

“The Impact of Increasing Income Inequality on Public Support for Redistribution”

Abstract

While political economists provide clear theoretical foundations that connect public support for redistribution to differences in income inequality, existing empirical evidence provides only modest support for established theory. This paper incorporates a broad range of factors that have been theoretically and empirically linked to public attitudes towards redistribution in order to determine the extent to which shifts in inequality have affected citizens' redistributive public policy preferences. Using cross-national data from both post-industrial democratic and post-communist successor states and cross-provincial data from the Canadian case, a model is presented that simultaneously tests the effects of both cross-sectional and longitudinal variations in income inequality. The findings indicate that the relationship between cross-sectional inequality and support for redistribution is negative, but the relationship between longitudinal inequality and support for redistribution is positive. These results provide support for a model that unifies both institutionalist and rational choice theoretical perspectives. States and provinces with lower levels of income inequality are more likely to be populated by citizens who prefer higher levels of redistribution, whereas increases in income inequality are likely to lead to increases in support for redistribution.

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[§ 1] Introduction

Political economists have amassed an impressive body of scholarship which demonstrates that income inequality – particularly the share of aggregate income that accrues to the very wealthy – has increased markedly in the past three decades (Piketty and Saez 2003; Atkinson 2005; Dell 2005; Saez and Veall 2005; Atkinson and Leigh 2007). These research findings suggest that post-industrial democratic states are currently characterized by levels of income inequality that have not been experienced since the onset of the Great Depression. Other scholars have developed clear theoretical predictions about the expected effect of these types of macroeconomic shifts on public opinion: inequality and public support for income redistribution should be positively related, such that increases in inequality should lead to increased support for redistribution (Romer 1975; Roberts 1977; Meltzer and Richard 1981). While this theory has been elegantly developed, the available empirical evidence provides little support in its favour. The purpose of this paper is to draw upon recent theoretical clarification in order to provide a more rigorous test of the core hypotheses discussed in the literature and to use it to explain the puzzling effect of income inequality on public support for redistribution.

Following this introduction, the discussion explores rational choice and institutionalist theories that connect income inequality to support for redistribution. A survey of the preceding empirical evidence is presented and the core hypotheses of the paper are formed. Thereafter, a description of the range of alternative factors that have been theoretically or empirically linked to citizens' support for redistribution is introduced. Case and data selection, measures and methods are discussed, followed by a consideration of the empirical evidence presented in the analysis. The paper concludes with a brief summary of key findings and proposals of possible avenues for further research.

[§ 2] Previous Theory and Findings, and Core Hypotheses

Economists' initial interest-based models of political redistribution generally use the individual citizen as the point of departure (Romer 1975; Roberts 1977). For example, Meltzer and Richard's (1981) classic piece illustrates how informed, rational voters could collectively choose to redistribute a positive lump-sum benefit through public financing via a flat tax on income within a political system in which the median voter's preferences dominate public policy. Key implications of their model are that (1) those with higher incomes oppose redistribution while those with lower incomes support it and (2) as income inequality increases, citizens will use the political machinery of the state to increase redistribution to lesser-advantaged citizens. This latter implication hinges on two distinct processes. The first links increases in inequality to changes in citizens' outlooks towards redistribution. Given that income distributions are typically skewed with an elongated tail at the end signifying higher income levels, increases in inequality will tend to result in political economies characterized by greater distances between the incomes of average income earners and average citizens. Within democracies, Meltzer and Richard expect this difference to initiate a second social process: these states' democratic

institutions should enable their citizenries to use their political leverage to equalize the proportions of income that have become concentrated amongst the smaller segments of social actors whose increased incomes led to the initial increase in inequality. They thus posit that democratic political institutions provide an automatic compensatory mechanism to counterbalance perturbations in political economies' typical distributional equilibriums. The present analysis focuses on the first of these two processes: the effects of changing levels of inequality on citizens' public policy preferences.

Despite its popularity, there are two inter-related difficulties with Meltzer and Richard's model. The first is that it appears to contradict the central tenets of welfare state regime theory. Esping-Andersen's (1990) seminal work, for example, outlines the process whereby different states' social policies evolved into one of three distinctive types: conservative, liberal or social democratic. Researchers employing this theoretical approach stress the importance of divergent institutional trajectories on public opinion formation, drawing attention to how political institutions and public policies effect differences in different citizenries' beliefs about the appropriate roles of and expectations for their states (Rothstein 1998; Esping-Andersen 1999; Svallfors 2003, 2010; Larsen 2006). Empirical analyses investigating the effects of welfare state types on citizens' redistributive outlooks integrate similar individual-level characteristics as interest-based research, but focus on differences in both support for and the level of redistribution between different states (Svallfors 1993, 1997, 2003; Arts and Gelissen 2003; Linos and West 2003; Jaeger 2006, 2009). Different citizenries with different values and beliefs populate different states with different institutions, and these institutions augment the effects of the interests of their respective citizenries.

The second concern is that to this point, empirical evidence provides only modest support for one of the two central predictions of earlier rational choice models. The scholarship on the subject is replete with examples which illustrate that those with higher levels of income are less likely to support redistribution than those whose incomes are lower. Yet most of the available empirical evidence provides little support for the expectation that as income inequality increases, citizens will be more willing to use the political machinery of the state to increase redistribution. One vein of literature concentrates on investigating the relationship between inequality and government redistributive efforts. Using longitudinal data from the American case from the 1930s to the 1970s in an empirical test of their thesis, Meltzer and Richard (1983) find that, as expected, the share of aggregate income redistributed via government spending is *positively* affected by the ratio of mean to median income. Few other analyses provide supporting evidence, however. Perotti investigates differences in the effects of inequality in democratic and non-democratic regimes on a broad range of tax rates and social spending, but concludes that there is either a "very weak, or even non-existing" (1996, 172) relationship between inequality and measures of redistributive effort. Bassett *et al.* (1999) assess the cross-national relationship between various measures of inequality and levels of government redistribution, but fail to locate statistically significant relationships in the expected direction. Likewise, Moene and Wallerstein (2001, 2003) are unable to identify statistically significant positive relationships between a range of types of social insurance spending and inequality cross-nationally. Alternatively, both Milanovic (2000) and Kenworthy

and Pontusson (2005) find that pre-tax-and-transfer inequality is positively related to income redistribution cross-nationally, but the authors of these analyses find little support for the claim that this relationship is driven by the policy responsiveness mechanism identified by Meltzer and Richard. On the whole, the literature provides little evidence to support the contention that, at least in cross-national analyses, increases in inequality lead governments to respond with increases in redistributive effort.

Another strain of research concentrates directly on the relationship between inequality and public opinion. Luttmer (2001) finds that, across American states, levels of earnings inequalities have no statistically significant effect on respondents' support for welfare spending. Weakliem, Andersen and Heath (2005) find that public opinion affects levels of income inequality cross-nationally, but find no evidence that income distributions influence attitudes. Lübker (2007) presents cross-national empirical evidence that yields no indication of a statistically significant relationship between income inequality and public support for redistribution. Finseraas (2009) presents findings from an analysis that appear to identify a positive cross-national relationship between income inequality and an individuals' support for redistribution, but obtains these results from an analysis restricted to European states with a broad range of types of institutional configurations, including post-industrial democratic and post-communist successor states. Longitudinal analyses have also yielded mixed results. Kenworthy and McCall (2008) provide a detailed assessment of longitudinal trends in inequality and changes in aggregate levels of public support for redistribution in a variety of cross-national settings, reaching the conclusion that there is little evidence of any relationship. In a longitudinal analysis of the Canadian case, however, Andersen and Curtis (2011) find that income inequality has a positive effect on support for welfare and social service programs for the poor.

These incongruent findings highlight a key tension between the interest-based and welfare state regime literatures. By emphasizing the impact of median voter preferences for redistribution, interest-based models seem to suggest that there should be public policy convergence across comparable states towards comparable welfare-state institutions. Certainly, differences in political leadership and the political organization of different interests will have effects, at least in the short-term. Institutional variation in electoral and party systems will also have important consequences for public policy outputs, as median voter preferences are much more likely to dominate policy in some systems rather than others. Nevertheless, the median voter thesis seems to imply some form of convergence, while the welfare-state regime literature clearly emphasizes either divergence or at very least, the maintenance of difference.

Theoretical clarification in recent scholarship, however, indicates that the apparent inconsistency between these conflicting schools of thought might be resolvable. It identifies that the expectations of institutionalist and interest-based literatures emphasize the effects of *different types of variation* on support for redistribution. The principal point is that cross-sectional and longitudinal effects may differ in direction (Kenworthy and McCall 2008). On the one hand, welfare state theorists correctly identify that states with higher levels of inequality will tend to have publics who are less supportive of redistributing income, such that at a given point in time, income inequality will be *negatively* correlated with support for redistribution.

States with welfare state institutions that are more redistributive will be populated by citizenries with beliefs and expectations that are consistent with more egalitarian outcomes, while those with less redistributive institutions will have citizenries that accept higher levels of inequality.

Because different citizenries have different contextualized beliefs, however, their reactions to changes in the political economies to which they have become accustomed will be based upon their context-specific expectations. When levels of inequality begin rising above given political economies' general equilibrium levels, citizenries will tend to perceive these changes as warranting remediation precisely because they are accustomed to previous levels of inequality and believe that these levels were and are consistent with an adequately-functioning political economy. As rational choice theory suggests, increases in levels of inequality will lead greater proportions of citizenries to anticipate that they will benefit from increases in redistributive policies and programs. Hence, faced with increasing inequality – particularly in the absence of evidence which indicates that the increases in inequality have produced greater general economic prosperity – citizens will tend to believe that income redistribution can be effectively increased without excessively detracting from their political economy's overall performance and the average citizen will also be more likely to expect that they will be beneficiaries of increased redistribution. Thus an increase in inequality in a specific context will tend to lead to an increase in support for redistribution, such that there is a *positive* relationship between these variables longitudinally. This key theoretical distinction forms the basis of the two core hypotheses of the current analysis:

- H₁: The cross-sectional relationship between income inequality and support for redistribution will be negative. Contexts populated by citizens who are more supportive of redistribution will have lower levels of inequality than contexts populated by citizens who are less supportive.*
- H₂: The longitudinal relationship between income inequality and support for redistribution will be positive. As income inequality increases, public support for redistribution will also increase.*

The latter of these hypotheses clarifies the type of convergence that, given the lessons of institutional theory, might be reasonably predicted by rational choice theory. Interest-based models need not necessarily anticipate convergence between public opinions and policies across different contexts, but rather a convergence towards one of a multiplicity of particular contextually-dependent 'steady state' equilibria in which public support for redistribution is balanced with a given level of income inequality (Alesina and Angeletos 2005). Such a conceptualization dovetails nicely with expectations derivable from Wlezien's 'thermostatic' model of policy preferences (Wlezien 1995, 2004; Soroka and Wlezien 2004, 2005). Publics' social policy outlooks in particular settings respond to shifts in their political economies and changes in levels of policy present at given points in time.

Consider Figure 2.1, which presents a schematic illustration of these divergent relationships. The bold grey arrow shows the cross-sectional relationship that institutional theory leads us to expect at a given point in time. To use Esping-Andersen's typography, for

example, we would expect social democratic regime types to be characterized by lower levels of inequality while being populated by citizenries that, *ceteris paribus*, prefer higher levels of redistribution, such that we would expect to find them located on the upper left of the diagram. On the other hand, the publics of liberal regime types would generally be expected

[Insert Figure 2.1 about here]

to prefer lower levels of redistribution and be willing to accept higher levels of inequality, so states characterized by this type of welfare-state regime should tend to be located in the lower right quadrant of the illustration. Over time, however, we would expect comparable perturbations to each of these steady-state equilibria to have comparable effects: increases in income inequality would effect increases in citizens' preferences for redistribution, resulting in general shifts towards the upper right. Decreases in inequality would lead public opinion to shift in the opposite direction.

[§ 3] Other Determinants of Support for Redistribution

Previous theoretical and empirical research identifies a broad range of additional factors that may also effect variations in citizens' redistributive outlooks. Three principal analytical categories are used in order to organize this expansive set of possible determinants.

First, *socio-demographic dimensions* may influence individuals' attitudes. Members of some groups may expect that they are more likely to benefit from redistribution, thus increasing levels of support. Interpersonal preferences may also have important effects. Social psychology suggests that intra-group identification can be particularly strong amongst group members who have been socially disadvantaged or oppressed (Gilbert, Fiske and Lindzey 1998). Given that they are more likely to have lower incomes and suffer from poverty, women, ethnic minorities and immigrants may express higher levels of support because they are more likely to benefit from more generous redistributive policies. They may also feel a sense of shared experiences and commonality that predispose them to support redistributive policies even if individually they are no more likely to benefit. Conversely, inter-group antipathy may have the opposite effect: racial intolerance and intolerance towards immigrants may reduce an individual's propensity to support increases in redistribution. The effects of these sentiments, however, may be less overt. Other scholarship suggests that they may function at a contextual level, such that increases in ethnic diversity may decrease citizens' willingness to redistribute (Alesina, Baqir and Easterly 1999; Alesina, Glaeser and Sacerdote 2001; Luttmer 2001; Alesina and Glaeser 2004). Religion is another socio-demographic dimension that may have a

significant impact on redistributive outlooks. For example, research suggests that the Weberian thesis still applies (Barker and Carman 2000).

Second, *political dimensions* may have important consequences. Power resource theory identifies unions and government partisanship as important determinants of redistributive outcomes (Stephens 1979; Korpi 1983; Esping-Andersen and Korpi 1984; Esping-Andersen 1985, 1990). Theories of the relationship between political elites and mass publics suggest that public opinion is shaped by political leadership (Bottomore 1964; Miliband 1969; McCloskey and Zaller 1984; Brooks 1985, 1990; Zaller 1992). Parties of the left and unions may positively influence citizens' support for redistributive policies through their organizational and advocacy activities. Conversely, dominance of parties of the right and a lack of organized labour should decrease public support. Likewise, individual citizens' political ideologies may have important effects. Previous research indicates that those who self-identify or identify with political parties on the left of the political spectrum are more likely to support redistribution than those on the right (Alt 1979; Sears *et al.* 1980; Feldman 1983; Taylor-Gooby 1983; Bean and Papadakis 1998; Edlund 1999, 2002; Kaltenhaler and Ceccoli 2008; Kam and Nam 2008). Finally, perceptions of the institutional costs of redistribution may influence public outlooks. As the 'transfer cost' of redistribution increases, public opinion in favour of redistribution should decrease (Okun 1975). To the extent that citizens perceive that their bureaucracies can effectively implement public policy, they should have greater confidence in their public servants. This confidence should translate into lower perceived costs, leading to higher levels of support.

Finally, individual *self-interest* is also an important factor. Those with more income, education and labour market security are less likely to benefit from, and thus are less likely to support, redistribution. Age has also been shown to be an important determinant of those who receive, and therefore those who support, the benefits of social policy programs (Busemeyer *et al.* 2009). Macroeconomic factors may also influence citizens' interests. Some argue that citizens will have less empathy for redistributive goals when macroeconomic conditions are poor (Alt 1979, 258), while others suggest that the demand for redistribution will diminish when macroeconomic conditions are more favourable (Wilensky 1975, 55; Clark and Inglehart 1998, 51). Empirical evidence supporting each of these perspectives is present in the literature (compare Sihvo and Uusitalo 1995; Blomberg and Kroll 1999; Andersen and Curtis 2011 with Cusack, Iversen and Rehm 2006; Blekesaune 2007; Kam and Nam 2008).

[§ 4] Case and Data Selection, Measures and Methods

Available data have been assembled for three sets of comparable macro-level units within which to test the two key hypotheses of the paper. The first is comprised of post-industrial democratic states for which data have been collected for a minimum of two points in time. This set contains data for Australia, Austria, Belgium, Canada, Finland, France, Germany, Iceland, Ireland, Italy, Japan, the Netherlands, New Zealand, Norway, Spain, Sweden, Switzerland, the United Kingdom, and the United States. Denmark, Greece, Israel, Luxembourg and Portugal

were not included because of a lack of data availability.¹ The second contains the set of post-soviet successor states that have since become members of the *OECD*. It is comprised of the Czech Republic, Estonia, Hungary, Poland, the Slovak Republic and Slovenia. These Westernized eastern European states provide a distinctive but comparable environment within which to test the key hypotheses of the paper. Canada's ten provinces present a third opportunity within which to test the key hypotheses. An ideal case for a substate analysis would be one that, to the greatest possible extent, replicates the conditions of autonomous welfare states. A decentralized federal state with significant social policy discretion at the substate level would be the most proximate setting for comparison. The ideal case would also be a more typical, rather than an exceptional case. These conditions make a Canadian inter-provincial analysis an obvious choice.² In the relevant sense, the Canadian federation can be thought of as an ideal laboratory within which to investigate variability in citizens' social policy issue positions.

Given the range of factors that have been theoretically and empirically linked to public support for redistribution, the data are a mixture from both the micro- and macro-level. Cross-national micro-level data are taken from the *World Values Survey (WVS)*. Data from the second through the fifth waves of the *WVS* are incorporated, as information on the indicators used to measure the dependent variable was not collected during the first wave. The earliest of these waves occurred at the beginning of the 1990s, with the three subsequent waves taking place at five-year intervals thereafter. The post-industrial inquiry includes 69,318 respondents located in fifty-three state-time locations, while the post-communist successor state analysis incorporates 21,711 respondents in twenty-one contexts.³ Canadian micro-data are taken from the *Canadian Elections Studies (CES)*. Data from the 1993, 1997, 2000, 2004 and 2008 iterations are included in order to provide coverage for a comparable time-period. This sample includes a total of 7,091 respondents located in one of 50 province-time contexts.⁴ Question wordings for

¹ Denmark, Greece, Israel and Luxembourg have only been included in one wave of the *WVS*. Data for Portugal has been collected over two waves, but both measures of the indicators of the dependent variable were only included in one.

² Canada is one of the most decentralized federal states in the world (Watt 1996, 1999, 2008; Thorlakson 2007). Canadian provinces have a particularly high degree of autonomy with respect to social policy in comparison to other federal states, particularly with respect to redistribution. In the field of social assistance, for example, the federal government exercises a greater degree of authority in Australia and the United States, while municipal governments have a greater degree of responsibility in Germany (Adema, Gray and Kahl 2003). Further, given the United States' historic role as an outlier in the field of material egalitarianism and social policy (Sombart 1906; Lipset 1977, 1996; Lowi 1984; Lipset and Marks 2001), it seems like a less favourable candidate for selection.

³ The post-industrial analysis includes data from Australia (1995, 2005), Austria (1990, 1999), Belgium (1990, 1999), Canada (1990, 2000, 2006), Finland (1990, 1996, 2000, 2005), France (1990, 1999, 2006), Germany (1990, 1997, 2006), Iceland (1990, 1999), Ireland (1990, 1999), Italy (1990, 1999, 2005), Japan (1990, 1995, 2000, 2005), the Netherlands (1990, 1999, 2006), New Zealand (1998, 2004), Norway (1990, 1996, 2007), Spain (1995, 2000, 2007), Sweden (1990, 1996, 2006), Switzerland (1996, 2007), the United Kingdom (1990, 1999, 2005) and the United States (1990, 1995, 1999, 2006). The post-communist successor states investigation employs data from the Czech Republic (1990, 1991, 1998, 1999), Estonia (1990, 1996, 1999), Hungary (1991, 1998), Poland (1989, 1990, 1997, 1999, 2005), the Slovak Republic (1990, 1991, 1998) and Slovenia (1992, 1995, 1999, 2005).

⁴ Because of concerns about non-random respondent attrition, respondents who participated in the

the micro-level indicators used in this analysis are available at: <http://individual.utoronto.ca/sealey/Site/Research.html>. Dimensions with large proportions of missing values are treated using a dummy variable as an additional category. Otherwise, missing values are imputed using Honaker, King and Blackwell's *Amelia II* software.⁵

The dependent variable of the analysis measures citizens' redistributive public policy issue positions. It is comprised of two indicators, one for each of two possible types of redistribution. The first type is 'generalized income equalization'. The second is the 'public provision of economic security'. The dependent variable is constructed as a binary variable: respondents who indicate support for *either* type of redistributive policy are counted as being in favour of increased redistribution, while those who oppose both types are considered to be opposed to this form of social policy. Table 4.1 presents the *WVS* and *CES* question wordings for the indicators of policy positions for each of these types of redistribution, respectively. There is some minor variation in the question wordings and response categories for the measure of public support for generalized income equalization policies in earlier *CES* iterations.⁶

[Insert Table 4.1 about here]

One additional nuance is important. A key distinction made in the scholarship discussing citizens' public policy issue positions is drawn between preferences for the 'existence' and 'intensity' of a given policy (Roller 1995). A preference for the existence of a certain type merely indicates whether an individual wants the government to provide some non-zero level of policy. Preferences for policy intensity, however, are relative to a given status quo; they indicate whether an individual wants the government to enact *more or less* policy. With the possible exception of the question wording for the indicator of outlooks on the public provision

2004-2006-2008 *CES* panel study were only included in the present analysis as respondents in the 2004 wave. Information on one of the two indicators of the dependent variable was not collected in the 2006 wave, so no respondents from this data set are included in the current analysis.

⁵ Information about King *et al.*'s *Amelia* project is available at: <http://gking.harvard.edu/amelia/>.

⁶ There is a change in response options between the 1997 and 2000 iterations of the *CES*. In 1993 and 1997, respondents are asked whether they "strongly agree," "agree," "disagree," or "strongly disagree" with the statement "the government must do more to reduce the income gap between the rich and the poor". In 2000, 2004 and 2008, they are instead asked "how much should be done to reduce the gap between the rich and poor in Canada?" In addition to providing the comparable responses of "much more," "more," "less," and "much less," a fifth, neutral option ("about the same") is included. All respondents selecting this option are counted as not being in support of redistribution. If we assume that at least some of the individuals who choose "stay the same" in 2000, 2004 and 2008 would have responded "more" had they been asked to choose between only "more" and "less", this implies that our measure is probably biased against redistribution in these latter three elections. To the extent that the measure is biased, the present analysis underestimates the extent of the increase in Canadians' preferences for this type of redistribution between 1997 and 2000.

of economic security in the Canadian case, the indicators used are measures of *policy intensity rather than policy existence*.

This characteristic of the indicators of the dependent variable has two inter-related implications. The first is that the questions are generally more conducive to an analysis of the second than the first hypothesis. *Ceteris paribus*, some citizens from social democratic welfare state regimes may not want any more redistribution, not because they do not support the idea of generous welfare-state programs in principle, but because they are of the mind that their states already have them. An ideal test of the first hypothesis would use measures of preferences for policy existence rather than policy intensity. Second, because the indicators are relative, a measure of redistribution is included to control for the extent to which a given context already redistributes. In the post-industrial cross-national and Canadian cross-provincial analyses, these measures are calculated using an index of the progressivity of income tax structures for given places and points in time. Detailed comparative information on the tax structures of the states included in the post-communist analysis is more elusive, however. So following Kenworthy and McCall (2008), a measure of redistribution is calculated by determining the extent of change between the pre- and post-tax-and-transfer Gini coefficients for a given context.

The principal independent variable of interest, income inequality, is a macro-level variable. In the cross-national analyses, Solt's standardized Gini coefficients⁷ are used (Solt 2009a, 2009b), with supplemental evidence for the Icelandic case drawn from Ólafsson and Kristjánsson (2010). Cross-provincial measures of income inequality are available from Statistics Canada's *CANSIM* Table 2020709. For each analysis, a measure of income inequality is constructed. These are lagged by one year and incorporate data from the preceding 5 years using a flat discount rate of 0.20 per year. Macro-level data are also collected for economic growth, government partisanship and ethnic diversity dimensions. The economic growth measures are lagged by one year and incorporate data from the preceding two years, with the second year being discounted by a factor of 0.50. The government partisanship measures are constructed from the proportion of seats held in either national or provincial legislatures. These measures range from -1 (total dominance by parties of the right) to +1 (total dominance by parties of the left). They are lagged by one year and incorporate data from the preceding 10 years using a flat discount rate of 0.10 per year. For the post-industrial analysis, measures of economic growth and government partisanship are taken from the *OECD Factbook* and the *Comparative Political Data Set* (Armingeon *et al.* 2010), respectively, while for the post-communist states these data are drawn from the *Quality of Government* data set (Samanni *et al.* 2010).⁸ The cross-provincial measure of economic growth is taken from Statistics Canada's *CANSIM* Table 3840002, while cross-provincial data for government partisanship are available

⁷ Solt's *Standardized World Income Inequality Data (SWIID)* are available at: <http://dvn.ig.harvard.edu/dvn/dv/fsolt/faces/study/StudyPage.xhtml?studyId=36908>.

⁸ Data from the *OECD Factbook 2010* were downloaded on 2010-06-11 and are available online at: <http://new.sourceoecd.org>. Armingeon *et al.*'s *Comparative Political Data Set (CPDS)* can be found at: http://www.ipw.unibe.ch/content/team/klaus_armingeon/comparative_political_data_sets/index_ger.html. Samanni *et al.*'s *Quality of Government* data set is available at: http://www.qog.pol.gu.se/data/data_1.htm.

from provincial elections webpages. Alesina *et al.*'s (2003) cross-national measure of ethnic diversity is used, as Fearon's (2003) data lacks an estimate for the Icelandic case. These data are only available for one point in time; no longitudinal measure of cross-national ethnic diversity is currently available. The ethnic diversity of Canadian provinces is estimated from census data.

Two principal methodological approaches are employed. The first is technically quite simple. The direction of the relationship between income inequality and support for redistribution are examined using simple linear regressions to estimate lines of best fit for the data. The second is more complicated. In order to test the *ceteris paribus* effect of differences in income inequality on citizens' attitudes towards redistribution, a multivariate regression approach is taken. One limitation of preceding analyses has been the challenge of comparing between the effects of factors at different levels of analysis. Because the analysis incorporates both micro- and macro-level factors, a 'hierarchical' or 'mixed' model is used.⁹ The dependent variable is dichotomized – indicating whether or not a citizen does or does not support an increase in at least one of the two types of redistribution. So a generalized linear model is used to estimate coefficients measured in log-odds. Coefficients are reported on this scale and are also presented as estimated changes in predicted probabilities.¹⁰

[§ 5] Empirical Analysis

The puzzling absence of clear relationships between income inequality and aggregate support for redistribution are plainly illustrated in Figure 5.1. Simple scatterplots between these two variables reveal no distinctive pattern in either the post-industrial or post-communist settings cross-nationally or in the Canadian case cross-provincially.

⁹ Specifically, a *glmer* (generalized linear mixed effects in R) model with `family=binomial(link="logit")` from Bates and Maechler's *lme4* R package was used. See <http://cran.rproject.org/web/packages/lme4/index.html>.

¹⁰ Estimated changes in predicted probabilities indicate the expected change in the probability of a respondent expressing support for redistribution from a one-unit change in each of the independent variables, *ceteris paribus*. As all micro-level factors have been coded as either binary or sets of binary variables, this means that they each indicate the absence or presence of a particular characteristic, coded as a 0 or a 1. So the predicted probability of a one-unit increase is equivalent to the predicted change in the likelihood given the absence or presence of a particular characteristic. For example, the predicted probability for 'female' simply indicates the predicted change in likelihood of support for redistribution if one were to change the gender of a selected respondent from a man (gender = 0) to a woman (gender = 1) when holding all other characteristics constant. Because all micro-level variables have been treated using this same approach, comparison between individual-level effects is greatly simplified. The continuous nature of the macro-level factors, however, complicates straightforward comparison. A one-unit increase in income inequality, for example, corresponds to an increase in the Gini coefficient from a state of perfect equality (Gini = 0) to perfect inequality (Gini = 1). Hence in order to facilitate comparison, the difference between the context with the lowest and the highest actual values for each of the macro-level dimensions is determined, and changes in predicted probabilities are calculated on the basis of these differences. For longitudinal macro-level factors, estimated changes in probabilities are calculated based upon the largest actual longitudinal change in each of the three respective analyses.

[Insert Figure 5.1 about here]

The evidence presented in Figure 5.2 begins to draw out the relationship between the two main variables of the examination. Here, relationships between income inequality and support for redistribution are estimated using a simple bivariate OLS regression for each of the cross-sections of data in each of the three settings. In each of the two cross-national investigations, there are four waves of the *WVS* data, while for the Canadian cross-provincial analysis, there are five iterations of the *CES*. The evidence presented for the set of post-industrial democracies in Figure 5.2.1 on the upper left is ambiguous. Of the four estimated cross-sectional relationships, two are negative while two are positive. The evidence from the other two analyses is more compelling. Cross-sectional estimates of four waves of data from the post-communist setting and five successive iterations of Canadian provincial data all indicate that the relationship between these two variables is negative.

[Insert Figure 5.2 about here]

A variety of methods could be used to adjudge these results. A straightforward approach is to determine the level of probability of obtaining the given findings based upon repetitions of a simple Bernoulli trial, such as flipping a coin. If we presume a null hypothesis of 'no relationship' between income inequality and public support for redistribution, this would imply that the likelihood of the directionality of any given estimated cross-sectional relationship between these two variables being either positive or negative should be 0.500.

When assessing the findings for the set of post-industrial states alone, this seems to be a reasonable conclusion to draw. But considering the results of all three analyses holistically leads in a different direction. Of the 13 total estimated cross-sectional relationships, 11 have a negative directionality. If the true probability of obtaining a positive or negative relationship was actually 0.500, the likelihood of obtaining 11 'successes' from 13 trials is little more than 1%. A similar though more detailed method to assess the overall directionality of the cross-sectional relationship is to determine the likelihood of obtaining the given data based upon point-to-point comparisons from each of the given cross-sections of data. Such an assessment of the directionality of the line segments joining data points provides comparable corroborative evidence. Of the 333 possible cross-sectional point-to-point pairings amongst post-industrial states, 183 are negative. The likelihood of obtaining this many or more positive relationships is slightly less than 5%. If the post-communist cross-national and Canadian cross-provincial analyses are also considered, then of the 615 line segments between pairs of points, 363 have

negative slopes. The probability of obtaining this many successes in 615 trials is extremely small (probability = 2.97×10^{-6}). Overall, the evidence appears to provide substantial support for the first of the proposed hypotheses: at any given point in time, the relationship between income inequality and public support for redistribution is generally negative. Social environments with lower levels of income inequality tend to be populated by citizens who are more supportive of redistributive social policies.

The evidence presented in Figure 5.3 is far more compelling. In this figure, simple OLS bivariate regressions between these two variables are presented for individual states and provinces. Notice that in each of the three sets of analyses, most of these estimated longitudinal relationships have positive slopes. Of the 19 states presented in the post-industrial cross-national analysis, 15 have positive slopes while four have negative slopes. Again, if we assuming a null hypothesis of no relationship such that for any given country we are as likely to expect a negative as a positive relationship between these two variables, then the estimated likelihood that four or fewer of 19 Bernoulli trials would be negative is just under 1%. Of the six states included in the post-communist cross-national analysis, all have positive slopes. The estimated likelihood that zero of six Bernoulli trials would be negative is less than 2%. Of the 10 provinces presented in the Canadian cross-provincial analysis, eight have positive slopes while only two have negative slopes. The likelihood that two or fewer of 10 estimated relationships would be negative is just under 5.5%. In total, 29 of the 35 longitudinal relationships have

[Insert Figure 5.3 about here]

positive slopes. The probability of obtaining six or fewer of 35 Bernoulli trials in a specified direction is extraordinarily small (probability = 5.84×10^{-5}). Examining the directionalities of individual point-to-point movements through time rather than general country-specific trends yields virtually identical results. Of the 90 total longitudinal line segments in the three sets of analyses, 62 of these indicate a positive relationship between the two variables while only 28 have a negative directionality. The likelihood of obtaining 28 or fewer of 90 Bernoulli trials is also extraordinarily small (probability = 9.39×10^{-5}). While it is important to recognize that it may be unrealistic to treat each of these trials as if they are independent precisely because there is a relationship between these two variables, overall this evidence provides very strong support for the second hypothesis of the investigation: the longitudinal relationship between income inequality and support for redistribution clearly seems to be positive.

While this evidence is highly suggestive, it is not conclusive. As indicated in the third section of the paper, previous theoretical and empirical research identifies a broad range of other possible determinants that may effect variations in individuals' redistributive policy positions. In order to assess the *ceteris paribus* effect of income inequality on support for redistribution, we use an inclusive multilevel logistic model that incorporates a broad range of

additional variables while simultaneously estimating the effects of distinct measures of both the cross-sectional and longitudinal effects of inequality. Simultaneous estimation of the effects of these two aspects is accomplished by drawing on the schematic conceptualization presented in Figure 2.1. In order to obtain an indicator of the general cross-sectional relationship between each of the countries or provinces included in a given analysis, the average level of support for each is calculated and included as an additional explanatory variable, allowing the regression model to simultaneously estimate the cross-sectional and longitudinal effects of income inequality on support for redistribution.

The results of these multi-level multivariate logistic regressions for each of the cross-national settings and the cross-provincial data are presented in Table 5.1. The findings of these models are broadly consistent both with each other and with the results of previous research. Women and Catholics are more likely to express support for redistributive public policies than men and Protestants. Institutional factors appear to be more important in post-industrial than in post-communist settings. In the post-industrial and Canadian cross-provincial analyses, the results indicate that confidence in the civil service and union membership each increase support relative to those who have less confidence and non-union members, but there is little evidence of any such effect in post-communist states. A range of micro-level economic factors are also important. Respondents with lower incomes, less education and lower levels of labour-market security are more likely to support redistribution than those with higher incomes, more education and more labour-market security. The most substantial micro-level effects, however, are the result of two key factors: income and political ideology. The magnitudes of the effects of these two key dimensions are comparable to each other in all three analyses, lending credence to the notion that political values are as important a determinant of citizens' redistributive public policy preferences as is unmediated self-interest (Breznau 2010).

[Insert Table 5.1 about here]

However, the key finding from Table 5.1 is that even when including such a diverse range of other determinants of citizens' redistributive outlooks, the evidence once again provides clear support for the two principal hypotheses of the paper. In each of the three analyses, the predicted effect of cross-sectional inequality is negative. These findings support the first hypothesis: at a given point in time, the relationship between income inequality and support for redistribution tends to be negative. Conversely, in each of the cross-national and cross-provincial cases, the estimated relationship between longitudinal variation in inequality and a citizen's willingness to support redistributive public policies is positive. As income inequality increases, public support for redistribution also increases.

[§ 6] Discussion

Broadly speaking, the evidence conforms to the two key hypotheses of the paper. Perhaps most interesting, however, is a more detailed investigation of the case for which the evidence is weakest. Recall that in the cross-national analysis of post-industrial democracies, the evidence only weakly supports the conjecture that the cross-sectional relationship between income inequality and support for redistribution is negative. Of the four estimated cross-sectional regressions, two were positive and two were negative, suggesting no evidence of a relationship. Of the 305 possible cross-sectional point-to-point pairings amongst post-industrial states, 168 are positive. The likelihood of obtaining this many or more positive relationships is a bit less than 5%. It is worth noting, however, that this likelihood is greatly influenced by the presence of Sweden in the data set. This case is repeatedly located in the lower left quadrant of the bivariate figures, indicating that Swedes have low levels of income inequality but do not favour *increased* redistribution. This unusual case suggests that the use of a question type which emphasizes policy *intensity* may not be the ideal method for drawing out cross-sectional inter-institutional variation. Instead, this may be best accomplished by the use of a question type that captures citizens' attitudes towards policy *existence*. Broadly speaking, however, the expected cross-institutional relationship prevails.

These results resolve a broad range of incongruent findings identified in preceding research. The fact that cross-sectional analyses have consistently failed to identify the policy preference responsiveness mechanism predicted by the Meltzer-Richard rational choice model can be explained by the dominance of the effects of varying institutions at any given point in time. The effects anticipated by the Meltzer-Richard model can only be isolated once cross-sectional institutional variation has been controlled for, as Kenworthy and McCall (2008) proposed. This finding is not only consistent across each of the post-industrial, post-communist and Canadian contexts contained within the current analysis, but is also identified by two other longitudinal analyses (Meltzer and Richard 1983; Andersen and Curtis 2011). Likewise, the results presented are also congruent with institutional theories which suggest that, cross-sectionally, the Meltzer-Richards model does not apply, and that the under these conditions the relationship between inequality and support for redistribution is negative.

Perhaps the most puzzling result is that of Kenworthy and McCall's, who fail to find evidence of a positive longitudinal relationship between inequality and support for redistribution *despite* isolating for longitudinal effects. The most evident explanation for their non-findings is the fact that, unlike in the current analysis, these authors focused on analyzing a question type that emphasizes policy existence rather than policy intensity. Question wordings for a number of measures of this type, made widely available for cross-national research by the *International Social Survey Programme (ISSP)* data set, are the primary focus of their analysis.

Finally, the paper introduces a mechanism for using multi-level models to simultaneously assess both longitudinal and cross-sectional effects of the same macro-level factor. By taking the average level of one aspect, it can be held constant in order to assess the *ceteris paribus* effect of the other. The results of this analysis provide evidence that the model is effective in each of the three contexts considered.

[§ 7] Conclusions

The results of multi-level multivariate binomial logistic regressions for both the cross-national and cross-provincial data provide evidence that is broadly consistent both with each other and with the results of previous research. Respondents with higher incomes, more education and higher labour market security are less likely to support redistribution than those with lower incomes, less education and less security. The effect of one's location on the political spectrum is also important: those on the right are much less likely to support redistribution than those on the left. The effect of this dimension is sizable: it is the only other micro-level dimension that is comparable in magnitude to the effect of differences in income. Respondents who are not members of a union and men are less likely to support redistribution than union members and women, but as is the case with the education and employment status dimensions, the estimated effects of these factors pale in comparison to those of income levels and location on the political spectrum.

The interpretation of the key findings of the analysis is straightforward. The evidence available from both simple cross-sectional and longitudinal bivariate OLS regressions and multi-level multivariate logistic models is consistent with the two core hypotheses of the paper. At any given point in time, contexts populated by citizens who are more supportive of redistribution will have lower levels of inequality. In any given context, however, the relationship between these variables moves in the opposite direction. Preferences for redistribution are increasing in response to increasing levels of income inequality.

While this paper presents results that are broadly consistent across both cross-national and cross-substate investigations, other opportunities for further research are available. In particular, the mechanism to isolate between longitudinal and cross-sectional effects may be usefully employed to investigate whether the general conclusions drawn in the current analysis are also identifiable when using question-wordings that concentrate on citizens' attitudes towards policy existence. A substantial quantity of data for this purpose is available from the *ISSP*. This analysis could also be repeated in order to determine if the central findings are replicable in other substate contexts. The presence of a question which inquires about citizens' attitudes towards redistributive policy existence in several iterations of the *Australian Elections Studies* seems to present such an opportunity.

Figures and Tables

Figure 2.1: Hypothesized Relationships between Macro-Level Inequality and Support for Redistribution

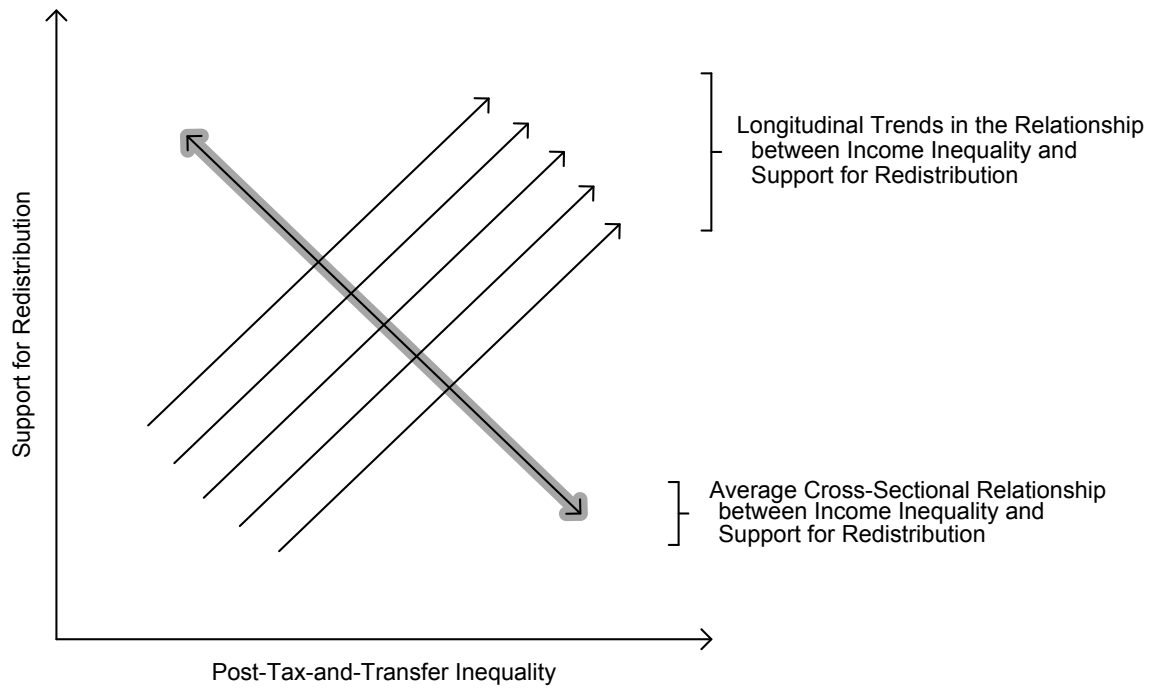
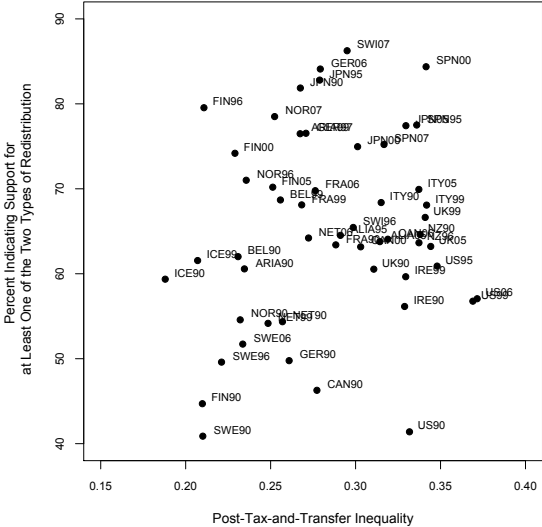


Table 4.1: Question Wordings of Indicators Used to Construct the Dependent Variable

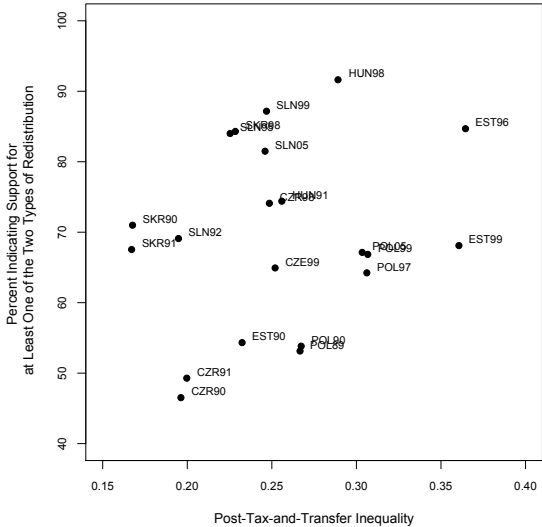
		Data Set	
		<i>World Values Survey (WVS)</i>	<i>Canadian Elections Study (CES)</i>
Type of Redistribution	Generalized Income Equalization	<p>Respondents are asked: "How would you place your views on this scale (1-10)? 1 means you agree completely with the statement 'Incomes should be made more equal', 10 means you agree completely with the statement 'There should be greater incentives for individual effort,' or you can choose any number in between." Respondents who indicated that they are more inclined to favour the first of these two statements are counted as being in favour of this type of redistribution, while those favouring the second are considered to be opposed.</p>	<p>Respondents are asked: "How much do you think should be done to reduce the gap between the rich and the poor in Canada: much more, somewhat more, about the same as now, somewhat less, or much less?" Respondents who indicated that either somewhat more or much more should be done are counted as being in favour of this type of redistribution, while those indicating otherwise are considered to be opposed. There is some minor variation in the question wordings and response categories in earlier CES waves. See footnote ??.</p>
	Provision of Economic Security	<p>Respondents are asked: "How would you place your views on this scale (1-10)? 1 means you agree completely with the statement 'Individuals should take more responsibility to provide for themselves', 10 means you agree completely with the statement 'The state should take more responsibility to ensure that everyone is provided for,' or you can choose any number in between." Respondents who indicated that they are more inclined to favour the first of these two statements are counted as being in favour of this type of redistribution, while those favouring the second are considered to be opposed.</p>	<p>Respondents are asked whether they agree more with the statement "The government should see to it that everyone has a decent standard of living" or that it should "Leave people to get ahead on their own." Respondents who indicated that they are more inclined to favour the first of these two statements are counted as being in favour of this type of redistribution, while those favouring the second are considered to be opposed.</p>

Figure 5.1: Scatterplots of the Relationship between Macro-Level Inequality and Support for Redistribution

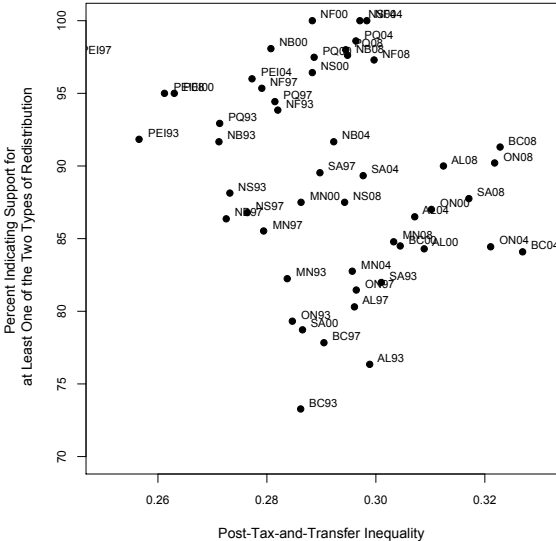
5.1.1 : Post-Industrial States (WVS)



5.1.2 : Post-Communist States (WVS)



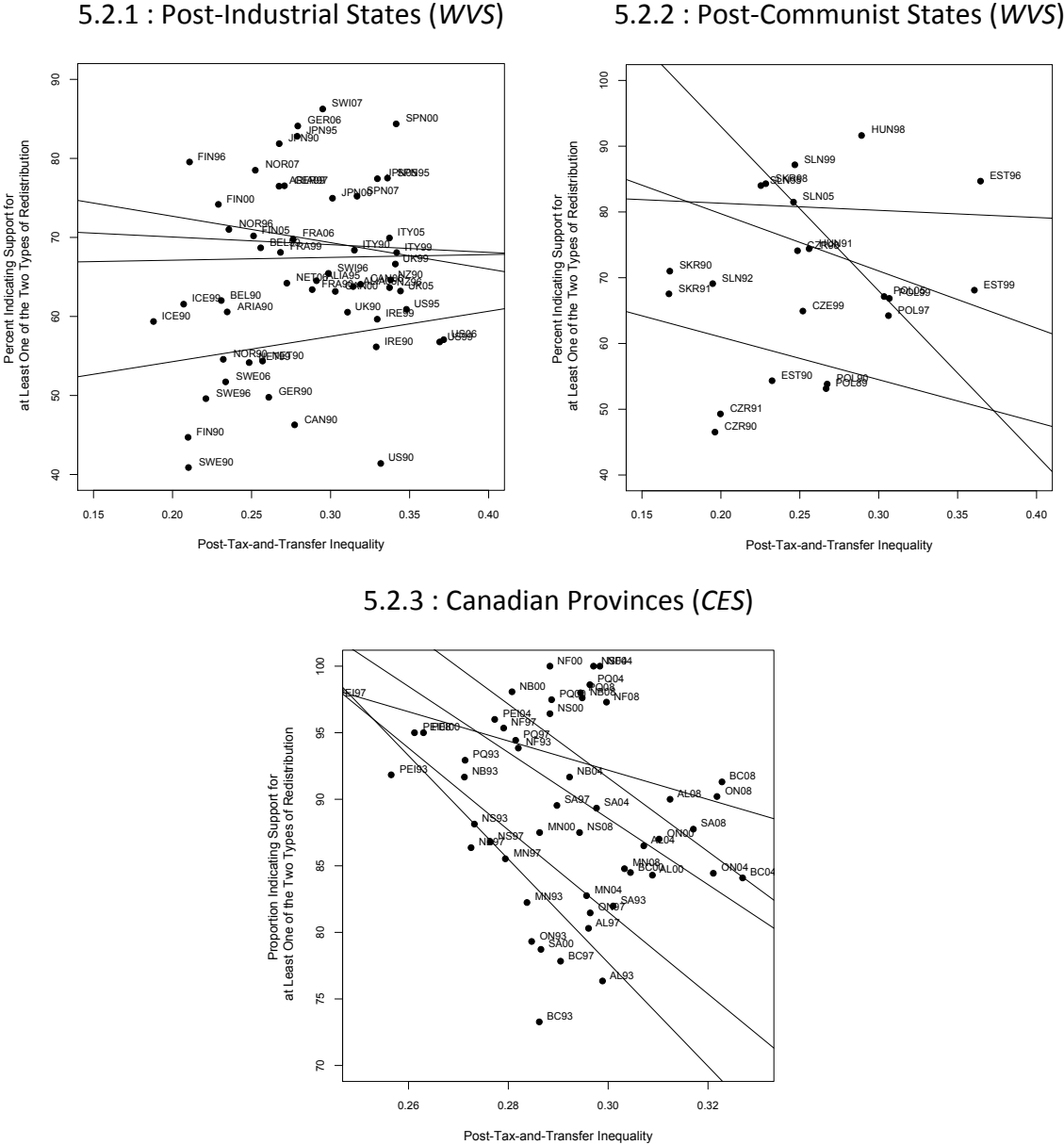
5.1.3 : Canadian Provinces (CES)



Sources: Waves II to V of the World Values Survey and the 1993, 1997, 2000, 2004 and 2008 iterations of the Canadian Elections Study. Micro-level sample sizes are 69,318, 21,711 and 7,091 for each of the three analyses, respectively.

Notes: Missing data values are imputed with Honaker, King and Blackwell’s *Amelia II* software. The WVS question used to measure attitudes towards *income equalization* asks respondents the extent to which they agree that “incomes should be made more equal” rather than that “we need larger income differences as incentives for individual effort.” The question used to measure support for the *public provision of economic security* asks them the extent to which they agree that “the government should take more responsibility to ensure that everyone is provided for” rather than that “people should take more responsibility to provide for themselves”. The CES question used to measure attitudes towards *generalized income equalization* asks respondents: “How much should be done to reduce the gap between the rich and poor in Canada?” The question used to measure support for the provision of adequate living standards asks them whether they agree that “the government should see to it that everyone has a decent standard of living” or that “the government should leave people to get ahead on their own.”

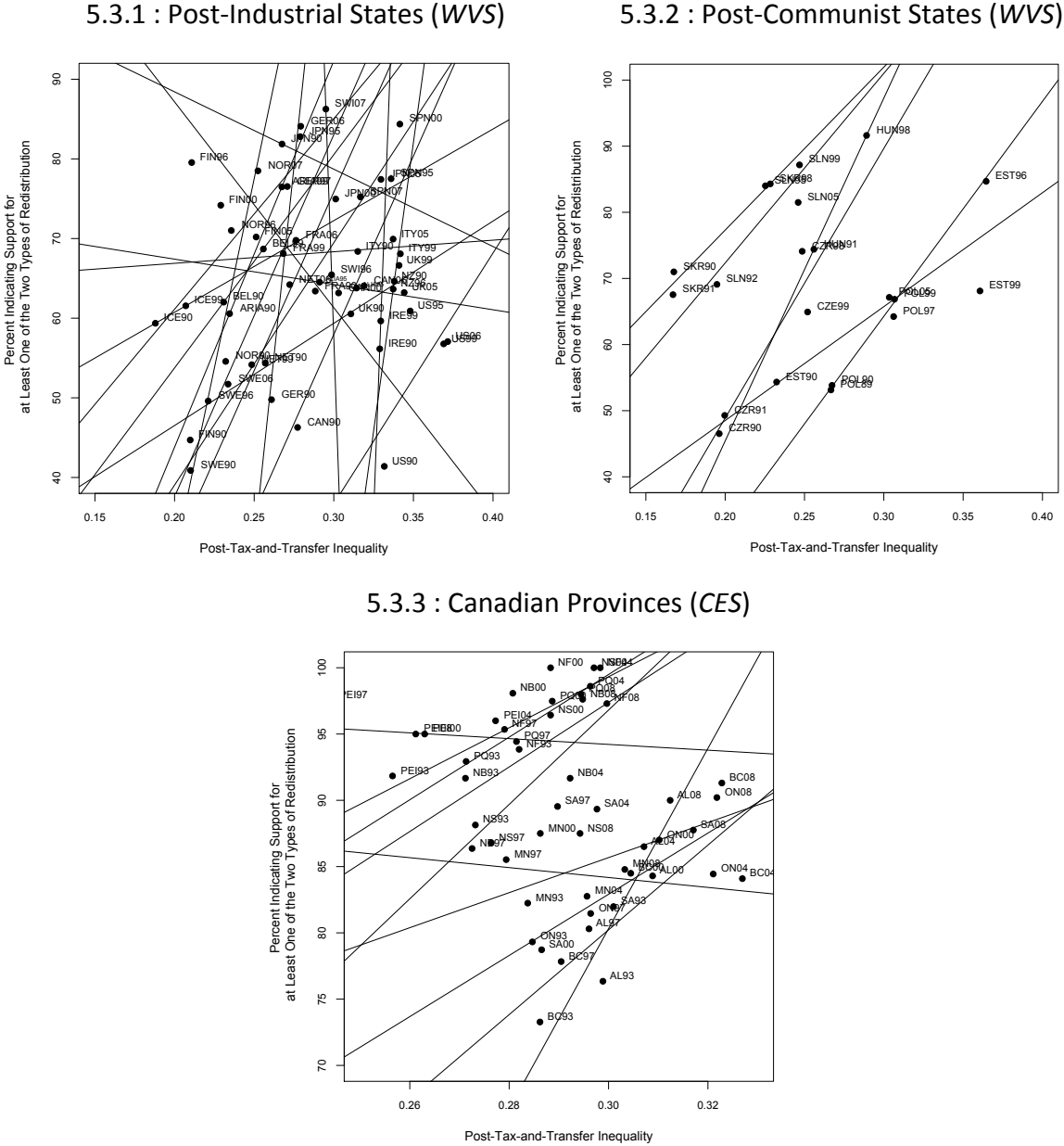
Figure 5.2: Scatterplots of the Relationship between Macro-Level Inequality and Support for Redistribution, with Estimated Lines of Best Fit *by Cross-Section*



Sources: Waves II to V of the *World Values Survey* and the 1993, 1997, 2000, 2004 and 2008 iterations of the *Canadian Elections Study*. Micro-level sample sizes are 69,318, 21,711 and 7,091 for each of the three analyses, respectively.

Notes: Missing data values are imputed with Honaker, King and Blackwell’s *Amelia II* software. The *WVS* question used to measure attitudes towards *income equalization* asks respondents the extent to which they agree that “incomes should be made more equal” rather than that “we need larger income differences as incentives for individual effort.” The question used to measure support for the *public provision of economic security* asks them the extent to which they agree that “the government should take more responsibility to ensure that everyone is provided for” rather than that “people should take more responsibility to provide for themselves”. The *CES* question used to measure attitudes towards generalized income equalization asks respondents: “How much should be done to reduce the gap between the rich and poor in Canada?” The question used to measure support for the provision of adequate living standards asks them whether they agree that “the government should see to it that everyone has a decent standard of living” or that “the government should leave people to get ahead on their own.”

Figure 5.3: Scatterplots of the Relationship between Macro-Level Inequality and Support for Redistribution, with Estimated Lines of Best Fit Through Time



Sources: Waves II to V of the *World Values Survey* and the 1993, 1997, 2000, 2004 and 2008 iterations of the *Canadian Elections Study*. Micro-level sample sizes are 69,318, 21,711 and 7,091 for each of the three analyses, respectively.

Notes: Missing data values are imputed with Honaker, King and Blackwell’s *Amelia II* software. The *WVS* question used to measure attitudes towards *income equalization* asks respondents the extent to which they agree that “incomes should be made more equal” rather than that “we need larger income differences as incentives for individual effort.” The question used to measure support for the *public provision of economic security* asks them the extent to which they agree that “the government should take more responsibility to ensure that everyone is provided for” rather than that “people should take more responsibility to provide for themselves”. The *CES* question used to measure attitudes towards generalized income equalization asks respondents: “How much should be done to reduce the gap between the rich and poor in Canada?” The question used to measure support for the provision of adequate living standards asks them whether they agree that “the government should see to it that everyone has a decent standard of living” or that “the government should leave people to get ahead on their own.”

Table 5.1: Estimated Effects on Support for Redistribution Cross-Nationally and in Canada

	Post-Industrial States (WVS)			Post-Communist States (WVS)			Canadian Provinces (CES)		
	Δ in Log Odds	Δ in Predicted Probability	P-Value	Δ in Log Odds	Δ in Predicted Probability	P-Value	Δ in Log Odds	Δ in Predicted Probability	P-Value
Sociodemographic Dimensions									
Couple (Base = Single)	-0.02	-0.005	0.217	-0.02	-0.004	0.638	-0.22	-0.016	0.026 *
Gender (Base = Male)	0.24	0.051	0.000 ***	0.22	0.040	0.000 ***	0.57	0.029	0.000 ***
Religion (Base = Protestant)									
Not Religious	0.10	0.022	0.000 ***	0.01	0.003	0.858	0.23	0.014	0.049 *
Catholic	0.16	0.033	0.000 ***	0.28	0.051	0.001 ***	0.58	0.030	0.000 ***
Jewish	0.33	0.068	0.012 *	1.42	0.185	0.202	-0.35	-0.026	0.342
Muslim	0.32	0.067	0.018 *	0.73	0.117	0.086 .	---	---	---
Buddhist	0.01	0.003	0.871	0.60	0.100	0.579	---	---	---
Other Religion	0.11	0.024	0.002 **	0.28	0.052	0.013 *	0.15	0.009	0.388
Ethnic Heritage (Base = Caucasian / Canadian)									
British	---	---	---	---	---	---	-0.05	-0.003	0.749
French / Quebecois	---	---	---	---	---	---	0.15	0.009	0.446
Other European	---	---	---	---	---	---	-0.13	-0.009	0.417
Aboriginal	-0.35	-0.080	0.308	---	---	---	0.17	0.010	0.693
African	0.20	0.042	0.031 *	---	---	---	0.26	0.015	0.713
East Asian	0.04	0.009	0.743	---	---	---	-0.28	-0.021	0.370
South Asian	0.43	0.087	0.013 *	---	---	---	0.29	0.017	0.566
Middle Eastern	0.17	0.036	0.450	---	---	---	0.31	0.018	0.541
Other Ethnicity	0.11	0.023	0.415	---	---	---	-0.04	-0.002	0.954
Immigrant (Base = Not)	0.01	0.003	0.826	-0.21	-0.043	0.129	0.09	0.006	0.473
Racism (Base = Not)	0.04	0.008	0.425	0.19	0.035	0.000 ***	-0.25	-0.019	0.085 .
Anti-Immigrant (Base = Not)	0.01	0.002	0.801	0.17	0.031	0.000 ***	-0.22	-0.016	0.030 *
Racism X Anti-Immigrant Interaction	-0.04	-0.010	0.559	-0.16	-0.033	0.086 .	0.15	0.009	0.579
Net Estimated Effect	0.00	0.001	0.999	0.19	0.035	0.000 ***	-0.32	-0.024	0.000 ***
Ethnic Diversity [†]	-0.45	-0.072	0.185	1.13	0.076	0.318	-1.60	-0.031	0.347
Political Dimensions									
Political Ideology (Base = Left)									
Center	-0.72	-0.173	0.000 ***	-0.43	-0.092	0.000 ***	-0.82	-0.076	0.000 ***
Right	-1.21	-0.293	0.000 ***	-0.76	-0.171	0.000 ***	-1.63	-0.208	0.000 ***
Confidence in the Civil Service (Base = High)									
Medium High	-0.15	-0.033	0.000 ***	0.01	0.002	0.893	-0.22	-0.016	0.405
Medium Low	-0.16	-0.036	0.000 ***	-0.04	-0.007	0.616	-0.60	-0.050	0.023 *
Low	-0.19	-0.042	0.000 ***	0.09	0.017	0.256	-0.80	-0.074	0.005 **
Union Status (Base = Not)	0.15	0.032	0.000 ***	0.03	0.006	0.462	0.30	0.017	0.002 **
Left Government Domination [†]	-0.09	-0.039	0.474	0.01	0.089	0.415	0.27	0.021	0.114
Economic Dimensions									
Income (Base = Low Income)									
Medium Low	-0.16	-0.036	0.000 ***	-0.14	-0.028	0.054 .	-0.26	-0.019	0.169
Medium	-0.37	-0.085	0.000 ***	-0.34	-0.072	0.000 ***	-0.67	-0.058	0.000 ***
Medium High	-0.58	-0.137	0.000 ***	-0.59	-0.130	0.000 ***	-0.84	-0.079	0.000 ***
High	-0.75	-0.180	0.000 ***	-0.62	-0.137	0.000 ***	-1.21	-0.131	0.000 ***
Very High	-1.06	-0.256	0.000 ***	-0.89	-0.204	0.000 ***	-1.75	-0.233	0.000 ***
Education (Base = Incomplete Highschool)									
Highschool	-0.17	-0.037	0.000 ***	-0.39	-0.084	0.000 ***	-0.12	-0.008	0.426
Some University	-0.24	-0.055	0.000 ***	-0.61	-0.134	0.000 ***	-0.43	-0.034	0.002 **
University	-0.35	-0.081	0.000 ***	-0.75	-0.169	0.000 ***	-0.33	-0.024	0.025 *
Age (Base = Low)									
Middle	-0.04	-0.009	0.137	-0.04	-0.007	0.441	-0.02	-0.001	0.905
High	-0.08	-0.018	0.004 **	0.07	0.013	0.206	-0.04	-0.002	0.815
Senior	-0.19	-0.043	0.000 ***	0.09	0.016	0.244	0.10	0.006	0.635
Employment Status (Base = Unemployed)									
Self-Employed	-0.58	-0.138	0.000 ***	-0.70	-0.156	0.000 ***	-0.94	-0.092	0.001 **
Employed	-0.30	-0.069	0.000 ***	-0.25	-0.052	0.003 **	-0.71	-0.063	0.011 *
Retired	-0.16	-0.037	0.008 **	-0.09	-0.017	0.390	-0.92	-0.088	0.005 **
Student	-0.25	-0.056	0.000 ***	-0.45	-0.097	0.000 ***	-0.75	-0.068	0.034 *
Homemaker	-0.17	-0.039	0.001 ***	-0.24	-0.049	0.042 *	-0.99	-0.098	0.003 **
Other	-0.10	-0.022	0.127	-0.33	-0.069	0.018 *	0.45	0.024	0.496
Senior X Retired Interaction	-0.15	-0.033	0.039 *	-0.18	-0.037	0.109	-0.38	-0.029	0.226
Net Estimated Effect	-0.50	-0.117	0.000 ***	-0.18	-0.037	0.109	-1.20	-0.130	0.000 ***
Cross-Sectional Inequality [†]	-9.97	-0.365	0.069 .	-15.24	-0.449	0.002 **	-49.23	-0.339	0.000 ***
Longitudinal Inequality [†]	10.41	0.259	0.045 *	13.11	0.205	0.004 **	24.93	0.044	0.001 ***
Redistribution [†]	-0.05	-0.007	0.909	0.98	0.033	0.771	0.76	0.008	0.689
Economic Growth [†]	0.00	-0.002	0.977	-0.01	-0.043	0.761	12.53	0.053	0.001 **
	Base Log Odds	Base Predicted Probability	P-Value	Base Log Odds	Base Predicted Probability	P-Value	Base Log Odds	Base Predicted Probability	P-Value
Intercept	0.73	0.674	0.000 ***	1.02	0.735	0.000 ***	2.58	0.930	0.000 ***

Significance Indicators: *** < 0.001 0.001 < ** < 0.010 0.010 < * < 0.050 0.050 < . < 0.100

Sources: Waves II through V of the *World Values Survey* and the 1993, 1997, 2000, 2004 and 2008 iterations of the *Canadian Elections Study*.

Notes: Macro-level contextual variables are designated with a [†]; Sample Sizes are 69,318, 21,711 and 7,091 for each of the three analyses, respectively.

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