in all forms of communication with their constituents in order to establish a meaningful representational connection and public presence that will be useful to them in subsequent electoral contests.

Three variables related to the cities councillors serve within are also included: median household income, percentage of residents with a post-secondary degree and the proportion of immigrants in the city.[5] On one hand, lower-income constituents are more likely than higher-income constituents to prioritize constituency service from their representatives (Griffin and Flavin 2011). We might therefore expect to see more emphasis from councillors on all three types of communication in low-income settings. On the other hand, since people with more disposable income and greater degrees of education are likely to use the internet, we suspect that councillors in such settings will adapt their communication styles to fit those needs and place emphasis on social media (See Statistics Canada 2013).

The proportion of immigrants in the city is treated as a proxy for the overall diversity of the city. Diversity may provide substantial opportunities for face-to-face communication between councillors and their constituents at community events, and so we might expect councillors to engage in more face-to-face communication as a result. On the other hand, social media provides tools for representatives to reach out to a wide and diverse audience, and so councillors from diverse cities may be more likely than councillors from less diverse cities to prioritize social media. These hypotheses reflect the presumption that councillors are responsive to the characteristics of their constituents, and adapt their representational practices accordingly.

Table 3 summarizes the results of this multivariate analysis:

Table 3: Influences on Social Media Use by Councillors (OLS)

	Face-to-Face Communication	Mediated Communication	Social Media
Electorate Size	0.00	0.00	0.00
Party or Slate	0.05*	0.04	-0.00
Year Born	0.00	0.00	0.01***
Progressive Ambition	0.02	-0.02	0.06
Median Income	0.00	0.00	0.00
Post-Secondary Education	0.00	0.00	-0.01
Immigrants	0.00	0.00	0.01**
Constant	-0.939	-0.24	-18.37
N	371	368	366
R^2	0.02	0.01	0.13

$* \ p < 0.10, ** \ p < 0.05, *** \ p < 0.01$

This analysis demonstrates that electorate size does not appear to affect the ways in which councillors communicate with their constituents. The electorate size variable is not statistically significant in any of the three models. Our hypotheses regarding the relationship between electorate size and how councillors communicate with their constituents cannot be substantiated.

Our multivariate analysis did, however, uncover three statistically significant relationships. First, councillors who are elected as party or slate candidates are more likely to view face-to-face communication as important. This provides some evidence that councillors elected as party or slate candidates have not entirely relinquished the role of communicating with voters to their parties; to the contrary, these councillors are more likely than those elected without a party or slate to prioritize getting out of the office and meeting constituents face-to-face. This suggests that these councillors continue to prioritize direct communication between them and their constituents despite their parties. Indeed, it is likely that these party councillors see face-to-face communication as a means of constructing a personal vote that is separate from their party vote.

Second, year born is positively related to use of social media, which means that younger councillors are more likely than older councillors to use social media to reach out to their constituents. This finding is in line with our expectations, and demonstrates that younger councillors are more likely to communicate with and be responsive to their constituents via social media. This finding also suggests that more councillors will likely embrace social media as time passes and older councillors are replaces by younger ones.

Finally, councillors from cities with higher proportions of immigrants rated social media as a more important form of communication than councillors from cities with fewer immigrants. This finding demonstrates that city-level characteristics can influence how representatives communicate with their constituents. In this case, councillors are employing the potential of social media to reach a more diverse set of constituents within a local setting where such an approach may be necessary.

Conclusion

In this paper, we used original data to test the proposition that electorate size affects the ways that representatives communicate with their constituents. Specifically, we hypothesized that smaller electorates would see greater face-to-face communication whereas larger electorates would necessitate more medicated communication. While some findings (particularly those related to social media) are mixed, they are generally negative: we fail to substantiate either hypothesis. Contrary to expectations, we cannot provide evidence that electorate size affects the ways that councillors learn about the needs and preferences of their constituents.

How might these negative findings be explained? We suspect that mediated forms of communication have such utility to representatives, and render the job of representative so much more manageable, that they are embraced regardless of electorate size or other determinants. Being able to receive emails and phone calls from constituents is valuable to representatives from both large and small population centres, and our results reflect this. In this sense, it is entirely rational of representatives to rely on mediated forms of communication with their constituents even when they serve small population centres.

This is not true of talking to constituents in-person, which was a popular method for councillors to communicate with constituents. In contrast to councillors from smaller population centres, the power of such conversations is limited in larger electorates, where councillors cannot hope to speak with a large segment of the local populace. Why then do they continue to do so? In part, it may be that such practices are culturally entrenched among councillors; councillors in large cities may feel that an important aspect of the job is engaging in face-to-face conversations despite that doing so yields fewer benefits than is the case for councillors from smaller population centres. Representatives tend to enjoy helping their constituents and other "human" aspects of the job (see e.g. Docherty 1997); perhaps this helps to explain why such behavior persists. Further, councillors in more populated urban centres are more likely to represent diverse populations and may feel obligated to attend myriad local community events, increasing the importance of face-to-face communication in their overall representational strategy.

Furthermore, theoretically justified expectations about electorate size and the conduct and quality of local democracy are not always borne out by data. Larsen (2002), for example, explore the consequences of increased municipality size but fails to find any evidence that interest in or knowledge of politics decreases as population increases. Population, Larsen further finds, has no effect on affect citizens' assessments of local politics or their trust in the decisions taken. What findings such as this indicate is that the relationship between electorate

size and democratic behaviour is complex and worth further, continued exploration. Here, it suffices to say that we failed to find a clear relationship between electorate size and this particular form of representational engagement, which may provide some comfort to those concerned about the potentially negative democratic implications of municipal amalgamations.

Furthermore, we found evidence that the ways councillors communicate with their constituents are shaped in part by both city and individual-level characteristics. Councillors that are elected as candidates running with parties or slates are rate face-to-face communication as more important than candidates who do not run with parties or slates. Further, we demonstrate that both age and city diversity are related to councillors' use of social media to communicate with their constituents. Both younger councillors and councillors from cities with higher proportions of immigrants rate social media as an important way to communicate with their constituents. These findings suggest that media may become an increasingly important way for councillors to communicate with their constituents in the future. They also demonstrate that the ways in which councillors maintain and nurture the representational connection between them and their constituents is shaped by their own preferences as well as the perceived needs of their constituents.

It is also important to note potential shortcomings in this work. The dependent variable in this case was a self-reported measure of how important these methods of communication were to councillors. An open question is whether how councillors rate the importance of these measures corresponds to practice. Future research may wish to address this potential deficiency by, for example, measuring the amounts of time councillors invest into each form of communication with their constituents.

Notes

[1]   However, see Larsen (2002) and Saglie and Vabo (2009) for contrasting findings.
[2]   Councillors who are elected at-large may also choose to build specific constituencies within the city rather than focusing their representational efforts on the city as a whole. Studies of U.S. cities demonstrate that councillors elected at-large tended to prioritize the representation of their city as a whole (Eulau and Prewitt 1973; Welch and Bledsoe 1988). Similarly, in their study of Canadian councillors, Koop and Kraemer (2016) find that 95 percent of councillors elected at-large report a representational focus on the city as a whole. While councillors elected at-large do not necessarily seek to represent their cities as whole, the high prevalence of councillors who do so justifies the *electorate* variable as calculated here. In a separate analysis, we explored the possibility that councillors' unit of election (whether they are elected in a ward or at-large) affected their use of the communication types addressed in this paper and found no relationship.
[3]   A Spearman correlation is a non-parametric correlation appropriate in cases where the variables are neither normally distributed nor interval-level. In this case, two of the dependent variables (face-to-face communication and mediated communication) are not normally distributed. Further, two of the dependent variables are scales constructed from ordinal-level data. The Spearman correlation was therefore appropriate in this case.
[4]   Question wording can be found in Appendix 1.
[5]   This data was collected from the 2011 National Household Survey.

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Appendix 1: Question Wording

Data used in the multivariate analysis for this paper was derived from the following three survey questions:

- "In the last election, did you run as a candidate with a particular party or slate?"

- "In what year were you born?"

- "Which of the following best described what you plan to be doing five years from now?" [Respondents who answered "Hold a higher elected office" were considered to have progressive ambition.]