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Local Government Program • Department of Political Science

Municipal Election Systems In Canada:
A Systematic Review of Ward and At-large Systems for Municipalities Considering a
Change in Election System

Subject keywords: Elections, Public administration, Association of Municipalities of
Ontario

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Abstract

Municipal election systems have been the source of ongoing debates in recent decades. Calls for change from at-large to ward systems have been more frequent as municipalities across Canada increase in population. While most research conducted on ward and at-large systems looks at singular comparison points, there is no such research that harmonizes the current research and provides a comparative analysis for those in the public sector who may be tasked with researching these systems. A comprehensive systematic review on the subject will provide municipal governments with a summary of points of interest should they be tasked with exploring the two systems in anticipation of an election system change within their own municipality. Strengths and weaknesses of existing research is summarized, including a discussion on future research considerations on the topic. Further, using data analysis and interpretation, a research question aimed at exploring the relationship between election system and voter turnout is broken down into a research design.

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I owe thanks to the Corporation of the Town of LaSalle for supporting my education and for investing in me as an employee.

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Chapter One: Introduction

Overview of Systematic Review Report

This report is separated into four main sections that separate research and discussion on the research topic. The next section will look at existing literature and research on ward systems and at-large systems where connections can be drawn between the research with the goal of connecting key thoughts for the systematic review. The literature will be used to aid in answering the research question. Following this, the third section will describe the proposed research methodology and design for a future study. While interviews are not permitted as part of this project, the research method will explore the best options for seeking out new data. Once the research method is outlined, the empirical and discussion section will analyze the information gathered and work on highlighting key points of interest for current Canadian municipalities looking at changing their election system. The driver for changing an election system should be based on solid, factual research rather than political feelings. This paper will conclude with a summary of the implications for local governments as well as possible future research considerations.

Municipal Election Systems

As citizens in a democratic society, Canadians hold rights and responsibilities which are entrusted to them by the Canadian Charter of Rights and Freedoms. While Canadians enjoy civic rights and freedoms, civic responsibilities are a key part of living in a civilized, democratic society. Civic responsibilities include obeying laws, serving on a jury, and voting in elections (Government of Canada, 2016). Federal and Provincial elections in Canada come with strong media coverage and national and international attention. It is rare that elections at the local level are often covered by mainstream news sources beyond the jurisdiction of the election. Traditionally, municipal elections were deemed to be of “lower rank” than other elections in Canada (McGregor et al., 2021, p. 1).

There has been a nationwide trend that within the last decade which has brought municipal elections to greater attention on a national level. One potential thought behind this surge is the popularity and coverage of recent City of Toronto elections and their associated scandals, which have reached national and international media coverage. However, according to McGregor et al. (2021), local election attention is increasing due to the vast numbers of municipalities in Canada, the availability of candidates to speak with constituents and increased discourse of local issues. Municipal governments and councillors make up over 90 percent of elected officials in Canada, but the “scarcity on municipal election research is surprising” (McGregor et al., 2016, p. 311).

In recent years, municipal governments throughout Ontario and across Canada have switched from at-large to ward systems. When changing any election system, the

principal question the municipality seeks to explain is how the change benefits the constituents (Spence & Margolis, 2007). Through a systematic review of existing evidence, this paper will seek to compare existing research and evidence of ward and at-large systems in the Canadian context to provide key points of interests for municipalities considering a change in their election system, as well as outline real benefits of switching systems.

Defining Key Terms

According to the Municipal Act (2001), s. 217 (1) (4) provides that “other than the head of council, members shall be elected by general vote or wards or by any combination of general vote and wards.” Municipal elections in Canada are conducted using either a ward system or an at-large system. Ward systems focus on geographically defined areas of a municipality where candidates run for election to represent the area and those who live within it, separate from the boundaries of the entire municipality. In contrast, at-large systems consist of candidates running for election to represent the entire city including all neighbourhoods, boundaries and populations. Voters in these systems select several candidates to represent them on council (Koop & Kraemer, 2016). In all systems, a Mayor is selected at-large and is regarded as the head of a council, but not necessarily a part of the council (Breux et al., 2017).

Systematic Review and Methods Approach

The systematic review of municipal election systems investigates the current knowledge and information about each system in the Canadian context. As best as

possible, the research conducted and reviewed within this report looks at cases within Canada, however some comparisons are drawn from research conducted within the United States. There continues to be ongoing debate across municipalities in Canada on the pros and cons of each election system. Namely, the City of Vancouver has been having this debate since at least 2004, when a plebiscite vote on switching from an at-large to ward system was held but failed to result in any changes to the election system in the city (City of Vancouver, 2021).

Despite ongoing political debates on the topic, research, and publications on the characteristics between ward and at-large systems are still somewhat limited. Current research is siloed to a narrow perspective, and existing research does not encompass a wide variety or comparisons on the subject. By engaging in a systematic review, the goal of this report is to add context to the ongoing debate about ward verses at-large election systems. The research publications that are included in the review were identified through a search of two major online databases. The databases searched were ProQuest Public Administration and JSTOR, filtering through the Political Science and Public Policy and Administration journals. The timeframe included articles from 1965 to present, and keywords used in the filter section on both databases were ‘ward’, ‘election systems’, ‘at-large election’, ‘municipal government’ and ‘at-large and ward.’ When initially search the term ‘at-large’, multiple articles containing that phrase appeared which had nothing to do with municipal government elections.

With the search criteria consistent between both databases, results produced 32 unique articles that included some discussion about ward and at-large systems in a government setting. Results varied from North America (Canada and United States) to

other countries such as England. In standard systematic reviews, after the collection of information, researchers will code the literature into key themes. Coding allows for text to be converted into data for quantitative analysis (Linneberg & Korsgaard, 2019). Coding also aides the researcher in telling a story for the reader. For this report, coding text for quantitative analysis will not be used, but instead the text will be coded within this report into key themes, as outlined by the subheadings in chapter two. The key themes will summarize the extent of knowledge on the subject to date and will include literature from the journal articles sourced. This type of coding is considered a holistic approach, which is written similar to a journal article, and helps in the journey of storytelling (Linneberg & Korsgaard, 2019). A deductive approach is used whereby various existing theories are used for the systematic review.

Chapter Two: Understanding Ward and At-Large Systems

Literature Review

Existing research on ward-based and at-large systems provides singular points of comparison regarding a specific focus point between the two systems. This literature review will explore existing research between these two systems and seek to connect them to an overall comparison of the election systems.

Councillor Focus and Accessibility

By nature of the position, Council members are always at the centre of municipal politics. They are the ones who decide on annual budget allocations, determine the priority of capital projects, make decisions about the business of the municipality, and most importantly set the tax rate for their constituents (Studlar, 2003). The way in which

council members connect with the public is always a direct linkage to their election platform. Meaning, if council members are to be elected in a ward system, they would guide their focus in their election platform to the needs and wants of that area. Listening to feedback within the ward would aid their platform by understanding the issues that matter most to the people (Koop & Kraemer, 2016). After election, do council members still see themselves as representatives only of the ward they were elected to, or do they see themselves as stewards of the entire municipality? Koop and Kraemer (2016) conducted research aimed at answering this question.

It is difficult to measure the accessibility of council members as the term accessibility can mean several things, such as response rate to residents by phone, email or writing, the availability of office hours, the attendance rate at public functions or the availability to get a hold of a council member, or their office, to ask questions. While these concepts are difficult to measure, basic math suggests that a council member may be more accessible if they represent a smaller population. For example, a council member in the City of Vancouver could receive questions or comments from the entire population, roughly one million residents, whereas if they used the proposed 10 ward system, they may each only need to be available to 100,000 residents (City of Vancouver, 2021).

Civic Engagement and Representation

In Canada, there are no consistent or firm rules that apply to municipalities for designing ward boundaries (Spicer et al., 2020). Instead, as research has shown, many municipalities in Ontario and across Canada have varying degrees of approaches when

designing ward boundaries. In Ontario, 58 per cent of municipalities use an at-large system to elect their councillors, which represents 1.6 million people or only 11 per cent of the total population (Association of Municipalities of Ontario, 2022a). In contrast, the other 42 percent are using ward systems and represent the remaining 89 percent of people. However, looking at each municipality reveals a general pattern with some outliers. The data shows that the consensus of municipalities with populations of 50,000 persons and above use a ward system, whereas smaller municipalities use the at-large system (Association of Municipalities of Ontario, 2022a; Watson and Associates, n.d.). Some notable outliers include the City of Niagara Falls with 88,000 persons, who still have their council members elected at-large. Similarly, the largest city in Canada to use the at-large election system is the City of Vancouver. Another outlier in the data is the Municipality of Killarney, Ontario, whose population is only 386 persons but uses a ward system.

With no specific rules of municipal election systems, it is up to each municipality to determine whether to use a ward or at-large system for elections. This variation has led to the ongoing debate about which system is more effective in representing constituents and is best poised to strengthen minority voices. Perhaps the most well-researched subject on ward and at-large municipal election systems, there are many critics that argue for the use of ward systems to help strengthen minority voices, special communities, and special interest areas of a municipality (Abott & Magazinnik, 2020; Bullock, 1989; Clingermayer & Feiock, 1993; Flynn, 2017; Norman et al., 2007; Watson and Associates, n.d.). Research has also concluded that the number of municipalities using at-large systems decreased with rising populations (Spence & Margolis, 2007).

When considering the existing research, this fact makes practical sense. As municipal populations increase, the likelihood of diverse populations should also increase.

Furthermore, geography and history also must be considered when talking about representation. In the late 1990s, the Province of Ontario amalgamated many small municipalities into medium-sized towns and cities in an effort to reduce duplication and simplify government services (Spicer, 2012). In one case study, Spicer (2012) looked at the City of Hamilton and smaller municipalities such as Ancaster and Dundas which were amalgamated into a larger city. Those smaller municipalities, previously represented by their own mayor and council, were left with only a singular seat on council as a new 'ward.' Spicer (2012) found that those councillors who had seats within the wards of the previously separated municipalities often voted in similarity with each other. This supports previous claims by Koop and Kraemer (2016) that wards on the geographic boundary of the municipality tend to stick together in voting decisions, often seeing themselves outside of the issues of the city core. Research indicated that ward councillors from these areas felt strongly that they were the voice of their former municipalities and did not fully embrace the principles of amalgamation (Koop & Kraemer, 2016; Spicer, 2012). Spicer's (2012) case study was longitudinal and conducted data over three terms of the post-amalgamation period. It was found that as time progressed, these tight-knit bonds gradually became less connected, likely as incumbents were replaced and previous municipal identities were forgotten.

When looking at representation in terms of visible minorities, existing literature also investigates the way in which ward systems and at-large systems effect those minorities. In the American context, Clingermayer and Feiock (1993) found that ward

councillors deal with many more diverse contacts that represent specific constituent groups compared with at-large council members. In their research, Clingermayer and Feiock (1993) stated that:

Ward representation is associated with more contacts from certain kinds of constituents, groups, and other interests regarding development policy. Those contacts, in turn, are strongly and positively related to casework. This suggests that ward representatives do end up with more casework, because they receive more requests for it, not because they have any greater inclination to do favours than at-large representatives do. In other words, more cases are brought to the attention of ward representatives (p. 212).

Ward representatives view themselves as representatives of the voice of one geographic area, and therefore see it as their primary duty to be the voice of those people (Koop & Kraemer, 2016; Norman et al., 2007). Research is critical of at-large systems in regard to enhancing minority voices. These minority voices in Canada such as immigrants, Asian-Canadians and black Canadians, and those such as African American and Latino communities in the United States, tend to be underrepresented in at-large systems (Abott & Magazinnik, 2020). These concerns may make one wonder why municipal elections are still conducted using an at-large system, if ward systems are known to increase minority voices. Research shows that minorities tend to be concentrated regions together, which is historically consistent in larger cities (Abott & Magazinnik, 2020). Ward systems would guarantee these communities at least a voice at the council table, whereas at-large systems may not elect minority members if the larger population is heterogeneous.

While ward systems are known to provide better representation to diverse areas and populations, ward boundaries are also vulnerable to being manipulated, known as 'gerrymandering' (Norman et al., 2007; Richomme, 2019). The effects of gerrymandering can be devastating, and numerous historical events have shown how gerrymandering results in negative consequences (Bullock, 1989; Norman et al., 2007). Gerrymandering creates unequal wards with varying population sizes, varying population races and can also be drawn along the lines of political roots to enhance candidates' chances of winning in an election. Research suggests that the United States is particularly more vulnerable to gerrymandering due to their municipal councils being partisan, whereas only a handful of municipal governments in Canada are using political parties (Bullock, 1989; Breux et al., 2017). Current polls also show the Canadians are not interested in political parties at the municipal level (Erl et al., 2023). In the Canadian context, gerrymandering is seldom heard of which is likely attributed to the legislation outlining the process for boundary reviews (Municipal Act, 2001; Municipal Election Act, 1996).

There is legislative potential for the establishment of provincially regulated rules on establishing ward boundaries for municipalities across Canada. The current research reveals an inconsistent approach to municipal ward boundary-making in Canada and numerous municipalities conduct ward boundary reviews, but on varying schedules and for varying reasons (Flynn & Spicer, 2017; Spicer et al., 2020). For municipalities exploring the switch from an at-large system to wards, it should be top of mind for all municipal administrators that a thorough, logical and equitable approach be used when drawing ward boundaries. The research agrees that geographic size is not always the

most important approach to creating ward boundaries (Bullock, 1989; Breux et al., 2017; Norman et al., 2007; Watson and Associates, n.d.).

Municipal Expenditures

Perhaps one of the most important and most discussed topics in municipal politics is spending. Topics relating to spending such as annual budgets, property taxes, capital projects and government grants are widely reported on in mainstream media and directly effect residents. Of course, no resident wants to have their taxes increased, and lowering or slowing taxes is a common campaign issue that candidates bring up at all levels of government. In current literature comparing ward and at-large systems, several sources have cited that ward-based communities spend more per capita than at-large cities and towns (Dalenberg & Duffy-Deno, 1991; Southwick, 1997; Veldhuis & Clemens, 2004); however, some studies contradict these findings and are critical of the studies that show ward municipalities spend more (Faria, 2017; Langbein et al, 1996).

Dalenberg and Duffy-Deno (1991) looked at spending on capital improvement projects between ward communities and at-large communities. Using comparative data from random samples, they analyzed 30 cities over a 22-year period to determine per capita public capital stock (Dalenberg & Duffy-Deno, 1991). Per capita public capital stock is representative of the dollar value spent on public capital projects, which could be roads, major sewer lines, utility systems, public facilities and public infrastructure. Their initial theory suggested that municipalities using ward systems spend more on capital infrastructure projects, and their study also outlined that they were controlling for population and geographic location. Using an inductive approach to their research, they

started with a theory on why this may occur. Dalenberg and Duffy-Deno (1991) suggested that the effects of 'logrolling,' also known as vote trading, are incentivized within ward systems, and result in public infrastructure projects being concentrated geographically within wards. Logrolling therefore creates additional spending, with reasoning that ward councillors bank on large capital projects within their wards to show constituents visible, tangible improvements that can be used for future election stock. This theory was previously suggested by Tullock (1959) who analyzed how logrolling plays an important part in ward politics, and the results of Dalenberg and Duffy-Deno's (1991) study have since been replicated with Southwick's (1997) study. Simply put, both of these studies suggest that 'politics are to blame for more spending in ward systems than at-large, which can also be tied back to Koop and Kraemer's (2016) theory on how councillors see themselves as representatives within each election system.

While reviewing literature on municipal expenditures in ward and at-large systems, there is a unique opportunity to apply economic theories to some of the research conducted, which the authors have not elaborated on. Using research that suggests ward municipalities spend more per capita than at-large municipalities, is there room to suggest that those same ward municipalities are better at driving economic growth and development within their communities? Keynesian economic theory argues that government intervention and spending in times of slower economic growth increases economic output (Harvey, 1989). This theory is furthered by Harvey's (1989) theory on municipal entrepreneurialism, which posits that municipal governments act as entrepreneurial corporations when they work with private enterprises to create public-private partnerships. Although research argues that more per capita spending occurs in

ward municipalities, to what extent can this be reframed as a positive thing for local economic development? Blair and Carroll (2009) argue that economic development and growth are tied together, and that “growth provides the resources needed for development and helps economies afford improvements in the quality of life” (p. 14).

Alternatively, Langbein (1996) Dalenberg and Duffy-Deno’s article has been criticized for being too limited in the size and scope of the study (Faria, 2017). Looking at the City of Vancouver’s 2004 plebiscite vote on switching from an at-large system to a ward system, Veldhuis and Clemens (2004) anecdotally argue that spending will increase under a ward system. Their report uses biased language and is argumentative towards public spending on election research, as they state that the Vancouver Electoral Reform Commission cost the taxpayers hundreds of thousands of dollars looking into the effects of ward and at-large systems. Citing the same resources discussed above, Veldhuis and Clemens (2004) article fails to bring any new evidence on spending. The literature comparing ward and at-large spending is seemingly divided, as one would expect in an ongoing debate. However, it is interesting in Miller’s (1977) article which notes that logrolling is not always avoidable. Miller (1977) rejects the claim that logrolling is anti-democratic, where it is argued in simple terms that those elected to represent their ward should stick with their vote, and not engage in ‘vote trading.’ Miller (1977, p. 53) outlines that logrolling between council members “entails some measure of collaboration among voters.

Evaluating the Potential for Hybrid Models

In the Canadian context, hybrid election models where some councillors are elected at-large, and some are elected by a ward system are rare. According to data

gathered by the Association of Municipalities of Ontario (AMO), less than five percent of all the 444 Ontario municipalities use a hybrid system where some councillors are elected at-large, and others are elected by a ward (AMO, 2022a). Little research has been conducted on the use of hybrid election systems in Canada. The City of Thunder Bay uses a hybrid approach where some councillors are elected at-large and some are ward councillors, however most other cities in Canada do not use this method as it can create hierarchical challenges between council members (McGregor et al., 2016; Watson and Associates, n.d.). Within existing research regarding the use of a hybrid system, the case study of Covington, Kentucky has been used to evaluate the mixed-election approach at the municipal level. However, in the United States, municipal councils are mostly partisan-based, and the at-large election system is only used for 'primaries' (Spence & Margolis, 2007). In American politics, primary elections are used to reduce the total election pool down to a select few candidates and are most often used in partisan elections (Spence & Margolis, 2007). In this case, the primary election was held using an at-large system for ward candidates that were running for election within the ward, but too many candidates existed for a ward ballot vote. The at-large system was used to conduct a plurality vote for the top two candidates, who would then compete further during a ward election.

There is not enough research to provide insight into the benefits and drawbacks of using a hybrid election system. In the available research, a common concern raised was that a hybrid system would create power-imbalances between members of council and the potential for some to think they are higher status than others, due to their method of election (Watson and Associates, n.d.). Due to the limited number of

municipalities in Canada using a hybrid system, research would need to be focused on reviewing case studies of those municipalities using that style of system and interviewing elected officials on their perspectives of a hybrid system.

Effect of Election Systems on Municipal Administrators

There have been no writings on the effects of municipal election systems on municipal administrators, specifically the dynamic between council members and administrators. The importance of council-staff relations cannot be stated enough. Municipal leadership is a split between council members and administration, and behind every council member are dozens of professional, administrative staff supporting their initiatives and direction (Fenn & Siegel, 2017; Sancton, 2011; Siegel, 2015). In an increasingly polarized relationship between provincial and municipal governments, it is more important than ever that council and staff work together (Strategy Corp, 2023). In Strategy Corp's (2023, p.11) survey of CAOs, they noted that the number one issue identified by CAOs was housing supply and affordability, followed closely by the challenges of managing growth and social inequities and issues such as homelessness, poverty, mental health and addictions. While there are no comparisons drawn between council-staff relations in ward and at-large municipalities in any existing literature, it is worth mentioning its importance given the attention council-staff relations has received in recent years. Do council members tend to be more unanimous in their voting on municipal issues in an at-large system? Is there greater desire to work closely with administration in ward systems? There is potential for this to be further explored in any future research which includes council-staff relations or ward and at-large system comparisons. In any case, top administrators such as Chief Administrative Officers are

responsible for leading up to council (Siegel, 2015). How this differs, if at all, between election systems is unknown.

Summary of Comparatives

There are challenges about coming to conclusions or recommendations about ward and at-large election systems within this report, as no new field research is being conducted and tested. However, the current literature provides several key points of interest that compare the benefits and drawbacks of each system.

The following tables include a high-level summary of both real and perceived advantages and disadvantages of each system. The list is derived from research conducted in the literature review as well as summaries of consultant reports from Watson and Associates (n.d.) regarding the City of Guelph transition from an at-large to a ward system as well as comparisons conducted by the City of Vancouver (2021) regarding the 2004 plebiscite vote.

Table 1.1: Comparing Advantages of At-Large and Ward Systems	
At-Large	Wards
Larger choice of candidates to choose from, potentially resulting in higher-quality candidates	Better representation of minority populations and neighbourhoods
Reduced likelihood of positions being acclaimed	Simplified election process with smaller ballot choices and easier campaigning
Places primary focus on entire area rather than a specific neighbourhood or group	Councillors better aware of local issues and accessibility to residents is improved
Gerrymandering boundary lines is not an issue	Easier for candidates to campaign, smaller areas to cover and fewer advertising expenses

Table 1.2: Comparing Disadvantages of At-Large and Ward Systems	
At-Large	Wards

Claims that at-large system fosters a 'popularity contest' between candidates and does not focus on issues that matter	Council focus may not be beneficial to entire community, with focus being on certain residents rather than all residents
Diverse neighbourhoods and populations may be underrepresented and lack a 'voice'	Gerrymandering boundary lines can be problematic
Inaccessibility of councillors is an issue when they represent the entire municipality rather than a part of it	Increased likelihood of acclamations if not enough candidates run for election within a ward
Campaign costs for candidates may be high, since covering the entire municipality is required. This has potential to discourage candidates	Greater effects of logrolling votes on Council, which has potential for inconsistent approach across municipality

Application of Theory

Langbein et al. (1996) argued that how government is elected affects the public policy choices that the local government make. Their vision and focus are determined by the method of which they are elected. According to Dahl (1947), public administration as a school of thought cannot be scientific because it is influenced strictly by normative behaviour. Since Dahl's (1947) critique on the science of public administration was written, literature and research on sciences such as sociology, psychology, and political science have increased tremendously. Numerous theories have been studied within the realm of public administration and the literature reviewed within this systematic review includes several theories of public administration.

One theory as to how ward and at-large systems can be looked at, from both the councillor perspective and eligible voter perspective, is the rational choice theory. As van Thiel (2014) suggests, empirical knowledge is discovered through an objective manner, through observation and research. Rational choice theory states that individuals make decisions based on self-interest (Aldrich, 1993). In the context of voter turnout, rational choice theorists argue that people will only vote if they believe their vote

is meaningful and the candidate whom they are voting for will bring positive change to their lives (Uhlener, 2001). As per Aldrich (1993, p. 248), “rational choice takes it as fundamental that the individual prefers outcomes with higher utility to those with lower utility and chooses actions to receive more highly valued outcomes.” In the following research design, rational choice is a fundamental lens which has been used to explain voter turnout issues in local government and can be part of the framework to which the research demonstrates a possible relationship between voter turnout and election system. Does the method of election affect the way in which constituents make their rational choices? If research suggests that ward municipalities are better for minority representation, do individuals who live in wards make the rational choice to vote in increasing volumes than at-large communities? Given the theory and that ward citizens may receive higher utility, this theoretical lens cannot be ignored (Aldrich, 1993).

Chapter 3: Methodology and Design

Research Question

The research regarding theoretical and empirically based comparisons between at-large and ward systems is still somewhat underdeveloped, with most research being conducted within the last three decades and on very specific comparative points. For municipalities looking to make a switch from an at-large system to a ward system, there are existing comparisons that have been conducted by municipalities that already show a high-level overview of the pros and cons of each system (City of Vancouver, 2021; Town of Aurora, 2020; Watson and Associates, n.d.). Currently, all comparisons available are from municipalities who currently use an at-large system and are considering switching to a ward system. What the comparisons do not elaborate on, is

the possibility of increasing citizen political engagement through increased voter turnout at municipal elections. Given recent criticisms of low voter turnout in all levels of government elections (Elections Canada, 2020); as well as the lowest municipal voter turnout numbers in Ontario in nearly 45 years during the last election (Association of Municipalities of Ontario, 2022b), political engagement appears to be dwindling. Are there certain things municipalities can do to increase political engagement with their citizens? Starting by looking at the method of election, a research question that can be considered should explore if ward systems in promote higher voter turnouts in municipal elections than at-large systems.

Existing research into low voter turnout (in Provincial and Federal elections) outlines that voters are having feelings of discontent with elections. Such feelings included the sense that any votes cast are meaningless (Elections Canada, 2020). Apart from a survey conducted by Elections Canada, voter turnout is explored in news articles which provide unsupported theories of low voter turnout. Research from Breux et al. (2017) found that voter turnout in municipal elections is mostly dependent on the competitiveness of election races. This topic is important because local governments are “closer to the people” than any other level of government (Koop, 2016, p.811). Due to the closeness of local government to people, and the way in which local government is a part of everyone’s daily lives in some form or another, it is realistic to assume that local government plays the most important role in increasing voter turnout.

Research Design

A research design for this question will outline a strategic plan for collecting and analyzing information to address the question and allow for findings to be discussed. To

start, the goal of the research would be to test if the hypothesis can be substantiated with the research.

Hypothesis 1 (H1): Municipalities that use a ward system receive higher voter turnout in municipal elections over municipalities that use an at-large systems.

This hypothesis suggests that a change in municipal election system (independent variable, **IV**) results in a change in voter turnout (dependent variable, **DV**). As this is a deductive design, the theory precedes empirical research. Through the research, it will be tested if this theory can be supported.

Case Selection and Methodology

Methods are tools you use to execute your research design whereas methodology is a plan designed to structure your research process (Taylor, 2023; van Thiel, 2014). This research design would utilize a mixed-methods approach, which includes both quantitative and qualitative analysis. The qualitative analysis would consist of surveys and interviews with councillors in Ontario, whereas the quantitative analysis would include analysis on the coded data from the surveys, as well as statistical analysis into voter turnout percentages using existing data.

According to the Association of Municipalities of Ontario (2022c), there were 2842 open seats on council across Ontario for the 2022 general election. Given this total population size, the sampling framework would include an ideal survey sample that represents a 95 percent confidence level. This works out to be 339 council members. To achieve this, a survey could be sent to all sitting councillors in Ontario, through their municipal clerk's office. Online surveys would be low cost; however, they are likely to

produce lower response rates (van Thiel, 2014). Alternatively, using the municipalities listed in table 2.2, a survey could be sent to each of those municipalities' council members explaining the research goal and asking for those council members to complete the survey. Furthermore, of the 10 municipalities listed, split evenly between ward and at-large systems, there are 84 councillors to survey, which would require a response of 69 councillors to achieve a 95 percent confidence level. Semi-structured interviews could be conducted with respondents of the smaller survey sample size. Semi-structured interviews include identical and pre-defined questions but allows some flexibility for interviewees to elaborate on their answers (van Thiel, 2014). This survey would be administered in a non-probability sampling framework, as the units of study in the survey are current sitting councillors in Ontario, and the population is limited to specific individuals. Sampling on the number of units needed to reach the ideal sample size would be done by quote sampling which is the best framework of sampling to achieve these results (Statistics Canada, 2021; van Thiel, 2014). The subjects are considered representative elites and would be studied in a cross-sectional design. The Town of Aurora is a unique case study opportunity as they have recently switched election systems within the last election cycle and may have incumbents who can provide perspective on the changes. The Town of Aurora could be assessed as a longitudinal case study over several years such as the 2018 and 2022 elections.

There are several limitations associated with surveying local councillors. For one, it is unlikely that these councillors have been elected in both an at-large and a ward system, and therefore any answers they provide will include underlying bias to which system is 'better'. The second limitation is that council members are influenced by their

own self-image and cannot provide unbiased reviews of the representation of their constituents, as demonstrated in Koop (2016) and Koop and Kraemer (2016). In that research design, 179 councillors were invited to participate in interviews, but only a response rate of 29 percent was achieved (Koop, 2016). Koop (2016) also sent surveys to all sitting councillors in 2014 by email for a response rate of 32 percent. It is probable that the same response rate may be achieved in another attempt, 10 years later. Given these limitations however, using councillors as the units of analysis, rather than eligible voters, is more likely to achieve survey responses and is cheaper to administer. If voter turnout is already low, it is unlikely that selecting samples of the general population of eligible voters will result in meaningful responses or response rates.

To transition from theory to empirical research, abstract concepts need to be operationalized into measurable outcomes (Irwin, 2022a). Looking at the hypothesis, the **IV**, which is the change in municipal election system, can only be operationalized into two items: ward and at-large. The **DV**, voter turnout, is operationalized into a percentage of the eligible voting population that voted. Within the proposed survey, such questions that may be asked (in the phrase of a statement) might include “I make time to return every question, concern or inquiry I receive from a constituent” and “I am aware of the unique needs of minority members in my community.” As noted above, council members are not equipped to answer outright which election system results in better engagement with citizens or better voter turnout, so questions should be phrased in statements that they can evaluate, and which can later be coded.

These independent variables ask the respondents to select which response best describes their agreement. Using a likert scale, response options may include a ‘1 to 5’

rating, which can be answered with varying degrees of agreement such as agree, agree somewhat, neither agree nor disagree, disagree somewhat and disagree. Likert scales also aid in the reliability and validity of a survey (van Thiel, 2022).

Checking for Validity

Ensuring validity of the research design is important, as validity checks ensure that your research findings can be generalized and used to support or retort a hypothesis. When formulating a research question, it is important that it is checked for common mistakes. This will ensure internal validity throughout the research process. Because creating a research question does not involve exact rules, it cannot be considered an exact science where a formula is used to design the question. Instead, common mistakes such as the way it is worded or what it is intending to measure need to be checked to ensure the question makes sense, the research is not too broad, and the concepts are relatively precise (Sancton, 2011; Taylor, 2023; van Thiel, 2014). It is recommended that other researchers review the research question structure before proceeding.

Research is also vulnerability to observer bias. To overcome observer bias and check for external validity, methods such as triangulation and multiple observers can help to improve validity. Triangulation is the process of using multiple sources to check for credibility within your findings. This may include the use of multiple methods to validate findings. This research design is suggesting a mixed-methods approach. Multiple observers help to improve interrater reliability, which checks to see if findings can also be replicated by other studies. Each time findings are replicated, the validity of the research study improves (Irwin, 2022a). The ability for the research design to rule out

rival hypotheses will improve internal validity. If the research shows that H1 can be validated, counterhypotheses should also be created and explored to determine the extent to which rival hypotheses fit the data (Irwin, 2022a; Irwin, 2022b; van Thiel, 2014). The extent to which the findings of the study can be generalized also affect the external validity of a study. This research design is scaled to sitting council members within the Province of Ontario. The study should not therefore be generalized to all of Canada, as other settings, context, and variations may impact findings within different geographic locations.

Findings within Current Data

In 2018, province-wide voter turnout for Ontario municipal elections was recorded at 38.3 percent, and in 2022 it dropped to 36.3 percent (Association of Municipalities of Ontario, 2022b; Association of Municipalities of Ontario, 2022c). Between the 2018 and 2022 elections, one municipality switched from an at-large to a ward system based on an analysis of pros and cons. The Town of Aurora switched from an at-large system in 2018 to a ward system by the 2022 municipal election (Town of Aurora, 2020). Their voter turnout along with eligible voting population was 32 percent with 38,935 and 26 percent with 43,032 respectively. This means that, in addition to the overall provincial trend of lower voter turnout, their own voter turnout dropped significantly between the two elections, and more than three times the provincial average. As mentioned above, there is a unique, but limited, opportunity to survey multi-term councillors in the Town of Aurora who were elected in both terms where the municipal election system changed from at-large to a ward system. These incumbents would have an interesting perspective on some qualitative attributes that were reviewed above, such as council

member representation and focus, which Koop (2016) and Koop and Kraemer (2016) explored. Further, it is possible to review how spending is also affected within each system using data from publicly available municipal budgets from the Town of Aurora to compare between fiscal years 2018 through 2023, controlling for the rate of inflation and increase to tax base.

The chart below, *Table 2.1*, represents data taken from available sources. It shows the top five most populous municipalities in Ontario, excluding Toronto and Ottawa which are both over one million persons, and compares the population (total), population (eligible voters) with the percentage of voter turnout in the 2022 municipal election. The chart is based on the most populous cities – total population, not the population with the most eligible voters, as this data was not easily available to be exported into data sheets for easy extrapolation. The mean percentage of voter turnout for the selected municipalities below was 27.69% in ward systems and 32.41% in at-large systems.

(Data source: Association of Municipalities of Ontario, 2022c).

Table 2.1: Voter Turnout Percentages for Top 5 Populous Municipalities in Ontario				
<i>System</i>	<i>Municipality</i>	<i>Population (Total)</i>	<i>Population (Eligible Voters)</i>	<i>Voter Turnout (%)</i>
Ward	City of Brampton	656, 480	354, 884	24.56
Ward	City of London	422, 324	281,073	25.50
Ward	City of Hamilton	569, 353	405, 288	35.38
Ward	City of Markham	338, 503	220, 234	31.17
Ward	City of Mississauga	717, 961	491, 260	21.84
At Large	City of Niagara Falls	94, 415	68, 201	27.53

At-Large	City of Cornwall	47, 845	34, 821	28.80
At-Large	City of North Bay	52, 662	41, 418	37.56
At-Large	City of Sarnia	72, 047	54, 148	40.41
At-Large	City of Woodstock		34, 039	27.74

The chart below, *Table 2.2*, shows ten average sized municipalities based on population total from both ward and at-large systems, with five from each system. Using data from all municipalities in Ontario, the average municipal population size is 32, 264 (Association of Municipalities of Ontario, 2022c). The municipalities closest to this median population were chosen for comparison. The mean percentage of voter turnout for the selected municipalities below was 34.65% in ward systems and 35.46% in at-large systems.

(Data source: Association of Municipalities of Ontario, 2022c).

Table 2.2: Voter Turnout Percentage for 5 Similar Sized Municipalities in Ontario based on Municipal Population Average				
<i>System</i>	<i>Municipality</i>	<i>Population (Total)</i>	<i>Population (Eligible Voters)</i>	<i>Voter Turnout (%)</i>
Ward	City of Orillia	33, 411	26, 484	32.43
Ward	Town of Bradford West Gwillimbury	42, 880	27, 833	33.77
Ward	Town of Fort Erie	32, 901	26, 972	34.35
Ward	Town of New Tecumseth	43, 948	31, 731	33.75
Ward	Town of Centre Wellington	31, 093	23, 329	38.95
At Large	City of St. Thomas	42, 840	31, 103	30.63
At-Large	City of Stratford	33, 232	26, 554	43.91
At-Large	Municipality of Leamington	29, 690	18, 138	45.70
At-Large	Town of LaSalle	32, 721	25, 702	30.13
At-Large	Town of Orangeville	30, 167	22, 111	26.93

A request was made to the Association of Municipalities of Ontario for the comprehensive data set for all public data that displays the percentage of voter turnout and election system for each reporting municipality in the 2022 elections. There were 417 reporting municipalities in 2022. Figure 1 and Figure 2 outline the data received with a linear regression line to show the correlation. In each figure, voter turnout as a percentage is compared with eligible voting population.

Figure 1: Voter turnout in 2022 Municipal Elections for ward municipalities, with eligible voter population less than 100,000 persons.

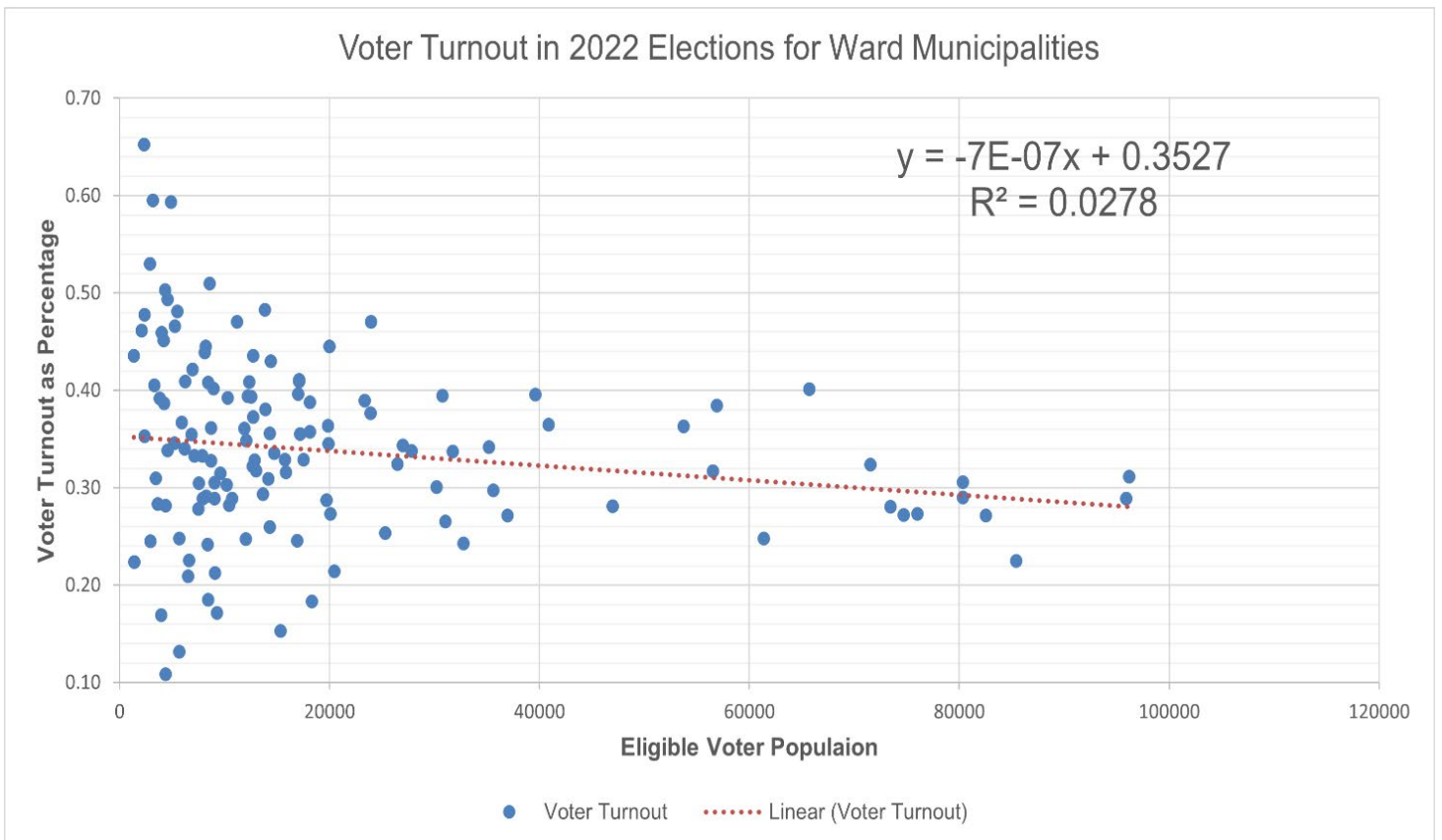
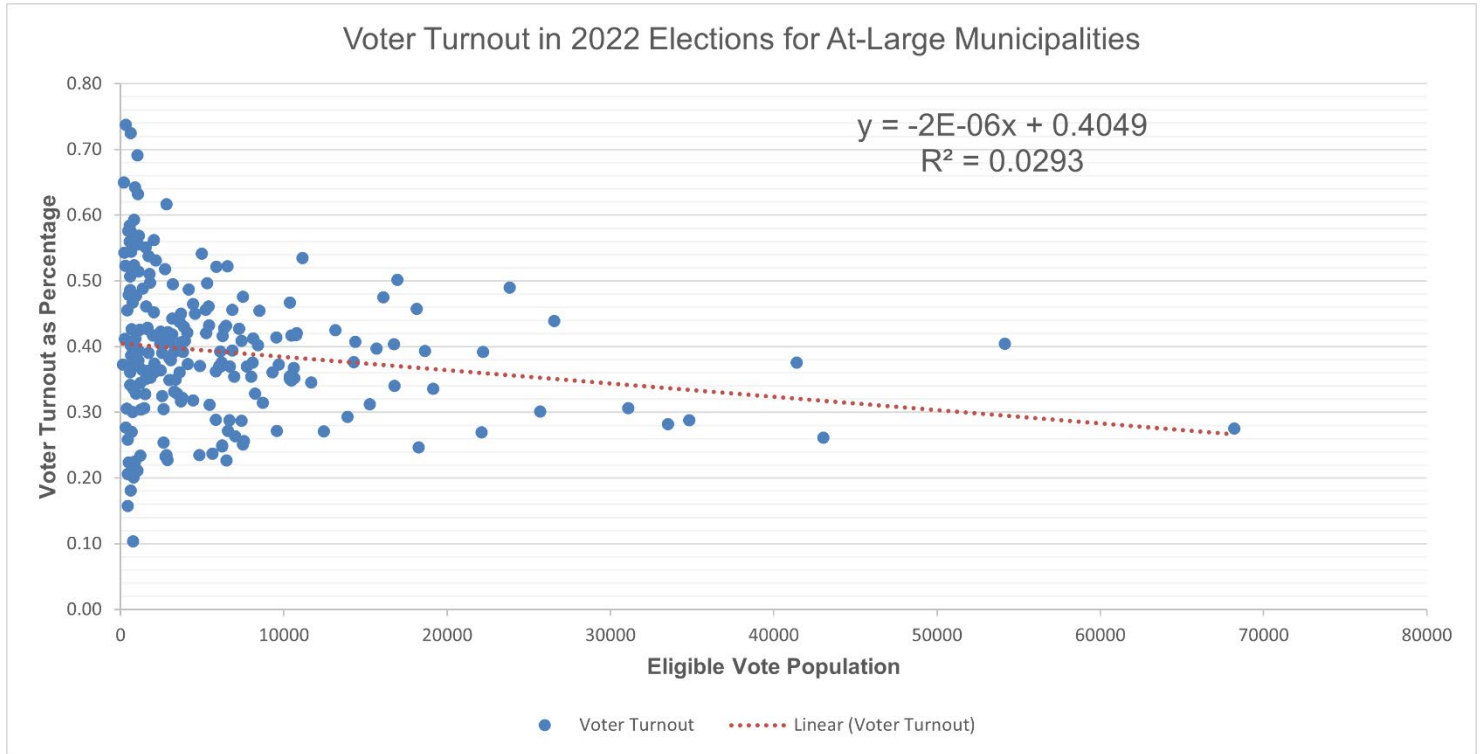


Figure 2: Voter turnout in 2022 Municipal Elections for at-large municipalities, with eligible voter population less than 100,000 persons.



In each figure, the statistical analysis determined that there is a negative correlation coefficient of $R = -0.17$. Municipalities with eligible voting populations over 100,000 persons were excluded from this analysis to prevent any outliers skewing the data (van Thiel, 2014). While the r value is rather weak, the trend still suggests a negative correlation. Based on this data analysis, it can be said with relative certainty that, regardless of election system, voter turnout decreases slightly as eligible voter population increases. This was also seen when looking at the Town of Aurora, where

they switched election systems between 2018 and 2022 yet their population of eligible voters increased.

Chapter 4: Discussion

Discussion

Overall, the research suggests that for best representation of minorities, unique populations and specific neighbourhoods, a ward system provides the best method of representation for voices that are more likely to be forgotten or drowned out in the greater political arena. Ward councillors can be viewed as truly local representatives who are the voice of their area. This comes with a tradeoff however, as those same voices do not always act on, or see themselves as, the policy maker for the greater good of the entire community (Koop & Kraemer, 2016).

There are limitations within this systematic review. It is important to note that correlation does not mean causation, and this has evaluated evidence to infer possible causation. At a glance, the data above suggests that there is little to no difference in voter turnout between ward and at-large systems. This seems counter-intuitive to the underlying assumptions and findings presented in numerous literatures about ward systems, which identify ward systems as better election systems for principles such as minority representation and councillor focus (Abott & Magazinnik, 2020; Bullock, 1989; Koop, 2016; Koop & Kraemer, 2016; Richomme, 2019).

However, McGregor et al. (2021) looked at the motivations, attitudes, and behaviour of Canadians in local elections. Voter turnout and attitudes of voters have a correlation between them, but McGregor et al. (2021) notes that “there is so much variation between cities that the findings from studies of city elections are difficult to

generalize. Local elections are of a “different kind” from federal and provincial election, but they also differ greatly from one another (p.1).” There are limitations within this systematic review, since research on human subjects has not been conducted, and secondary research was the primary research tool used. Therefore, it is recommended that the entire research design should be explored prior to confirming or rejecting **H1**. Possible other theories to be explored are also noted. For example, ward municipalities are, on average, more populous than at-large municipalities. Because of the population differences, are local voices drowned out in ward systems due to higher population?

Future Research

Municipalities across Canada and the United States are elected using at-large or ward systems to elect their council members; however, many differences across these systems provide unique opportunities for future research. For example, there is no identified population ‘benchmark’ where each system is most ideal. As Spence and Margolis (2007) argue, the number of municipalities using an at-large system decreases as population increases. Could this represent correlation, but not causation? It is evident through the research that large cities use ward systems for a variety of reasons, as it is not realistic for council members to be available to tens or hundreds of thousands of people, however future research may look at a ‘sweet spot’ where municipalities who are using an at-large system should consider switching. This may best be researched using case studies of municipalities who have recently switched systems and developing analysis in their answers as to why the switch was made.

Moreover, additional research that can aid in determining a set of conditions to ward boundary review may prove helpful, as no current provincial or national guidelines

exist to help municipalities make these decisions. Such standardized review means may provide municipalities with better and more consistent tools when time comes to review their ward boundaries.

Conclusion

This report is relevant to current public administration issues as it provides a systematic review of current research into ward and at-large systems. The answer to many questions about municipal government is sometimes generalized by one word: 'politics.' While this review certainly contains information about common political topics, the review and discussion seek to provide a better understanding of the scope of the pros, cons and considerations with ward and at-large system beyond 'just politics.' This systematic review is intended to provide items for consideration for municipalities undergoing an election system review, as current reviews are simply summarized into brief bullet lists with little elaboration or context. The research design outlined within this review is intended to provide a starting point for additional future research to determine if a relationship exists between election system and voter turnout, or to look at what affects voter turnout in municipalities. Can voter turnout trends be explained and solved at a local level?

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