



RESEARCH NOTE / NOTE DE RECHERCHE

Does Democracy Die in Darkness? An Examination of the Relationship between Local Newspaper Health and Turnout in Municipal Politics

Ben Andrews*  and Scott Pruyers 

Department of Political Science, Dalhousie University, 6299 South St, Halifax, NS, B3H 4R2, Canada

*Corresponding author. E-mail: benandrews@cmail.carleton.ca

Abstract

This study is, to our knowledge, the first quantitative analyses of the relationship between local print newspaper health and voter turnout in Canadian municipal elections. Municipal turnout is understudied in Canada, and the few studies on the topic overlook the role of local media. This cross-sectional study fills a gap in the literature by determining the relationship between local print newspaper health and municipal election turnout in a unique dataset of 233 populous Canadian municipalities. Results reveal a significant positive correlation between turnout and two measures of newspaper health: (1) the total number of newspapers per population and (2) the publication frequency of the largest newspaper in a municipality.

Résumé

Cette étude est la première analyse quantitative de la relation entre la santé des journaux imprimés locaux et la participation des électeurs aux élections municipales canadiennes. Peu d'études ont examiné le taux de participation aux élections municipales au Canada, et celles qui l'ont fait ont négligé le rôle des médias locaux. Cette étude transversale comble une lacune dans la littérature en déterminant la relation entre la santé des journaux imprimés locaux et la participation aux élections municipales dans un ensemble unique de données portant sur 233 municipalités canadiennes peuplées. À l'aide d'une régression linéaire multivariée des moindres carrés ordinaires, cette étude révèle une corrélation positive significative entre le taux de participation et deux mesures de la santé des journaux : (1) le nombre total de journaux par population et (2) la fréquence de publication du plus grand journal dans une municipalité.

Keywords: media; turnout; municipal; newspapers; local

Mots-clés : Médias; taux de participation; municipal; journaux; local

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Introduction

Key markers of democratic health, including voter turnout, often vary considerably across Canadian municipalities (Breux et al., 2017; Nakhaie, 2006). In 2017, for example, just 20 per cent of eligible voters cast a ballot in Grande Prairie, Alberta. The following year, 59 per cent of voters went to the polls in Niagara-on-the-Lake, Ontario, for a difference of 39 percentage points. This range illustrates an important puzzle that has been largely overlooked in the academic literature: Why is voter turnout high in some Canadian municipalities but low in others?

Recent work provides important insight into this variation (Breux et al., 2017) but leaves considerable variance yet to be explained. Studies and meta-analyses have identified a “core turnout model” (Stockemer, 2017) that includes a range of socio-demographic variables such as population size and stability, institutional characteristics such as compulsory voting and concurrent elections, and political factors such as the number of candidates and the competitiveness of the race (Cancela and Geys, 2016). Beyond the core turnout model, several individual-level variables have been identified as well, including education (Gallego, 2009), age and generational cohort (Blais et al., 2004), income (Pattie and Johnston, 1998), political knowledge (Howe, 2006) and even differences in personality (Pruysers et al., 2019). As well, some factors, such as the “second-order” nature of Canadian municipal politics (McGregor and Lucas, 2019), are specific to subnational elections. Cancela and Geys (2016) find that variables that increase the likelihood of voters knowing the candidates (that is, population concentration, stability and homogeneity) are more salient in subnational elections, whereas political variables (that is, those relating to the campaign) are more salient in national elections.

One possible explanation that has been largely overlooked in the Canadian case is the health and vibrancy of local media. Indeed, international studies are increasingly considering how the local media environment influences turnout in subnational elections (Baekgaard et al., 2014; Kübler and Goodman, 2019; Schulhofer-Wohl and Garrido, 2013). Connecting the media environment to turnout and engagement is not a new idea. As Shaker (2014) notes, Tocqueville highlighted the importance of newspapers to civic life in America almost 200 years ago. Recent work in this area identifies several ways media ecosystems benefit local democracy, including enhancing political knowledge among the electorate, fostering civic engagement and encouraging voter turnout (de Vreese and Boomgaarden, 2006; Shaker, 2014). Thus far, however, no studies have examined this relationship in Canada.

This research note aims to determine if one element of the media environment—local newspaper health—is related to voter turnout in Canadian municipal elections. To address this question, we combine data from the Canadian Municipal Barometer (CMB) (Lucas, 2019), the News Media Canada database (News Media Canada, 2015) and data from provincial records to create a unique dataset. Doing so allows us to explore the relationship between local media health and voter turnout in 233 Canadian municipalities. We find that healthier local media environments are significantly and positively related to higher turnout in mayoral elections. Importantly, this finding holds true even after controlling for standard

explanatory factors such as population density, council size per capita, and electoral competitiveness. Results highlight the importance of local media for civic engagement and raise concerns for the continued decline of local print media in Canada (and elsewhere).

Theory and Hypotheses

Variation in turnout between municipalities is both important and understudied. Declining voter turnout among liberal democracies is a prominent concern in the political science literature (Blais et al., 2004; Cancela and Geys, 2016; Dassonneville and Hooghe, 2017), but nowhere is this concern more justified than in local elections. Higher turnout in national elections is near “universal,” and the variance between federal and municipal turnout in Canada exceeds most other countries (Kushner et al., 1997). The result is a “democratic deficit” (Currah, 2009), with lower citizen participation and political accountability in local government. The consequences of this deficit are magnified by the fact that municipal governments implement more policies and employ more elected officials than other orders of government (Hajnal and Lewis, 2003). Indeed, most elections, candidates and elected officials are found locally (Sancton, 2015), not provincially or federally (Sevi, 2021; Johnson et al., 2021).

Despite its clear importance, local politics receives scant academic attention, prompting such labels as the “academic ghetto” (Sancton, 1983: 310), the “black hole” of Canadian political science (Eidelman and Taylor, 2010: 306) and the “poor cousins” in the study of Canadian political behaviour (Cutler and Matthews, 2005: 359).¹ Even within the “poorly understood” (Eidelman and Taylor, 2010: 305) subfield of Canadian urban politics, researchers have largely overlooked the problem of turnout in local elections. The range of studies on this topic is limited to cross-sectional analyses of Ontario (Kushner et al., 1997) and Quebec (Couture et al., 2014) and case studies of large municipalities, such as Vancouver (Cutler and Matthews, 2005) and Toronto (Stanwick, 2000; Anderson et al., 2017; McGregor, 2018; Caruana et al., 2018).

A recent article by Breux et al. (2017) is an important exception insofar as it adopts a more pan-Canadian approach. Here the authors generated an original dataset of Canada’s 100 largest municipalities over three electoral cycles to determine which factors influenced local electoral participation between 2004 and 2014. The authors find that nine variables across three “theoretical approaches”—institutional, political and socio-spatial—exert a significant influence on turnout in Canadian local elections. These factors include, among others, the size of the local population, competitiveness of the mayoral race, and the number of councillors per population. Missing from the analysis, however, is a consideration of the local media ecosystem. As Kübler and Goodman (2019: 1) note, “research on local political behaviour should better acknowledge the influence of the media environment.”

Recent cross-sectional (Filla and Johnson, 2010) and longitudinal (Shaker, 2014) studies from other national contexts have identified numerous characteristics of media ecosystems that benefit local democracy. These characteristics range from the simple presence of a print newspaper (Schulhofer-Wohl and Garrido, 2013)

to the level of congruence between a newspaper's audience and the electoral district it covers (Kübler and Goodman, 2019; Althaus and Trautman, 2008). Oberholzer-Gee and Waldfogel (2009), for instance, report that, in non-presidential election years, the presence of a Spanish-speaking news program increases Hispanic voter turnout in that television market. Broadly speaking, a stronger press has been shown to increase congressional accountability (Snyder and Stromberg, 2010) and reduce corruption (Brunetti and Weder, 2003).

Some studies (Kübler and Goodman, 2019; Baekgaard et al., 2014) have explained these results theoretically with Matsusaka's (1995) information model. The rational choice information model contends that some citizens abstain from voting because they do not feel sufficiently informed to cast a ballot for the candidate whose policies best represent their self-interest. According to Matsusaka (1995: 93), the central insight of the information model "is that even if people believe it is their duty to vote, rational citizens abstain if they feel unable to evaluate the choices. Holding constant the basic inclination to vote, then, variations in turnout can be explained by variations in how informed citizens are." Feddersen and Pesendorfer (1996) articulate a similar theory, arguing that in many cases abstention can be conceptualized as a less-informed citizen delegating their vote to a better-informed citizen (76).

The current study expects to find that healthier local print newspapers result in more informed voters who, per the information model, are more likely to vote. Greater exposure to relevant information increases political knowledge (Carpini et al., 1994; McLeod et al., 1996), which in turn increases political participation (Howe, 2006; Larcinese, 2007; McLeod et al., 1999). Not all forms of media, however, increase knowledge to the same degree (Shah et al., 2001). Print newspapers, the focus of this study, have been found to increase turnout in local elections across various circumstances (Kübler and Goodman, 2019; Schulhofer-Wohl and Garrido, 2013; Shaker, 2014), whereas results are mixed for other media, such as television (Newton, 1999). This variation is likely due to the differences in content encouraged by different media forms.

This study excludes digital publications to focus on print newspapers for three reasons. First, recent losses in the industry necessitate a fuller understanding of the quantifiable civic function of print newspapers. Local print newspapers may no longer be considered mainstream media, but they nonetheless exert an outsized impact on the broader media environment. Newspapers produce most fact-based reporting on local politics (Nielsen, 2015; Pew Research Center, 2010) and are often the best or only source of "essential information"—including civic information—in communities where critical information needs would otherwise go unmet (Friedland et al., 2012: v). Second, many online native projects have thus far proved either short-lived or marginal (Anderson et al., 2015), and it is increasingly evident that print losses are outpacing digital gains. And third, data are more readily available for legacy print publications than recent start-ups.

Despite financial challenges posed by digital giants such as Facebook and Google, print newspapers remain a "keystone media" (Nielsen, 2015: 51) responsible for producing most—up to 95 per cent—of original reporting in the regions they cover (Pew Research Center, 2010). There is ample reason to expect, then, that the health of local print media will be positively related to measures of

democratic participation—a finding demonstrated in liberal democracies as distinct as the United States (Mondak, 1995) and Denmark (Baekgaard et al., 2014). In addition, a recent study of the media environment in Sweden found that although some hyperlocal digital news sites were intended to fill a vacuum left by declining legacy media, most were founded in municipalities with both an existing daily newspaper and a main public service newsroom (Nygren et al., 2018). This suggests the health of legacy print and emerging online media may be related, further strengthening the case for studying print newspapers.

Despite numerous studies that establish the importance of local journalism (Baekgaard et al., 2014; Kübler and Goodman, 2019; Schulhofer-Wohl and Garrido, 2013; Shaker, 2014), the topic remains understudied in Canada. It should not be taken for granted that the benefits of local journalism observed in the United States or Europe will hold true in Canada's media system. This study, therefore, seeks to determine whether the following three hypotheses derived from international literature hold in the Canadian context.

Extant research has shown that a number of factors such as the style (that is, tabloid versus broadsheet) and size (that is, publication frequency) of the dominant print newspaper in an area, as well as the dynamics of the local media environment more broadly (that is, number of papers), can have an impact on the relationship between print media and participatory outcomes such as turnout (Baekgaard et al., 2014; Gentzkow et al., 2011; Newton, 1999). We therefore put forward the following hypotheses:

H1: Canadian municipalities with more local print newspapers, controlled for population, will have higher voter turnout in municipal elections.

H2: Canadian municipalities in which the largest print newspaper is published more often each week will have higher voter turnout in municipal elections.

H3: Canadian municipalities in which the largest print newspaper is a broadsheet, rather than a tabloid paper, will have higher voter turnout in municipal elections.

Data and Methods

The outcome of interest for this study is voter turnout in mayoral elections. Turnout captures only a portion of a much broader scope of activities that may be considered political participation, such as speaking in a public forum (McLeod et al., 1999) or writing to an elected representative (Putnam, 2000). This study follows previous literature in limiting the scope of political participation to turnout for four reasons: (1) turnout has high validity, (2) it is widely available, (3) it is central to the democratic process and (4) it is commonly used across the literature, allowing for comparison between Canadian findings and existing research. Turnout was calculated for the most recent round of municipal elections nearest the 2016 census, from which many socio-demographic variables used in the analysis were derived. As a result, we used 2018 election data for Ontario and British Columbia, and we used 2017 election data for Quebec and Alberta. Turnout values were extracted from provincial databases for each of the municipalities included in the analysis.²

Our primary explanatory variables of interest relate to local print newspaper health. To operationalize health, we rely on three variables. First, we consider the publication frequency of the largest newspaper. In short, how often does the dominant local newspaper publish its content? This variable is measured on a 0–7 scale where 1 equals one day per week, 2 equals two days, and so on. We focus on the dominant paper because studies examining the US case have demonstrated that the effect on presidential and congressional participation that can be attributed to newspapers is “driven mainly by the first newspaper in the market, and the effect of a second or third paper is significantly smaller” (Gentzkow et al., 2011: 2980). We acknowledge, however, that municipalities are often served by more than one paper. Thus, although previous research suggests the largest newspaper may matter most, we include a second variable capturing the total number of local print newspapers in a municipality on a per capita basis.³ While these measures allow us to capture quantity, quality has also been identified as relevant (Baekgaard et al., 2014). To address this potential effect, a dummy variable for whether the largest newspaper is broadsheet or tabloid is also included in the analysis. Studies have documented differences in content published in broadsheet compared to tabloid newspapers, finding that broadsheet papers significantly enhance political participation while tabloid papers do not (Newton, 1999; de Vreese and Boomgaarden, 2006). Combined, then, we include the publication frequency of the largest newspaper, the format of the largest newspaper, and the number of newspapers in a municipality on a per capita basis.

All three newspaper variables were derived from data on daily and community newspaper circulation published by News Media Canada. This self-styled “voice of the print and digital media industry in Canada” is an advocacy and market research group primarily representing legacy media outlets in Canada. It sources its data from the Alliance for Audited Media, Canadian Circulation Audit Board, Canadian Media Circulation Audit, and publisher claims and statements.

In addition to our primary explanatory variables, the analysis includes a variety of theoretically informed controls that are known to influence turnout in Canadian (municipal) elections. The political context, particularly the competitiveness of local elections, has been shown to have an impact on local turnout (Breux et al., 2017; Kushner et al. 1997). To account for this factor, we include the number of mayoral candidates, the margin of mayoral victory, and incumbency. We also include a control for the council size per capita, the presence of local political parties, and the format of the election (that is, ward versus at-large). Socio-demographic controls for population density, percentage young residents (18–34), percentage old residents (65+), and the percentage of homeowners are also included, in keeping with much established research (Gallego, 2009; Hajnal and Lewis, 2003; Couture et al., 2014). Data for our control variables were largely derived from the CMB Background Data Series (Lucas, 2019). The data provide a range of information on the largest municipalities in Canada and include demographic data from the 2016 Canadian census.

In terms of scope, we rely on data from municipalities across the four most populous Canadian provinces: Ontario, Quebec, British Columbia and Alberta. These four provinces combine for a population of over 30 million, or 86.3 per cent of the total Canadian population. They also contain over 3,000 municipalities, or 58.6 per cent of the municipalities in Canada, including 9 of the 10 largest (Statistics

Table 1 Number of Cases by Province

Province	Municipalities (<i>N</i>)
Quebec	62
Ontario	107
Alberta	23
British Columbia	41
Total	233

Canada, 2016). Combining available data from the CMB and the News Media Canada database yielded 233 cases (municipalities) for analysis. While 233 represents only a fraction of all municipalities in Canada, the data capture the major Canadian cities as well as expand on previous work. Table 1 provides the breakdown of cases by province.

Although the municipalities analyzed here were not chosen via random sample, they are reflective of the broader set of Canadian municipalities included in the CMB in many ways (see appendix). Moreover, average turnout in our dataset mirrors the actual reported turnout in each of the four provinces included in the analysis. Differences in sample and reported turnout were 7 per cent in Alberta,⁴ 4 per cent in Quebec, 2 per cent in Ontario, and just 0.6 per cent in British Columbia.

Results

Less than half of the eligible population turned out to vote in almost 90 per cent of municipal elections in our sample. The great variation in mayoral turnout between municipalities, which is detailed in Figure 1, is the puzzle we seek to address. Why are some municipalities struggling to mobilize voters while others are doing considerably better in this regard?

We model our multivariate results in four stages (see Table 2). In Model 1, we include only our media ecosystem variables (total newspapers per population, the frequency of the largest newspaper in the municipality, and the format of the largest newspaper). Model 2, by contrast, includes variables related to the political and institutional context of the municipality (number of mayoral candidates, margin of mayoral victory, and so forth). Model 3 includes variables capturing the socio-demographic profile of the municipality (population density, age cohort, and so forth). Finally, Model 4 combines the variables in the first two models to show the results of the full analysis. The final model includes factors relating to the media, societal, and political context of the municipality.

Beginning with Model 1, we see that one of our newspaper variables—total newspapers per population—is significantly (and positively) related to municipal turnout in mayoral elections. We find no support in this model for either publication frequency or format. Total available newspapers, not the format or frequency, appears to be the driving force here. These variables alone account for 6.7 per cent of the total variance, providing preliminary evidence that local media health should not be overlooked.

In Model 2, which contains our political and institutional control variables, we find several significant relationships. Consistent with Breux et al. (2017), we find that the political context is significantly related to local turnout. Municipalities

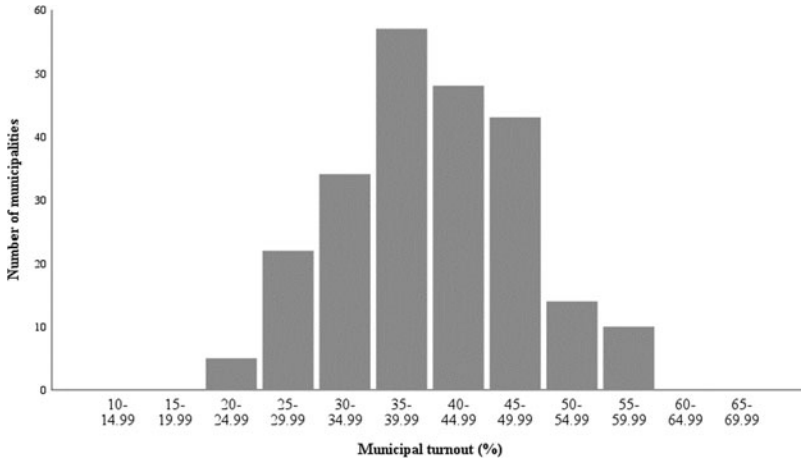


Figure 1. Bar graph of municipal turnout distribution (N = 233)

Table 2 Correlates of Municipal Turnout

	Model 1		Model 2		Model 3		Model 4	
	B	SE	B	SE	B	SE	B	SE
<i>Print media</i>								
Total newspapers per population	0.043**	0.010					0.019*	0.012
Largest newspaper publication frequency	-.001	0.004					0.008**	0.003
Largest newspaper format (broadsheet)	0.013	0.018					0.015	0.015
<i>Political and institutional</i>								
Number of mayoral candidates			.002	.002			.004**	.001
Margin of mayoral victory			-.072***	.020			-.063***	.018
Presence of incumbent			-.010	.011			-.008	.010
Council size per capita			.049***	.007			.025***	.010
Presence of party			.020	.012			.003	.014
Election format (ward)			.079***	.012			.020	.015
Election format (hybrid)			.020	.019			-.011	.018
<i>Socio-demographic</i>								
Population density					-.006**	.003	-.003	.003
Percentage 18-34					-.980***	.192	-.48***	.211
Percentage 65+					-.139	.143	.054	.148
Percent homeowner					-.066	.051	.092	.065
R ²	.067		.230		.319		.450	
N	233		233		233		233	

Note: "At-large" is the reference category for election format.
 * p < .1; ** p < .05; *** p < .01

that have ward elections (compared to at-large elections) enjoy higher turnout. Likewise, the greater the number of councillors there are per capita, the higher turnout is during the election. At the same time, we also see that a lack of electoral competitiveness is associated with lower turnout: an increase in mayoral margin of

victory is associated with a decline in municipal turnout. The media ecosystem may be relevant here as well. A higher stakes and more competitive election may attract more coverage and, in turn, further boost turnout.

In Model 3, we similarly find that the socio-demographic context is related to municipal turnout. Here we see that the percentage of 18-34-year-olds living in a municipality is negatively related to turnout. In short, and consistent with a large body of literature regarding turnout (Anderson and Goodyear-Grant, 2008; Blais et al., 2004), the more young people there are in a municipality, the lower turnout tends to be. At the same time, density is negatively related to turnout in this model, a finding consistent with Breux et al. (2017).

Finally, Model 4 combines the media, political, institutional and socio-demographic variables into a single analysis. The pattern of results is somewhat consistent with the previous models (significant and positive coefficients for council size per capita, significant and negative coefficients for margin of victory, per cent young, and so forth). We do, however, find some notable changes between this model and previous iterations. For example, the number of mayoral candidates gains significance, while relationships relating to ward and density fade away. Most important for our discussion is the fact that in the final model, we see that two of the media variables are positively related to municipal turnout. Total newspapers per population and the publication frequency of the municipality's largest paper are both associated with increased municipal turnout during mayoral elections. Overall, Model 4 provides some compelling evidence to support the argument that a healthy local media environment is an important correlate of municipal turnout.

Discussion and Conclusion

Drawing on a sample of 233 municipalities from the four largest Canadian provinces, this study provides preliminary evidence that both the total number of newspapers and the publication frequency of a municipality's largest newspaper are significantly and positively associated with mayoral turnout. The full model reported in Table 2 explains 45 per cent of the variance in voter turnout, and Model 1, which only includes the newspaper variables, explains approximately 7 per cent. These findings suggest that local media health is an important piece of the puzzle and should, perhaps, be included alongside socio-demographic, institutional and political variables in future studies. In addition, the results demonstrate that despite declining reach and influence, print newspapers still play an important role in educating voters and encouraging civic participation that digital alternatives have yet to replace.

Overall, the analysis confirms H1 and H2 but does not provide support for H3, suggesting that greater print newspaper availability may help drive turnout, but it does not appear to matter whether a newspaper is published in a broadsheet or tabloid format. Recall that H1 attempts to capture the quantity of information relevant to municipal politics available to voters. Studies on Canadian municipalities have speculated that information is "less plentiful" (Cutler and Matthews, 2005: 360; Breux et al., 2017) in local elections than in other democratic contexts. The evidence presented in this study support Carpini et al.'s (1994: 444) conclusion that a decrease in the production of news, rather than consumption of news, triggered a "critical shift" toward civic disengagement in the United States. As Filla and

Johnson (2010: 679) demonstrate, “access” to information about local government alone may be enough to increase participation in local politics. This study follows many others in finding a link between information and turnout measured by the mere presence of a particular media product, be it television (Gentzkow, 2006) or newspapers (Baekgaard et al., 2014).

By contrast, H2 anticipated a significant positive correlation between turnout and the publication frequency of the largest newspaper in a municipality. Results here are somewhat more mixed, as this variable was significant only in the model with our theoretically informed controls. Nonetheless, this result is intriguing, as it suggests that tangible democratic improvement can be attained with minor improvements in the health of existing newspapers (that is, increasing the publication frequency of the largest newspaper by even one day per week). In municipalities where the largest newspaper is a community paper published just once per week—which is the case in 130 of 233 municipalities (55.8 per cent)—there may be room for improvement in local municipal turnout by increasing the publication frequency of that paper. Like H1, this finding indicates that the supply side of civic information is more important to local democracy than the demand side.

A recent proliferation of grey and academic literature detailing the financial precarity of privately owned news organizations (Public Policy Forum, 2017) underscores the importance of this study. Such news organizations have lost advertising to digital giants (Nielsen, 2015). Relatively few publications to date have successfully replaced advertising revenue with paid memberships, and these successful cases (for example, the *New York Times*) rely on a national or global presence to build the necessary readership. Most have resorted to layoffs and funding cuts for investigative and civic function projects (PEN America, 2019). These trends are consistent across countries and media organizations, but nowhere are their effects more profound than at the local level. The value of studying local journalism and democratic participation is evident beyond the context of newspaper closures and low and variable municipal turnout. Like institutional characteristics, many elements of the media ecosystem can be altered, providing a lever for change that comparatively immutable demographic characteristics cannot provide.

This exploratory study sets the stage for a range of inquiry, and so we conclude with six suggestions for future research. First, researchers could expand the analysis to include each of Canada’s provinces and territories. The four largest provinces included in this research note contain most of the municipalities in Canada and more than 80 per cent of the country’s population. Yet there is some evidence of regional variation in both the media habits of Canadians as well as the availability of print media across the country (Isarta News, 2020; House of Commons, 2017). Second, future research could include a measure for the market penetration of local newspapers. Previous work has aimed to capture this dimension through market congruence (Kübler and Goodman, 2019) or “density” of newspapers per population (Starr, 2004; Powers et al., 2015). Either approach could be replicated in the Canadian case. Third, it is worth considering how print interacts with other forms of news media. It may be the case that there is a multiplier effect where broadcast and print work together to produce greater turnout. Fourth, and relatedly, future research could explore the relationship between Canada’s public broadcaster, the Canadian Broadcasting Corporation, and local voter turnout. Some

studies demonstrate that public media provide a greater benefit to political knowledge than commercial media in most countries (Aarts and Semetko, 2003; Tóka and Popescu, 2009; Soroka et al., 2013; Andrew, 2013). Fifth, future work would benefit from adopting a longitudinal design as opposed to the cross-sectional approach utilized here. Finally, this study sets the stage for an analysis of the relationship between voter turnout and emerging digital alternatives to local newspapers. Regardless of the precise avenue of future work, it is essential to further understand the democratic deficit left behind as print newspapers across Canada fold.

Declaration of competing interests. The authors declare none.

Notes

1 This situation, however, is beginning to change. Projects such as the Canadian Municipal Election Study, the Toronto Election Study and the Canadian Municipal Barometer have resulted in a mini explosion of municipal political behaviour research in recent years (McGregor et al., 2022; Anderson et al., 2020; Lucas, 2020).

2 Following McDonald and Popkin (2001) we calculated turnout wherever possible with the number of eligible rather than registered voters. Municipalities in Ontario, Alberta and British Columbia each report turnout data as the number of votes cast divided by the number of eligible voters. Quebec, by contrast, uses the number of registered voters to calculate turnout.

3 Only newspapers listed in the News Media Canada dataset were included in this study. Although an exhaustive content analysis was not possible, some newspapers were excluded after a cursory examination found the audience to be too narrow or the civic content too limited. All snapd newspapers, for example, were excluded, as these monthly publications are image based and explicitly non-political. Canadian Forces Base newspapers were also excluded, as these cater to a specific population and are not widely read by the public. All other News Media Canada titles were included.

4 The Alberta turnout figures should be read with some caution. While data for Ontario, Quebec and British Columbia are publicly available, average turnout for Alberta is not. In 2017, less than half of all municipalities in Alberta reported complete turnout data to the province. Turnout in these reporting municipalities averaged 40 per cent, while Albertan turnout in our data averages 33 per cent.

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Appendix

Sample and Full CMB Compared

	CMB full dataset	Subset
Average council size	8.5663	9.37
Average per cent aged 18–34	0.2496	0.2486
Average per cent aged 65+	0.2268	0.2369
Average per cent homeowner	0.7491	0.7223
Population density	588.1812	762.1957
N	446	233

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