Higher Education, Higher Stakes: Education's Role in Shaping Redistribution Preferences and Vote Choice in Canada

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Abstract

This thesis investigates the impact of educational attainment on attitudes toward redistribution and voting behaviour in Canada. Drawing on the bi-dimensional framework of redistributive attitudes prevalent in recent literature, I distinguish between support for the welfare state ("*redistribution from*") and positive or negative perceptions of welfare beneficiaries ("*redistribution to*"). Using data from the 2019 Canadian Election Study, I employ Principal Component Analysis (PCA) as a first step to more clearly delineate the two dimensions of attitudes toward redistribution, followed by OLS regressions to assess the relationship between education level and the two dimensions of redistributive attitudes. After examining the role of education in shaping electoral outcomes in Canada through multinomial logistic regressions, I then perform KHB mediation analyses in logistic regressions to decompose the effects of education on vote choice, focusing on how attitudes toward the welfare state and perceptions of the deservingness of welfare beneficiaries mediate this relationship. These results indicate that higher educational attainment is associated with decreased support for expansive welfare policies but increased favourability toward the deservingness of welfare recipients. Additionally, education influences vote choice directly and indirectly through these attitudes, with deservingness serving as a stronger mediator than attitudes toward the welfare state. These effects on vote choice are particularly significant for the Conservative Party of Canada (CPC) and the Liberal Party of Canada (LPC), and for the "left" and "right" party blocs, albeit in opposing directions. Overall, this thesis highlights education as an increasingly influential divide in the 21st century and contributes to the broader discourse on economic inequality and social solidarity by delineating the role of education in shaping electoral behaviour and policy preferences in Canada.

Keywords: Canada, Welfare state, attitudes toward redistribution, political behaviour, electoral behaviour, education, educational cleavage.

Résumé

Ce mémoire examine l'impact du niveau d'éducation sur les attitudes à l'égard de la redistribution et les comportements électoraux au Canada. En s'appuyant sur le cadre bi-dimensionnel des attitudes redistributives, je distingue entre le soutien à l'État-providence (« *redistribution from* ») et les perceptions positives ou négatives des bénéficiaires de l'État-providence (« *redistribution to* »). En utilisant les données de l'Étude électorale canadienne de 2019, j'utilise l'analyse en composantes principales (ACP) pour délimiter plus clairement les deux dimensions des attitudes à l'égard de la redistribution, ainsi que des régressions OLS pour évaluer la relation entre le niveau d'éducation et ces deux dimensions. Après avoir examiné directement le rôle de l'éducation dans l'explication des résultats électoraux au Canada via des régressions logistiques multinomiales, je procède ensuite à des analyses de médiation KHB pour décomposer les effets de l'éducation sur le choix de vote, en me concentrant sur la manière dont les attitudes envers l'État-providence et les perceptions de la légitimité de ses bénéficiaires médiatisent cette relation. Ces résultats indiquent que des niveaux d'éducation plus élevés sont associés à une diminution du soutien à l'égard de politiques d'aide sociale généreuses, mais à une perception de légitimité plus importante à l'égard des bénéficiaires de l'État-providence. L'éducation influence également le choix de vote de manière directe et indirecte à travers ces attitudes, la légitimité des bénéficiaires jouant un rôle de médiateur plus fort que les attitudes générales envers l'État-providence. Ces effets sur le choix de vote sont particulièrement prononcés pour le Parti conservateur du Canada (PCC) et le Parti libéral du Canada (PLC), ainsi que pour les blocs de partis « de gauche » et « de droite », bien qu'ils aillent dans des directions opposées. Globalement, ce mémoire met en lumière l'éducation comme un clivage de plus en plus influent au 21^{e} siècle et contribue au discours plus large sur les inégalités économiques et la solidarité sociale en délimitant le rôle de l'éducation dans la formation des comportements électoraux et des préférences en matière de politique publique au Canada.

Mots-clés: Canada, état providence, attitudes à l'égard de la redistribution, comportements politiques, comportements électoraux, éducation, clivage éducatif.

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A Note on Data Replication

The online survey component of the 2019 Canadian Election Study (Stephenson et al. 2020) is available on the Consortium on Electoral Democracy (C-Dem) Harvard Dataverse repository. The data collection was overseen by Laura B. Stephenson (Western Ontary University), Allison Harell (Université du Québec à Montréal), Daniel Rubenson (Toronto Metropolitan University), and Peter John Loewen (University of Toronto). Responsibility for the data analysis and interpretation lies solely with the author of this thesis. All necessary scripts for replication (R and STATA), from data cleaning to data analysis, can be found in the designated public GitHub repository.

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Introduction

Across Western democracies, the debate over income redistribution has gained urgency and prominence in both academic circles and public discourse, driven by rising economic inequalities and emerging structural divides that delineate the "beneficiaries" and "victims" of post-industrial transformations (Hooghe and Marks 2018). These growing inequities have been compounded by a departure from the principles of universalism, public welfare, inclusivity, and accessibility that characterized global welfare states until the 1980s (Kildal and Kuhnle 2007). The 2008 financial crisis further exacerbated this trend (Saez and Zucman 2019), leading to a significant shift away from the welfare state's traditional goals: redistributing wealth from the rich to the poor and providing a form of "social insurance" (Alesina and Giuliano 2011, 96).

Interestingly, despite the general expectation in political economy literature that (decreasing) individual economic conditions would influence (positively) attitudes toward redistribution, there has not been a corresponding rise in public support for redistributive policies among the electorate (Lupu and Pontusson 2023; Cavaillé 2023; Bartels 2008). This unexpected outcome challenges the core assumptions of behavioural and political-economic models, which predict that growing inequality should result in greater demand for state-led interventions and social policies aimed at redistribution (Sealey and Andersen 2015; Meltzer and Richards 1981). Even with significant market-income inequality (Atkinson 2008, cited in Cavaillé and Trump 2015) and an increasing "skill divide" between "winners" and "losers" of globalization with pernicious impacts on job market opportunities and economic outcomes (Aksoy et al. 2018), economically disadvantaged groups have not predominantly advocated for more robust taxation and redistributive measures (Cavaillé and Trump 2015; Bartels 2008). This observation calls for a critical reassessment of the prevailing theoretical models that have shaped research on these questions in the last decades (Cavaillé 2023).

While the paradox of stagnant demand for redistributive policies amid widening income gaps has been primarily studied in the United States (e.g., Bartels 2008), it is not unique to the American context (Cavaillé 2023). In Canada, where income inequality has increased markedly over the last three decades, surpassing inequality levels in the United Kingdom and much of Western Europe (Breau 2015), evidence of shifts in political attitudes toward redistribution remains scarce. For instance, Perrella et al. (2016) find minimal effects of this widening gap on key political attitudes. This aligns with findings from other post-industrial democracies, indicating a lack of increasing support for redistributive policies, especially among those most economically disadvantaged (Cavaillé and Trump 2015, 149). Considering the apparent minimal (and decreasing) impact of income on shaping political behaviour, the role of educational attainment in shaping voting behaviour and perceptions of economic inequality gradually emerges as a more fruitful area of investigation, especially given the increasing disconnect between the effects of income and education on voting (Gethin et al. 2022). Indeed, education has increasingly become a decisive factor in electoral politics, leading to a divide where individuals with lower educational levels are gravitating away from traditional social democratic parties, which are typically advocates for redistributive policies and the interests of "the have nots" (Abou-Chadi and Hix 2021). This trend is particularly noteworthy as economic disparities along educational lines intensify, cementing education not only as a key determinant of economic and labour market opportunity but also as a significant social and political cleavage (Cavaillé 2023; Stubager 2009).

Within electoral politics, the educational divide is further exacerbated by differing attitudes toward trust in government (Aksoy et al. 2018), immigration, globalization, and, notably, the welfare state (Attewell 2021). This focus on the welfare state has led to recent research challenging the traditional assumption that attitudes toward redistributive policies are primarily motivated by material self-interest "by virtue of its insurance function" (Attewell 2021). A more comprehensive understanding of the educational divide in attitudes toward redistribution highlights the distinction between beliefs about the appropriate scope of social welfare programs and perceptions of the deservingness of their beneficiaries (Cavaillé and

Trump 2015; Laenen 2020). In fact, recent research indicates that individuals with higher educational attainment might support limited welfare state policies while still believing that welfare recipients are deserving of redistributive support (Gelepithis and Giani 2022; Attewell 2021). In contrast, education as a "marker of social status" suggests that less-educated individuals are more likely to impose strict boundaries on welfare beneficiaries to maintain their own "social esteem" (Attewell 2021), or due to perceptions of fairness (Alesina and Giuliano 2011, 102).

As the educational divide is increasing within the electoral arena, these new findings emphasize the need for a comprehensive exploration of how educational attainment influences political attitudes and electoral behaviour, especially in light of significant shifts in the class structures of advanced capitalist societies (Kiss et al. 2023; Aksoy et al. 2018). As such, this thesis addresses two critical questions: (1*) How does educational attainment influence attitudes toward redistributive policies in Canada* and (2) *what are the implications of these findings for electoral politics?* By trying to grasp better the educational foundations of support for redistributive policies and their influence on voting behaviour, this research examines the interaction between the educational divide, attitudes toward redistribution and vote choice at the federal level in Canada. This research, grounded in Cavaillé and Trump's (2015) bi-dimensional framework of attitudes toward redistribution, first examines the effects of educational attainment on support for the welfare state and attitudes toward the deservingness of welfare recipients. By doing so, I clarify the relationship between education and attitudes toward redistribution in Canada. Second, I investigate how these attitudes influence vote choice in Canadian elections, building on previous studies conducted in Western Europe and the United States.

Drawing on data from the 2019 Canadian Election Study, this study first employs a quantitative strategy involving Principal Component Analysis (PCA) to delineate more clearly the two dimensions of attitudes toward redistribution (i.e., support for welfare policies and perceptions of welfare recipient

deservingness), Following this, Ordinary Least Squares (OLS) regression models are used to assess the association between education level and these attitudes. Next, I apply multinomial logistic regression with "Bloc 1" variables, which include deeply-rooted sociodemographic factors such as age, gender, and education, from the bloc-recursive model typology to illustrate, through average marginal effects, the effect of education on vote choice in Canadian federal elections. Finally, I perform mediation analyses using Karlson-Holm-Breen (KHB) mediation in logistic regressions to understand how these attitudes, particularly perceptions of deservingness, mediate the impact of education on voting behaviour. These findings indicate that higher education is moderately associated with decreased support for expansive welfare policies but more favourable attitudes toward the deservingness of welfare recipients. Furthermore, education appears to directly impact vote choice in contemporary Canadian federal elections, especially for the Liberal Party of Canada (LPC), the Conservative Party of Canada (CPC) and the Bloc Québécois (BQ). Additionally, educational attainment influences vote choice for the LPC, the "right bloc" (i.e., the CPC and the People's Party of Canada [PPC]) and the "left bloc" (i.e., the LPC and the NDP), both directly and indirectly through attitudes pertaining to redistribution. Finally, the mediation analyses reveal that perceptions of deservingness play a stronger mediating role than attitudes toward the welfare state. Overall, this thesis wishes to contribute to the broader discourse on economic inequality and social solidarity by delineating the role of education and the educational divide in shaping public preferences toward redistribution and electoral behaviour in Canada.

Studying the Canadian Case

Canada serves as an exceptional case study for examining the dynamics of voting behaviour, political attitudes toward redistribution, and the impact of educational attainment on these factors for two reasons. First, notable changes in aggregate voting behaviour and patterns within federal politics have occurred in recent decades. there have been notable changes in aggregate voting behaviour within federal politics in

recent decades (Gidengil et al. 2011). These shifts align with broader trends observed in post-industrial democracies, where traditional class-based voting is being supplanted by cleavages based on education, income, and cultural values. Although the political behaviour of those negatively impacted by globalization (i.e., the "losers of globalization" [Gidengil 2022, 921]) remains largely unexplored, Canadian federal elections have witnessed notable realignments. Notably, working-class voters have been increasingly gravitating toward the Conservative Party (Polacko et al. 2022). Concurrently, individuals with higher educational attainment tend to favour parties in the "left bloc" (i.e., the NDP and the LPC) whereas those with lower education levels lean toward the Conservatives (Kiss et al. 2023). This shift underscores a move away from traditional voting determinants in Canada, such as language, region, and religion, potentially highlighting education and attitudes toward the welfare state as pivotal factors in vote choice. Second, innovative frameworks for studying inequality, support for redistribution and the educational cleavage, prevalent and well documented in other post-industrial contexts, have yet to be thoroughly applied to Canada. In other words, pursuing opportunities to "connect growing economic inequality to democratic politics" (Abou-Chadi and Hix 2021, 89) presents a substantial opportunity for innovative research in the field of the "politics of inequality" within the Canadian setting.

Literature Review

Income Inequality in Canada : Its Consequences on Political Behaviour and Demand for Redistribution

In the aftermath of the 2008 financial crisis, the growing gap in income inequality, driven by escalating financial pressures, labour market transformations and a concentration of economic resources among the highest earners, has emerged as a significant concern in post-industrial democracies (Gethin et al. 2021; Gethin et al. 2022). In turn, this increase in inequality has prompted a decline in societal cohesion, compromised institutional performance (Casey and Christ 2005), and deteriorated individual welfare (Case and Deaton 2020) to the electoral benefit of radical right parties (Engler and Weisstanner 2020; Gethin et

al. 2022) and lower voter turnout (Gallego 2014). In Canada, the rapid rise in income inequality poses a challenge to the country's commitment to a strong social safety net (Polacko 2020) and a functioning welfare state. This economic divide raises not only economic concerns but also has significant implications for democratic processes and civic engagement. Although Perrella et al. (2016) found that the widening income gap has had a limited effect on political attitudes in Canada, Polacko (2020) highlights a significant decline in political participation and voter turnout, especially among lower-income groups, from 1984 to 2015—a period marked by a sharp increase in income inequality. During this time, Canada's inequality levels surpassed the OECD average, with the 1990s experiencing a particularly steep rise in inequality across all ten provinces (Yalnizyan 2014, cited in Polacko 2020, 1325).

This increase has been largely attributed to policy changes that reduced the government's redistributive mechanisms' effectiveness, which previously counterbalanced (or at the very least mitigated) the rise in market-driven inequality (Kiss et al. 2023). Although there is a relative lack of longitudinal research specific to Canada on attitudes toward redistributive policies, existing evidence suggests that rising income inequality has not significantly affected political attitudes (e.g., Perrella et al. 2016). Furthermore, research on the public's demand for redistribution in Canada remains ambiguous. For instance, Sealey and Andersen (2015), analyzing data from the Canadian Election Studies (CES) from 1993 to 2008, found that the relationship between inequality and attitudes toward redistribution tends to be positive within provinces, but negative across them. These results imply a mechanism akin to Wlezien's "thermostatic model of policy preferences," where support for redistribution could increase with rising inequality, but only within specific political contexts (Wlezien 1995, cited in Sealey and Andersen 2015, 61). Similarly, recent research indicates that as income disparities widen, public support for income redistribution could potentially increase, but the impact varies across different income groups and would be more pronounced among the richer segments of the population (Hillen and Steiner 2024). Nonetheless, these conflicting findings indicate that the public's demand for redistribution in Canada may align with trends observed in other post-industrial

democracies, where the public's desire for redistribution has not significantly increased over time despite growing economic disparities (Cavaillé 2023; Lupu and Pontusson 2023).

Understanding Attitudes Toward Redistribution

As the income gap has widened in the past decades, the political economy literature on redistributive attitudes has been divided between two primary theoretical models that offer differing predictions on the trends in support of redistribution (Cavaillé and Trump 2015 One side of this theoretical divide is the traditional "material-interest" model, which contends that increasing inequalities heighten demands for redistribution among economically disadvantaged groups and *potentially* the median voter (Cavaillé and Trump 2015, 146). This perspective relies on the assumption that individuals' preferences over social policy are driven primarily by material self-interest. Accordingly, individuals who are low-skilled, low-income, "economically insecure," and without prospects for income growth or social mobility tend to favour higher tax rates and greater redistribution compared to their high-skill, high-income, economically secure counterparts (Alesina and Giuliano 2009, cited in Cavaillé and Trump 2015, 146; Alesina and Giuliano 2011). While there are differing opinions on the effects of changing inequality levels (e.g., Alesina and Giuliano 2011), proponents of this theoretical model argue that rising inequality should bolster demand for redistribution among low-income voters (Cavaillé and Trump 2015, 148).

In stark contrast, the "social affinity literature," as termed by Cavaillé and Trump (2015), contends that despite rising inequality in recent decades, there has been increasing opposition to redistribution, even among those who would materially benefit from it (Lupu and Pontusson 2011). This alternative model emphasizes the importance of identification with, and attitudes toward, the recipients of redistributive spending—especially if these recipients are perceived as part of a minority or an "outgroup" (Greve 2019). This line of research posits that if socioeconomic changes lead to decreased social affinity with welfare

recipients, then overall support for redistribution might decline. Furthermore, the social affinity literature points to the "anti-solidarity motive" (Roemer et al. 2007, cited in Cavaillé and Trump 2015, 147), suggesting that voters are less likely to support redistribution when they perceive it as primarily benefiting an outgroup they deem "undeserving," irrespective of their own economic circumstances (Cavaillé and Trump 2015, 148).

To address the limitations of traditional models and their inherent "unidimensionality," which have both struggled to receive robust empirical support and often reduce economic matters to a simple ideological divide between the political left and right (Alesina and Giuliano 2011), Cavaillé and Trump (2015) suggest a more nuanced, two-dimensional framework for assessing attitudes toward redistribution. This new framework distinguishes between two "facets" of redistribution: "*redistribution from*" and "*redistribution to*."[1]

"*Redistribution from*" encompasses the "self-oriented income-maximization motives," which consider the potential material benefits individuals could gain from redistribution taken from wealthier segments of society, and is stratified by income levels (Cavaillé and Trump 2015, 148). On the other hand, "*redistribution to*" is guided by the "other-oriented social-affinity motive," which encompasses attitudes shaped by one's stance as a potential contributor to redistribution aimed at assisting the "poor." This dimension reflects identification with and empathy for the recipients, prioritizing societal welfare over personal gain, and, in contrast to the "*redistribution from*" dimension, is not expected to be stratified by income[2] (Cavaillé and Trump 2015, 148). The authors further argue that the declining support (and

[1] It is worth noting that other two-dimensional frameworks for attitudes toward inequality and redistribution exist. For instance, Sealey and Andersen (2015) distinguish between "public provision of economic security" and "generalized income equalization." For the authors, the former aims to ensure basic economic well-being for all and "defending basic human rights," while the latter focuses on equality by redistributing wealth from rich to poor.

[2] "One's self-interested support for redistribution is theoretically and empirically distinct from one's willingness to contribute to supporting the poor." (Cavaillé and Trump 2015, 147).

heightened salience) of the "redistribution to" dimension, particularly in the context of increasing ethnic diversity and economic inequality, may help explain the stagnant demand for redistributive policies in recent decades. All in all, the theoretical shift suggested by Cavaillé and Trump (2015) emphasizes the growing importance of "other-oriented" motives in analyzing attitudes toward redistribution, while still acknowledging the role of material self-interest.[3]

The Educational Cleavage as a New Social Divide

Political science is increasingly attentive to emerging societal cleavages that extend beyond the traditional divisions originally outlined by Lipset and Rokkan (1967). Scholars like Norris and Inglehart (2019), for instance, have focussed on the rise of identity and values-based cleavages. This theoretical shift in the study of cleavages has brought particular attention to the educational divide, elevating its significance beyond merely economic implications, such as income and unemployment (Attewell 2021, 1082). Education, especially through the "distinctive social identities, values and interests" of college graduates (Ford and Jennings 2020, 300), has also been associated with changes in ideology, political behaviour (Sunshine Hillygus 2005), and vote choice (Bornschier 2010; Stubager 2009).[4] Consequently, this transformation has led to the formation of new political alliances and shifts in voter alignment (Norris and Inglehart 2019; Gingrich and Häusermann 2015).

[3] It is also crucial to recognize that social assistance programs represent only one aspect of the broader welfare state, including universal and social insurance programs. This distinction is essential because different types of welfare benefits elicit varied public perceptions and political reactions. For instance, Cavaillé and Ferwerda (2023) highlight the particular case of in-kind benefits, such as public housing and health care. These programs are geographically bounded and have a fixed supply in the short term, making them vulnerable to increased competition from newly eligible beneficiaries, such as immigrants. Their findings suggest that, under specific conditions, attitudes toward welfare state programs are not solely driven by ideological positions but are also significantly influenced by practical, material concerns. As such, when individuals perceive that their access to essential resources is threatened, they are more likely to support exclusionary policies and parties that promise to prioritize native citizens' needs. This perspective aligns with the "redistribution to" dimension proposed by Cavaillé and Trump (2015), where social affinity and perceptions of deservingness play a crucial role in shaping support for redistributive policies.

[4] On this point, some studies highlight issues of "self-selection" in education, which may influence these findings (Kam and Palmer 2015). In other words, "those who receive a lot of it are profoundly different from those who receive a little." (Bullock 2020, 1).

In Canada, the shifting impact of education on political behaviour and vote choice over time provides a compelling case study, though research in this area remains limited (Gidengil et al. 2022). Historically, having no diploma was associated with support for the Liberal Party, but this trend has shifted, with the Conservatives now drawing significant support from the less-educated voters. Additionally, longitudinal analyses of education's impact on NDP support show that these effects are sporadic and inconsistent (Kay and Perrella 2012, 123). As education increasingly shapes contemporary status hierarchies, its influence on redistributive politics in knowledge economies becomes crucial. In recent years, increasing attention has been given to the shifting relationship between education and attitudes toward economic redistribution. For instance, conventional political-economic models, which perceive education primarily as a labour market asset, predict that the more securely educated are more likely to oppose redistribution, ostensibly due to economic self-interest (e.g., Alesina and Giuliano 2011; Gelepithis and Giani 2022; Bullock 2020).

Education, Political Behaviour, Vote Choice, and Support for Redistribution

The relationship between education and political behaviour, particularly as it pertains to electoral participation and vote choice, has long been established and is well-documented in the literature (Persson 2015; Leighley and Nagler 2013). For instance, seminal research by Campbell et al. (1960) and Verba et al. (1995) have underscored the positive relationship between educational attainment and turnout. This relationship implies that more educated individuals are predisposed to pro-social behaviour and perceive voting as a civic duty (Leighley and Nagler 2013). However, education's role in electoral politics extends beyond just influencing voter turnout and political participation (Dassonneville 2022, 32). Specifically, Ford and Jennings (2020, 300-302) argue that education has the potential to evolve into a significant cleavage influencing voting behaviour, driven by the rapid expansion of higher education in established democracies.

Recent studies indicate that the educational divide not only sustains traditional political divisions but also significantly shapes attitudes toward emerging socio-cultural conflicts. This growing divide fosters the formation of group-based identities, which in turn influence electoral behaviour and political outcomes (Bornschier et al. 2021; Ares et al. 2021; Hooghe and Marks 2018; Stubager 2009).[5] This development suggests that education now forms the structural basis of a new "liberal-authoritarian" cleavage (Lachat 2017). Similarly, Stubager (2009) notes that the divide between more and less educated groups represents a new significant cleavage, often explaining ideological differences on issues related to the liberal-authoritarian spectrum, such as multiculturalism, immigration and environmentalism. Dassonneville (2022) further notes that the educational divide is most apparent in voting preferences for parties that take clear positions on these liberal-authoritarian issues or other emerging political dimensions. Recent key electoral events, such as the Brexit referendum, have underscored these educational disparities, with higher-educated voters more inclined to support the "Remain" side (Hobolt 2016, cited in Dassonneville 2022, 40).

More specifically, when it comes to attitudes expected to shape electoral behaviour, new research has found that the influence of education is particularly pronounced on issues related to the welfare state and redistribution (Marshall 2019; Attewell 2021; Bullock 2020). Traditional models relying on "material self-interest" have typically aligned higher education with support for political parties that advocate classical liberal or conservative ideologies, generally characterized by their opposition to expansive welfare state policies. Conversely, individuals with lower levels of education, who more frequently encounter economic vulnerabilities and financial hardship, tend to support left-leaning or social democratic parties—those championing extensive welfare measures (Kitschelt and Rehm 2022). However, this conventional view is increasingly under scrutiny, as recent studies have been challenging this perspective by recognizing

[5] Although a detailed examination of this element goes beyond the scope of this thesis, it is important to recognize that education has substantially influenced electoral politics by facilitating a "compositional shift in the electorate" through the widespread expansion of higher education (Ford and Jennings 2020, 300).

education not just as a labour market asset but also as an important marker of social status, conditioning social affinity and empathy.

Consequently, the impact of education on political preferences is evolving and is increasingly seen as distinct from the influence of income alone (Gethin et al. 2021). This alternative perspective posits that, as individuals strive to avoid being perceived as the lowest in social hierarchies, lower-status groups may uphold the existing social order to ensure their continued distinction from the most stigmatized populations at lower social echelons (Elchardus and Spruyt 2011; Gidron and Hall 2017). In an effort to preserve "social esteem," this behaviour leads such groups—often those with lower educational attainment—to adopt negative views on the "deservingness" of welfare recipients, sometimes backing far-right, welfare chauvinistic, or even anti-welfare parties as a way to distance themselves from those they consider "undeserving" recipients.[6] Conversely, individuals who are more securely positioned socially, such as university graduates, may be more inclined to support broader state interventions and demonstrate greater empathy toward people in need.

The two theoretical approaches—the material self-interest model and the social affinity model—illustrate how educational attainment shapes attitudes toward welfare, aligning with Cavaillé and Trump's (2015) two-dimensional model for understanding redistributive attitudes: perceptions of the welfare state's scope ("welfare *state"*/"r*edistribution from*") and beliefs about the deservingness of its recipients ("*deservingness"*/"*redistribution to*"). Applying this framework, Attewell (2021) analyzed redistributive attitudes in 15 European democracies and found that higher education levels typically align with more compassionate views regarding the deservingness of welfare recipients. However, these compassionate views often coexist with skepticism toward expanded welfare policies, aligning with predictions from the

[6] This concept, known as "last-place aversion," has been demonstrated to influence attitudes toward redistribution in experimental settings (Kuziemko et al. 2014).

material self-interest model. On the other hand, individuals with lower educational levels tend to be more critical of welfare recipients, frequently questioning their deservingness, yet they are more likely to support broader and more generous welfare policies.

According to Attewell (2021), the electoral implications of these findings are clear, as they demonstrate how diverging attitudes toward the welfare state and the deservingness of its recipients can mediate the effects of education on party support. The author finds that education can substantially impact voting behaviour in favour of radical right and green parties, especially in settings where educational disparities are most pronounced. This influence is primarily driven by attitudes toward "*deservingness*," indicating that the "*redistribution to*" dimension is a more potent mediator in shaping vote choices among voters of different educational levels. While Attewell (2021) acknowledges that "*redistribution from*" attitudes can mediate the impact of education on vote choice within certain party families, the effectiveness of this dimension as a mediator across the entire political spectrum remains ambiguous. Hence, while "*redistribution from*" may explain the tilt of voters with lower levels of education toward radical right parties over conservative ones, his analyses also indicate that "the higher educated are not on average more likely to vote for conservative or liberal parties as a result of their relative opposition to the welfare state" (Attewell 2021, 1091).

The Canadian Context: Educational Cleavage and Redistributive Preferences among Voters

In Canada, the relationship between education and redistributive politics remains notably understudied, leaving a substantial gap in understanding how education influences voting behaviour independently of class (Gidengil 2022). However, recent research indicates a transformative shift in Canadian voting patterns that aligns with global trends in post-industrial democracies. Traditional class-based voting is giving way to cleavages based on education, income, and cultural values. Notably, there has been a discernible pivot among the working class toward the Conservative Party of Canada, a trend gaining momentum since at

least 2004 (Polacko et al. 2022).[7] Analyses by Kiss et al. (2023) further illuminate these evolving changes. While their findings confirm that support for redistribution among lower earners is in line with international trends, they note that the magnitude of this difference is moderate compared to other countries and that this relationship is much more complex than it initially appears. However, it is important to note that Kiss et al. (2023) measured attitudes toward redistribution using only a single survey item question tapping indirectly into material self-interest,[8] a method which, as Cavaillé and Trump (2015) suggest, may not fully capture the full extent of attitudes pertaining to redistribution.

Kiss et al. (2023) also underscore a major shift within Canadian politics, demonstrating an emerging divide: individuals with higher education levels increasingly align with the "left bloc" parties, whereas those with higher incomes tend to favour the Conservatives. According to the authors, this development marks a departure from Canada's traditional voting determinants, such as language, region and religion, and emphasizes education and income as key factors in shaping Canadians' electoral decisions. Additionally, the authors observe a growing disconnect between educational and income cleavages among voters, which parallels trends in other countries. They also note that education and income influence party support in distinct ways across the political spectrum, given that "educated voters are increasingly flocking to the Liberals, while poorer voters are turning to the NDP. The Conservatives, by contrast, are taking low-educated and richer voters." (Kiss et al. 2023, 10).

As for differences in attitudes toward redistribution, Kiss et al. (2023) demonstrate that, while citizens voting for parties of the "left bloc" generally advocate more strongly for the "*redistribution from*" dimension than the Conservatives, distinctions within this bloc are still pronounced. Specifically, NDP

[7] Similarly, in a recent study, Polacko et al. (2022) identified a pronounced class cleavage in Canada, noting that a growing affinity for redistributive policies is more closely linking workers with the New Democratic Party (NDP).
[8] The question used by Kiss et al. (2023) was: "How much do you think should be done to reduce the gap between the rich and the poor in Canada?"

voters are more supportive of "[reducing] the gap between the rich and the poor in Canada," compared to their Liberal counterparts. The authors also observe an educational divide within parties regarding support for the "*redistribution from*" dimension. Among NDP voters, those with higher education levels show significantly greater support for redistribution than their less-educated peers. In contrast, among Liberal voters, the relationship between education and support for redistribution is either reversed or insignificant. Within the Conservative Party, lower-income voters exhibit markedly higher support for redistribution than their higher-income counterparts. Similarly, lower-income Conservative voters show disproportionately higher support for the "*redistribution from*" dimension than their wealthier co-partisans, reflecting a significant internal class divide. When it comes to differences between provinces, Déry et al. (2024), through a longitudinal analysis spanning more than three decades, find that voters from Quebec, and to a lesser degree from the Atlantic provinces, exhibit significantly higher support for the "*redistribution from*" dimension and public services compared to other provinces. Additionally, outside Quebec, Conservative voters and wealthier individuals are considerably less supportive of public services and "*redistribution from*," underscoring pronounced regional and economic divides in public opinion.

The Canadian Context: Tapping into the "Redistribution to" Dimension

Déry et al. (2024) and Kiss et al.'s (2023) studies are informative in that they highlight how educational and income divides influence party preferences and attitudes toward the "*redistribution from*" dimension in Canada, showing how these attitudes have evolved over time. However, both studies primarily concentrate on this dimension, leaving the "*redistribution to*" dimension (i.e., attitudes toward recipients of redistribution) less explored. Addressing this gap, Harell et al. (2016) examine how racialization influences support for welfare policies among Canadian voters. Their investigation into public attitudes toward Indigenous recipients of social assistance uncovers how negative stereotypes and racial prejudices can diminish support for redistributive measures, particularly when these individuals are perceived as the

"primary beneficiaries" of given policies. Further analyses by Harell et al. (2022) expand on this discussion by examining how national identity and perceptions of minority commitment to the nation affect support for general and inclusive redistribution. Their findings indicate that a majority of Canadians often perceive minorities, including Indigenous peoples, native French speakers, and immigrants, as less "committed" to Canada. This perception acts as a major predictor of support for "inclusive redistribution," suggesting that beyond the majority's national identity, perceptions of minority commitment play a significant role in shaping attitudes toward welfare policies. All in all, these findings underscore within the Canadian context the importance of the "*redistribution to*," highlighted by Cavaillé and Trump (2015), indicating that attitudes toward recipients (e.g., minorities) significantly influence support for redistribution.

Objectives and Hypotheses

This study adopts the bi-dimensional framework of attitudes toward redistribution introduced by Cavaillé and Trump (2015), marking a novel approach in the analysis of attitudes toward inequalities in Canada. By distinguishing between "*redistribution from*" (the support for government-led redistribution of income, or the "welfare state dimension") and "*redistribution to*" (support for policies assisting welfare recipients, or the "deservingness dimension"),[9] I aim to assess the validity of this framework in Canada which encompasses "other-oriented" concerns (H1). While innovative in its application to Canadian politics, this distinction taps into a long-standing intuition within political science (Bartels 2008).

> **H1:** Canadians' attitudes toward redistribution are bi-dimensional, meaning that support for government-led redistribution of income ("*redistribution from*") is empirically distinct from support for policies aimed at assisting welfare recipients ("*redistribution to*").

Second, investigating the impact of educational attainment on support for welfare state policies and perceptions of welfare recipient deservingness among Canadian citizens offers a new perspective on

[9] In this thesis, "*redistribution from*" and "welfare state dimension" are used interchangeably. Likewise, "*redistribution to*" corresponds to the "deservingness dimension."

attitudes toward redistribution, as this operationalization has yet to be conducted in Canada. However, understanding the broader implications of the educational divide within Canada's knowledge economy and assessing how this divide shapes political behaviour and public policy preferences is of the utmost importance. Using principal component analysis to ensure the robustness of the operationalization of attitudes toward redistribution, I aim to investigate how education is linked to support for the welfare state and to positive or negative perceptions of welfare beneficiaries (H2 and H3). I hypothesize that higher education levels lead to reduced support for comprehensive welfare policies while encouraging more favourable views on the deservingness of welfare recipients. Conversely, I examine if lower educational attainment is associated with increased support for welfare interventions from the state, paired with more negative views on the deservingness of beneficiaries.

> **H2:** Higher education decreases support for extensive welfare policies, while lower educational levels lead to stronger support for state welfare interventions;
>
> **H3:** Higher education fosters more generous views on the deservingness of welfare recipients, while lower educational levels lead to stricter views on beneficiary deservingness.

The negative impacts of economic inequalities on democratic citizenship are well-documented (Gallego 2014). As such, understanding how the educational divide is associated (directly and indirectly) with electoral behaviour (H4) is fundamental. This includes examining how both dimensions of attitudes toward income redistribution mediate the relationship between education levels and support for parties that oppose their objective redistributive interests (H5). To capture the direct and indirect effects of education on voting behaviour, I make use of logistic regression models and the Karlson-Holm-Breen (KHB) method for mediation analysis. Furthermore, this study aims to determine whether perceptions of deservingness ("*redistribution to*") serve as a stronger mediator of education effects on vote choice compared to general welfare state support ("*redistribution from*") (H6). Prior research suggests that although the "welfare state dimension" (*redistribution from*") can mediate the effect of education on vote choice within specific party families, its mediating role is less significant and more ambiguous compared to the deservingness ("*redistribution to*") dimension. Therefore, Hypotheses 4, 5, and 6 are articulated as follows:

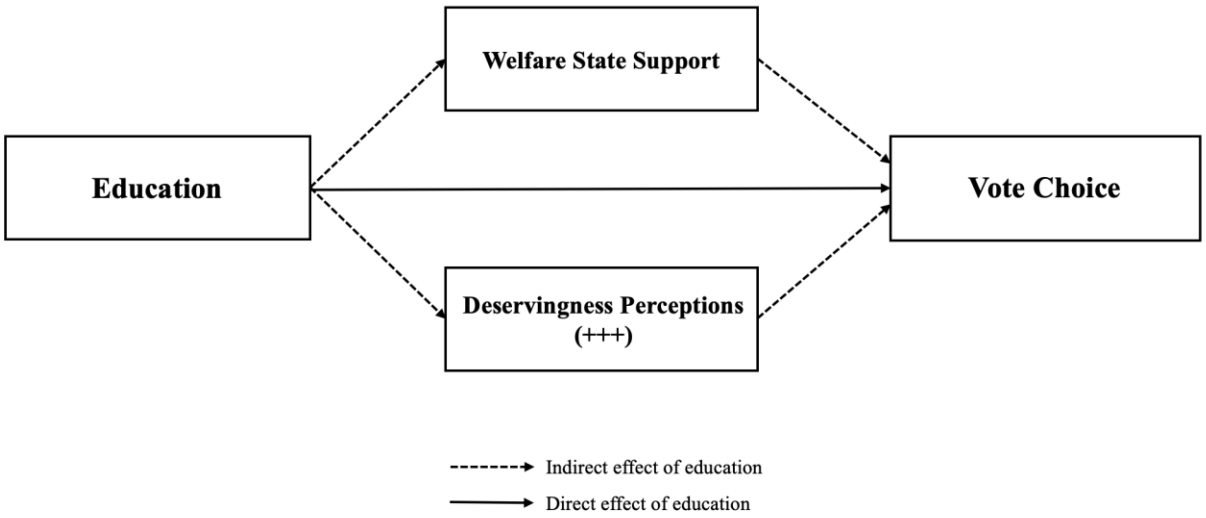
H4: Education has direct and indirect effects on vote choice;

H5: Conflicting attitudes pertaining to redistribution ("support for the welfare state"/"*redistribution from*" and "perceptions of deservingness"/"*redistribution to*"), reflecting an educational divide in the context of Canada's knowledge economy, are expected to mediate the relationship between education and voting behaviour;

H6: Perceptions of deservingness mediate the impact of educational attainment on vote choice, to a greater extent than attitudes toward the scope of the welfare state.

All in all, these six hypotheses can be summarized by the causal mechanism pictured in Figure 1:

Figure 1. Causal Pathways Illustrating the Impact of Education on Voting Behaviour through Attitudes Toward Redistribution



Notes. The symbol "(+++)" indicates a substantively stronger relationship.

Methodology

Data and Indicators

Methodologically, this paper makes use of data from the web panel component of the 2019 Canadian Election Study (CES) (Stephenson et al. 2020), which offers a rich source of information on Canadian citizens' political behaviour and attitudes, notably toward redistributive policies.[10] The CES dataset

[10] We are also focusing on the 2019 Canadian Election Study because analyzing the 2021 CES data could prove complicated. The proximity to the COVID-19 pandemic may have temporarily altered citizens' perceptions of inequality and attitudes toward

includes a battery of questions relevant to individuals' perceptions of income inequality, the role of government in redistribution, and social welfare, making them particularly suited for examining the hypotheses outlined above.

Survey Items and Operationalization of the Two Dimensions of Redistribution

To operationalize the two dimensions of attitudes toward redistribution, I make use of the survey items presented in Table 1 from the 2019 Canadian Election Study:

Table 1. Items of "Welfare State" and "Deservingness" from the 2019 CES

Survey Item	**Deservingness (*"Redistribution to"*)**	**Welfare State (*"Redistribution from"*)**
The government should take measures to reduce differences in income levels.		✓
Is income inequality a big problem in Canada?		✓
The government should: - *See to it that everyone has a decent standard of living* - *Leave people to get ahead on their own* - *Don't know/ Prefer not to answer*		✓
People who don't get ahead should blame themselves, not the system.	✓	
The welfare state makes people less willing to look after themselves.	✓	
If people really want to work, they can find a job.	✓	

First, questions loading onto the "welfare state" component (i.e., "*redistribution from*") assess attitudes toward income inequality and the extent of government responsibility in mitigating economic disparities through social and economic state policies. Above all, these indicators tap into self-interest by assessing their potential personal gain from redistribution policies (Bullock 2020). Second, Attitudes toward deservingness (i.e., "*redistribution to*") involve judgments about the behaviour and attitudes of welfare recipients, reflecting social affinity or disdain toward those receiving benefits and their perceived sense of

redistribution, which could affect the consistency of my analysis. Additionally, the 2021 CES is missing several key questions tapping into both dimensions of redistribution, making it less comprehensive.

personal and social responsibility. Depending on the dimension into which these items fall, they are then summed into the "deservingness" and "welfare state" indexes and standardized between 0 and 1. The coding specifics for each of these items are presented in Table A2 of the Appendix.

Dependent Variable: Vote Choice

In this thesis, the main analyses consider all individual major federal parties that achieved a minimum of 1.5% of the national vote in the 2019 federal election.[11] This includes the Liberal Party of Canada (LPC), the Conservative Party of Canada (CPC), the New Democratic Party (NDP), the Green Party of Canada (GPC), the People's Party of Canada (PPC), and the Bloc Québécois (BQ) in Quebec. Each party is evaluated separately, with party-vote coded as a dichotomous dependent variable in a multinomial logistic regression. The distribution for each party is summarized in Table A1 of the Appendix.

Independent Variable: Education

The 2019 Canadian Election Study provides detailed information on respondents' highest level of educational attainment, allowing for a fine-grained analysis of how different levels of education influence attitudes toward redistribution and vote choice (Stephenson et al. 2020). As the key independent variable, education is classified into six categories. The first category encompasses respondents with no formal education up to a high school diploma. The second category consists of individuals who have undergone some CEGEP (in the case of Quebec) or college education, yet have not earned a post-secondary degree. The third category is designated for individuals holding a post-secondary degree, but who haven't attended university. The fourth category includes those who have undertaken some university without getting a

[11] My approach to operationalizing vote choice differs from that of Gethin et al. (2021) and Attewell (2021), who categorized political parties into "families" based on their historical and ideological lineage. This is primarily because my focus is specifically on the Canadian political landscape. However, in the first robustness check, the operationalization of "voting blocs" adopts a similar classification strategy.

Bachelor's degree. The fifth category encompasses respondents whose highest earned degree is a Bachelor's degree. The sixth and final category is reserved for individuals with Master's, Professional Degrees or Doctorates. This detailed classification is intended to identify potential non-linear relationships between educational attainment and both redistributive preferences and voting behaviour. The raw frequencies for each category are presented in Figure A1 of the Appendix.

Modelling Approach

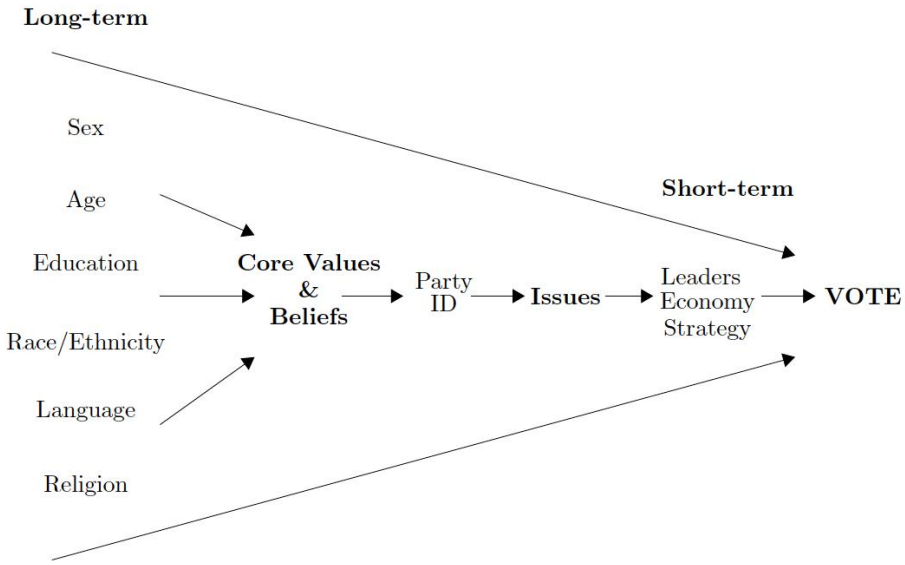
Our analysis follows four main steps. First, to investigate the bi-dimensional nature of attitudes toward redistribution in Canada and evaluate the reliability of the two "redistribution" indexes, we use Principal Component Analysis (PCA) with varimax rotation. This approach improves the interpretability of the components by maximizing the variance of loadings within each component, making it easier to assign variables to components and clearly distinguish between them (Greenacre et al. 2022). Additionally, I present the weighted means of both dimensions across different education levels.

Second, the relationship between educational attainment and the two primary dimensions of redistribution attitudes (i.e., deservingness perceptions and welfare state support) is assessed using Ordinary Least Squares (OLS) regressions. These models incorporate region-fixed effects and clustered standard errors to account for geographic and unobserved variations, ensuring accurate reflection of variance within regions. Additionally, demographic controls, as outlined in the "Controls and Robustness Checks" section of this paper, are included in the analysis.

Third, to estimate the overall effect of education on vote choice, the study of Canadian elections predominantly employs the "multistage" or "block-recursive" model developed by Miller et al. (1996), which is based on the "funnel of causality" initially introduced by Campbell et al. (1960), as depicted in

Figure 2 for the Canadian context. This model conceptualizes the causal relationships between explanatory variables and vote choice through a sequence of stages or blocks, with each block being causally prior to the subsequent stages (Bélanger et al. 2022, 24). Since I focus on the overall impact of education, I specifically control for variables in the initial block, which are also considered to be variables determining attitudes toward redistribution (Attewell 2021). This first block includes sociodemographic factors such as age, gender, region, class, religion, and language, which provide the foundational context for understanding electoral behaviour. These deeply rooted variables have both direct and indirect impacts on the outcome by influencing more proximate variables (e.g., attitudes toward redistribution). By concentrating on this block and subsequently analyzing the average marginal effects of education on vote choice, this first analysis aims to isolate the influence of education, while accounting for other sociodemographic variables.

Figure 2. The Multistage Model Applied to Canadian Politics



Source: Daoust and Gareau-Paquette (2023)

Fourth, I employ the Karlson-Holm-Breen (KHB) method for mediation analysis in non-linear logistic models (Valeri and VanderWeele 2013; Attewell 2021). In doing so, I am able to examine how "welfare state" and "deservingness" attitudes mediate the relationship between education and vote choice.

This statistical method allows for a decomposition of the total effect of education on vote choice into direct and indirect effects. Again, these regressions are the same sociodemographic controls detailed in the section below, and use standard errors clustered by region to account for autocorrelation of errors at the regional level, alongside region-specific fixed-effects to account for region-specific characteristics.

Controls and Robustness Checks

To avoid finding differences that would simply be attributable to differences in other individual-level characteristics when assessing the effect of education, I control for key demographic and sociopolitical variables that are consistent with the existing literature on attitudes toward redistribution (Attewell 2021; Cavaillé 2023), including gender, religious attendance, rural/urban location, age and region.[12] Additionally, I include controls for language and self-identification as a racial minority. These same demographic controls are applied in the analyses of vote choice, for reasons detailed in the "Modelling Approach" section. This approach ensures that the analysis accounts for potential confounding factors that could influence both redistribution attitudes and voting behaviour, beyond the impact of educational attainment. By controlling for these sociodemographic variables, it becomes possible to isolate the impact of education while holding these other factors constant. Furthermore, income is deliberately excluded as a control variable to avoid post-treatment bias or "overcontrol" (Elwert 2013, cited in Attewell 2021; Cavaillé 2023). This exclusion is justified by the understanding that income is a mediating variable significantly influenced by education, rather than a confounder in the relationship between education and political attitudes or voting behaviour. The distribution of all control variables is summarized in Table A1 of the Appendix.[13]

[12] In this paper, the ten provinces are regrouped into five "regions": the Atlantic Provinces, the Prairies, Quebec, Ontario and British Columbia. The three territories are excluded. I rely on this approach for statistical power purposes.
[13] Additionally, the question wording of every survey item can be found in Table A10 of the Appendix.

I also conduct a series of robustness checks to ensure the validity of these findings. First, for additional validation and statistical power purposes, I replicate each analysis of vote choice using two binary measurements as dependent variables. The first measurement assigns a value of "1" to votes for the "left bloc" (i.e., the LPC and NDP) as defined by Kiss et al. (2023), while "0" represents all other major parties. The second measurement assigns "1" to all country-wide parties outside of the "right bloc" (CPC and PPC), with "0" representing the right bloc. This approach also allows for a deeper understanding of differences within party blocs, a framework suggested by Kiss et al. (2023) in the Canadian context. As such, this strategy not only increases the statistical power of the analysis but also aligns with prior research that examines the influence of education on voting choices and attitudes toward redistributive politics (Kiss et al. 2023; Kitschelt and Rehm 2022).

Second, to address the differences between the federal party system (i.e., accounting for the Bloc Québécois's exclusive representation), the hypothesized differences in attitudes toward redistribution in Quebec compared to the rest of Canada (Déry et al. 2024) and the unique aspects of the education system in Quebec (e.g., the presence of CEGEP, three-year undergraduate degrees, lower tuition costs), I reproduce all models on the Quebec-only subsample (see Table A5). By conducting separate analyses on this subsample, I account for the specific regional dynamics within Canada.

Third, to incorporate the broader electorate and provide a more comprehensive understanding of voting in Canada, all mediation analyses are replicated to include abstainers. The results are shown in Table A6 of the Appendix. By including abstainers, this alternate analysis captures an important aspect of the relationship between education and voting behaviour, i.e., non-participation in the electoral process. This approach also accounts for a segment of the population that is often overlooked in electoral behaviour and the study of elections.

Fourth, to address the potential confounding effect of anti-immigration attitudes, which might overlap with the "deservingness" dimension, I provide alternative specifications of the KHB mediation analyses controlling for anti-immigration and nativist attitudes. I construct an "anti-immigration/nativism" index from four survey items that measure views on the impact of immigrants on Canadian culture, perceptions of immigrant-related crime rates, attitudes toward Canada's immigration policy, and opinions on federal spending for immigrants and minorities. Detailed descriptions and coding specifications for these items are available in Table A3 of the Appendix. This index exhibits high internal consistency, with a Cronbach's alpha of 0.84. All in all, this comprehensive approach aligns with the robustness checks implemented by Attewell (2021, 1093).

Finally, survey weights are applied in all analyses to ensure that the sample accurately represents the broader Canadian population. However, I also present KHB mediation analyses computed through unweighted logistic regressions in the Appendix. I present this alternate model specification for three main reasons. First, applying weights in this instance could potentially introduce bias if they are correlated with mediators or outcome variables, in ways not accounted for in the mediation. Second, survey weights could lead to distorted estimates, model misspecification and inaccuracies in the variance estimates of coefficients, which are deemed essential for partitioning effects in KHB analyses (Hong et al. 2018). Finally, given the small sample size and the use of binary dependent variables in the logistic regressions to operationalize vote choice, applying survey weights could significantly reduce statistical power (Bollen et al. 2016), a concern that is further exacerbated by the limited sample size within each combination of educational category and vote choice.

Results

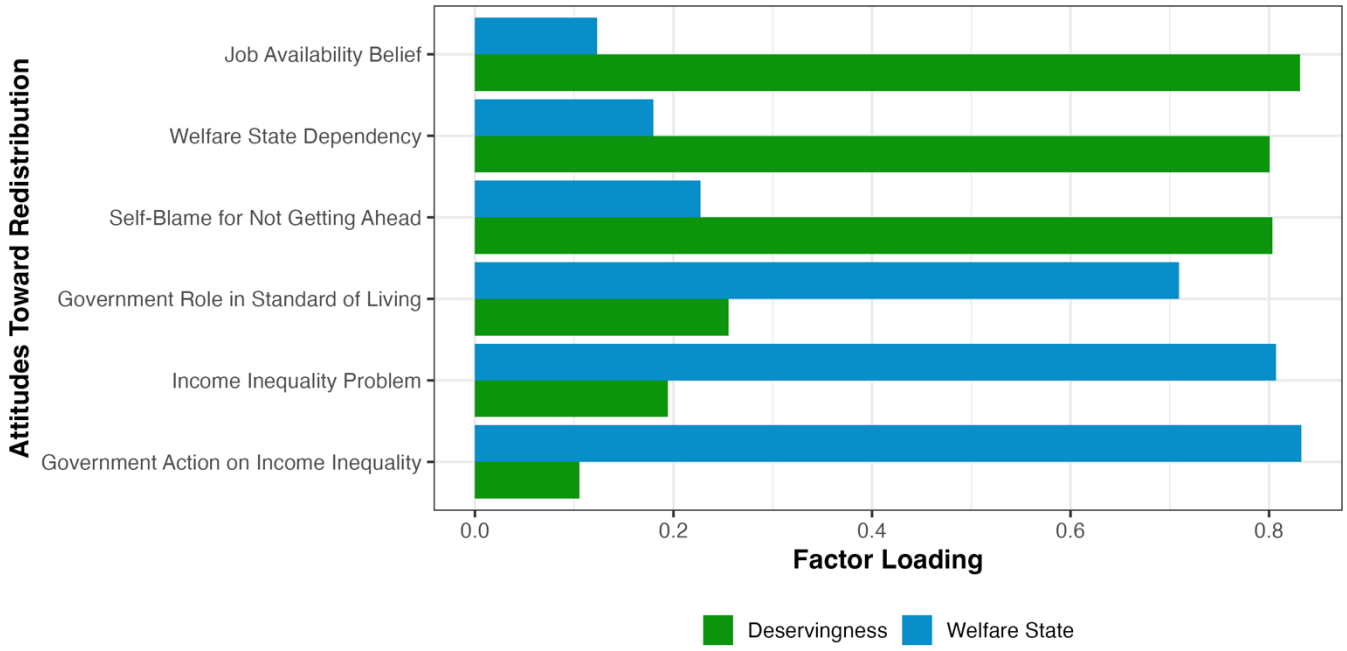
Principal Component Analysis

I begin by assessing whether the selected survey items accurately capture both "dimensions" of redistribution as delineated by Cavaillé and Trump (2015). Items loading onto the welfare state component (i.e., "*Redistribution from*") assess attitudes toward income inequality and the extent of government responsibility in mitigating (or annihilating) economic disparities through social and economic state policies. Higher values on welfare state indicate stronger support for government intervention in providing social services and ensuring a fairer income distribution. Conversely, attitudes toward deservingness (i.e., "*Redistribution to*") involve judgments about the behaviour and attitudes of welfare recipients, reflecting social affinity or disdain toward benefits recipients and their perceived sense of personal and social responsibility. Higher scores on this dimension suggest more sympathetic views toward individuals reliant on government support. The factor loadings for each dimension are shown in Table 2 and Figure 3 below:

Table 2. Rotated Factor Loadings for "Deservingness" and "Welfare State"

Survey Item	Deservingness	Welfare State
The government should take measures to reduce differences in income levels.	0.11	**0.83**
Is income inequality a big problem in Canada?	0.19	**0.81**
The government should: - *See to it that everyone has a decent standard of living* - *Leave people to get ahead on their own* - *Don't know/ Prefer not to answer*	0.26	**0.71**
People who don't get ahead should blame themselves, not the system.	**0.80**	0.23
The welfare state makes people less willing to look after themselves.	**0.80**	0.18
If people really want to work, they can find a job.	**0.83**	0.12

Figure 3. Rotated Factor Loadings for "Deservingness" and "Welfare State"



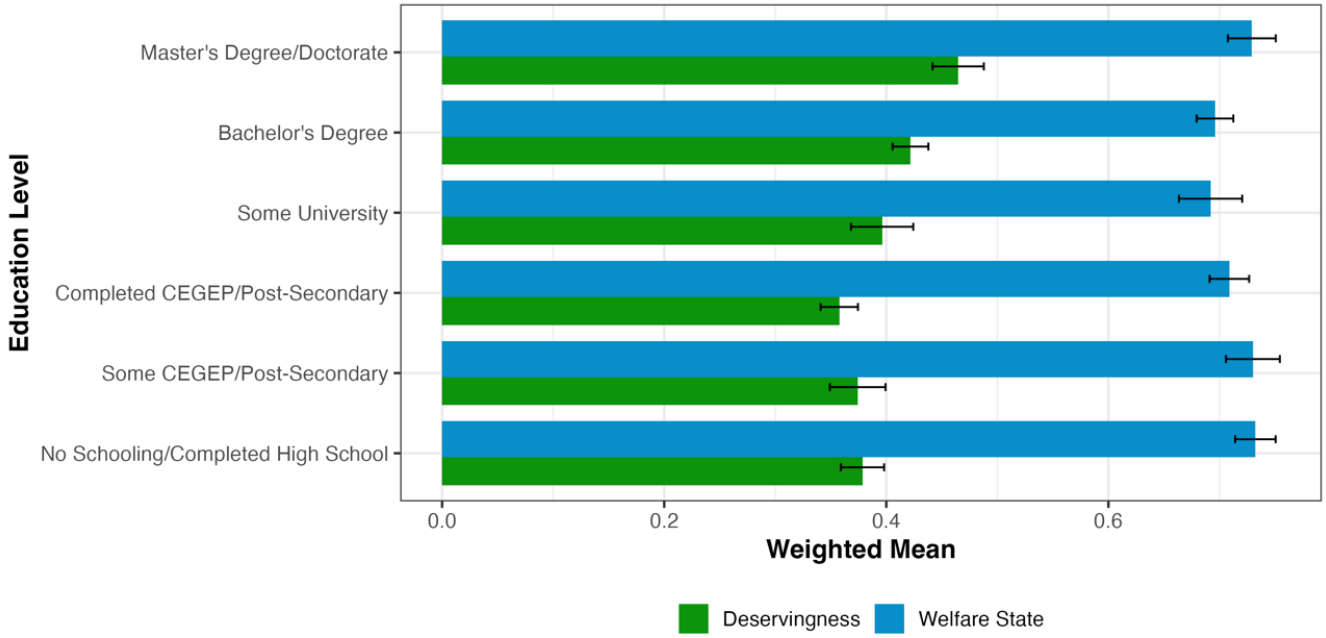
These results confirm the bi-dimensionality of attitudes toward redistribution in Canada. The principal component analysis demonstrates that feelings about the government's role in wealth and income redistribution and judgments about the deservingness of welfare recipients are two separate but important factors shaping Canadians' attitudes toward redistribution. In other words, those who support redistributive measures do not necessarily have favourable views toward welfare recipients, and similarly, individuals critical of the welfare state may still score high on the "deservingness" index. Finally, when these attitudes are amalgamated into two different indexes for the purpose of these analyses (i.e., "welfare state" and "deservingness"), the internal consistency of each index is confirmed by high Cronbach's alphas,[14] thereby affirming the appropriateness of these items in capturing the two intended dimensions.

[14] The Cronbach's alpha for the Welfare State dimension is 0.70, while the Cronbach's alpha for the deservingness dimension is 0.77.

"Welfare State" and "Deservingness" by Levels of Education: Descriptive Results

When comparing the scores of both indexes across education levels, intriguing patterns emerge, even when accounting for "composition effects." Figure 4 illustrates the weighted means of both indices across all six education levels, with 95% confidence intervals included:

Figure 4. Mean of "Deservingness" and "Welfare State" by Level of Education[15]



Notes. 95% confidence intervals included.

Starting with the "welfare state" dimension, all educational groups demonstrate notably high average scores compared to those in the "deservingness" dimension, indicating relatively widespread support for government involvement in income redistribution. The overlapping confidence intervals among all groups further underscore a general consensus on the matter, irrespective of educational attainment. Interestingly, when focusing on the means without considering confidence intervals, a distinctive U-shaped pattern emerges across education levels: those in the middle categories show the lowest levels of support, while those at the extremes—both the lower and higher ends of the education spectrum—display the highest

[15] Figure A2 presents these results in terms of deviation from the overall weighted sample mean.

levels. This pattern challenges the expected linear increase in support for the "welfare state" as education levels decrease. In fact, it suggests that while individuals at both the lower and higher ends of the education spectrum show higher support for redistributive policies, those in the middle categories display marginally less support. This deviation from the expected trend could indicate that the "economic self-interest" hypothesis, which posits that individuals with higher education are in higher income brackets, and thus display reduced support for redistribution, may not fully apply in the Canadian context.

Regarding the "deservingness" index, individuals with a Master's degree or Doctorate exhibit the highest mean scores, suggesting a more sympathetic view toward welfare recipients, consistent with higher educational attainment. This trend, more clearly illustrated in Figure A2 of the Appendix, supports the theoretical expectation that higher education fosters more positive views of socially vulnerable groups and individuals. Conversely, those with only some CEGEP or post-secondary education, as well as individuals with no schooling up to a high school diploma, show slightly lower mean scores, indicating a stricter stance on the deservingness of welfare recipients. This pattern aligns with the notion that these individuals may feel the need to distinguish themselves from welfare beneficiaries to maintain their social status.

The differences between support for the welfare state and positive perceptions of deservingness across various educational levels are detailed in Table 3. These results indicate that the largest disparity between these two indices occurs among individuals with lower education levels, with this gap gradually closing as educational attainment increases, in a quasi-linear fashion. This trend aligns with Attewell (2021) and Cavaillé (2014), potentially indicating that educational groups are "cross-pressured."

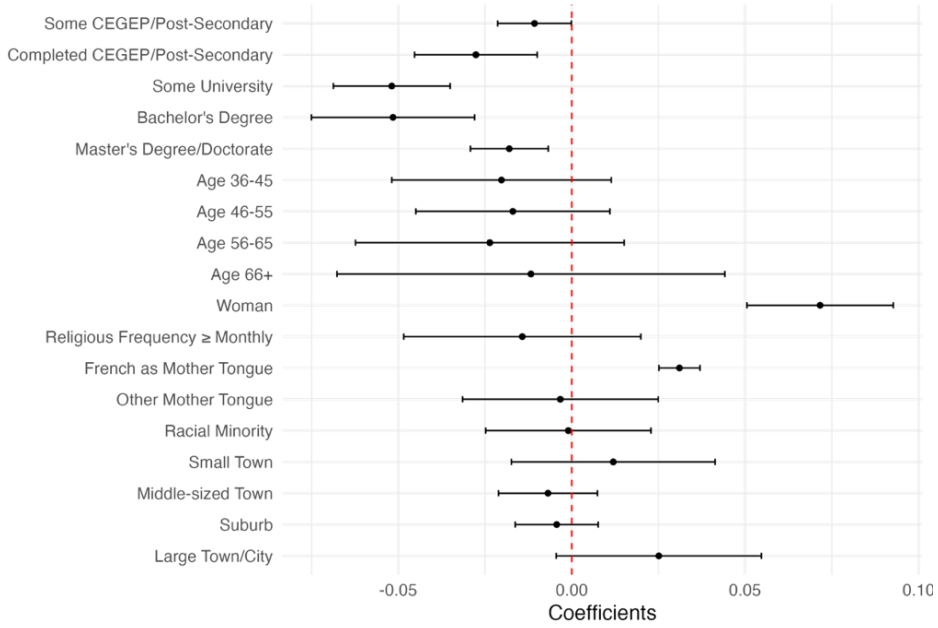
Table 3. Comparative Analysis Across Education Levels

Education Level	Difference between the two average means
No Schooling/Completed High School	0.36
Some CEGEP/Post-Secondary	0.35
Completed CEGEP/Post-Secondary	0.35
Some University	0.30
Bachelor's Degree	0.27
Master's Degree/Doctorate	0.27

Assessing the Determinants of "Welfare State" and "Deservingness"

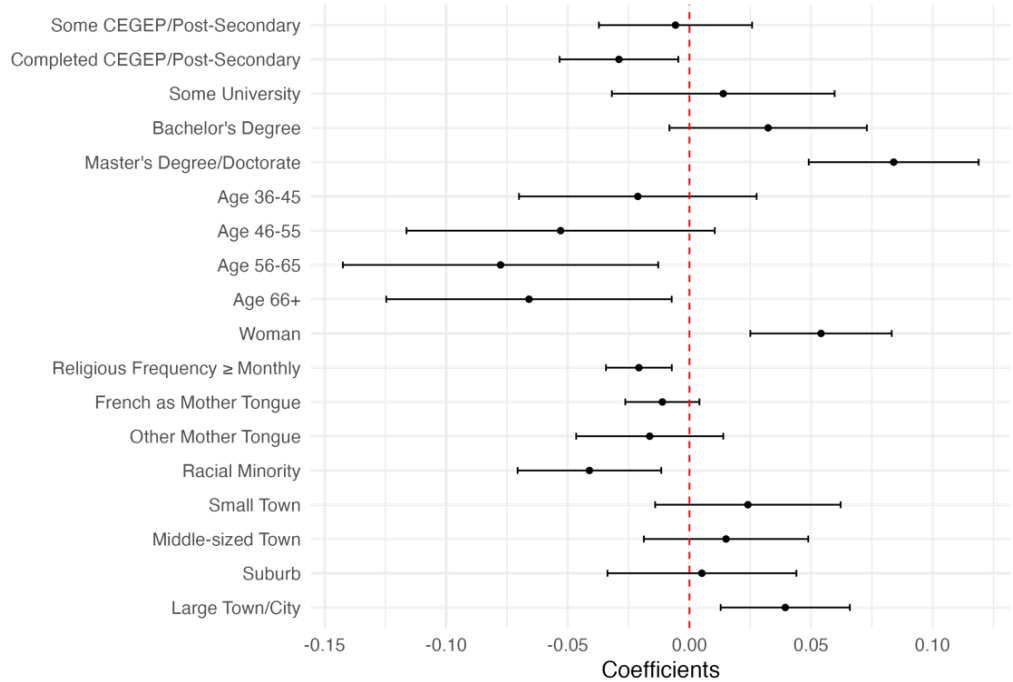
However, interpreting these descriptive results at face value may lead to misleading conclusions, notably because of "composition effects." While exploring the influence of education on attitudes toward the "welfare state/redistribution from" and "deservingness/redistribution to" dimensions, additional factors, such as socioeconomic status, age, language and geographic location, could significantly impact attitudes toward redistributive policies and their beneficiaries. For instance, older individuals or those residing in regions with higher unemployment may have different views on the deservingness of welfare recipients compared to younger individuals in economically vibrant areas. To address this, I assess the relationship between educational attainment and the two primary dimensions of redistribution attitudes using Ordinary Least Squares (OLS) regression models. I incorporate region-fixed effects and clustered standard errors, accounting for geographical and unobserved variations. Additionally, the inclusion of sociodemographic controls (i.e., age, gender, religious attendance frequency, language, whether the respondent identifies as a racial minority, and rural-urban context) consistent with the existing literature on attitudes toward redistribution accounts for potential confounding factors that might otherwise skew the relationship between education and attitudes toward redistribution. Figure 5 presents the determinants of the "welfare state" index, while Figure 6 focuses on the "deservingness" index. Both regressions are available in Table A4 of the Appendix.

Figure 5. Determinants of the "Welfare State/Redistribution from" Dimension



Notes.95% confidence intervals included. Complete regression output is presented in Table A4 of the Appendix. The reference Category for education is "No schooling/completed high school."

Figure 6. Determinants of the "Deservingness/Redistribution to" Dimension



Notes.95% confidence intervals included. Complete regression output is presented in Table A4 of the Appendix. The reference Category for education is "No schooling/completed high school."

For both models, the reference level for education is "No schooling/completed high school." The dependent variable ranges between 0 and 1, where higher values indicate stronger support for government-led redistribution. From Figure 5, the OLS regression results again indicate a U-shaped relationship between education and support for the welfare state. That is, educational attainment is a significant predictor of support, but not necessarily in a linear fashion. The model indicates that individuals with completed CEGEP/Post-secondary education, some university education, or who hold a Bachelor's degree show a statistically significant decrease in support for welfare state policies relative to those with no schooling or a completed high school education, with coefficients of -0.03 ($p < 0.05$), -0.05 ($p < 0.01$) and -0.05 ($p < 0.05$), respectively. This suggests that these groups might be more skeptical of redistributive policies. Interestingly, individuals with a Master's degree or Doctorate display a smaller (yet significant) decrease in support (-0.02, $p < 0.05$). Furthermore, several sociodemographic variables show notable effects on attitudes toward the welfare state. Women, for instance, are significantly more supportive of welfare policies than men (0.07, $p < 0.01$). Similarly, individuals who speak French as their mother tongue exhibit a higher level of support for the welfare state, with a coefficient of 0.03 ($p < 0.001$).

Figure 6 explores the determinants of attitudes toward the "deservingness" dimension. The relationship between education and attitudes toward the deservingness of welfare recipients presents mixed results. Individuals with some CEGEP/post-secondary or who completed CEGEP/post-secondary education show a significant decrease in support for welfare recipients, with coefficients of -0.01 and -0.03 ($p < 0.05$), respectively, indicating a decrease by these units. Conversely, those with higher educational attainment, specifically a Master's degree or Doctorate, exhibit a significant increase in support (coefficient of 0.08, $p < 0.01$), suggesting an increase of 0.08 units in positive attitudes toward the deservingness of welfare recipients. Similar to the "welfare state" dimension, women show higher support in terms of "deservingness/Redistribution to," with a coefficient of 0.05 ($p < 0.01$), while regular religious attendance is associated with a decrease in support (coefficient of -0.02, $p < 0.05$), indicating that more frequent

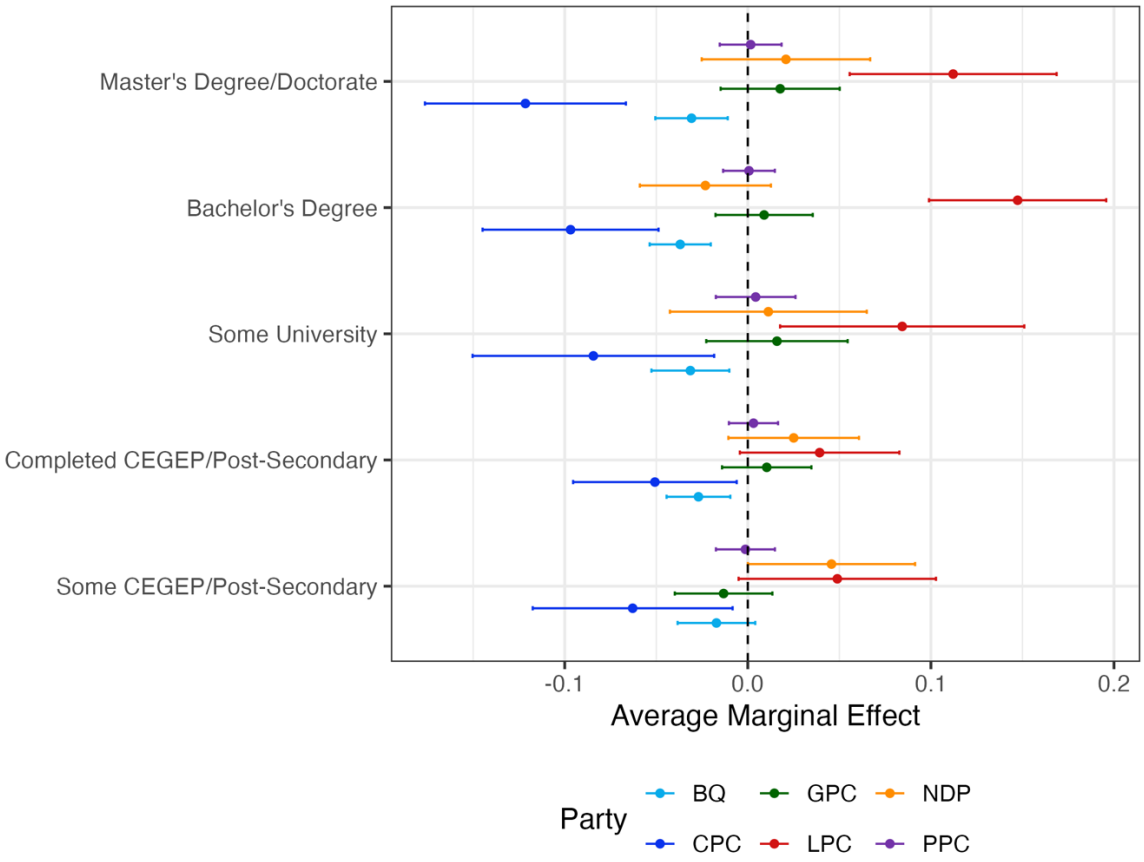
religious attendees tend to view welfare recipients as less deserving. Belonging to a racial minority is also associated with a decrease in support for welfare recipients (coefficient of -0.04, $p < 0.05$). Finally, older age groups, particularly those aged 56-65 and above 66, demonstrate less sympathy toward welfare recipients compared to the reference category (18-35 years old).

Overall, Figures 5 and 6 indicate that attitudes toward redistribution in Canada are indeed bi-dimensional, showing distinct patterns of association with various sociodemographic variables. Moreover, education plays a role in shaping these attitudes, in ways that are not strictly linear. This further reinforces the notion that the educational divide can influence both how Canadians view the welfare state and their attitudes toward beneficiaries of redistributive policies (albeit in different ways), with the "relationship patterns" between education and each dimension differing significantly.

Assessing the Magnitude of the Educational Cleavage in Vote Choice

Before addressing the implications of these findings for electoral politics in Canadian federal elections, it is essential to evaluate the impact of educational attainment on vote choice by analyzing the Average Marginal Effects (AMEs) of different education levels on vote choice, as depicted in Figure 7. By doing so, I establish the extent to which there is an educational cleavage pertaining to electoral behaviour in Canada. These AMEs, derived from a multinomial logistic regression, provide insights into how varying levels of education influence the likelihood of voting for specific political parties. The reference category for education is "No Schooling/Completed High School," and the analysis includes controls for key demographic and sociopolitical variables such as gender, racial minority status, urban-rural context, age, language, and region. In this instance, this approach aligns with the initial block of the "block-recursive" model, focusing on foundational sociodemographic factors.

Figure 7. The Impact of Education on Vote Choice



Notes. 95% confidence intervals included. Complete regression output is presented in Table A11 of the Appendix. The reference Category for education is "No schooling/completed high school."

First, the Liberal Party of Canada (LPC) benefits from higher educational attainment, with individuals holding a Bachelor's degree being 15 percentage points more likely to vote for the LPC compared to the reference group. Individuals with a Master's degree or Doctorate show an 11 percentage point statistically significant increase in their likelihood of voting for the LPC. Those with some university education also show an eight percentage point increase in support for the LPC. These three average marginal effects are statistically significant. Conversely, having completed or some CEGEP/Post-Secondary education does not significantly affect the likelihood of voting for the LPC.

Second, Figure 7 indicates a statistically significant negative relationship between higher educational attainment and the likelihood of voting for the Conservative Party of Canada (CPC) for all education categories. Individuals with a Master's degree or Doctorate are substantially less likely to support the CPC, with an AME of -0.12, indicating a 12 percentage point decrease in the probability of voting for this party, compared to the reference category. Similarly, possessing a Bachelor's degree results in a significant reduction in CPC support, with an AME of -0.1, reflecting a 10 percentage point decrease. On the other hand, those with some university education show an 9 percentage point decline in CPC support. Additionally, individuals with some CEGEP/Post-Secondary education and those who have completed CEGEP/Post-Secondary education exhibit significant negative effects on CPC support, with decreases of 6 and 5 percentage points, respectively. These findings highlight that higher educational levels are associated with reduced support for the CPC when compared to the baseline category ("no schooling or completed high school").

As for the Bloc Québécois, higher educational attainment is somewhat associated with a reduced likelihood of voting for the party. The average marginal effects are significant at the 95% confidence level for all educational categories except "Some CEGEP/Post-Secondary." Individuals with a Bachelor's degree are 4 percentage points less likely to vote for the BQ compared to those with no schooling or only a high school diploma. This trend persists among individuals with some university education and those with a Master's degree or Doctorate, both showing statistically significant reductions of 3 percentage points. Additionally, those who have completed CEGEP/Post-Secondary education demonstrate a significant 3 percentage point decrease in support for the BQ. This pattern indicates that individuals with higher educational attainment are less likely to support the Bloc Québécois, compared to those in the reference category.

Finally, for the New Democratic Party, the Green Party of Canada and the People's Party of Canada, educational attainment does not significantly influence voting behaviour. These results imply that individuals across various levels of education, from some post-secondary education to advanced degrees, do not exhibit significant differences in their likelihood to vote for these parties compared to those with no schooling or only a high school education. However, these results may be influenced by the relatively small sample sizes for these parties.

All in all, these average marginal effects highlight the ways in which educational attainment plays a crucial role in shaping voting preferences for Canadian political parties. Higher education levels are linked to decreased support for the Conservative Party and the Bloc Québécois, while significantly increasing the likelihood of voting for the Liberal Party. Conversely, the effects of education on support for the New Democratic Party, the Green Party, and the People's Party of Canada are not statistically significant. It is important to note that the small sample sizes for these parties, especially the Green Party and the People's Party, could be a contributing factor to these non-significant results. As such, educational attainment appears to be an important factor in Canadians' voting behaviour, though further research with larger sample sizes is necessary to confirm these findings across all political parties.

The Electoral Implications of Attitudes Toward Redistribution

Having established that there are two distinct dimensions of redistribution in Canada and that educational attainment influences these dimensions in different ways, as well as vote choice for major parties like the Conservative Party of Canada, the Liberal Party of Canada, and, to some extent, the Bloc Québécois, I now shift focus to understanding how attitudes toward income redistribution, mediated by educational attainment, shape voting behaviour. To capture both the direct and indirect effects (via the two dimensions of redistribution) of education on voting behaviour, I employ logistic regression models predicting vote

choice in combination with the Karlson-Holm-Breen (KHB) method for mediation analysis. I also seek to determine whether perceptions of deservingness ("*redistribution to*") act as a stronger mediator of education's impact on vote choice than general support for the welfare state ("*redistribution from*"). All logistic regressions include region-fixed effects and clustered standard errors. I first assess the model pertaining to the right bloc, followed by an examination of individual parties. Table 4 presents the direct and indirect effects of education on vote choice, disaggregated by political party. Following the approach outlined by Attewell (2021), education is modelled as a continuous variable, which simplifies the interpretation of its direct and indirect effects. The coefficients indicate the change in log odds of voting for each party linked to a one-unit increase in educational attainment.

Table 4. Direct and Indirect Effects of Education on Voting Behaviour by Party

Party	Total Effect of Education on Vote	Direct Effect of Education on Vote	Indirect Effect of Education on Vote	% of Total Effect Mediated by Welfare State	% of Total Effect Mediated by Deservingness
Liberal	0.138*** (0.010)	0.128*** (0.009)	0.010* (0.004)	-7.22%	14.41%
Conservative	-0.137** (0.029)	-0.121** (0.035)	-0.016* (0.008)	12.92%	24.68%
NDP	-0.005 (0.064)	NS	NS	NS	NS
Bloc Québécois	-0.248*** (0.068)	-0.238*** (0.068)	-0.010 (0.010)	NS	NS
Green	0.057 (0.044)	NS	NS	NS	NS
People's Party	0.001 (0.056)	NS	NS	NS	NS

Notes. + p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001. *N = 3499. KHB mediation analyses. "NS" means that, since the results from which these effects are computed are not significant, these values should not be reported.*

First, the total effect of education on vote choice (as shown in the first column) reflects the overall impact of education on voting in the model, without separating the influence of mediating variables. For the Liberal Party, this total effect is significant and positive, suggesting that higher educational attainment increases the likelihood of voting for the Liberals. Conversely, for the Conservative Party and the Bloc Québécois, the total effect is significant and negative, indicating that higher education reduces the

likelihood of voting Conservative. Notably, the direct effect of education (i.e., the second column), which isolates the impact of education on vote choice without considering the mediating effects of welfare state attitudes and perceptions of deservingness, aligns with the total effect but is less pronounced. This finding indicates that education independently decreases support for the Conservatives and Bloc Québécois and increases support for the Liberals, albeit to a lesser degree when mediating factors are excluded. For the New Democratic Party, Green Party, and People's Party, the total effects of education on vote choice are not significant, suggesting no definitive relationship between education and support for these parties. Again, it is important to note, that the lack of significant findings for these parties may be influenced by the relatively small sample sizes for these parties, which could limit the statistical power or robustness of these results. All in all, these findings are consistent with the trends highlighted in Figure 7, though the potential impact of sample size limitations should be considered in interpreting the results.

Third, the indirect effects capture the impact of education on vote choice, mediated through attitudes toward the welfare state and deservingness in the model. For the Liberal Party, the indirect effect is small but significant and positive, indicating that attitudes toward redistribution partially mediate the relationship between education and voting for the Liberals in the model. The Conservative Party shows a significant negative indirect effect, suggesting that education's influence on voting Conservative is mediated by less favourable attitudes toward redistribution. The indirect effects for the Bloc Québécois, NDP, Green Party, and People's Party are not significant, indicating that attitudes toward redistribution do not mediate the relationship between education and voting for these parties. However, these null results may again be due to the limited sample sizes.

Fourth, I examine the proportion of the total effect of education on voting that is mediated by attitudes toward the welfare state. For the Liberal Party, there is a suppression effect, with -7.22% of the total effect being mediated. This negative percentage indicates that more supportive welfare state attitudes

partially counteract the positive impact of education on Liberal support. For the Conservatives, 12.92% of the total effect is mediated by negative attitudes toward the welfare state, suggesting that these attitudes play a role in decreasing Conservative support among more educated individuals.

Finally, I focus on the total effect mediated by attitudes toward deservingness. For the Liberal Party, 14.41% of the total effect is mediated by positive deservingness attitudes, meaning that more educated individuals are more likely to support the Liberals due to their sympathetic views toward welfare recipients. For the Conservative Party, 24.68% of the total effect is mediated by deservingness attitudes, indicating that less favourable views on deservingness contribute significantly to the negative relationship between education and Conservative support. Overall, Table 4 highlights critical findings. While education is significantly associated with vote choice for the Liberal and Conservative parties, there are notable mediation effects through attitudes toward redistribution. Notably, for both parties, the "deservingness" dimension plays a more significant role than the "welfare state" dimension in mediating the effects of education.

Robustness Checks

The results presented in Table 4 show interesting parallels and contrasts with findings by Attewell (2021) in his study of the European context, particularly regarding indirect effects. For instance, the patterns for the Liberal Party in Canada resemble those observed for Green parties in Europe, where the "welfare state" dimension exhibits "suppression effects" on the total effect mediated by attitudes toward the welfare state, with more substantial positive effects through the "deservingness" dimension. However, I also find notable differences in the Canadian context. Unlike Attewell's findings of significant indirect effects for radical right parties in Europe, the analysis reveals no such effects for the People's Party, which aligns most closely with the description of a "right-wing populist party" in Canada (Erl 2021). Conversely, significant indirect

effects are observed for mainstream parties in Canada, contrasting with the lack of such effects for the "Conservative" and "Liberal" party families in Europe (Attewell 2021). To enhance statistical power, account for the limited number of respondents who voted for the People's Party (in the "right bloc") and the Greens (in the "Left Bloc") and explore the hypothesis that these mechanisms may align with a "party family" logic, I conduct a robustness check following the "party bloc" approach outlined by Attewell (2021) and Kiss et al. (2023) in the Canadian context. This involves grouping federal parties into two blocs: the "right bloc" and the "left bloc," which allows for a more aggregated analysis of voting behaviour and mediation effects. These results are presented in Table 5.

Table 5. Direct and Indirect Effects of Education on Voting Behaviour

Bloc	Total Effect of Education on Vote	Direct Effect of Education on Vote	Indirect Effect of Education on Vote	% of Total Effect Mediated by Welfare State	% of Total Effect Mediated by Deservingness
Right Bloc	-0.163***	-0.129***	-0.034**	8.94%	29.58%
	(0.026)	(0.026)	(0.012)		
Left Bloc	0.181***	0.148***	0.033**	-7.26%	25.31%
	(0.024)	(0.025)	(0.011)		

Notes. + p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001. *N = 3499. KHB mediation analyses. "Right Bloc" = Conservative Party of Canada and People's Party of Canada. "Left Bloc" = Liberal Party of Canada and New Democratic Party*

First, the right bloc, which includes the Conservative Party of Canada and the People's Party of Canada, demonstrates a negative and statistically significant total effect of education on vote choice. This implies that higher educational attainment is associated with a decreased likelihood of voting for right-bloc parties. The direct effect of education on vote choice remains significant even when controlling for attitudes toward the welfare state and deservingness, highlighting that education independently affects voting behaviour for the right bloc. The indirect effect, mediated by attitudes toward redistribution, is also statistically significant, though it is smaller in magnitude. This suggests that education influences vote choice indirectly by shaping attitudes toward redistributive policies. The mediation analysis indicates that attitudes toward the welfare state and deservingness mediate 8.94% and 29.58% of the total effect of education on voting

for the right bloc, respectively. These results underscore that perceptions of deservingness play a more crucial mediating role than general support for the welfare state, which is, again, consistent with Attewell's (2021) findings in the European context. Furthermore, the effects observed for the "Right Bloc" are more pronounced compared to the findings for the Conservative Party alone in Table 4, suggesting that the lack of significant effects for the People's Party might be due to limited statistical power.

I now turn to the left bloc, consisting of the Liberal Party of Canada and the New Democratic Party. In this instance, education has a significant and positive total effect on vote choice, meaning that educational attainment increases the likelihood of voting for left-bloc parties. The direct effect of education, controlling for mediating attitudes, also remains significant, indicating that education directly influences voting behaviour for the left bloc. The indirect effect, mediated by attitudes toward the welfare state and deservingness, is significant, suggesting that education impacts vote choice by shaping supportive attitudes toward redistribution. Specifically, the mediation effect through attitudes toward the welfare state is slightly negative at -7.26%, suggesting that while educated individuals might be somewhat skeptical of expansive welfare policies, this skepticism does not substantially detract from their overall likelihood of voting for the left bloc. More notably, 25.31% of the total effect is mediated by positive attitudes toward deservingness, indicating that education leads to greater support for the left bloc because educated voters are more likely to hold sympathetic views toward welfare recipients. As for the "Right Bloc" and the CPC, the effects observed for the "Left Bloc" are substantively more important than those seen for the Liberal Party alone, as presented in earlier analyses. These findings suggest that it might be possible to detect effects for the NDP as well, if not for the constraints imposed by limited statistical power. Overall, the results by "party blocs" indicate that educational attainment plays a significant role in shaping support for both right and left-bloc parties, albeit in different ways.

As a second robustness check, I conduct the same analyses found in Table 4 on the Quebec-only subsample. These results, presented in Table A5 of the Appendix, suggest that educational attainment does not significantly influence vote choice through attitudes toward redistribution in Quebec. However, concerns regarding the sample size may limit the robustness of these findings.

Third, when abstainers are included in the analysis (Table A6), the overall findings of Table 4 remain largely consistent, with the key difference being the identification of significant total and direct effects for the Green Party. However, no significant indirect effects are observed for this party.

Fourth, to address the potential confounding influence of anti-immigration attitudes, which may intersect with the "deservingness" dimension, I incorporate an "anti-immigration/nativism" index into the KHB mediation analyses as an alternate specification (Table A7). As a reminder, this index is constructed from four survey items (measuring views on the impact of immigrants on Canadian culture, perceptions of immigrant-related crime rates, attitudes toward Canada's immigration policy, and opinions on federal spending for immigrants and minorities).[16] This robustness check confirms most previously observed effects, albeit major changes emerge.

For the Liberal Party, the total effect of education on voting remains positive and significant, even after controlling for anti-immigration attitudes. Interestingly, the direct effect of education on vote choice is higher than the total effect. This discrepancy arises due to a "suppression effect" mediated by attitudes toward the welfare state, where the positive impact of education on voting Liberal is partially counterbalanced by skepticism toward welfare policies. Consequently, the indirect effect through welfare state attitudes becomes negative, albeit still statistically significant. This suggests that, once anti-

[16] Their detailed descriptions are available in Table A3 of the Appendix.

immigration attitudes are accounted for, the positive relationship between education and Liberal support is driven by factors other than attitudes toward the welfare state and deservingness. The negative mediation effect for the welfare state (-48.10%) implies that more educated individuals might be somewhat skeptical of broadening welfare policies when anti-immigration attitudes are factored in For the Conservative Party, both the total and direct effects of education on vote choice become non-significant after accounting for anti-immigration attitudes. This underscores the critical role of anti-immigration attitudes in explaining the educational divide in Conservative support, suggesting that educational attainment alone does not significantly influence the likelihood of voting Conservative once these attitudes are considered. This finding supports the "losers of globalization" hypothesis (Gidengil 2022, 921). Additionally, when anti-immigration/nativist attitudes are included in the model, the total and direct effects of education on voting for the People's Party become significant. This indicates that educational attainment is associated with a higher likelihood of supporting the People's Party, especially when considering anti-immigration sentiments.

Finally, omitting survey weights in the main analyses does not substantially impact the results (see Table A8 of the Appendix). The only notable change is that, consistent with previous findings, the Green Party shows positive and significant total and direct effects of education on vote choice.

Discussion and Conclusion

Building on the methodological approach outlined by Attewell (2021), this research sought to explore, identify and qualify the relationship between education, redistribution preferences, and voting behaviour within the Canadian context, using data from the 2019 Canadian Election Study. As such, the aim of this paper was threefold. First, by adopting the bi-dimensional framework of attitudes toward redistribution, this research marks the first application of this analytical approach in the context of Canada. More precisely,

by distinguishing between the "welfare state/redistribution from" (support for government-led redistribution of income) and "deservingness/redistribution to" (support for policies assisting welfare recipients) dimensions, I assessed the validity of this framework in Canada encompassing "material self-interest" and "other-oriented" concerns (H1). These findings confirm that Canadian attitudes toward redistribution are indeed bi-dimensional, with distinct attitudes toward the general scope of the welfare state and the deservingness of welfare recipients.

Second, I investigated how education is associated with support for the welfare state and perceptions of the deservingness of welfare beneficiaries. These hypotheses (H2 and H3) are largely confirmed, although the effects are not strictly linear. The analyses indicated that higher education levels are associated with reduced support for comprehensive welfare policies and more favourable views on the deservingness of welfare recipients. Conversely, lower educational attainment is associated with stronger support for state welfare interventions, coupled with more negative views on the deservingness of beneficiaries. This finding reflects in a striking way how citizens can be "cross-pressured" between material self-interest and social affinity motives.

Third, this thesis sought to provide a more comprehensive understanding of how education influences voting behaviour (H4). These analyses reveal the clear and significant direct effect of education on voting for most major parties, specifically the Conservative Party of Canada, the Liberal Party of Canada, and, to a lesser extent, the Bloc Québécois. The effects of education on vote choice are, again, non-linear, with higher educational attainment increasing support for the Liberal Party and decreasing support for the Conservative Party and Bloc Québécois. The analysis by "party blocs" showed that, if more respondents had indicated support for the People's Party or the Green Party, the statistical power would likely have been sufficient to reveal significant trends for these smaller parties as well. This implies that with a larger sample, we might have uncovered both direct and indirect effects of education on vote choice

for these two parties. Overall, these findings underscore the critical and potentially growing role of education in shaping vote choice, which aligns with the observed educational cleavage in Canada and other post-industrial democracies (e.g., Kiss et al. 2023).

Furthermore, I also explored how educational levels, mediated by the two dimensions of attitudes toward income redistribution, affect vote choice (H5). The results indicate that these attitudes serve as significant mediators for the CPC and the LPC. Notably, the "deservingness" dimension played a stronger mediating role than the "welfare state" dimension, suggesting that attitudes toward welfare recipients more substantively influence how educational attainment affects vote choice (H6). These findings, combined with the effects of "anti-immigration/nativist" attitudes uncovered in Table A7, align with Attewell's (2021) findings, as well as previous research indicating that perceptions of deservingness are critical in shaping political preferences, particularly in the context of the educational divide (e.g., Cavaillé and Trump 2015).

While this research could potentially provide interesting avenues for future research into the role of education in shaping attitudes toward redistribution and voting behaviour in Canada, it is not without limitations. One major limitation is the reliance on cross-sectional data and specific survey items from the Canadian Election Study. Future research should incorporate longitudinal data to better assess the evolution of the educational cleavage, attitudes pertaining to inequality and the mediating relationship and the mediating relationship that has been the focus of this study. Additionally, the non-linear effects of education on the two dimensions of redistribution and vote choice, suggest that these findings may be sensitive to the specific measures and categorizations of educational attainment used. Moreover, post-treatment bias, a common issue in studies examining the relationship between education and various outcomes, should also be taken into account. Finally, while this study emphasizes the educational cleavage, the relatively small

sample sizes within certain education categories, especially when crossed with vote choice, could constrain the generalizability of these findings.

Overall, this research aimed to provide a renewed understanding of attitudes toward redistribution in Canada and to illustrate how education shapes both the dimensions of redistribution and electoral behaviour. More broadly, scholars of inequality, both in Canada and internationally, should consider the competing interests of material self-interest and social affinity when analyzing political attitudes related to emerging challenges (e.g., the rise of welfare chauvinism [Greve 2019]) and new cleavages. Moreover, this thesis adds to the work pointing toward the increasing importance of education as a pivotal social and political divide in modern electoral politics within post-industrial democracies. Nonetheless, it is crucial to acknowledge that attitudes toward inequality are just one of many potential mediators influencing the relationship between education and vote choice. This study highlights the significance of the two dimensions shaping attitudes toward redistribution, emphasizing their role but not excluding the potential impact of other variables.

Reflecting on the evolution of the Canadian partisan system, Johnston (2017) noted that language, region, and religion were the primary structuring factors throughout the 20th century. However, he also posited that these cleavages may not sufficiently explain the transformations anticipated in the 21st century. The findings presented in this thesis, alongside emerging research on the Canadian context (e.g., Polacko 2020; Polacko et al. 2022; Kiss et al. 2023), increasingly underscore the significance of education as one of the most influential divides of our time. This shift aligns with broader trends observed in post-industrial democracies, suggesting that Canada is poised to follow a similar trajectory where educational attainment becomes a pivotal determinant of political and electoral behaviour.

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APPENDIX

Appendix A: Table A1. Descriptive Statistics

		Percent	N
Vote 2019	Bloc Quebecois	4.46	156
	Conservative	33.92	1187
	Green Party	7.46	261
	Liberal	35.72	1250
	NDP	16.49	577
	People's Party	1.94	68
Education	No Schooling/Completed High School	15.92	557
	Some CEGEP/Post-Secondary	10.00	350
	Completed CEGEP/Post-Secondary	21.23	743
	Some University	10.15	355
	Bachelor's Degree	27.18	951
	Master's Degree/Doctorate	15.52	543
Age Group	18-35	15.00	525
	36-45	13.52	473
	46-55	16.63	582
	56-65	24.72	865
	66 +	30.12	1054
Gender	Man	49.79	1742
	Woman	50.21	1757
Religious Attendance	Never/Almost never	82.25	2878
	Once a month or more	17.75	621
Racial Minority	Other	84.02	2940
	Racial Minority	15.98	559
Language	English	68.91	2411
	French	25.69	899
	Other	5.40	189
Urban – Rural Cleavage	A rural area or village	10.75	376
	A small town	11.80	413
	A middle-sized town	10.20	357
	A suburb of a large town or city	23.49	822
	A large town or city	43.76	1531
Region	Atlantic	8.15	285
	BC	13.23	463
	Ontario	40.33	1411
	Prairies	22.03	771
	Quebec	16.26	569

Appendix B: Table A2. Coding Specification for the "Welfare State" and "Deservingness" Items

Survey Item	Coding
The government should take measures to reduce differences in income levels.	Strongly disagree = 0; Somewhat disagree = 0.33; Neither agree nor disagree = 0.50; Somewhat agree = 0.66; Strongly agree = 1 Excluded: Don't know/ Prefer not to answer
Is income inequality a big problem in Canada?	Definitely yes = 1; Probably yes = 0.75; Not sure = 0.50; Probably not = 0.25; Definitely not = 0; Excluded: Don't know/ Prefer not to answer
The government should:	See to it that everyone has a decent standard of living = 1; Leave people to get ahead on their own = 0; Excluded: Don't know/ Prefer not to answer
People who don't get ahead should blame themselves, not the system.	Strongly disagree = 0; Somewhat disagree = 0.33; Neither agree nor disagree = 0.50; Somewhat agree = 0.66; Strongly agree = 1 Excluded: Don't know/ Prefer not to answer
The welfare state makes people less willing to look after themselves.	Strongly disagree = 1; Somewhat disagree = 0.66; Neither agree nor disagree = 0.50; Somewhat agree = 0.33; Strongly agree = 0 Excluded: Don't know/ Prefer not to answer
If people really want to work, they can find a job.	Strongly disagree = 1; Somewhat disagree = 0.66; Neither agree nor disagree = 0.50; Somewhat agree = 0.33; Strongly agree = 0 Excluded: Don't know/ Prefer not to answer

Appendix C: Table A3. Coding Specification for the "anti-immigration/nativism" index

Survey Item	Coding
Canada's culture is generally harmed by immigrants.	Strongly disagree = 0; Somewhat disagree = 0.33; Neither agree nor disagree = 0.50; Somewhat agree = 0.66; Strongly agree = 1 Excluded: Don't know/ Prefer not to answer
Immigrants increase crime rates in Canada.	Strongly disagree = 0; Somewhat disagree = 0.33; Neither agree nor disagree = 0.50; Somewhat agree = 0.66; Strongly agree = 1 Excluded: Don't know/ Prefer not to answer
Do you think Canada should admit:	More immigrants = 0; Fewer immigrants = 1; About the same number of immigrants as now = 0.5 Excluded: Don't know/ Prefer not to answer
How much should the federal government spend on immigrants and minorities?	Spend less = 1; Spend about the same as now = 0.5; Spend more = 0 Excluded: Don't know/ Prefer not to answer

Appendix D: Table A4. OLS with Country Fixed-Effects and Clustered Standard Errors

	Welfare State	Deservingness
Some CEGEP/Post-Secondary Ref = No Schooling/Completed High School	-0.011	-0.006
	(0.005)	(0.011)
Completed CEGEP/Post-Secondary Ref = No Schooling/Completed High School	-0.028*	-0.029*
	(0.009)	(0.009)
Some University Ref = No Schooling/Completed High School	-0.052**	0.014
	(0.009)	(0.016)
Bachelor's Degree Ref = No Schooling/Completed High School	-0.052*	0.032+
	(0.012)	(0.015)
Master's Degree/Doctorate Ref = No Schooling/Completed High School	-0.018*	0.084**
	(0.006)	(0.013)
Age Group: 36-45 Ref = 18-35	-0.020	-0.021
	(0.016)	(0.018)
Age Group: 46-55 Ref = 18-35	-0.017	-0.053+
	(0.014)	(0.023)
Age Group: 56-65 Ref = 18-35	-0.024	-0.078*
	(0.020)	(0.023)
Age Group: 66 + Ref = 18-35	-0.012	-0.066*
	(0.029)	(0.021)
Woman Ref = Man	0.072**	0.054**
	(0.011)	(0.010)
Religious Attendance: Once a month or more Ref = Never/Almost never	-0.014	-0.021*

	Welfare State	Deservingness
	(0.017)	(0.005)
Mother Tongue: French Ref: English	0.031***	-0.011
	(0.003)	(0.005)
Mother Tongue: Other Ref: English	-0.003	-0.016
	(0.014)	(0.011)
Racial Minority	-0.001	-0.041*
	(0.012)	(0.011)
Urban/Rural: Small town Ref: Rural area or village	0.012	0.024
	(0.015)	(0.014)
Urban/Rural: Middle-sized town Ref: Rural area or village	-0.007	0.015
	(0.007)	(0.012)
Urban/Rural: Suburb of a large town or city Ref: Rural area or village	-0.004	0.005
	(0.006)	(0.014)
Urban/Rural: Large town or city Ref: Rural area or village	0.025	0.039*
	(0.015)	(0.010)
Num.Obs.	4503	4522
R2	0.045	0.056
R2 Adj.	0.041	0.051
RMSE	0.25	0.25
Std.Errors	by: region	by: region
FE: region	X	X

+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Appendix E: Table A5. Direct/Indirect Effects of Education on Voting Behaviour (Quebec Only)

Party	Total effect of education on vote	Direct effect of education on vote	indirect effect of education on vote	% of total education effect mediated by *welfare state*	% of total education effect mediated by D*eservingness*
Liberal	NS	NS	NS	NS	NS
Conservative	NS	NS	NS	NS	NS
NDP	0.222* (0.089)	0.203* (0.090)	0.019 (0.014)	NS	NS
Bloc Québécois	-0.154** (0.058)	-0.142* (0.059)	-0.012 (0.010)	NS	NS
Green Party	0.385*** (0.147)	0.368* (0.146)	0.017 (0.019)	NS	NS
People's Party	NA	NA	NA	NA	NA

Notes. + p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001. *N = 569. KHB mediation analyses. Estimates for the People's Party are unavailable due to the low number of observations.*

Appendix F: Table A6. Direct/Indirect Effects of Education on Voting Behaviour (with Abstainers)

Party	Total Effect of Education on Vote	Direct Effect of Education on Vote	Indirect Effect of Education on Vote	% of Total Effect Mediated by Welfare State	% of Total Effect Mediated by Deservingness
Liberal	0.162*** (0.0151)	0.154*** (0.0165)	0.008** (0.0034)	-5.28%	10.24%
Conservative	-0.122*** (0.0347)	-0.095* (0.0423)	-0.027* (0.0111)	-13.60%	35.77%
NDP	-0.003 (0.0704)	NS	NS	NS	NS
Bloc Québécois	-0.154** (0.0581)	-0.142* (0.0589)	-0.012 (0.0100)	NS	NS
Green	0.099** (0.0367)	0.098** (0.0335)	NS	NS	NS
People's Party	0.015 (0.0565)	NS	NS	NS	NS

Notes. + p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001. *N = 3499. KHB mediation analyses. "NS" means that, since the results from which these effects are computed are not significant, these values should not be reported.*

Appendix G: Table A7. Direct/Indirect Effects of Education on Voting Behaviour (with Controls for Immigration Attitudes)

Party	Total Effect of Education on Vote	Direct Effect of Education on Vote	Indirect Effect of Education on Vote	% of Total Effect Mediated by Welfare State	% of Total Effect Mediated by Deservingness
Liberal	0.041*	0.061**	-0.020***	-48.10%	-0.56%
	(0.0167)	(0.0197)	(0.0057)		
Conservative	-0.009	NS	NS	NS	NS
	(0.0372)				
NDP	-0.098	NS	NS	NS	NS
	(0.0687)				
Bloc Québécois	-0.127*	-0.117	NS	NS	NS
	(0.0642)	(0.0644)			
Green	0.057	NS	NS	NS	NS
	(0.0469)				
People's Party	0.146***	0.134*	0.012	NS	NS
	(0.0457)	(0.0530)	(0.0107)		

Notes. + p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001. *N = 3499. KHB mediation analyses. "NS" means that, since the results from which these effects are computed are not significant, these values should not be reported.*

Appendix H: Table A8. Direct/Indirect Effects of Education on Voting Behaviour (without Survey Weights)

Party	Total Effect of Education on Vote	Direct Effect of Education on Vote	Indirect Effect of Education on Vote	% of Total Effect Mediated by Welfare State	% of Total Effect Mediated by Deservingness
Liberal	0.145***	0.133***	0.012***	-4.84%	13.07%
	(0.016)	(0.018)	(0.004)		
Conservative	-0.165***	-0.132**	-0.034**	8.25%	28.71%
	(0.037)	(0.046)	(0.011)		
NDP	-0.027	NS	NS	NS	NS
	(0.075)				
Bloc Québécois	-0.189***	-0.180***	-0.009	NS	NS
	(0.060)	(0.061)	(0.010)		
Green	0.084*	0.081*	0.003	NS	NS
	(0.039)	(0.036)	(0.005)		
People's Party	-0.008	NS	NS	NS	NS
	(0.057)				

Notes. + p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001. *N = 3499. KHB mediation analyses. "NS" means that, since the results from which these effects are computed are not significant, these values should not be reported.*

Appendix I: Table A9. Coding Specification for All Variables

Controls	Coding
Vote (2019)	LPC = Liberal Party; CPC = Conservative Party; NDP = New Democratic Party; BQ = Bloc Québécois; GPC = Green Party; PPC = People's Party. All other observations are excluded.
Education	"No Schooling/Completed High School" = "No schooling," "Some elementary school," "Completed elementary school, Some secondary/ high school," "Completed secondary/ high school." "Some CEGEP/Post-Secondary" = "Some technical, community college, CEGEP, College Classique." "Completed CEGEP/Post-Secondary" = "Completed technical, community college, CEGEP, College Classique." "Some University" = "Some university." "Bachelor's Degree" = "Bachelor's degree." "Master's Degree/Doctorate" = "Master's degree," "Professional degree or doctorate."
Age Group	Coded from the "age" variable: "18-35," "36-45," "46-55," "56-65," "66 +"
Gender	0 = Man ; 1 = Woman
Religious Attendance	0 = British, Dutch, English, French, French Canadian, German, Irish, Italian, Polish, Quebecois, Scottish, Ukrainian; 1 = Aboriginal/First Nations, Chinese, Hispanic, Indian, Inuk/Inuit, Métis.
Racial Minority	0 = British, Dutch, English, French, French Canadian, German, Irish, Italian, Polish, Quebecois, Scottish, Ukrainian; 1 = Aboriginal/First Nations, Chinese, Hispanic, Indian, Inuk/Inuit, Métis.
Language	0 = Not important at all; 0.33 = Not very important; 0.66 = Somewhat important; 1 = Very important
Urban – Rural Cleavage	" rural area or village" = "In a rural area or village (fewer than 1,000 people)"; "Small town" = "In a small town (more than 1,000 but fewer than 15,000 people)"; "Medium-sized town" = "In a medium-sized town (15k-50k people) not adjacent to a large city"; "Suburb" = "In a suburb of a large city;" "Large city" = "In a large city (more than 50k people)"

Notes. See Appendix J. for the exact question wording.

Appendix J: Table A10. Wording of the Questions Used

Variable	Question Wording
Vote (2019)	Derived from the question "Which party did you vote for?"
Education	Derived from the question "What is the highest level of education that you have completed?"
Age Group	Derived from the age variable, which in turn is derived from the question "First, in what year were you born?"
Gender	"Are you… A man, a woman or other?"
Religious Attendance	"In your life, you would say religion is:"
Racial Minority	Derived from the question "In addition to being Canadian, to what ethnic or cultural group(s) do you belong?"
Language	Derived from the question "Which language(s) did you learn as a child and still understand today?"
Urban – Rural Cleavage	Operationalized using the question "Do you live..."
Region	Operationalized using the question "Which province or territory are you currently living in?"

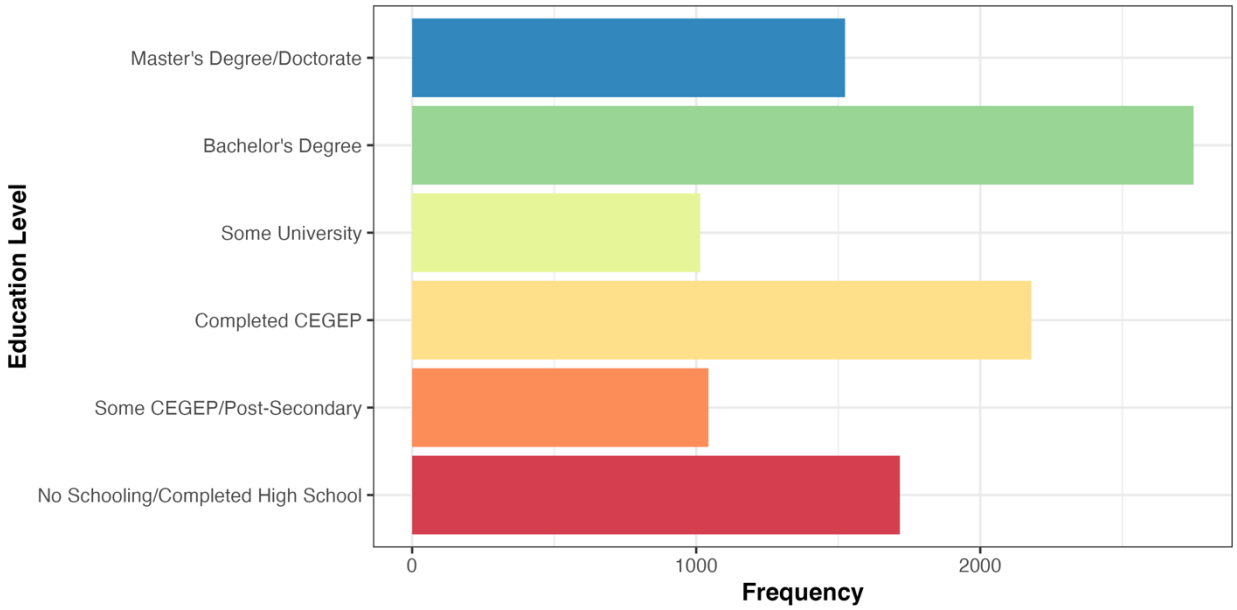
Appendix K: Table A11. Multinomial Logistic Regression: Vote Choice

	Dependent Variable: Vote Choice (Ref = LPC)				
	BQ	CPC	GPC	NDP	PPC
	(1)	(2)	(3)	(4)	(5)
Constant	-6.088**	0.582**	-0.621*	-0.232	-3.127***
	(2.626)	(0.248)	(0.371)	(0.304)	(0.853)
Woman Ref = Man	-0.539**	-0.429***	0.285*	0.125	-0.637**
	(0.216)	(0.090)	(0.151)	(0.110)	(0.273)
Member of a Racial Minority	-0.502	-0.062	-0.366	-0.243	-0.239
	(0.488)	(0.128)	(0.232)	(0.159)	(0.380)
Some CEGEP/Post-Secondary Ref = No Schooling/Completed High School	-0.600*	-0.334**	-0.359	0.106	-0.274
	(0.339)	(0.153)	(0.283)	(0.185)	(0.495)
Completed CEGEP/Post-Secondary Ref = No Schooling/Completed High School	-0.921***	-0.257**	0.062	0.038	0.017
	(0.296)	(0.125)	(0.212)	(0.156)	(0.362)
Some University Ref = No Schooling/Completed High School	-1.157***	-0.501***	-0.005	-0.181	-0.058
	(0.387)	(0.185)	(0.304)	(0.232)	(0.535)
Bachelor's Degree Ref = No Schooling/Completed High School	-1.524***	-0.720***	-0.275	-0.603***	-0.417
	(0.313)	(0.133)	(0.227)	(0.172)	(0.399)
Master's Degree/Doctorate Ref = No Schooling/Completed High School	-1.212***	-0.716***	-0.066	-0.215	-0.283
	(0.354)	(0.158)	(0.256)	(0.193)	(0.462)
A small town Ref: Rural area or village	-0.444	-0.259	-0.479	-0.201	0.929
	(0.452)	(0.186)	(0.296)	(0.236)	(0.570)
A middle-sized town Ref: Rural area or village	0.174	-0.291	-0.307	0.059	-0.791
	(0.439)	(0.197)	(0.306)	(0.240)	(0.830)
A suburb of a large town or city Ref: Rural area or village	-0.814**	-0.738***	-1.019***	-0.803***	-0.183
	(0.414)	(0.164)	(0.271)	(0.214)	(0.570)
A large town or city Ref: Rural area or village	-0.321	-0.724***	-0.539**	-0.227	-0.0003
	(0.397)	(0.156)	(0.243)	(0.194)	(0.537)
Age: 36-45 Ref = 18-35	0.179	0.203	-0.462	0.011	0.138
	(0.397)	(0.173)	(0.294)	(0.187)	(0.415)
Age: 46-55 Ref = 18-35	0.206	0.113	-0.048	-0.414**	0.161
	(0.382)	(0.163)	(0.246)	(0.185)	(0.389)

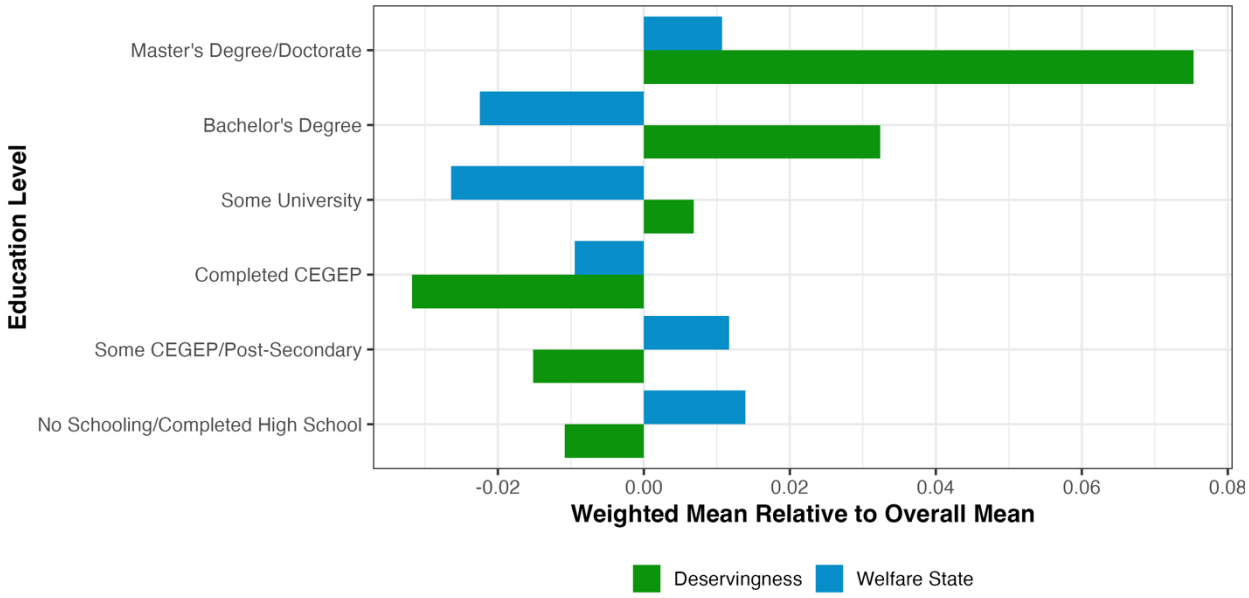
Age: 56-65 Ref = 18-35	0.263	0.071	-0.383	-0.609***	-0.520
	(0.322)	(0.151)	(0.238)	(0.172)	(0.408)
Age: 66 + Ref = 18-35	0.205	0.060	-0.387*	-0.902***	-1.434***
	(0.316)	(0.144)	(0.224)	(0.168)	(0.463)
Language: French	2.065***	-0.153	0.349*	-0.197	0.235
	(0.505)	(0.131)	(0.199)	(0.160)	(0.345)
Language: Other	-0.556	-0.001	-0.184	-0.322	-0.021
	(1.371)	(0.203)	(0.400)	(0.279)	(0.614)
Region: BC	-1.898	0.675***	0.602**	0.942***	0.856
	(6.841)	(0.192)	(0.265)	(0.236)	(0.726)
Region: Ontario	-1.531	0.392**	-0.323	0.270	1.053*
	(3.671)	(0.169)	(0.243)	(0.215)	(0.628)
Region: Prairies	-1.599	1.503***	-0.252	1.016***	1.779***
	(6.338)	(0.189)	(0.309)	(0.238)	(0.660)
Region: Quebec	5.228**	-0.165	-1.122***	-0.064	0.674
	(2.586)	(0.214)	(0.338)	(0.269)	(0.703)
Akaike Inf. Crit.	8,606.545	8,606.545	8,606.545	8,606.545	8,606.545

Note: *p<0.1; **p<0.05; ***p<0.01. Standard errors in parentheses.

Appendix L: Figure A1. Frequency of Education Levels



Appendix M: Figure A2. Mean of "Deservingness" and "Welfare State" by Level of Education (Relative to the Overall Mean)



Notes. "0" represents the mean of each dimension's score across all individuals