Scholars have focused on the relationship between income inequality and voter turnout cross-nationally and within the United States. However, rising inequality and declining turnout has afflicted Canada to a greater extent than most other Western countries. As turnout in Canadian federal elections began to decline appreciably in the 1990s, inequality began to rise. With multilevel pooled analysis utilizing Canadian Election Studies (CES) from 1984 to 2015, party manifesto data, and measures of inequality at the subnational level, this paper tests the effects of income inequality on turnout in Canada, and whether the relationship is conditioned by party policy programs. In line with relative power theory, mixed-effects regressions indicate that inequality is negatively associated with turnout, especially for low-income earners. However, latent conflict is manifested when political parties propose greater redistribution, as the negative effects of inequality on turnout are then significantly alleviated.
Party Positions, Income Inequality, and Voter Turnout in Canada, 1984–2015

MATTHEW POLACKO

Abstract

Scholars have focused on the relationship between income inequality and voter turnout cross-nationally and within the United States. However, rising inequality and declining turnout has afflicted Canada to a greater extent than most other Western countries. As turnout in Canadian federal elections began to decline appreciably in the 1990s, inequality began to rise. With multilevel pooled analysis utilizing Canadian Election Studies (CES) from 1984 to 2015, party manifesto data, and measures of inequality at the subnational level, this paper tests the effects of income inequality on turnout in Canada, and whether the relationship is conditioned by party policy programs. In line with relative power theory, mixed-effects regressions indicate that inequality is negatively associated with turnout, especially for low-income earners. However, latent conflict is manifested when political parties propose greater redistribution, as the negative effects of inequality on turnout are then significantly alleviated.

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1. Introduction

Voting has long been viewed as being interrelated with the performance and health of a democracy and thus a decline in voter turnout produces anxiety over the future of liberal democracy (Gidengil and Bastedo 2014: 6). While declining voter turnout has many correlates, such as declining youth participation and socioeconomic factors (LeDuc and Pammett 2014: 22), others have pointed to economic inequality (Mahler 2002; Lister 2007; Galbraith and Hale 2008; Anderson and Beramendi 2008; Jaime-Castillo 2009; Solt 2008, 2010; Steinbrecher and Seeber 2011; Lancee and Van de Werfhorst 2012; Schäfer 2013; Filetti 2016; Jensen and Jespersen 2017).

Mounting evidence also demonstrates that governments are far more responsive to the wealthy over everyone else (Bartels 2008; Hacker and Pierson 2010; Gilens 2012; Schakel 2019; Bowman 2020). Thus, the nature of the relationship between income inequality and voting is important because widening income inequality can concentrate political and decision-making power in the hands of a few. Both the ‘relative power’ and ‘power resource’ theories posit that a greater concentration of wealth and, therefore, political power, leads to reduced turnout, especially for the lower classes (Goodin and Dryzek 1980). However, policies that focus on the lower classes can help mitigate inequality. Conflict theory predicts that by demanding greater redistribution through mass participation in elections, lower classes can potentially redress this power imbalance (Meltzer and Richard 1981). Indeed, as Mahler (2008) demonstrates, electoral turnout is positively related to redistribution in Western democracies. Yet, the evidence for conflict theory is sparse and the empirical utility of the accompanying median voter theorem has been questioned (Kenworthy and McCall 2008).

A potential explanation for the lack of evidence in favour of conflict theory could be owing to the fixation that the inequality and turnout literature has had with the demands of
citizens, while neglecting the potential influence that the party aspect can have. As scholars
have so far primarily concentrated on the ‘bottom up’ or demand side of the equation and
neglected the ‘top down’ supply side. However, a growing consensus of academics now
emphasize that party supply – in terms of the choices that parties present to the public –
substantively matter for political participation (Evans and de Graaf 2013; Leighley and
Nagler 2014; Heath 2015). In the context of rising inequality, how parties respond through
their manifesto positions on redistribution, should then exert greater influence on whether
people decide to participate in voting. Recent evidence also shows that voters do indeed listen
to parties and understand their policy messages, especially on the issue of redistribution
(Somer-Topcu et al. 2020). Therefore, this study builds on the previous literature by
incorporating an unexplored mechanism potentially moderating the relationship – the
programmatic policy choices on redistribution of political parties.

Moreover, although scholars have examined the relationship between inequality and
turnout cross-nationally, and within the United States (US), none have focused on the
relationship between inequality and turnout in Canada. Canada has experienced one of the
most rapid and sustained increases in income inequality (OECD 2015) and one of the most
dramatic declines in voter turnout across the Organisation for Economic Co-operation and
Development (OECD) (Gidengil et al. 2003: 107). Turnout in federal elections began to
decline appreciably in the 1990s, precisely when income inequality began to substantially
rise. For example, between 1993 and 2004, turnout plummeted 15 percent and remained at
this new level for the following three elections (Elections Canada 2019). Whereas income
inequality climbed 10 percent and has remained around this new level since (Heisz 2016).

Only nine cross-national studies on the topic have contained Canadian elections in the
estimations, with two-thirds finding a negative and significant effect overall (mirroring the
results of the overall pool of studies). Canada features in four of the five aggregate-level
studies (Mahler 2002; Lister 2007; Stockemer and Scruggs 2012; Fumagalli and Narciso 2012), ranging in inclusion between two and 12 elections, from 1965 to 2008. However, only five individual-level studies feature Canadian elections from international surveys, which are typically smaller than the Canadian Election Study (CES) (Anderson and Beramendi 2008; Solt 2008; Jaime-Castillo 2009; Persson 2010; Schäfer 2013). Each study includes between one and three of the federal elections held between 1993–2004, for a mere 9 cumulative elections. Furthermore, in the Canadian context, research has largely explored each phenomenon exclusive of one another and “no completely satisfactory answer for why turnout has declined in Canada has been reached” (Anderson and Stephenson 2010: 27). Thus, the income inequality and turnout relationship in Canada remains considerably unexplored, despite it being an ideal case study.

Therefore, this study seeks to address these gaps in the literature through a longitudinal multi-level pooled analysis utilizing CES surveys from 10 federal elections held between 1984 and 2015, as well as macro-level socio-economic and political data, to examine the effect of income inequality on voter turnout in Canada.

The paper proceeds by reviewing the Canadian story and situating it within its international comparators. This is followed by a comprehensive review of the existing relevant literature, including the key hypotheses. The research design and modelling strategy are then outlined, followed by a test of the expectations against a unique dataset of 100 province-year elections over three decades. Lastly, the paper will conclude with a discussion of the key limitations, implications, and avenues for future enquiry.

2. Situating Canada

Income Inequality
Income inequality has risen both in countries that have traditionally had high levels of inequality such as the US, but also in countries where it has traditionally been low, such as Denmark and Sweden. The Gini coefficient is the most popular indicator for measuring income inequality in a population and ranges between 0 and 1 (Osberg 2018: 9). The strength of the Gini is that it responds to all changes in the distribution of income but it tends to be more responsive to changes in the middle of the distribution, which can understate tail-end changes in inequality at the very top or bottom (Heisz 2016: 78-79). The average Gini coefficient for OECD countries stood at 0.29 during the mid-1980s but has since increased by roughly 10 percent (Sran et al. 2014: 22).

Canada ranks above the OECD average in both its current inequality levels and the degree of the increase since the 1980s (OECD 2015; Heisz 2016). Prior to the Second World War, income inequality roughly matched current levels in Canada, then steadily declined until the late 1980s. Subsequently, between 1988 and 2004, in what has been dubbed the “Great U-Turn” (Yalnizyan 2010: 4), Canada’s Gini coefficient rose dramatically from 0.282 to 0.322. It then fell after the financial crisis down to 0.312 in 2011 but has since continued its upward trajectory (Statistics Canada). As Figure 1 shows, the steepest rise in the Gini rate\(^1\) occurred in the mid-1990s, which coincides precisely when the largest decline in federal turnout occurred. Inequality rose dramatically in the 1990s, largely due to Canadian governments shifting to the right by substantially reducing redistribution in its tax and transfer system, which had previously kept pace with rising market inequality (Banting and Myles 2013; Heisz and Murphy 2016).

\(^{1}\) The Gini index is employed going forward to aid in interpretive purposes, which is the Gini coefficient multiplied by 100.
Examining inequality across provinces and time has many advantages. Canadian provinces possess considerable comparable autonomy in administering social policy and research shows that inequality shifts are predominantly owing to provincial rather than federal transfers (Boychuk 2013). Inequality has risen across every Canadian province and region since 1988, although each province has experienced their own trajectory (Yalnizyan, 2014: 53–54). Canada’s richest provinces (Alberta, British Columbia, and Ontario), along

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2 Firstly, it substantially increases the number of cases. Secondly, there is 2.3 times more variation in provincial-levels of income inequality in Canada, as compared to national-levels for the period analyzed. Ranging from 24.0 (Prince Edward Island in 1993) to 33.2 (Ontario in 2004). Likewise, there is 2.32 times more variation in turnout at the provincial level, ranging from 47.7 (Newfoundland in 2008) to 85.9 percentage points (Prince Edward Island in 1988). Thirdly, provincial measures of inequality allow for an exploration both within and across regions and provinces, which is especially apt in a highly regionalized country such as Canada. Fourthly, data at the provincial level provides “a much more finely discriminated measure of both turnout and inequality than do national-level figures, which often represent averages of very diverse regions” (Mahler 2002: 130). Fifthly, research has found that local economic conditions strongly influence evaluations of the health of the national economy. As citizens use their more direct local conditions as a source for judgments in order to compensate for a lack of numeracy regarding macroeconomic conditions (Newman et al. 2015; Hansford and Gomez 2015; Newman and Hayes 2019), including in the Canadian context (Cutler 2002).
with Newfoundland, have witnessed the largest rises, while New Brunswick, Quebec, and Saskatchewan the smallest increases. Saskatchewan was able to avoid the sizeable rises that occurred throughout the rest of the country in the 1990s, likely owing to the domination of its government by the leftist New Democratic Party (NDP) during the 1990s (Sealey and Andersen 2015: 55). While, Newfoundland has differed from its Maritime neighbours in witnessing a pronounced rise in recent years following an offshore oil boom (Fortin and Lemieux 2016: 234–236).

**Voter Turnout**

Across the West, voter turnout has declined steadily from an average of 82 percent in the 1970s to 72 percent (Schäfer and Streeck 2013: 11). The trend is nearly universal and the decline in turnout is particularly acute in Switzerland, and three Anglo-Saxon countries (United Kingdom, US, and Canada). Post-war turnout at national elections averaged around 75 percent in Canada until 1988. Since then it has declined dramatically and averaged in the low-60s in the five elections between 2000 and 2011 (See Figure 1 above). The one exception being the 2015 election, which saw a substantial rise to 68.3 percent. However, it remains to be seen if this number is sustainable long-term, as it was an unusually competitive election, with essentially a three-way dead heat in polling up until the final few weeks of the campaign. There was also a deep desire for change, and much of the increase was owing to unprecedented youth turnout, despite continued underlying apathy and low political knowledge amongst the youth (Urban 2016). Although the turnout rates since 2000 have been roughly 10 percentage points higher than American presidential elections, they are still around 10 percentage points lower than the median average turnout for OECD members (Blais and Rubenson 2013).
The leading explanations as to why Canada’s turnout is comparatively low, stem from its political system and demographics. As turnout tends to be lower by 3 percentage points in majoritarian systems, and tends to be lower in federal systems, as well as large, sparsely populated countries (Gidengil et al. 2004: 104). Consensus is lacking in explanations for Canada’s marked turnout decline, which is particularly acute amongst the young. The leading explanations rely on period cohort effects in recent generations having lower political interest, knowledge, and civic duty (Blais et al. 2004), and a decline in the competitiveness of elections (Johnston et al. 2007).

Canada is also an anomaly in having higher turnout in subnational elections (Studlar 2001). This is in part owing to Canada’s pronounced regionalism and diversity. As according to Fearon’s diversity index, it is the most ethnically and culturally diverse Western country (Fearon 2003: 215–216). Exemplifying this regional diversity, Canada’s two Atlantic island provinces have long stood out on turnout. Prince Edward Island has since Confederation had the highest turnout, due to its extremely small constituency sizes and high interest in politics, while Newfoundland stands out as long having had the lowest turnout, due to it being a latecomer in joining Canada (1949), lower education levels, and general disengagement towards federal affairs (Blake 2005: 6–7). The island provinces have maintained their leading positions at opposite ends of the spectrum, having experienced largely uniform declines in turnout. Moreover, Alberta has voted the second least in all but three of the 10 elections, while the remaining provinces tend to not substantially differ from one another each election.

3. Previous Literature

Although most of the West has witnessed declining turnout and rising inequality the past few decades, only in recent years have scholars focused on the relationship between the two. They have so far only examined the relationship between income inequality and turnout cross-
nationally, and within the US. Country-case studies have also only been undertaken twice—a
decade ago—involving American presidential (Galbraith and Hale 2008), and gubernatorial
(Solt 2010) elections. Within this literature, inequality has been found to exert either a
negative or null relationship on turnout, with scant evidence of a positive relationship.
Academics have also developed three principal theories attempting to explain the effects of
inequality on turnout: ‘relative power,’ ‘conflict,’ and ‘resource’ theory. Therefore, this study
formulates three separate hypotheses, one for each theory.

**Relative Power Theory**

Relative power theory predicts that income inequality has a negative effect on turnout and
that the turnout of all income groups is expected to decline. This occurs due to inequality
generating a greater concentration of wealth into the hands of high-income individuals, who
then translate that increased wealth into more political power, as policymakers respond to
their interests over the poor (Goodin and Dryzek 1980). Consequently, low-income earners
become disengaged from the political process as they “conclude that politics is simply not a
game a worth playing” (Solt 2008: 57). Eventually the turnout of high-income individuals
also declines (although not to the same extent), as less engagement is then required to
maintain their dominant position in the political process (Steinbrecher and Seeber 2011).

**H1: Increased income inequality leads to reduced voter turnout amongst all income
groups.**

Solt finds evidence in support of relative power theory both cross-nationally (2008)
and at the US state level (2010). He has produced the most pronounced results, whereby
political participation is lower in countries with above average income inequality, particularly
among those on low incomes. Similarly, Galbraith and Hale (2008) find that higher US state-
level income inequality leads to lower turnout in presidential elections in their study covering
1980–2004. Beyond the US context, Seeber and Steinbrecher (2011) find in a round four European Social Survey (ESS) sample of 27 countries, that income inequality lowers turnout at the individual level but also reduces the income gap in turnout.

Conflict Theory

In contrast to relative power theory, conflict theory predicts the opposite effect on turnout. It builds on Meltzer and Richard’s (1981) median voter model, by predicting that higher income inequality will lead to a more conflictive politics because increasing income inequality stimulates more engagement in the political process for all income groups. This occurs because low-income individuals will start to push for more redistribution, due to being made worse off from increased inequality. This in turn becomes costlier for the rich, who then become more politically engaged so that they can counter the adoption of redistributive policies (Stockemer and Parent 2014).

Evidence for conflict theory is sparse, although Leighley and Nagler (2014) find some support in their case study of US presidential elections from 1972–2008. They find that people who perceive greater policy differences are more likely to vote and that the poor are less likely to perceive policy differences than the wealthy. However, even though people largely underestimate the true extent of income inequality, often by substantial amounts (Hauser and Norton 2017), polling indicates that the public is still very concerned about rising inequality in Canada. A 2014 EKOS Research poll, found that 74 percent of Canadians believed “the middle class is shrinking and falling backward,” and a similar 2014 Pollara poll revealed that 85 percent “believe income inequality is no longer about the gap between the rich and the poor, but rather the very rich and everyone else” (Osberg 2018: 43–44). Moreover, two-thirds of Canadians feel that the gap between the rich and poor is widening (Adams 2017) and an equal number believe the rich should be taxed more to support the poor (OECD 2019). Despite heightened public concern about
inequality it continues to rise in Canada, and governments have responded with less redistribution (Banting and Myles 2013). Therefore, the second hypothesis tests whether turnout decline could be stemming from a lack of effective policy offerings on redistribution, as voters can only respond to the policy choices presented to them:

\[ H2: \text{When political parties propose greater redistribution, overall turnout increases during periods of high inequality.} \]

**Power Resource Theory**

Power resource theory posits that an individual’s participation in the political process depends on the amount of resources available to them (Verba et al. 1995). Greater income inequality typically results in less resources for lower-class citizens and more for upper-class citizens. Thus, the greater the amount of income inequality in a society, the less politically active the poor become, as opposed to the wealthy, who increase their political engagement. More equal societies should also have a more equal system for provisioning services to all members of society and make it easier for the lower classes to participate in civic life (Lancee and Van de Werfhorst 2012: 1168). It is possible that overall turnout can still rise with increased inequality because if all income groups are getting richer in absolute terms, then they will still have more resources available to participate in politics, despite the fact that the poorest are getting poorer in relative terms (Jaime-Castillo 2009: 6). However, the theory generally predicts that greater inequality is positively related for high-income earners and negatively related for low-income earners (Solt 2008). This tends to lead to overall declining turnout, as well as greater turnout inequality.

\[ H3: \text{Increased income inequality leads to reduced voter turnout amongst low-income individuals, and increased turnout amongst high-income individuals.} \]
Cross-national support for power resource theory can be found in multiple studies. Anderson and Beramendi (2008) find in a World Values Study (WVS) from 1999–2001, that inequality suppresses turnout across national contexts because individuals living in more unequal countries are less likely to vote, with a consistent linear pattern for all income groups. Using data from the 2006 wave of the ESS, Lancee and Van de Werfhorst (2012: 1176) demonstrate that “inequality seems to isolate low-income individuals from civic and social life,” while simultaneously promoting “the social integration of the rich.” Schäfer (2013: 185) finds similar results in an expanded 1970–2008 study of 23 OECD countries, whereby predicted turnout is 18 percentage points lower when moving from the most to least equal country.

**Canadian Contribution**

In the Canadian context, income is known to exhibit a limited effect on voting (Alford 1963; Johnston 2017: 39–41). Although income inequality and turnout are yet to be examined, the relationship between inequality and related political attitudes do, however, appear in two recent studies relying on the CES. Perrella et al. (2016) investigate the effect of a growing income gap on six political attitudes ranging from satisfaction with democracy, to external political efficacy from 1993–2011. They do not examine participation and they find that income disparities have little effect beyond reduced support for political institutions. However, they make a strong case that the CES produces conservative findings, because most of the attitudinal questions appear in the mail-back portion of the CES, whose respondents tend to be “older, more educated, and wealthier,” as well as “less cynical” (Perrella et al. 2016: 45). Similarly, Sealey and Andersen (2015) look at the relationship between inequality and redistribution from 1993–2008 and find that higher inequality leads to greater support for redistribution. Although baseline support is contingent on provincial context, as provincial political cultures moderate the relationship.
Furthermore, The Samara Centre for Democracy encapsulates aspects of all three hypotheses in a recent report on the views of the politically disengaged in Canada. Members of a low-income focus group that rarely votes, outlined “growing inequality” as one of the prime reasons for not participating politically (H1) (Samara 2012). They also “viewed themselves as passive observers of politics – not by choice,” but because of a “lack of time or energy” owing to more pressing concerns in their lives (H3), as well as a pervasive feeling of powerlessness at being unable to influence an unresponsive political system (H2) (Bastedo et al. 2011: 10–11).

Altogether, it appears that there is not yet a conclusive answer to the effect of income inequality on turnout and the precise mechanisms warrant further exploration. Consequently, this study builds on the previous literature by incorporating a different mechanism – the redistributional policy offerings of political parties. As voters could be abstaining due to the lack of effective representation in the policy realm. Additionally, this paper provides the first country-case study outside of the US to explore the effect of income inequality on turnout, and covers the longest duration (31 years) within a single country yet.

4. Data and Methodology

Methodology

Analysis is undertaken via a uniquely created dataset comprising individual-level and macro-level data. The individual-level data derive from the 10 most recent waves of the Canadian Election Study (CES), which is merged with subnational level data from Statistics Canada, as well as national-level data from the Comparative Manifesto Project (CMP), and Elections Canada. The CES offers the most extensive surveys on public opinion and voting for Canadian elections and contains information on respondents from all 10 provinces for each federal election since 1965. The 10 federal elections included span over 30 years from 1984–
2015, with each survey containing roughly 3,500 to 4,500 respondents, yielding a total analytical sample of 39,560.

The dataset contains individuals nested within elections over time, therefore, multilevel models are applied to pooled cross-sectional data. As the dependent variable is dichotomous, logistic mixed-effects models are estimated, which include both fixed and random effects. Since the higher-level units are too small to cluster by province or election (10 each) without introducing bias into the estimates, observations are clustered by province-year, providing 100 in total (Bryan and Jenkins 2016). Thus, all models account for the clustering of individuals within the province-year electoral contexts through the specification of a random intercept and assume that the effect for all individual and contextual variables is fixed across each election.

**Individual-level Variables**

The individual-level variables are all drawn from the CES. The dependent variable is turnout, which is a dichotomous measure of the straightforward question as to whether a respondent voted in the recent federal election.

A key independent variable utilized is *income*, which measures the total household income of each respondent, divided into five quintiles (lowest to highest). Quintiles were chosen because they have been the most commonly used form of measuring individual income in the literature, “since an individual's ranking in the income distribution is more comparable over time than is the individual's absolute income level” (Leighley and Nagler 1992: 727). A prominent problem with surveys of household income is non-response, but within the CES response rates were nearly as high as most other socio-demographic variables, as respondents were normally provided the option of providing their total household income or identifying their placement within 10 categories. Nevertheless, a
robustness check is still performed on the missing income values to ensure that the dataset does not contain any bias (see Supplemental Information S5).

The most relevant individual-level controls to turnout are included. Young people tend to vote in low numbers and the likelihood of voting increases substantially as one gets older until around age 55, when it then begins to level off (Blais 2000: 49–50). This curvilinear relationship has been found to be especially pronounced in Canada (Blais and Rubenson 2013: 98). Therefore, age and age squared (age2) variables are included. Voting is also positively related to education, marriage, nativity, and religious and union status (Smets and van Ham 2013). Therefore, religion, union, married, and native dummy variables are included, and education is added as a categorical variable. Gender is also controlled for via a female dummy variable. Lastly, a respondent’s political interest is included, to control for the notion that greater political interest predisposes one to vote. The variable is measured based on responses to the question: “how interested in politics are you generally?” via a 3-point (low to high) scale.

**Socio-economic Variables**

Income inequality is measured at the provincial level. The adjusted after-tax Gini coefficient is employed rather than the market income Gini coefficient because the main mechanisms leading inequality to affect turnout are most likely to operate via a person’s disposable income after taxes and transfers, rather than their market income (Stockemer and Scruggs 2012: 767). Voters are typically backward looking with a memory of roughly one year when evaluating the performance of government and the impact of the economy (Lewis-Beck and Stegmaier 2013). To account for this one-year memory of retrospective voting, I lag the Gini indicator for one year. Gini’s are obtained from Statistics Canada’s Table 11-10-0134-01.
Further socio-economic variables measured at the provincial level are added as controls. Union density has declined a full 10 percentage points from its peak of 41.8 percent in 1984 (Sran et al. 2014: 25–26), which could also be negatively impacting turnout. Population size has been negatively associated with turnout, as smaller populations increase the likelihood that people know the candidates in their region (Cancela and Geys 2016). Population differs markedly among Canada’s provinces, ranging from 146,000 (Prince Edward Island) to 13.8 million (Ontario). Thus, a logged measure of provincial population is added. To rule out spurious correlation, average logged income per capita, measured at current CAD dollars, is added, and lagged one year. In addition, the average advanced degree attainment for each province is added. Data for all four variables derive from Statistics Canada. Lastly, average level of church attendance is calculated from the General Social Survey (GSS). As each survey includes a very sizable sample of respondents providing how often they attend religious services, on a 5-point (low to high) scale.

**Political Variables**

A key aggregate-level independent variable examines the policy space of the political parties in Canada. Following previous research, party issue positions are estimated utilizing party manifesto data, drawn from the CMP (Ezrow and Xenokasis 2011). The CMP is a popular dataset for the study of political parties and offers reliable estimates that correlate highly with national experts and mass surveys, including 104 Canadian party experts surveyed by Benoit and Laver (2006) (see also Cochrane 2010). The policy statements are classified into 56 policy categories over seven domains and this study focuses on the items that relate most closely to matters of redistribution. The left–right redistributional scores of the various parties have been calculated by summing up the percentages of all the sentences in the left category

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and subtracting their total from the sum of the percentages of the sentences in the right
category (Laver et al. 2003). In order to examine the extent of redistribution offered by the
parties for each election, a *left-right party position* variable is constructed (rescaled 1–10
from left–right). The variable is calculated based on the mean weighted by party vote share
policy position on redistribution for each election.

I also control for national-level political factors that may influence turnout in Canada.
Uncompetitive elections tend to reduce incentives to vote, which has been particularly acute
in Canada, and has been partially attributed with the sudden decline in turnout in the 1990s
(Johnston et al. 2007). Thus, *party competition* for each federal election is measured, which is
the difference in total votes between the first- and second-place parties. The effective number
of parties (ENP) is also controlled for, and across most studies is negatively associated with
turnout (Cancela and Geys 2016), even though theory might predict a positive association
(Blais 2006). Data for both variables derive from the CMP. The incumbent government is
controlled for, which can influence who turns out to vote (Iversen and Soskice 2006). As only
two parties (Liberals and Conservatives) have formed the government in Canada, *incumbent
party* is measured via a dummy variable (0 = “Conservative”; 1 = “Liberal”). Henderson and
McEwen (2010; 2015) have shown that distinctive regional identities (including Québécois)
can lead to greater turnout for those regions in subnational elections, when cultivated via
regional parties. To test this at the federal level, a *regional party* dummy variable is included
and coded as 1 for any province-year election whereby a regional party achieved over 20
percent vote share in a province, and multiple seats in parliament (Henderson and McEwen

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4 Policy position on redistribution = (per401 + per402 + per407 + per414 + per505) - (per403 + per404 + per405
+ per406 + per409 + per412 + per413 + per415 + per416 + per504) from the CMP dataset.
5 To aid in interpretation, CMP redistributional party scores are rescaled from a left to right (-100 to 100) to (1–
10) scale, using the following equation: (CMP score x 9/200) + 5.5 (Ezrow and Xenokasis 2011).
6 For example, the rescaled (1-10) economic policy positions of the main parties in the 2011 election is centrist
at 5.01, as the three main parties from left–right are: New Democrats = 4.47; Liberals = 4.84; Conservatives =
5.56, with the two remaining parties (the Greens and Bloc Québécois), scoring 4.51 and 5.16 respectively.
7 ENP is calculated by first squaring the vote share of each party individually, then adding the sum of the
individual parties together, and finally dividing 1 by the new total sum.
Lastly, greater election frequency has been negatively related to turnout, especially in federal systems (Studlar 2001). Thus, the time in months since the last election (provincial or federal) for each province-year election is calculated. These three variables derive from Elections Canada.

5. Results

Descriptive Analysis

Firstly, the trends in turnout are investigated. The turnout rate is 87.6 percent, which is substantially larger than the actual turnout rates by a comparatively large (country-wise) 21.7 percentage points. Likelihood to vote increases with each income quintile and the richest quintile votes around 11.2 percentage points more than the bottom quintile in the sample. However, more than half of this increase occurs between the first and second quintiles. To further investigate the income gap in turnout, a ratio calculation of the turnout rate among the top quintile, versus the bottom quintile is performed. The mean ratio is 1.15, meaning that the top quintile voted 1.15 times more than the bottom quintile.

The turnout rate also incurs little provincial variation, as 9 of the provinces reside within 4 percentage points of the average turnout rate – with Newfoundland the expected outlier at 80 percent. Despite the very small variance in turnout, we do see a weak correlation between provincial levels of turnout and income inequality. Figure 2 below displays the cross-provincial average turnout plotted by average Gini index. As expected, there is a negative correlation, as provinces with higher turnout tend to have lower levels of inequality. We can see that turnout is nearly 3 percentage points lower in provinces with the highest

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8 The only two substantial regional parties that emerged in Canada over this period are the Bloc Québécois and the Reform Party, which was a right-wing protest party centered on Western Canadian disaffection. Both parties achieved official opposition status in the 1990s and achieve a score of 1 in Quebec (for 7 elections), and in the four Western provinces for both elections in the 1990s.
income inequality, in comparison to provinces with the least, which is in line with relative power theory.

Figure 2: Provincial Turnout by Gini Index

Cross-provincial average turnout plotted against the average Gini Index.

When the time trends are determined, turnout increases in the sample, which is at odds with the general increase in income inequality, and the income gap in turnout also decreases.

**Estimation Results**

To test the main hypotheses, I specify a mixed-effects logistic regression. Table 1 presents the results from three different models. Model 1 provides a baseline estimate and includes each of the individual and contextual variables. The individual-level variables largely perform as expected and are all significant. Those on high incomes are significantly (p<0.001) more likely to vote than those on low incomes (b=0.163).
Table 1: Mixed-Effects Logistic Regression Predicting Propensity to Vote

<table>
<thead>
<tr>
<th>Individual Variables</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
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<td>0.061***</td>
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<td>0.319***</td>
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<td>0.112</td>
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<td>Native</td>
<td>0.341***</td>
<td>0.341***</td>
<td>0.341***</td>
</tr>
<tr>
<td>Union</td>
<td>0.121**</td>
<td>0.121**</td>
<td>0.121**</td>
</tr>
<tr>
<td>Religion</td>
<td>0.144**</td>
<td>0.144**</td>
<td>0.145**</td>
</tr>
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<td>0.770***</td>
<td>0.770***</td>
<td>0.771***</td>
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</table>

<table>
<thead>
<tr>
<th>Contextual Variables</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gini t-1</td>
<td>-0.065**</td>
<td>-0.070</td>
<td>0.691*</td>
</tr>
<tr>
<td>Union Density</td>
<td>-0.014</td>
<td>-0.014</td>
<td>-0.015</td>
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<tr>
<td>Income Per Cap t-1(log)</td>
<td>-0.668***</td>
<td>-0.667**</td>
<td>-0.670**</td>
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<tr>
<td>Population (log)</td>
<td>0.027</td>
<td>0.027</td>
<td>0.017</td>
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<tr>
<td>Church Attendance</td>
<td>-0.200</td>
<td>-0.201</td>
<td>-0.214</td>
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<tr>
<td>Degree</td>
<td>-0.002</td>
<td>-0.002</td>
<td>-0.003</td>
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<td>Last Election (months)</td>
<td>0.006*</td>
<td>0.006*</td>
<td>0.005</td>
</tr>
<tr>
<td>Incumbent Party</td>
<td>-0.246**</td>
<td>-0.245**</td>
<td>-0.253***</td>
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<tr>
<td>Regional Party</td>
<td>0.010</td>
<td>0.010</td>
<td>0.072</td>
</tr>
<tr>
<td>Party Competition</td>
<td>-0.025</td>
<td>-0.025</td>
<td>-0.025</td>
</tr>
<tr>
<td>ENP</td>
<td>-0.179</td>
<td>-0.180</td>
<td>-0.243</td>
</tr>
<tr>
<td>Left-Right Position</td>
<td>-0.098</td>
<td>-0.098</td>
<td>4.286*</td>
</tr>
</tbody>
</table>

| Gini t-1 # Income      | -0.002        |               |               |
| Gini t-1 # Left-Right Position | (0.010) |               | -0.148**   |
Most of the contextual controls are not significant. When the Liberals are in power people are significantly less likely to vote, which could in part be owing to the Liberals’ centrism and role as Canada’s natural governing party. As Johnston (2017: 88–89) has shown, turnout is negatively related to Liberal vote share, who tend to benefit from times with high indifference, and stand to lose vote share in times of insurgency when turnout increases. When provincial average income is higher, people are also significantly less likely to vote. People are more likely to vote when elections are less frequent and when there are less parties, which likely is owing to the much higher turnout in the 1980s, when there were only three parties. Some evidence appears that people are more likely to vote when political parties offer more redistribution, although left-right party position is not significant.

Most importantly, Model 1 indicates that inequality does significantly depress turnout at (p<0.01). Figure 3 below displays the predicted probabilities of turnout at different levels of income inequality. We can see that the likelihood to vote is substantially lower at higher levels of inequality. At the lowest levels of inequality people are much more likely to vote (roughly 90 percent) but at the highest level of inequality, significantly less so (roughly 85 percent). Thus, support is found for relative power theory and Hypothesis 1.
Figure 3: Predicted Probability of Turnout by Income Inequality with 95% C.I. (Model 1)

Model 1 reveals a sizeable income gap in turnout that is often larger in countries with lower turnout such as Canada. Mahler (2008: 176) reports that the income gap in turnout for the 1997 federal election was 17.6 percentage points in the Comparative Study of Electoral Systems (CSES), which is 6.4 percentage points larger than in the CES. Turnout is also 8 percentage points larger in the CES, which provides much less scope for a large turnout income gap. It is likely then that the CES considerably underestimates turnout inequality.

To test for power resource theory (Hypothesis 3) – that the income gap in turnout is greater when inequality is higher – Model 2 specifies an interaction between $gini_{t-1}$ and income. The interaction is not significant, and we do not see evidence that provincial inequality differentially affects income groups. The lack of a significant effect could be owing in part to survey underestimation of turnout inequality or perhaps to the comparatively persistent absence of class voting in Canada (Alford 1963; Johnston 2017: 39–41).
Model 3 tests the second hypothesis – that greater policy redistribution increases overall turnout during periods of high inequality – via an interaction between $gini_{t-1}$ and left-right party position. The interaction is negative and significant at ($p<0.01$). Figure 4 below displays the average marginal effects of inequality by the redistributitional party system position (left–right) on turnout. It shows that the effect of inequality is slightly above zero when political parties are very left-wing on redistribution, but that turnout gradually dampens the more right-wing the parties become. When party systems move from the most leftward to the most rightward position, a one standard deviation increase in inequality exhibits roughly a 1.7 percentage point decrease in turnout. The interaction provides some support for Hypothesis 2. As the negative effects of inequality on turnout are exacerbated when parties offer less redistribution and are mitigated when the party system offers greater redistribution.

Figure 4: Average Marginal Effects of Inequality by Party System Redistribution on Turnout with 95% C.I. (Model 3)
When we investigate the interaction further by breaking Model 3 down by income groups, we can see more precisely how conflict theory is dependent on the offer of greater redistribution. Table 2 presents the results from the interaction for the bottom two quintiles versus the rest of the population. We can see that the interaction is only significant for the bottom two quintiles (p<0.01) and that the negative effect is nearly twice as strong for the bottom two quintiles.

Table 2: Mixed-Effects Logistic Regression Predicting Propensity to Vote for Bottom Two vs Top Three Income Quintiles

<table>
<thead>
<tr>
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<th>Model 3a Quintiles 1-2</th>
<th>Model 3b Quintiles 3-5</th>
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<tbody>
<tr>
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</tr>
<tr>
<td>Age</td>
<td>0.069***</td>
<td>0.053***</td>
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<tr>
<td></td>
<td>(0.010)</td>
<td>(0.012)</td>
</tr>
<tr>
<td>Age2</td>
<td>-0.000***</td>
<td>-0.000</td>
</tr>
<tr>
<td></td>
<td>(0.000)</td>
<td>(0.000)</td>
</tr>
<tr>
<td>Education</td>
<td>0.168***</td>
<td>0.143***</td>
</tr>
<tr>
<td></td>
<td>(0.020)</td>
<td>(0.016)</td>
</tr>
<tr>
<td>Female</td>
<td>0.140*</td>
<td>0.091</td>
</tr>
<tr>
<td></td>
<td>(0.065)</td>
<td>(0.056)</td>
</tr>
<tr>
<td>Married</td>
<td>0.373***</td>
<td>0.347***</td>
</tr>
<tr>
<td></td>
<td>(0.072)</td>
<td>(0.062)</td>
</tr>
<tr>
<td>Native</td>
<td>0.288**</td>
<td>0.397***</td>
</tr>
<tr>
<td></td>
<td>(0.104)</td>
<td>(0.083)</td>
</tr>
<tr>
<td>Union</td>
<td>0.304***</td>
<td>0.025</td>
</tr>
<tr>
<td></td>
<td>(0.078)</td>
<td>(0.056)</td>
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<tr>
<td>Religion</td>
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<td>0.124</td>
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<tr>
<td></td>
<td>(0.089)</td>
<td>(0.071)</td>
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<tr>
<td>Political Interest</td>
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<td>0.794***</td>
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<td></td>
<td>(0.049)</td>
<td>(0.042)</td>
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<td><strong>Contextual Variables</strong></td>
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<td>Gini t-1</td>
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<tr>
<td></td>
<td>(0.370)</td>
<td>(0.368)</td>
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<tr>
<td>Union Density</td>
<td>-0.012</td>
<td>-0.013</td>
</tr>
<tr>
<td></td>
<td>(0.010)</td>
<td>(0.010)</td>
</tr>
<tr>
<td>Income Per Cap t-1 (log)</td>
<td>-0.541</td>
<td>-0.860***</td>
</tr>
<tr>
<td></td>
<td>(0.319)</td>
<td>(0.314)</td>
</tr>
<tr>
<td>Population (log)</td>
<td>-0.010</td>
<td>0.043</td>
</tr>
<tr>
<td></td>
<td>(0.035)</td>
<td>(0.038)</td>
</tr>
<tr>
<td>Church Attendance</td>
<td>-0.157</td>
<td>-0.249</td>
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<tr>
<td></td>
<td>(0.192)</td>
<td>(0.198)</td>
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<tr>
<td>Degree</td>
<td>-0.007</td>
<td>-0.001</td>
</tr>
<tr>
<td></td>
<td>(0.008)</td>
<td>(0.009)</td>
</tr>
</tbody>
</table>
Figure 5 below offers a comparison of the average marginal effects of inequality by the redistributional party system position on turnout, for the bottom two quintiles (left), and quintiles 3 to 5 (right). We can see that at the most leftward position on redistribution, the effect of inequality on turnout is around zero for the richest three quintiles, whereas for the bottom two quintiles, greater inequality increases turnout. Reduced offers of redistribution then gradually reduce turnout for all income groups, although to a much larger extent for the bottom two quintiles. This suggests that people on low incomes are affected to a greater extent by party system redistribution and that leftward positions of redistribution can increase turnout for this group under higher inequality, despite the negative effects of inequality on turnout.

Note: beta coefficients from a mixed-effects logistic regression with standard errors in parentheses.  
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$
6. Conclusion

This study provides a novel theoretical case study on the effects of income inequality on turnout. It makes use of two uniquely intensive developments in time that occur within a specific geography. As the marked increase in income inequality in Canada during the 1990s, forms a noteworthy comparison with the precipitous concurrent decline in voter turnout that befell the country. The study also seeks to address multiple gaps in the literature. Previous research has been focussed cross-nationally or on the US, so a case study of Canada expands our knowledge of this key topic beyond the usual regional scope. It also introduces a previously unexplored mechanism moderating the relationship between inequality and turnout – the policy choice offerings of political parties at the time of elections.
Past research has tended to offer support for either relative power or power resource theory. This study offers evidence in support of the former, as it finds that income inequality does significantly reduce turnout in Canada, with low-income earners negatively impacted the most. Past research has also offered little support in favor of conflict theory. However, by examining the economic policy space of Canada's party system, we can provide a more direct test of conflict theory. The results here indicate that latent conflict (Meltzer and Richard 1981) only manifests from increasing income inequality – when parties offer greater redistribution. As this paper shows that the negative effects of inequality on turnout can be mitigated with party system movements to the left on matters of redistribution, which is especially pronounced for low-income earners. This finding is particularly relevant to current policy debates, since turnout decline in Canada coincided with a strong rightwards policy shift on redistribution (Banting 2013: 16; Johnston 2017). Turnout also substantially increased in the 2015 election to the highest level since 1993, with inequality a salient issue during the campaign, and the Liberal’s moving to the left of the NDP on redistribution for the first time since the CMP began coding elections in 1945.

However, further research is required, and the limitations of this study provide direction. Prime amongst them is the extent of endogeneity in this situation, as politics affects inequality and inequality affects politics. Another limitation involves case confinement. There are only 10 provinces in Canada, which provide a far lower number of aggregate-level units for measurement than is available cross-nationally or within larger federations such as the US. Similarly, this study contains only 10 federal elections, which points to the lack of survey availability at the provincial level.

Nevertheless, this paper sheds further light on the detrimental effects of inequality on democracy. A primary function of elections is the distribution of power and mounting American evidence demonstrates their governments are far more responsive to the wealthy
over everyone else (Bartels 2008; Hacker and Pierson 2010; Gilens 2012; Bowman 2020). It would appear from this study that Canada is treading down a similar path to its southern neighbour. Although the influence of money is not as prevalent in Canadian democracy as in the US, it is still hindered by the narrow boundaries of what is considered acceptable public debate and a sometimes “distorted presentation of economic and social realities” (Broadbent Institute 2012: 5). Therefore, when there is little chance of electing a representative that will champion their interests, individuals are often behaving rationally by refraining from voting (Solt 2010).

This paper also has important policy ramifications. The self-reinforcing nature of political and economic inequality means that policymakers need to address both sides of the equation. On the political side, an important reform lies with Canada finally redressing the inequities inherent in its electoral system with a move towards proportional representation (PR). Reforming Canada's majoritarian electoral system was a central plank to the Liberals' 2015 winning campaign, with Prime Minister Trudeau promising an end to the first-past-the-post system by the subsequent election, but the pledge was expediently suppressed once in power. PR systems provide better representation for low-income earners by facilitating alliances between working-class and middle-class voters on redistribution (Iversen and Soskice 2006) and turnout is higher in PR systems (Cancela and Geys 2016; Gidengil et al. 2004: 104).

This study has contributed to a growing body of literature examining the political side of inequality. It has yielded important insights into income inequality and turnout in Canada, with implications outside the country. As it identifies income inequality as another significant culprit in turnout decline and consequently provides further impetus to policymakers to adopt reforms and policies that aid in combating income inequality.

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