

Voting Behaviour by Age and Generation: A Study of Canadian Elections from 1965 to 2015

By

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An essay submitted to the Department of Economics

in partial fulfilment of the requirements for

the degree of Master of Arts

under the supervision of Professor Christopher Cotton

Queen's University

Kingston, Ontario, Canada

2017

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Acknowledgements

The completion of this paper would not have been possible without the support of my supervisor, Professor Christopher Cotton. Without him, I would surely still be stuck on a minor detail in the brainstorming phase of picking a topic. I am also grateful to the staff and faculty in the economics departments at Queen's University and my alma mater, the University of Waterloo, for the skills I have developed in both programs.

Endless gratitude is also owed to my friends and family, who have supported me and have allowed me to miss countless obligations to work on this essay. Likewise, I would like to thank my classmates for their support, advice, and seemingly endless supply of sugar.

I would like to end this section with a proverb by my esteemed supervisor: "Do not let perfection stand in the way of good enough".

Abstract

The Canadian political spectrum can be simplified into a left-wing and right-wing scale, like many western democracies. In practice, however, federal Canadian politics have been dominated by three political parties that can be associated with the left-wing, centre, and right-wing. It is traditionally assumed that older citizens tend to vote more right-wing; this idea has gained popularity with the growth of the Millennial generation and its contrast to the dominant Baby Boomer generation.

Using these political associations and data from the Canadian Election Study, this paper models the voting behaviour of survey respondents and how it is affected by their age and generation. The models indicate a possible uniqueness of the newer Millennial generation compared to its predecessors at the same age; however, these results will remain inconclusive until the Millennial generation grows older and can be compared to other generations at other ages. Regarding only generation effects, the model suggests that voting behaviour has become more variable in the generations that have succeeded the Greatest generation, as survey respondents tended to vote more left-wing at younger ages but more right-wing later in life.

Table of Contents

Introduction.....	5
Literature Review.....	7
Age-Period-Cohort Analysis in Europe.....	7
Age and Generation Effects in the United Kingdom.....	10
Age-Period-Cohort Analysis in the United States.....	12
The Effects of the Internet and Social Media.....	14
Scope for Research.....	17
Data and Model.....	18
Data.....	18
Model.....	22
Results.....	26
Significance of Age and Generation Effects.....	26
Additional Results.....	27
Discussion.....	29
Conclusions.....	30
Bibliography.....	32
Appendix A.....	37
Results of Canadian Elections in the Sample Period.....	37
Appendix B.....	39
Output Table: Generation Effects Model (1).....	39
Output Table: Age Effects Model (2).....	40

Introduction

To the extent that the entirety of political ideology can be distilled into a one-dimensional spectrum, political theory in Canada and other western democracies ranges from left-wing to right-wing. These left- and right-wing definitions follow ambiguous classifications of socioeconomic beliefs and can range in extremism. In contemporary Western democracies, right-wing thought tends to support individualistic societies and free market economics with a focus on individual liberties (Heywood, 2015). Left-wing ideology, on the other hand, favours collectivist communities and interventionist policy that advocates for stronger state involvement in the economy (Heywood, 2015). In practice, political parties often implicitly identify with a region on the left-wing/right-wing spectrum. These relative positions are generally stagnant even if specific platforms change over time.

The Canadian federal landscape is composed of three major parties, with the New Democratic Party roughly left-wing, the Liberal Party roughly centrist, and the Conservative Party roughly right-wing. Despite this, only the Liberals and Conservatives have ever led a government¹ (Library of Parliament, 2015), making the Liberals the de facto left-wing choice for government.

Recent history has seen large swings in power between the Liberals and Conservatives, with each party holding power for approximately ten years throughout the 1990s and early 2000s (Library of Parliament, 2015). The 2015 federal election saw a

¹ Canadian elections follow a first-past-the-post system in which the party that wins the most seats in the House of Commons forms a government and its leader becomes the Prime Minister.

victory for the Liberal Party after almost a decade of power for the Conservatives (Library of Parliament, 2015). This switch in power was largely attributed to higher turnout among young voters (Grenier, 2016), bringing Parliament closer to the left.

The literature has widely acknowledged that people tend to become more conservative with age; a saying popularly attributed to a variety of politicians and thinkers declares “Any man who is under 30, and is not a liberal, has no heart; and any man who is over 30, and is not a conservative, has no brains” (Tilley, 2015). Political scientists have long studied the effects of age and generation on political beliefs, noting that people tend to vote further to the right as they age (Crittenden, 1962), though the literature has largely focused on developed countries in the west. Even among similar countries, this trend may have evolved over time. Changes in civil liberties, religiousness, economic growth, and information technology have undoubtedly influenced aggregate political beliefs, but their recent effect on these voting trends remains to be seen.

Most developed countries in the west have similar generational categories: two of the most prominent are the Baby Boomer and Millennial generations². Baby Boomers are characterized by their birth during a significant increase in fertility after the Second World War (Martel & Ménard, 2015). The Millennial generation is more roughly defined – it is not officially recognized by Statistics Canada³, but is popularly characterized by those born from the mid- to- late-1980s to the early 2000s (Angus Reid Institute, 2016). Millennials, defined similarly in the United States, are now the largest living generation

² People belonging to Generation X are defined as those born between the Baby Boomer and Millennial generations.

³ Statistics Canada categorizes post-Boomer generations as Baby Busters (b. 1966-71), Children of Baby Boomers (b. 1972-92), and Generation Z (b. 1993-2011).

in the country (Andrews, 2016): this trend is expected to continue in other countries as time passes.

This paper will analyse the effect of generations and age on the voting behaviour of respondents to the Canadian Election Study for Canadian federal elections between 1965 and 2015. To do so, it will create two base models, one for generation-specific, and the other for age-specific effects, where each model include multiple OLS regressions. First, the paper will begin by reviewing existing literature on the topic from other jurisdictions. Then, it will present the data and model that will be used for analysis. The paper will continue with the model's results, a discussion of these results, and finally, the conclusions that can be drawn from this analysis.

Literature Review

One of the most current and striking differences among the Baby Boomer and Millennial generations is in their political preferences. An aggregated study of several 2014 Gallup polls found that Americans in increasingly older generations are gradually more likely to identify as politically conservative and less likely to identify as liberal (Jones, 2015). This literature review will explore age and generational effects that could motivate these differences.

Age-Period-Cohort Analysis in Europe

A 2005 study conducted by De Vries examines the age, period, and cohort (APC) characteristics of local policymakers in select European countries. This paper provides practical implications for policy by focusing on the beliefs of people with the power to shape policy, instead of the population in general. De Vries (2005) uses a survey conducted in 1989, 1996, and 2000 for five European countries that experienced major

policy changes throughout the 1990s. Three new democracies – Russia, Belarus, and Lithuania – experienced the fall of the Soviet Union (De Vries, 2005). Two old democracies – the Netherlands and Sweden – also underwent historically significant changes in government. Sweden had a non-social democratic government for the first time after the Second World War, while the Netherlands had its first coalition government without the Christian Democrats (De Vries, 2005). The survey respondents were all “leading politicians and top public administrators at the local level” (De Vries, 2005) within each country. The focus on policymakers effectively distinguishes trends in political preference for one – ruling – class and isolates the trends’ effect on policy. However, focusing only on the preferences of *local* policymakers may bias the responses in favour of the issues that fall under local jurisdiction in each respective country.

The author uses these shifts in policy to conduct APC analysis, but treats the age, period, and cohort (generation) variables as endogenous. This is done to include all three variables; since they are interdependent, including all three as exogenous would generate a misidentified model (De Vries, 2005). The respondents’ beliefs are thus explanatory variables used to determine the characteristics that are common to specific ages, periods, and generations. De Vries (2005) determines the strongest effect to be whichever one has the most discriminating issues.

Age effects are described as older people thinking differently than younger people due to the perspectives of their place in the life cycle (De Vries, 2005). Generations are defined as relatively narrow birth cohorts that experienced life cycle changes in a similar period, especially entering the labour force and joining the policymaking elite. Periods were created by dividing the timeline of post-war European policymaking: short-term

goal achievement, long-term effectiveness, policy democratization, efficiency, and the role of the public and private sectors (De Vries, 2005).

The European countries in this study had very different experiences to Canada during the survey period. Most apparent is the connection that many of the “new democracies” (De Vries, 2005) had to the former Soviet Union, which required a stronger focus on rebuilding after its collapse in the 1990s. Many of the sample countries were also battlegrounds during the Second World War, the policy effects of which were undoubtedly felt more strongly in Europe than in Canada even decades later.

The anomalous nature of the selected time period for these European countries may account for the study’s main result: that changing beliefs in policy for all countries are influenced most by the period, not age or generation (De Vries, 2005). The author emphasizes that it is not the severity of policy issues that matters, but rather the change in their level of severity (De Vries, 2005). In other words, the period effect on political beliefs is more apparent when there is a significant change in the severity of a policy problem. This is likely because of the aforementioned significant change in policy structure during the selected period, but also the nature of survey respondents. Policymakers would like to maintain their positions, and so they must be opportunistic in their response to period-specific events.

Later research has focused on the political beliefs of the general population for the purposes of analyzing or predicting elections, or some combination of the two. This focus tends to take the politicians’ platforms as an exogenous choice that is determined by each person’s beliefs. Additionally, broadening their focus to the general population results in less significance placed on period effects compared to age and generation.

Age and Generation Effects in the United Kingdom

Evans and Tilley (2013) examined age and generational differences using the British Election Studies and the British Household Panel Survey. They proposed four possible narratives to explain increasing conservatism at older ages:

Age effects:

- i. Psychological changes
- ii. Life-cycle changes

Generational effects:

- i. Increasingly liberal generations
- ii. Distinctive political generations

A psychological change suggests that values and preferences change as one ages; indeed, Evans and Tilley (2013) observe that aging has been linked to increasing authoritarianism and inflexibility in the literature. Life-cycle changes are considered the product of the social effects of aging, such as marriage, child-rearing, and retirement. Note that the presence of aging effects would mean that, as people live longer, conservative voters would make up a larger portion of the electorate over time.

The third effect would suggest that the difference between the Baby Boomer and Millennial generations indicate a trend of increasingly liberal younger generations. Note that the first and third effects both indicate linear functions (from either age or generation) of political preferences. Circumstantial evidence for this third effect in Canada includes such social issues as public health care and same-sex marriage becoming more politically acceptable over time.

Finally, the last generational effect suggests that people's voting tendencies are a product of political events from their formative years. For instance, the authors note that

the “Thatcher generation” in the UK was comprised of “first-time electors in the 1979 and 1987 elections [who] were more Conservative than would be expected given their youth” (Evans & Tilley, 2013). In other words, this effect suggests that voters’ beliefs are a product of the most popular political regimes of their formative years.

Evans and Tilley (2013) found that aging is more likely to shift people’s preferences to the right. They also found that even with the existence of distinct political generations, newer generations are not becoming increasingly liberal. Since the analysis controlled for social characteristics, such as income, the authors concluded that “the elderly are not Conservative because they are rich, but because they are elderly” (Evans & Tilley, 2013). This result suggests that increasing conservatism will persist despite recent fluctuations in retirement income worldwide.

This study may be easily replicated; however, the authors made several assumptions that may limit the robustness of their results. Firstly, they ignored nonlinear aging effects (e.g. changes in occupation or income) by controlling for them in the analysis. Secondly, they assumed that all aging and generational effects pointed towards increasing conservatism. They argue that this is not a limiting assumption (Evans & Tilley, 2013) in the British data; this is likely the case in the American and Canadian data as well, given their similar political trends.

The authors concede that they “do not know exactly why people become more supportive of the right as they age” (Evans & Tilley, 2013). The existing literature does not focus on the political effects of aging; rather, it concentrates on small-c conservatism

and researchers equate that with voting on the right⁴. Further research would be beneficial to determining specifically which aspects of aging influence increasing conservatism.

The authors also ignored voter turnout because of its relatively small fluctuation over time. This assumption may limit their ability to track intensity of voting preferences on the extensive margin. Despite the small changes in voter turnout, it might be beneficial to calculate preference intensity (and apathy) to determine the drivers behind the increase in right-leaning preferences. The issue of intensity will be further discussed in the following study.

Age-Period-Cohort Analysis in the United States

Twenge, Honeycutt, Prislin, and Sherman (2016) explored preference intensity as part of their study on the political party identification of Americans of different age groups between 1970 and 2015. They used data from three surveys: The Monitoring the Future study of people in grade 12, the American Freshman survey of people in their first year of university, and The General Social Survey among Americans 18 and older. The first two surveys controlled for age and so their changes were due to changes in generation or time period; the last survey allowed the authors to observe changes in age, generation (or cohort), and time period (Twenge et al., 2016).

The political system in the United States is a clear two-party system – the Democratic Party at the left, and the Republican Party at the right (Twenge, et al., 2016). Like Evans and Tilley (2013), these authors also use APC analysis to distinguish between

⁴ Big-C Conservatism means voting for the Conservative Party. Small-c conservatism is associated with right-wing conservative ideology, which may include – but is not limited to – voting for the Conservative Party.

age, generational, and time trends in political ideology. They observe that more Americans identify as Independents, i.e. reject sustained partisanship (Twenge, et al., 2016). While a larger sample size may be needed to determine the existence of a trend, this does indicate the importance of accounting for the intensity of voting preferences. If someone identifies as left-leaning, for example, but not strongly enough to go to the polls, their preference will have no impact on election results and thus on policy. Similarly, differences in preference intensity for subnational or non-general (e.g. Senate or House of Representatives in the United States) elections would need to be factored into forecasted results.

Twenge, et al. (2016) examine the relationship between party affiliation and ideological self-categorization, and how they are both influenced by APC effects. They also investigate whether political polarization has indeed increased in America, partly by including preference intensity. Intensity is measured by self-identifying categories such as “very or extremely” conservative or liberal (Twenge, et al., 2016).

The authors found that Millennials were somewhat likelier to identify as Republicans than Baby Boomers at each age (Twenge, et al., 2016). Overall, the Millennial generation is also more politically polarized when leaving high school and entering university; Twenge, et al. (2016) suggest that this could be due to a period effect. Political polarization was evident through intensity of self-identification categories, including a decline in identifying as moderate and a decrease in expressing no preference (Twenge, et al., 2016). This research thus indicates that more Millennials identify with political preference categories than young people of previous generations.

There are some discrepancies between the trends found in this study and the real world. For example, it suggests Americans are increasingly conservative despite society

becoming more liberal through growing civil rights for groups that have been traditionally marginalized. Twenge, et al. (2016) suggest that there could be a disconnect between a person's ideological self-identification and their preference on specific issues.

Alternatively, it is likely that the context for ideological self-identification has shifted as society has become more liberal; in other words, the definition for "Republican" and "Democrat" may have changed over time. As the authors remark, there is evidence of "increasing support for same-sex marriage among Republicans" (Twenge, et al., 2016).

Another discrepancy within the study stemmed from two seemingly opposing trends: over time, more Americans self-identified at the extremes of the political spectrum, but more Americans also self-identified as Independent (from either political party). They account for these trends by hypothesizing that Independent self-identification does not stem from ideological preferences, but rather dissatisfaction with the political establishment (Twenge, et al., 2016). Anti-establishment beliefs are consistent with – and could lead to – ideology that falls further in the extremes of the political spectrum. This is therefore a plausible explanation for the simultaneous increases in political extremism and in identification as Independent.

The Effects of the Internet and Social Media

An important factor that could influence the APC effects of political beliefs is the age of the Internet. The Internet has rapidly become a crucial source of information and networking with existing and new connections. Currently, the Millennial generation is the only voting-eligible one to have grown up with the Internet; that is, had its presence felt through the formative years (Weller, 2016). Given the prevalence of the Internet in developed western countries, its effect on the democratic process cannot be ignored. It is

also possible that the studies that overlook the Internet's influence may overestimate period and/or generation effects on political beliefs. Part of the difference between the Millennial generation and others is likely influenced by the Internet, and those trends are likely to continue for future generations when they enter voting age.

A report conducted by Pew Research analyzed internet usage for the 2010 American midterm elections (Smith, 2011). They define an "online political user" as someone who conducted at least one of the following activities in 2010 (Smith, 2011): Got political news online; went online to participate in political activities; or used social networking sites for political purposes.

Unsurprisingly, the author established that the Internet has become a more prevalent part of the political process since the 2006 elections. The study also found that the Internet was the main source of election news for a growing proportion of adults – from 7% in 2002 to 24% in 2010 (Smith, 2011). A slight majority (55%) of Internet users believe that it "increases the influence of those with extreme political views" (Smith, 2011). This suggests that extremist beliefs that may otherwise be in the minority are increasingly legitimized in the policymaking process. Additionally, the study found that 56% of Internet users have difficulty distinguishing between true and fake political information (Smith, 2011). This statistic is especially concerning – and is likely to have increased – after an amplified focus on the spread of misinformation during the 2016 U.S. Presidential election (Cellan-Jones, 2016). It is possible that the generational differences in Internet usage are apparent in this issue. Older generations that have not grown up with the Internet may be less prepared to distinguish between real and fake news. In fact, the proportion of Internet users who fact checked political claims leading up to the 2010 election was approximately 28% for all age groups except those over 65 years, for which

it was 21% (Smith, 2011). This is presented as an age effect, but it is likely a generational effect as it is improbable that aging would inherently make people more willing or able to accept information at face value.

A similar study found that younger social media users are more likely to engage in political activity than those who are at least 50 years old (Rainie, Smith, Scholzman, Brady, & Verba, 2012). Activities include sharing their own thoughts, posting and promoting material, and encouraging action on political issues (Rainie, et al., 2012). This study was conducted in English and Spanish to approximately 2,000 nationally-representative respondents (Rainie, et al., 2012). Out of these respondents, 85% used the Internet, while 69% used social media (Rainie, et al., 2012). The Internet certainly does include avenues that allow for political networking outside of standard social networking sites. Social networks are nevertheless a significant platform for people to share their views to new and existing contacts, and thus indicate the degree of exposure to political perspectives. Rainie et al. (2012) found that Democrats and Independents are more likely to use social networking sites and Twitter than Republicans (71% and 18% compared to 65% and 12%, respectively), which can be expected given the age-specific political trends discussed previously. These generational differences in Internet usage could point to a permanent shift in the way that political beliefs are formed and communicated in the future.

A 2014 study compared political communication in person and on the Internet specifically about a 2013 leak by Edward Snowden revealing the American government's surveillance of its citizens (Hampton, et al., 2014). The authors refer to a well-established theory called the 'spiral of silence': the idea that people do not talk to others about political issues when they believe that their opinion is in the minority (Hampton, et al.,

2014). Theoretically, the rise of social media would mitigate the spiral of silence because it facilitates connections between like-minded individuals. However, the study found that people were even less willing to discuss the Snowden issue on social media than in person (42% compared to 86%); in both settings, they were more willing to do so if they thought their audience shared the same view (Hampton, et al., 2014). Though this is a survey on one specific issue, it does suggest that the spiral of silence remains even on social media. Of course, it is possible that willingness to communicate over social media is endogenous to the issue itself. In other words, knowledge of the government's surveillance may dissuade people from discussing such issues online. It is therefore recommended to conduct further research over longer and more recent periods of time to determine the actual impact of the Internet on political networking and communication.

Scope for Research

Much of the studies on political beliefs have used simple survey results and APC analysis. Thus, there is room in the research for econometric analysis focusing on Canadian data. The Canadian political system is somewhat unique from the countries studied here. It follows a British Parliamentary system but resembles the United States through geographic proximity, demographic similarity, and economic interdependence. It is relatively left-leaning in governance compared to the United States, with wider-coverage health care and social assistance programs. Additionally, Canada's three-party system separates it from the more extensively-studied system in the United States. Therefore, one would expect beliefs of Canadians to differ, in aggregate, on issues such as universal health care, same-sex marriage, and minimum wage. This provides scope for similar analysis for Canadian elections, a task that will now be undertaken in this paper.

Data and Model

This section is divided into two subsections. The first describes the data used for analysis and the second presents the model developed to predict voting decisions based on age and generation effects.

Data

The Ontario Data Documentation, Extraction Service and Infrastructure (ODESI) contains past public opinion polls from various sources, including the Canadian Election Study (CES). The CES has conducted a survey for every federal election from 1965 to 2015: a list of past elections and their results are included in Appendix A. These surveys not only track respondents' votes, but other valuable information such as perception of candidates and demographic information, that can be added to the model as control variables. This data is useful in determining the factors that influence age and generational trends in party preferences.

The CES data is susceptible to survey bias. In this case, people who feel most strongly about their political preferences are more likely to respond to and complete the survey. The most direct way of avoiding survey bias is to use data on actual voting patterns with a demographic breakdown. Given the Canadian first-past-the-post voting system, however, this data would not measure preference intensity or rankings. Therefore, using survey data provides the most comprehensive picture of measuring the factors behind political preferences.

The model includes the following variables from the CES:

- Demographic (age, sex, income, main language, immigrant status)
- Geographic (province/region)

- Political (vote, favourite party leader)

All variables are either formatted as 0-1 indicator variables (e.g. sex) or are on a scale of increasing intensity (e.g. vote: increases as the vote moves further left-wing).

Aggregating across election years provides panel data that captures a sample of respondents for almost every Canadian election from 1965 to 2015. The results of these elections can be found in Appendix A.

The 1968 and 1980 elections have been omitted from the model because of insufficient data or documentation. The 1968 survey was the sole year in which respondents' ages were recorded in intervals as opposed to their specific age, where the interval identification labels were not made available. As the age of a voter is used to determine generations, it remains impossible to evaluate age or generation effects on the voting decision without this information. The 1980 CES data was excluded because it failed to track variables on education, main language, country of birth, and family income in ways that were sufficiently comparable to other CES years, if at all. Omitting these control variables would have resulted in significant endogeneity and thus, biased estimates. Both the 1968 and 1980 elections were preceded by elections only a short time ago (1965 and 1979, respectively) and so excluding these years does not lead to a significant amount of time lost in the data. However, the 1980 election resulted in a change in government from Conservative to Liberal, with a switch back to a Conservative government in the 1984 election (see Appendix A). This swing in governing parties, while minor, represents a variance that is ignored by excluding the 1980 election.

Even among the remaining CES surveys, several assumptions were needed to standardize the data due to differing content and methodologies. For example, gender and sex are assumed to be the same, the accepted definition of which will become obsolete in

the future as the Canadian government works towards officially recognizing a third gender (Harris, 2017). A more complex assumption was made for income, which was sometimes measured as a number and/or a category, depending on the survey year. For political analysis, the focus has been placed on relative income instead of actual income; that is, what socioeconomic “class” the respondent belongs to (Anderssen, 2017). The goal was to capture the “middle class” – a vaguely-defined group of people whose vote, as Anderssen (2017) describes, politicians chase. This vague definition and idealization of the middle-class results in a majority of people believing that they belong in this group (Cazzin, 2017). As such, the distinction between low-income, middle-income, and high-income groups was made somewhat arbitrarily based on the frequency of income groups in the data for each survey year.

The assumptions relating to generations and voting are more directly related to the topic and thus bear explicit explanation. Generations are defined by birth year as follows (Pew Research Center, 2015):

- The Greatest Generation: pre-1928
- The Silent Generation: 1928-1945
- The Baby Boomer Generation: 1946-1964
- Generation X: 1965-1980
- The Millennial Generation: 1981-1997

These definitions are specified somewhat arbitrarily and vary depending on the source. For example, it is widely accepted that the Baby Boomer generation was born after the Second World War, but there is no precise event that occurred to trigger the change to Generation X. Within the Millennial generation, there is a case to be made that

technological advancement has split the generation in two distinct segments. The rapid growth of the Internet during the 1990s occurs in the middle of Millennial births, suggesting a significant difference in development among people who had access to the new technology at different stages of childhood. This specific effect cannot truly be understood yet, and so the above definitions were used for the purposes of this study.

Finally, respondents who favoured political parties that later merged with the Conservative Party were aggregated together with respondents that favoured the Conservative Party. The current version of the Conservative Party was created when the Progressive Conservative and Canadian Reform Conservative Alliance parties (also formerly known as the Reform Party) merged in 2003 (Conservative Party of Canada, n.d.). In other words, respondents who either voted for or favoured the leaders of the Reform party or the Canadian Reform Alliance were recoded as voting for or favouring the leaders of the Conservative Party. This was done to avoid overestimating different ideological preferences by capturing simple changes in party preferences. No adjustments were made for the Liberal Party or NDP since their parties remained structurally constant over the sample period. The NDP was created in 1961 from a merger between the Co-operative Commonwealth Federation and the Canadian Labour Congress but has not united with another party since then (Whitehorn, 2016). Like the Conservative Party, the Liberal Party has existed since Confederation, but it has not changed or merged with another party.

It is important to note that only the top three parties (Liberals, Conservatives, and NDP) were tracked in this model. Notably, Quebec-centric separatist parties were ignored despite sometimes capturing a sizable share of seats in federal elections: The Bloc Québécois won the third-highest number of seats throughout the 1990s and most of the

early 2000s (see Appendix A for election results from 1965 to 2015). This party was not factored into the model for many reasons. Firstly, it is difficult to track because the CES surveys were inconsistent in tracking preferences on Quebec-specific parties or views on Quebec's separatist movement. Furthermore, it is difficult to consistently and accurately pinpoint where the Bloc Québécois falls on the ideological spectrum: it was formed by former MPs from both the Conservatives and Liberals (Noël, 2015). Lastly, the party only runs candidates for federal election in constituencies in Quebec (Noël, 2015), and so its impact on politics on a national scale is minimal. Thus, the model proceeds with distinguishing only the top three federal parties.

Model

The model is rather straightforward as its components are based on several well-established theories of political ideology. Simple demographic data can provide substantial explanatory power for the voting decision ("The Lifter Sex", 2016; Bump, 2016; Coletto, 2016), while relative income has been shown to influence party preferences for some ideologies (Gelman, Shor, Bafumi, & Park, 2007). The model also controls for immigrant and Anglophone/Francophone identities, all of which may influence preferences on the national-global and conservative-progressive ideological scales. Canadian political ideology also shows signs of strong regional variations (Ibbitson, 2015) with the Maritime (Nova Scotia, New Brunswick, Newfoundland and Labrador, and Prince Edward Island) and Prairie (Alberta, Saskatchewan, and Manitoba) provinces generally grouped together into eastern and western regions because of strong political and socioeconomic similarities.

Finally, the model includes an additional control for the respondent’s favoured party leader. This is done to account for eras during which politicians were unusually popular – e.g. Trudeaumania, the immense popularity of Pierre Elliot Trudeau (“Trudeaumania: A Swinger for Prime Minister”, n.d.). Controlling for leader preferences thus separates personal characteristics from political ideology, and ultimately, the respondent’s vote.

A simple OLS regression contends that, for each individual i at time t , the party they vote for is explained by:

$$\begin{aligned}
 \text{vote}_{it} = & a_{it} + \text{silent}_{it} + \text{boomer}_{it} + \text{genx}_{it} + \text{relincome}_{it} + \text{educ}_{it} + \text{sex}_{it} + \\
 & \text{cdn}_{it} + \text{eng}_{it} + \text{fr}_{it} + \text{leader}_{it} + \text{east}_{it} + \text{bc}_{it} + \text{qc}_{it} + \text{west}_{it} + u_{it}
 \end{aligned} \tag{1}$$

This model is used to determine the generation effects on voting behaviour, and so the regression was repeated for each decade-defined age group: 18 years old – 27 years old, 28 years old – 37 years old, etc. Here, vote_{it} describes the voting behaviour of the respondent, where an incremental increase in the variable’s value indicates moving a step to the left on the ideological scale (i.e. from Conservative to Liberal to NDP). The variables silent_{it} , boomer_{it} , and genx_{it} , indicate whether the respondent is in the Silent generation, Baby Boomer generation, or Generation X, respectively. Note that the Greatest generation (pre-1928) was not included in the model to avoid collinearity: they were particularly chosen to avoid potential anomalies that may arise from being the generation to fight in the Second World War. Once again to avoid collinearity, the Millennial generation was removed from all regressions and Generation X was removed from regressions on people aged 58-67 and 68+. Since the oldest members of Generation X have not yet reached age 58 as of the 2015 election, omitting them from these age-

specific regressions does not result in a loss of information. The implications that arise from omitting the Millennial generation in particular will be explored in the Discussion section. The $relincome_{it}$ variable indicates whether the respondent belongs to the lower income, middle-income, or high-income groups. The variable $educ_{it}$ describes the highest level of education achieved by the respondent. The respondent's sex is captured by sex_{it} , while cdn_{it} indicates whether they were born in Canada. The respondent's first language is captured by eng_{it} and fr_{it} , and is determined by the first language being English, French, or another language. The party of their favoured leader is denoted by $leader_{it}$, which is measured on a scale of left-wing to right-wing that resembles the dependent variable. The $east_{it}$, bc_{it} , qc_{it} , and $west_{it}$ variables indicate the region where the respondent resides: The Maritime provinces (Nova Scotia, New Brunswick, Newfoundland and Labrador, and Prince Edward Island), British Columbia, Quebec, and Western Canada (Manitoba, Saskatchewan, and Alberta), respectively. Note that Ontario has been omitted from the regression to avoid collinearity. The residual term u_{it} captures any other effects that may not be included in the model. Finally, the constant a_{it} represents the vote choice of someone with no income, no preferred party leader, and who does not fall under any of the specified indicator categories.

This model aims to determine whether age or generation have stronger explanatory power in an individual's voting decision. Therefore, the base regression in (1) was modified for each generation to create an additional model to determine age effects:

$$\begin{aligned}
 vote_{it} = & b_{it} + age_{it} + relincome_{it} + educ_{it} + sex_{it} + cdn_{it} + eng_{it} + fr_{it} + \\
 & leader_{it} + east_{it} + bc_{it} + qc_{it} + west_{it} + \varepsilon_{it}
 \end{aligned} \tag{2}$$

Where the generation indicators have been replaced with age, the constant term is now b_{it} , and the residual term is now denoted ε_{it} . All other variables are the same.

The goal of this repeated-regression system in (1) is to determine whether the generational effect on the voting decision remains constant for each age group. The repeated-regression system in (2) aims to determine whether the effect of age on the voting decision remains constant for each generation. Following the theoretical frameworks explored in the Literature Review, this model ignores period effects to focus on age and generation (cohort) effects. Base model (1) aims to analyse the generational effect on voting behaviour, while base model (2) focuses on the age effect.

Both models provide valuable insight on the generation and age effects of voting behaviour. The generation effects model allows for a comparison of the effects of being in each generation on voting behaviour as voters age. It can determine, for example, whether Generation X voters were more likely to vote to the right in middle age than Baby Boomer voters at the same age. The age effects model can determine whether people within the same generation are more likely to vote in a certain way – for example, whether Baby Boomer voters are more likely to vote to the right as they age. Both base models thus provide similar insights regarding different effects on voting behaviour. Since the age effects model does not require omitting entire generations due to collinearity, it allows for analysis of specific generations. However, due to the constraints of the survey period, both models are limited in their conclusions on newer generations that have not yet reached older ages as of the 2015 election.

Results

Output tables for each regression in base models (1) and (2) can be found in Appendix B. The regressions have low adjusted R^2 values – approximately 23% for the generation effects model and 20% for the age effects model. This suggests that the models, as constructed, were unable to sufficiently fit the data. The regressions in the generation-effects model saw the lowest adjusted R^2 values were the youngest (18-27) and oldest (68+) age groups. This points to additional age-specific influences on voting habits that persist across generations and were not included in the model, such as healthcare for the elderly or job creation for the youngest age group. In the age-effects model, the lowest adjusted R^2 values were found for the Millennial generation and Generation X. This indicates that newer generations may have additional factors that affect voting behaviour, such as changing communication styles.

Significance of Age and Generation Effects

Using the regressions in the first model, Wald tests were performed on the generation coefficients to determine whether being in different generations had significantly different effects on voting for each age group. These tests found that generation effects were significantly different for younger ages but that they became more similar as voters aged. At the 28-37 age group, the Silent and Baby Boomer voters had statistically similar generational effects with a P-value of 0.1766; at 48-57, the Baby Boomer and Generation X voters were also statistically similar with a P-value of 0.632. At the older age groups (58-67 and 68+), the generational effects on Silent and Baby Boomer voters were statistically similar (with P-values of 0.2611 and 0.1414, respectively). These findings suggest that generational effects matter less in

distinguishing voting behaviour as people age, though data from other generations at older ages would be needed to establish a pattern.

Similar Wald testing on the age effects model in (2) could not be performed since the age coefficients originated from separate regressions. Instead, the changing significance of age effects across generations were determined by comparing the P-values of their coefficients for each regression. Age has a significant effect on the voting behaviour of every generation except the Millennials, where there is a P-value of 0.528. This disconnect may arise from the clustered age of the Millennial generation as of the 2015 election: the oldest of this generation was 34 years old in 2015. Since there is less variation in age among this generation for this sample period, it is likely that age has a less significant effect on their voting behaviour.

Additional Results

Given the motivation of this analysis, further discussion on base model (1) will focus on the generation effects of the regressions pertaining to respondents aged 18-27 and 68+. Both age groups saw significant coefficients for each generation, indicating that the generation people are in significantly effects their voting behaviour. At the younger age group, successive generations (Silent, Baby Boomer, and Generation X) had positive but decreasing coefficients. This suggests that newer generations vote more left-wing than the Greatest generation, but incrementally less than their predecessors. At the 68+ age group, the coefficients on generations are significant (note that in this age group, the only two generations included in the regression are Silent and Baby Boomer), but this time, they are negative. This result indicates that older respondents in newer generations tend to vote further to the right than older respondents in the Greatest generation, even when

controlling for higher relative incomes at older ages. Thus, the model asserts that successive generations tend to vote more variably than the Greatest generation, starting further left-wing at younger ages but becoming more right-wing as they age. Further study is recommended to test the robustness of this result as newer generations age and enter the 68+ age group.

The discussion regarding base model (2) will focus on the three newest generations in the model: The Baby Boomer generation, Generation X, and the Millennial generation. This focus follows the paper's motivation and allows for analysis on the newer generations that were avoided or omitted in the generation effects model. As previously mentioned, age has a significant effect on the voting behaviour of both Baby Boomers and Generation X – but not for the Millennial generation, which may be due to data constraints. Without additional data on the Millennial generation at older ages, it is difficult to draw conclusions on the effect of age on their voting behaviour.

Interestingly, the effect of the respondent's sex has both increased in magnitude and in statistical significance in newer generations. Identifying as male makes a respondent more likely to vote to the right throughout all three generations, but more so if the respondent is a member of Generation X or the Millennial generation. This result may have arisen from the increased political polarization found in the Literature Review, though here the polarization is based on sex.

The Millennial regression showed significance for all geographic variables, more so than any other generation. Since the variation in regional significance was less extreme in base model (1), it can be concluded that the newer Millennial generation is more politically divided along regional lines, even after accounting for their younger age.

Discussion

This model imposes an OLS regression, thus adopting the Gauss-Markov assumptions (Troeger, 2013):

- Linearity in parameters;
- The error terms (u_{it} and ε_{it}) have an expected value of zero;
- The variance in the error terms are constant across individuals and over time;
- and
- The error terms are independently and identically distributed across individuals and over time.

It is likely that the models' low adjusted R^2 values arise because the OLS assumptions may not hold in the data, thus influencing their goodness-of-fit. For example, it is possible that the error terms are not independent across individuals as one would expect a person's political beliefs to be influenced by the people around them. Therefore, attempting to fit alternate models to the data would be a worthwhile exercise for future researchers.

The model's construction as described in (1) and (2) assumes no interaction effects between any of the variables. This is a reasonable assumption for the indicator variables – minimal interaction is expected between living in Ontario and living in Alberta, for example, since only one location is possible at a time. However, it is also possible that variables such as income and education have interaction effects. Adding an interaction effect to the existing regressions had a minimal impact on their adjusted R^2 . The existence of these effects and their impact on the voting decision are beyond the scope of this paper; they would require further research and more precise continuous variables, such as inflation-adjusted income instead of relative income.

The base model in (1) ignores the Millennial generation due to current sample size and collinearity restrictions. Sample size restrictions also limit the robustness of the base model in (2) when applied only to the Millennial generation. Following the previously-outlined definitions and a voting age of 18 years, the oldest of the Millennial generation will have been eligible to vote for eight of the fourteen elections included in the model; the youngest will have only been eligible in 2015. As explored in the Literature Review, omitting this generation ignores the unique role that the Internet has played in their political communication and voting habits. Thus, future research that allows for distinct analysis on the Millennial generation can help illuminate the changing direction of voting behaviour due to the growing prominence of the Internet.

Conclusions

The model's results suggest a possible uniqueness of newer generations in voting behaviour and the factors that influence it, including age, sex, and geography. However, reaching a definitive conclusion regarding the individuality of this generation would require both more data and more time to allow for members of the generation to age. For this reason, analysis of generation-specific effects on voting behaviour omitted the Millennial generation.

The generation effects model found that at younger ages, newer generations vote more left-wing than the Greatest generation, but incrementally more right-wing than their predecessors. At the older age group – which only included respondents in the Silent and Baby Boomer generations – respondents in newer generations voted further to the right than those in the Greatest generation. Older generations also displayed more similarity in voting behaviour; in other words, the generation they were born into had similar effects

on their vote. Thus, the generation effects model indicates more variable voting behaviour in post-Greatest generations, starting more left-wing at younger ages but becoming more homogeneously right-wing later in life.

The age effects model provides some insight on potential for further research. As expected, age has a significant effect on voting behaviour for every generation except the Millennial generation. Future research on Millennial voting behaviour at older generations could determine whether this generation is indeed unique in this regard. The age effects model also suggests stronger effects of gender and geographic characteristics in Generation X and Millennial voters. Therefore, while the age effects model provides inconclusive evidence of unique age effects for Millennials, it does indicate increased polarization in voting behaviour among newer generations of voters.

Results in both the generation and age effects models indicate a need for more data beyond the questions asked in the CES. Particularly, factors that may influence voting at certain ages, such as education and health care needs, may improve the model's goodness-of-fit. Additionally, data on communication and Internet habits may help the model to predict the voting behaviour of newer generations.

Bibliography

- Anderssen, E. (2017, June 1). *The Middle Class: Just Who Are They, Anyway?* Retrieved from The Globe and Mail: <https://www.theglobeandmail.com/news/politics/who-are-the-middle-class-anyway-how-politicians-risk-missing-themark/article26431270/>
- Andrews, T. M. (2016, April 26). It's official: Millennials have surpassed baby boomers to become America's largest living generation. *The Washington Post*.
- Angus Reid Institute. (2016, October 3). *What makes us Canadian? A study of values, beliefs, priorities and identity*. Retrieved from <http://angusreid.org/canada-values/>
- Bump, P. (2016, October 18). *What Your Demographics Tell Us About How You're Likely to Vote*. Retrieved from The Washington Post: https://www.washingtonpost.com/news/the-fix/wp/2016/10/18/what-your-demographics-tell-us-about-how-youre-likely-to-vote/?utm_term=.65b3cde53aba
- Cazzin, J. (2017, June 16). *Why everyone feels like they're in the middle class* . Retrieved from Maclean's: <http://www.macleans.ca/economy/why-everyone-feels-like-theyre-in-the-middle-class/>
- Cellan-Jones, R. (2016, November 27). *Facebook, fake news and the meaning of truth*. Retrieved from BBC News Technology: <http://www.bbc.com/news/technology-38106131>
- Coletto, D. (2016, April 19). *The Next Canada: Politics, Political Engagement, and Priorities of Canada's Next Electoral Powerhouse: Young Canadians*. Retrieved from Abacus Data: <http://abacusdata.ca/the-next-canada-politics-political-engagement-and-priorities-of-canadas-next-electoral-powerhouse-young-canadians/>

- Conservative Party of Canada. (n.d.). *Our History*. Retrieved from <http://www.conservative.ca/our-party/our-history/>
- Crittenden, J. (1962). Aging and Party Affiliation. *Public Opinion Quarterly*, 26(4), 648-657.
- De Vries, M. S. (2005). Changing policy views at the local level: The effect of age, generations and policy-periods in five European countries. *European Journal of Political Research*, 44, 1-5.
- Evans, G., & Tilley, J. (2013). Ageing and generational effects on vote choice: Combining cross-sectional and panel data to estimate APC effects. *Electoral Studies*, 33, 19-27.
- Gelman, A., Shor, B., Bafumi, J., & Park, D. (2007). Rich State, Poor State, Red State, Blue State: What's the Matter with Connecticut? *Quarterly Journal of Political Science*, 2(4), 345-367.
- Government of Canada. (2017, April 13). *Democracy in Canada*. Retrieved from <https://www.canada.ca/en/democratic-institutions/services/democracy-canada.html>
- Grenier, E. (2016, June 15). *2015 Federal Election saw Youth Vote in Unprecedented Numbers*. Retrieved from CBC News: Politics: <http://www.cbc.ca/news/politics/grenier-youth-turnout-2015-1.3636290>
- Hampton, K. N., Rainie, L., Lu, W., Dwyer, M., Shin, I., & Purcell, K. (2014, August 26). *Social Media and the 'Spiral of Silence'*. Retrieved from Pew Research Center: <http://www.pewinternet.org/2014/08/26/social-media-and-the-spiral-of-silence/>

- Harris, K. (2017, May 4). *Canadian passport will have new marker for transgender travellers, justice minister says*. Retrieved from CBC News Politics:
<http://www.cbc.ca/news/politics/passport-transgender-c16-1.4099066>
- Heywood, A. (2015). *Key Concepts in Politics and International Relations*. Palgrave Macmillan.
- Ibbitson, J. (2015, August 2). *Canada's electoral geography: Where parties are likely to gain seats*. Retrieved from The Globe and Mail:
<https://www.theglobeandmail.com/news/politics/canadas-electoral-geography-where-parties-are-likely-to-gain-seats/article25816225/>
- Jones, J. M. (2015, January 29). *U.S. Baby Boomers More Likely to Identify as Conservative*. Retrieved from Gallup: <http://www.gallup.com/poll/181325/baby-boomers-likely-identify-conservative.aspx>
- Library of Parliament. (2015, October 22). *Electoral Results by Party*. Retrieved from Parliament of Canada:
<http://www.lop.parl.gc.ca/parlinfo/Compilations/ElectionsAndRidings/ResultsParty.aspx>
- Martel, L., & Ménard, F.-P. (2015, December 21). *Generations in Canada*. Retrieved from Statistics Canada: http://www12.statcan.gc.ca/census-recensement/2011/as-sa/98-311-x/98-311-x2011003_2-eng.cfm
- Noël, A. (2015, September 21). *Bloc Québécois*. Retrieved from Historica Canada:
<http://www.thecanadianencyclopedia.ca/en/article/bloc-quebecois/>
- Pew Research Center. (2015, May 8). *The Generations Defined*. Retrieved from Pew Research Center: <http://www.pewresearch.org/fact-tank/2015/05/11/millennials->

surpass-gen-xers-as-the-largest-generation-in-u-s-labor-force/ft_15-05-11_millennialsdefined/

Rainie, L., Smith, A., Scholzman, K. L., Brady, H., & Verba, S. (2012, October 19).

Social Media and Political Engagement. Retrieved from Pew Research Center:

<http://pewinternet.org/Reports/2012/Political-Engagement.aspx>

Smith, A. (2011, March 17). *The Internet and Campaign 2010*. Retrieved from Pew

Research Center: [http://pewinternet.org/Reports/2011/The-Internet-and-](http://pewinternet.org/Reports/2011/The-Internet-and-Campaign-2010.aspx)

[Campaign-2010.aspx](http://pewinternet.org/Reports/2011/The-Internet-and-Campaign-2010.aspx)

The Lefter Sex. (2016, June 9). *The Economist*. Retrieved from

<https://www.economist.com/news/europe/21700425-europes-far-right-not-such-hit-ladies-lefter-sex>

Tilley, J. (2015, October 4). *Hard Evidence: do we become more conservative with age?*

Retrieved from The Conversation: [https://theconversation.com/hard-evidence-do-](https://theconversation.com/hard-evidence-do-we-become-more-conservative-with-age-47910)

[we-become-more-conservative-with-age-47910](https://theconversation.com/hard-evidence-do-we-become-more-conservative-with-age-47910)

Troeger, V. (2013). *Gauss-Markov Assumptions, Full Ideal Conditions of OLS*. Retrieved from

[http://www2.warwick.ac.uk/fac/soc/economics/staff/vetroeger/teaching/po906_](http://www2.warwick.ac.uk/fac/soc/economics/staff/vetroeger/teaching/po906_week8910.pdf)
[week8910.pdf](http://www2.warwick.ac.uk/fac/soc/economics/staff/vetroeger/teaching/po906_week8910.pdf)

Trudeaumania: A Swinger for Prime Minister. (n.d.). Retrieved from CBC Digital

Archives: [http://www.cbc.ca/archives/topic/trudeaumania-a-swinger-for-prime-](http://www.cbc.ca/archives/topic/trudeaumania-a-swinger-for-prime-minister)
[minister](http://www.cbc.ca/archives/topic/trudeaumania-a-swinger-for-prime-minister)

Twenge, J. M., Honeycutt, N., Prislun, R., & Sherman, R. A. (2016). More Polarized but

More Independent: Political Party Identification and Ideological Self-

Categorization Among U.S. Adults, College Students, and Late Adolescents, 1970-2015. *Personality and Social Psychology Bulletin*, 42(10), 1364-1383.

Weller, C. (2016, April 17). *The Internet is the Best Set of Parents a Millennial Could Ask for*. Retrieved from Business Insider: <http://www.businessinsider.com/the-internet-is-every-millennials-third-parent-2016-4>

Whitehorn, A. (2016, July 20). *New Democratic Party*. Retrieved from Historica Canada: <http://www.thecanadianencyclopedia.ca/en/article/new-democratic-party/>

Appendix A

Results of Canadian Elections in the Sample Period

Year	Party	No. of Elected Seats
1965	Liberal Party of Canada	131
	Progressive Conservative Party	97
	New Democratic Party	21
	Ralliement des créditistes	9
	Social Credit Party	5
	Other	2
1968	Liberal Party of Canada	155
	Progressive Conservative Party	72
	New Democratic Party	22
	Ralliement des créditistes	14
	Other	1
	Social Credit Party	0
1972	Liberal Party of Canada	109
	Progressive Conservative Party	107
	New Democratic Party	31
	Social Credit Party	15
	Other	2
1974	Liberal Party of Canada	141
	Progressive Conservative Party	95
	New Democratic Party	16
	Social Credit Party	11
	Other	1
1979	Progressive Conservative Party	136
	Liberal Party of Canada	114
	New Democratic Party	26
	Social Credit Party	6
	Other	0
1980	Liberal Party of Canada	147
	Progressive Conservative Party	103
	New Democratic Party	32
	Other	0
	Social Credit Party	0
1984	Progressive Conservative Party	211
	Liberal Party of Canada	40
	New Democratic Party	30
	Other	1
	Social Credit Party	0
1988	Progressive Conservative Party	169
	Liberal Party of Canada	83
	New Democratic Party	43
	Other	0
	Social Credit Party	0
1993	Liberal Party of Canada	177
	Bloc Québécois	54
	Reform Party	52
	New Democratic Party	9
	Progressive Conservative Party	2

	Other	1
1997	Liberal Party of Canada	155
	Reform Party	60
	Bloc Québécois	44
	New Democratic Party	21
	Progressive Conservative Party	20
	Other	1
2000	Liberal Party of Canada	172
	Canadian Reform Conservative Alliance	66
	Bloc Québécois	38
	New Democratic Party	13
	Progressive Conservative Party	12
	Other	0
2004	Liberal Party of Canada	135
	Conservative Party of Canada	99
	Bloc Québécois	54
	New Democratic Party	19
	Other	1
2006	Conservative Party of Canada	124
	Liberal Party of Canada	103
	Bloc Québécois	51
	New Democratic Party	29
	Other	1
2008	Conservative Party of Canada	143
	Liberal Party of Canada	77
	Bloc Québécois	49
	New Democratic Party	37
	Other	2
2011	Conservative Party of Canada	166
	New Democratic Party	103
	Liberal Party of Canada	34
	Bloc Québécois	4
	Green Party of Canada	1
	Other	0
2015	Liberal Party of Canada	184
	Conservative Party of Canada	99
	New Democratic Party	44
	Bloc Québécois	10
	Green Party of Canada	1
	Other	0

Notes: The governing party is bolded. The total number of seats may not be equal across years. The 1968 and 1980 election years were excluded from this analysis.

Source: Library of Parliament. (2015, October 22). Electoral Results by Party. Retrieved from Parliament of Canada:
<http://www.lop.parl.gc.ca/parlinfo/Compilations/ElectionsAndRidings/ResultsParty.aspx>

Appendix B

Output Table: Generation Effects Model (1)

Dependent Variable: Voting Behaviour																		
	Age: 18-27			Age: 28-37			Age: 38-47			Age: 48-57			Age: 58-67			Age: 68+		
	Coeff.	SE	P-Value	Coeff.	SE	P-Value	Coeff.	SE	P-Value	Coeff.	SE	P-Value	Coeff.	SE	P-Value	Coeff.	SE	P-Value
Silent Generation	0.827	0.077	0.000	0.776	0.081	0.000	-0.212	0.064	0.001	-0.107	0.045	0.017	-0.427	0.038	0.000	-0.254	0.036	0.000
Baby Boomer Generation	0.633	0.041	0.000	0.719	0.075	0.000	-0.568	0.063	0.000	-0.578	0.043	0.000	-0.477	0.046	0.000	-0.464	0.143	0.001
Generation X	0.252	0.045	0.000	0.130	0.075	0.085	-0.822	0.069	0.000	-0.750	0.127	0.000	n/a	n/a	n/a	n/a	n/a	n/a
Relative Income	0.117	0.027	0.000	0.042	0.029	0.150	0.080	0.027	0.003	0.072	0.027	0.008	0.020	0.029	0.497	0.046	0.033	0.159
Education	0.042	0.015	0.006	0.042	0.013	0.001	0.019	0.013	0.129	0.003	0.014	0.814	-0.006	0.014	0.691	0.001	0.016	0.945
Sex	-0.051	0.032	0.103	-0.052	0.029	0.071	-0.055	0.029	0.056	-0.042	0.030	0.163	0.015	0.033	0.650	0.083	0.034	0.016
Canadian-born	0.031	0.064	0.628	0.055	0.051	0.280	0.018	0.045	0.687	0.050	0.047	0.289	-0.056	0.047	0.240	0.047	0.047	0.318
English	-0.055	0.057	0.340	-0.021	0.055	0.704	0.068	0.050	0.173	0.004	0.054	0.937	0.069	0.054	0.202	0.066	0.061	0.283
French	-0.227	0.069	0.001	-0.005	0.069	0.943	-0.087	0.061	0.150	-0.216	0.069	0.002	-0.128	0.070	0.066	-0.081	0.077	0.293
Favoured Leader	0.443	0.021	0.000	0.492	0.019	0.000	0.526	0.019	0.000	0.509	0.020	0.000	0.562	0.022	0.000	0.566	0.025	0.000
Eastern Provinces	0.057	0.051	0.268	-0.045	0.048	0.347	-0.056	0.047	0.234	-0.054	0.050	0.278	0.022	0.051	0.667	0.036	0.056	0.517
British Columbia	0.088	0.056	0.118	0.165	0.049	0.001	0.066	0.047	0.166	0.114	0.051	0.026	0.164	0.053	0.002	0.125	0.056	0.026
Quebec	0.130	0.060	0.031	-0.017	0.056	0.768	0.059	0.054	0.274	0.051	0.059	0.386	0.179	0.060	0.003	0.098	0.064	0.124
Western Provinces	-0.051	0.046	0.269	0.012	0.041	0.769	-0.040	0.041	0.332	0.000	0.044	0.999	0.088	0.048	0.068	0.077	0.048	0.110
Constant	-0.403	0.097	0.000	-0.441	0.112	0.000	0.424	0.099	0.000	0.396	0.092	0.000	0.384	0.092	0.000	0.027	0.094	0.776
R ²	0.209			0.240			0.237			0.234			0.236			0.188		
Adjusted R ²	0.207			0.238			0.235			0.231			0.233			0.184		

Output Table: Age Effects Model (2)

Dependent Variable: Voting Behaviour															
	Greatest Generation			Silent Generation			Baby Boomer Generation			Generation X			Millennial		
	Coeff	SE	P-Value	Coeff	SE	P-Value	Coeff	SE	P-Value	Coeff	SE	P-Value	Coeff	SE	P-Value
Age	-0.010	0.001	0.000	-0.011	0.001	0.000	-0.015	0.001	0.000	-0.010	0.002	0.000	0.005	0.007	0.528
Relative Income	-0.004	0.024	0.865	0.051	0.023	0.026	0.076	0.020	0.000	0.081	0.032	0.010	0.122	0.044	0.006
Education	-0.019	0.013	0.151	0.000	0.010	0.964	0.031	0.010	0.002	0.044	0.018	0.012	0.099	0.029	0.001
Sex	0.037	0.027	0.168	-0.011	0.024	0.644	-0.038	0.021	0.078	-0.049	0.035	0.160	-0.078	0.056	0.163
Canadian-born	-0.002	0.038	0.961	0.033	0.036	0.352	0.037	0.040	0.351	0.057	0.065	0.385	0.022	0.085	0.799
English	0.036	0.043	0.393	0.001	0.038	0.969	0.033	0.046	0.472	0.065	0.071	0.360	-0.004	0.091	0.965
French	-0.041	0.056	0.460	-0.069	0.051	0.177	-0.062	0.054	0.253	-0.205	0.085	0.016	-0.360	0.110	0.001
Favoured Leader	0.534	0.019	0.000	0.539	0.017	0.000	0.524	0.014	0.000	0.487	0.023	0.000	0.311	0.035	0.000
Eastern Provinces	-0.054	0.041	0.185	-0.062	0.039	0.119	-0.078	0.035	0.025	0.127	0.062	0.040	0.417	0.120	0.001
British Columbia	0.127	0.047	0.007	0.061	0.039	0.121	0.060	0.036	0.100	0.118	0.059	0.046	0.548	0.096	0.000
Quebec	0.043	0.052	0.408	-0.022	0.047	0.643	-0.012	0.041	0.772	0.203	0.068	0.003	0.482	0.094	0.000
Western Provinces	0.008	0.038	0.833	-0.046	0.035	0.198	-0.049	0.031	0.109	0.043	0.049	0.383	0.382	0.092	0.000
Constant	1.089	0.119	0.000	0.766	0.094	0.000	0.546	0.080	0.000	-0.115	0.128	0.369	-0.602	0.211	0.004
R ²	0.207			0.224			0.200			0.154			0.129		
Adjusted R ²	0.205			0.223			0.199			0.150			0.120		