

The Political Representation of the Poor

by

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For my Mum and Dad, and for Ryan, with love and gratitude.

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The offices and charges of the society should be apportioned for the good of the society itself, and in such mode that difference in degree or standing should not interfere with unanimity and good-will. It is most important that office bearers be appointed with due prudence and discretion, and each one's charge carefully mapped out, in order that no members may suffer harm. The common funds must be administered with strict honesty, in such a way that a member may receive assistance in proportion to his necessities. *Rerum Novarum (1891)*

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Chapter 1.

Electoral Politics and Poverty Relief

1.1 Introduction

Late one evening in the early 1990s, the former Prime Minister Benedetto Craxi was met by a large crowd outside the exclusive Roman hotel where he lived. Huddled beneath his overcoat, and pelted with coins, Craxi heard the protesters' angry cries: "*Bettino, vuoi pure queste?*" "Bettino, you want these too?" The immediate source of the crowd's anger was Craxi's claim, when accused with accepting over \$30 million in bribes, that bribes were simply a part of politics (Waters 1994).

That Craxi, the long-time leader of the Italian Socialist Party, came to symbolize the excesses of the *tangentopoli* ('bribeville') scandals is indicative of equally unprincipled social policy: "Welfare capitalism Italian-style" concentrated benefits within the powerful (unionized) industrial sectors, and other "protected" categories (e.g. old age and survivors contributory pensions), and left many vulnerable groups without support. There were few family benefits or services, nor was there any support for the young and unemployed, the self-employed, or for those who had been unemployed for long periods of time (Ferrera 2004). The absence of a national policy to provide for income support was especially troubling to observers, and in its absence, civil invalidity pensions became both an important source of poverty relief, and the "hard currency" of clientelistic relationships (see Sacchi & Bastagli 2005, Baldini, Bosi & Toso 1999).

By the end of the decade, however, Italian social policy was headed in an entirely different direction. Beginning in the mid 1990s, new, more comprehensive antipoverty policies featured prominently on the legislative agenda, including provisions for universal income support, transfers to large families, maternity allowances, and income support for otherwise ‘unprotected’ groups (e.g. elderly citizens who were not eligible to receive standard pensions). A government-appointed commission on social expenditure recommended further, even more comprehensive changes in antipoverty policy, and in particular called attention to the “underprotected” and “weaker social categories;” many of the Onofri Commission’s recommendations were implemented in a 2001 Social Plan. What accounts for this dramatic shift in Italian poverty relief— from highly targeted social policy, to a comprehensive antipoverty program?

This research also takes on more general questions about the political representation of low-income citizens: How do electoral rules affect the poor? Under what conditions are legislators likely to be more or less responsive to the poor? What are the distributional consequences of partisan and electoral incentives to be more or less responsive to the poor?

Current explanations of cross-national differences in social policy neglect important features of poverty relief: Antipoverty measures are highly targeted policies that are readily perceived by the beneficiaries and attributable to incumbent legislators. Because of these features, following Franzese (2002), antipoverty policies are especially well-suited for manipulation by election-motivated politicians. Legislators may craft antipoverty policy meet their electoral goals, providing generous and comprehensive benefits only when the electoral support of low-income citizens is necessary to maintain their office.

This discussion presents evidence that distributions to low-income citizens do reflect legislators’ electoral incentives to be responsive to the poor, and that these

electoral incentives are determined by the election rules and by the distribution of low-income citizens across electoral districts. Specifically, the magnitude of each electoral district – the number of seats allocated – interacts with the concentration of low-income voters within the district to enhance or diminish the electoral power of low-income voters. This election-motivated account of antipoverty policy breaks with conventional economic explanations, power resources, and cultural accounts of social policy in important ways that are elaborated in this Chapter. More importantly, this election-motivated account of antipoverty policy makes an important departure from other political economic explanations of social policy that rest on sharp distinctions between proportional representation (PR) and single-member district (SMD) systems, and link PR electoral rules to more generous progressive redistributive policy: When poverty is highly concentrated, electoral incentives to be responsive to low-income citizens may be stronger under SMD than under PR rules. In fact, the change in Italian social policy, I argue, results from an important reform that replaced most of Italy’s multi-member districts (MMD), in which legislators were elected according to a PR seat allocation rule, with SMDs. Following this electoral reform, legislators in the impoverished Italian South were much more reliant on the electoral support of low-income voters, and as a consequence, had much stronger incentives to craft responsive antipoverty policy.

There is much to be learned by examining the quality of contemporary democratic government from the perspective of those who may be least well-represented. By focusing on antipoverty policy and the generosity of cash transfers to low-income citizens as the key dependent variable– that is, costly policy measures – the empirical foundation of this project offers a hard test of how, given the geographic distribution of income, electoral rules affect the poor. That, in the end, cross-national differences in levels of poverty relief reflects variation in legislators’ electoral incentives to be responsive to low-income citizens is cause for concern: The electoral institutions of

contemporary democratic societies may undermine opportunities for these societies to meet their goal of democratic equality.

1.2 Democracy and Poverty Relief

At its core, this research is an empirical analysis of how electoral rules affect the political representation of the poor. Nevertheless, Rawls's (1971) concept of democratic equality provides important structure and motivation for this research agenda. If democratic equality is the goal of the contemporary democratic enterprise – that is, to establish societies that protect basic liberties and are characterized by fair equality of opportunity and the difference principle, which privileges the least advantaged members of society in normative evaluations of policy – then comparative politics ought to evaluate the quality of democratic representation with this goal in mind. Specifically, this analysis focuses on the quality of political representation from the perspective of those least well-represented and holds redistributive policy to the standard implied by Rawls's (1971) difference principle: Do redistributive measures concentrate benefits among the least advantaged citizens?

Two questions immediately arise, however, and warrant some attention: First, is there evidence that the interests of low-income citizens are unlikely to be well-represented in contemporary democratic societies? Second, what purpose do anti-poverty measures serve? Building on current research in political science, this section briefly responds to these important research questions.

Social and Political Exclusion

In this research, poverty is seen as a condition of “social exclusion” that limits “the capacity of the individual to participate fully in the society in which she or he lives” (Council of the European Union 2007, 10). The relationship between social exclu-

sion and political exclusion is well-established: Following Macedo, Alex-Assensoh, Berry, Brintnall, Campbell, Fraga, Fung, Galston, Karpowitz, Levi, Levinson, Lipsitz, Niemi, Putnam, Rahn, Rodgers, Swanstrom & Walsh (2005, 37), “[o]ne of the enduring findings of political science research over the past fifty years is that poor people participate less than the wealthy across the entire spectrum of political activities.” In the contemporary U.S. across-income-group differences in political participation mean that “[c]itizens with lower or moderate incomes speak with a whisper that is lost on the ears of inattentive government officials, while the advantaged roar with a clarity and consistency that policy-makers readily hear and routinely follow” (Task Force on Inequality and American Democracy 2004). Whether differences in policy responsiveness result from legislator inattentiveness or from strategic responsiveness, Bartels (2008) and Gilens (2005) demonstrate that the inequitable representation of citizen preferences is unambiguous: Across a wide variety of policy dimensions, American policy rarely reflects the preferences of low-income citizens.

Though Bartels’s (2008) and Gilens’s (2005) results have not yet been replicated in other developed democracies and the strength of the relationship between social and political exclusion varies cross-nationally, evidence from broadly comparative individual-level analysis generally replicate the American findings (e.g. Nevitte, Blais, Gidengil & Nadeau Forthcoming, Anderson & Beramendi 2005, Blais 2000).¹ As a consequence of these lower rates of participation, and even without the strategic responsiveness of legislators, the preferences of low-income citizens are unlikely to be well-represented in the policy-making processes of contemporary democratic societies.

My focus on low- and very low-income citizens marks an important departure from other comparative analysis of social policy. Huber & Stephens (2001, 18), for

¹Often, however, it is not low-income but factors associated with low-levels of income (e.g. being unemployed, or having few years of formal education) that demonstrate the most robust relationships with measures of political participation (e.g. Blais 2000). The varying relationship between social and political exclusion will be studied extensively in future research, with the support of a EuroCORES HumVIB grant from the European Science Foundation.

example, explicitly exclude “people without connection to the process of production.”

Since the late 1970s, the group of long-term unemployed, mostly people with low skills, has grown and has come to constitute what is referred to as an underclass. This group has become an important target of welfare state policy, particularly different versions of workfare. However, precisely because it lacks skills and connection to the process of production, it also lacks organization and power and thus is acted upon rather than being an actor in shaping the welfare state.

In fact, the electoral power of a low-income voting bloc may have little to do with organization or connections to the process of production: Under some conditions, the political equality secured through electoral participation is sufficient for the poor and very poor to exert important influence over – that is, to be actors in the formation of – social policy.

Antipoverty Policies and Political Equality

Redistributive measures are desirable from social welfare and economic perspectives (see Lambert 2001). However, following Olson (2006), this research relies on a political justification for social policy: In societies characterized by economic inequality, the opportunity for the political equality lies in a guarantee of the means for equal participation. Specifically, antipoverty measures provide the means to overcome social and political exclusion and, therefore, alter the incentive structures that favor the representation of high- and middle-income citizens. In Olson’s (2006) reflexive framework, therefore, comprehensive antipoverty measures ensure the political equality that ultimately sustains the welfare state, and thus perpetuates political equality.

As will become clear shortly, however, this discussion makes an important departure from Olson’s (2006) emphasis on political participation: Here, political equality is only partly secured through full participation. Given the distribution of voter groups, a country’s electoral rules may limit legislators’ incentives to be responsive to low-income citizens. It is when electoral rules ensure the fair representation

of low-income citizens, and low-income citizens are supported in their efforts to be fully participatory that antipoverty measures will be most generous and will be sustained through full political equality. Alternatively, when electoral rules diminish the electoral power of low-income citizens and few in the legislature owe seats to their support, and voting is especially costly, antipoverty policies will be limited in their effectiveness in overcoming social and political exclusion.

1.3 Three Puzzles in Poverty Responsiveness

This research departs, as well, from current thinking about the causes of cross-national differences in social policy. To illustrate, this section presents evidence that poverty responsiveness is not well-accounted for by three prominent explanations of cross-national differences in social policy. Each of the subsections that follow use a measure of poverty responsiveness, the poverty relief ratio \mathcal{R} , as the dependent variable. Chapter 3 fully develops and justifies this measure. Here, the poverty relief ratio \mathcal{R} should be interpreted as the ratio of the extent of redistribution that occurs within a country to the full extent of redistribution needed to bring the income of all (working-age²) households below the poverty line to the level of the poverty line itself. That is, \mathcal{R} reports how successful antipoverty cash transfers are in alleviating poverty: As a ratio, \mathcal{R} takes values between 0 and 1, and higher values indicate greater levels of antipoverty policy success.

²For reasons addressed in Chapter 3, the analysis presented in this research includes only working-age households (i.e. households in which the head of the household is 25-59 years old). All measures of poverty relief, levels of benefits, Gini coefficients reflect the distribution of income and transfers among working-age households only and, as a consequence, the values of these measures will be slightly different from those reported elsewhere.

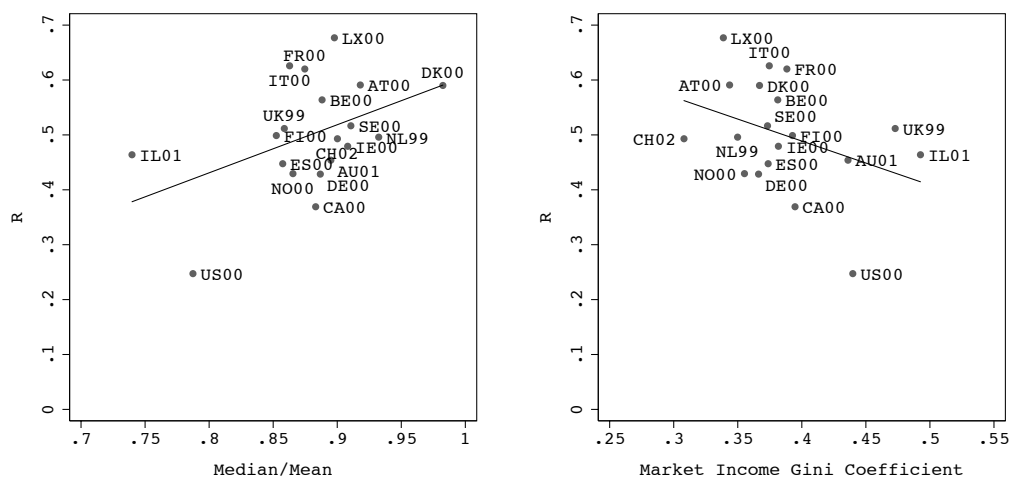
Puzzle 1: Income Inequality and Poverty Responsiveness

Current explanations of social policy often draw attention to the structure of the labor market, and especially to levels of market income inequality. In their now-classic treatments of the linear tax model, Romer (1975) and Meltzer & Richard (1981) link redistributive policy to electoral competition by recognizing the right-skew that characterizes national market-income distributions: The median voter, who is pivotal in first-past-the-post (FPTP) elections, will have an income less than national income mean. If proportional taxes are assessed and benefits are distributed in equal lump-sum amounts, as the Romer–Meltzer & Richard models assume, the median voter will prefer a positive tax rate and stands to gain in proportion to the difference between her income and the national mean income level. These analysis imply, then, that in countries that are characterized by high levels of market-income inequality, the median voter should prefer and governments should implement highly progressive redistributive policies: Inequality in national market-income distributions should be positively associated with more extensive redistributive policies. Under the assumptions of the linear tax model, redistributive benefits for those with low and very-low levels of market income should also increase with overall levels of inequality.³ How well does this expectation hold?

Figure 1.1 reports the bi-variate relationship between pre-tax and transfer income inequality and redistributive policy, using different measures of income inequality and redistribution, and data from 19 developed democracies. In the left panel,

³More recent revisions of the Romer and Meltzer & Richard models incorporate risk of unemployment, and endogenous targeting of benefits towards the employed and unemployed (see Moene & Wallerstein 2003, Moene & Wallerstein 2003). Nevertheless, as Franzese (2005) shows that the Romer–Meltzer & Richard models are special cases of the Moene & Wallerstein model, the relationship between income inequality and redistribution generally remains positive: With the level and extent of targeting of benefits towards the employed and unemployed democratically determined, the monotonic increasing relationship between income inequality and redistribution is violated unambiguously only when benefits are targeted exclusively towards the poor, and when wage earnings inequality is sufficiently small. Otherwise, a decline in workers' wages relative to the mean income increases demand for redistribution.

Figure 1.1: Income Inequality and Poverty Responsiveness



NOTE. Figure 1.1 reports the bi-variate relationship between market income inequality (measured here using a Gini coefficient; see Milanovic 1997) and poverty responsiveness. The poverty relief ratio, \mathcal{R} , measures targeted benefits to low-income households, and is developed in Chapter 3. Country labels are reported in Table 3.2. Solid lines report ordinary least-squares (OLS) fitted values (standard errors reported in parentheses):

$$\mathcal{R} = -0.269(0.369) + 0.876(0.419)\{ \text{Median Income} / \text{Mean Income} \} \quad (1.1)$$

and

$$\mathcal{R} = 0.809(0.191) - 0.801(0.490)\{ \text{Market Income Gini Coefficient} \}. \quad (1.2)$$

SOURCE. LIS.

following the Romer–Meltzer & Richard models, income inequality is measured using the ratio of median to mean market income for each country. As higher values of this measure correspond to greater levels of equality, the Romer–Meltzer & Richard analysis implies that a negative relationship should be observed in this panel, with less redistribution occurring in the more equitable countries.

The panel on the right uses a more conventional measure of inequality: Gini coefficients (Milanovic 1997) report deviations in the cumulative distribution of income from the cumulative population distribution. Larger deviations, and thus large coefficients, indicate a more inequitable distribution. As a consequence, the Romer–

Meltzer & Richard analysis would lead us to expect a positive relationship in this panel, with more inequitable market income distributions leading to more progressive redistributive policy.

The relationships observed in Figure 1.1, of course, do not reflect the empirical implications of the Romer–Meltzer & Richard models: Surprisingly, levels of market income inequality are not positively related to antipoverty transfers. In fact, little empirical evidence connects levels of market income inequality to redistributive policy. Milanovic (2000), for example, uses Luxembourg Income Study (LIS) data to demonstrate that the median household generally loses – rather than benefits – from redistribution. Alesina & Glaeser (2004, 59) suggest why analysts may not observe the expected positive relationship between income inequality and redistributive measures: First, market-income measures of income inequality like the Gini coefficient do not reflect redistributive measures that are implemented prior to observing the market income distribution, including education, minimum wage, and other active labor market policies. Second, relatedly, particularly in cross-sectional analysis, transfer-based measures of redistribution may only partially report cross-national differences in social policy. Near- and non-cash benefits, for example, are explicitly excluded from transfer-based measures of redistribution.

Notice that Alesina & Glaeser’s (2004) emphasis, so far, is on measurement: If market income inequality and redistributive policy could be measured with more validity and reliability, then perhaps the relationship between market income inequality and redistributive policy would conform to the empirical implications of the Romer–Meltzer & Richard. In fact, Alesina & Glaeser (2004, 59) are skeptical of a fundamental premise of the linear tax model: “[i]n countries with greater income inequality, the poor may not have enough political influence and hence may not be able to extract much redistribution from the rich. That is, such countries may de facto lack a one-person, one-vote rule, which underlies the models’ results, but in-

stead have something closer to a de facto one-dollar, one-vote rule.” A one-dollar, one-vote rule implies that the citizen with the median income is not the median – pivotal – voter. To the extent that high-income households are over-represented in the electorate, Alesina & Glaeser suggest, the median citizen is unlikely to be pivotal in national elections.

There is another way, however, in which the electoral power of the median citizen may be undermined: Even when one-person, one-vote conditions prevail (i.e., there is no turnout bias), it is only when elections are contested in single nationwide districts, according to FPTP rules, that we might expect redistributive policy to reflect the median citizen’s preferences. The core intuition of this research is that the interaction between electoral rules and the geographic distribution of citizen types importantly determine who, or which group, is likely to be pivotal in the development of redistributive policy.

Puzzle 2: Power Resources and Poverty Responsiveness

A second important class of explanations of social policy attributes cross-national differences to the historical balance of power among the income groups in each country (see, e.g. Huber & Stephens 2001, Esping-Andersen 1990, Korpi 1978, Korpi 1983, Stephens 1979). Huber & Stephens, for example, emphasize the role played by the dominant ideology of governing parties as the source of differences between types of social assistance programs: Different ideologies, Huber & Stephens argue, emphasize different views on work and the proper role of governments in providing for their citizens. As a consequence, differences in the historical balance of power among parties competing to form the government, and the ideological positions these parties take, and therefore, result in markedly different welfare policies.

Esping-Andersen (1990) puts similar emphasis on the historical balance of power between political parties and other organizations with class ties. Specifically,

Esping-Andersen identifies crucial interactions between patterns of (working-) class mobilization, class-political action structures, and the historical legacy of regime institutionalization, that set countries on one of three paths of welfare state development. What is important, as in Huber & Stephens's account of cross-national differences, are the historically predominant ideological beliefs about the nature of work and its relationship to the market (i.e., the extent of de-commodification), and about social stratification and class-based solidarity. Differences on these dimensions are reflected in the criteria used to determine eligibility for benefits: The extent to which the poor rely on targeted social assistance benefits, rather than broadly distributive social insurance entitlements, provides a key dimension along which the three worlds of welfare capitalism are defined. Specifically, Esping-Andersen classifies social democratic welfare regimes as those in which social insurance benefits are considered a natural, and universal extension of democratic citizenship, and are distributed according to a flat rate principle: Compared to other states, in societies characterized by 'social democratic' welfare regimes, there is little difference between the basic and maximum levels of benefits distributed. (Benefits are not based on, for example, need or level of employment). 'Liberal' welfare regimes, in contrast to both conservative and socialist regimes, emphasize need in their distribution of benefits. Further, social insurance and pensions are often provided through private funds, with residual policies to provide for those without support. Finally, Esping-Andersen classifies countries in which social insurance programs vary across occupational groups, and public servants are endowed with comparatively large pensions as 'conservative.'⁴

Both of these power resource accounts – Huber & Stephens (2001) and Esping-Andersen (1990) – have implications for redistributive spending, generally, and an-

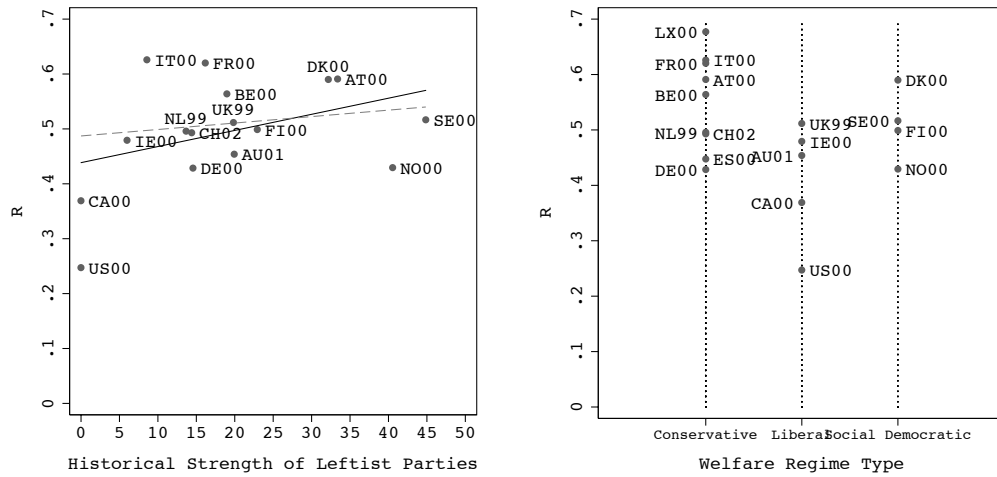
⁴In their revision of Esping-Andersen's (1990) classification, Hicks & Kenworthy (2003) suggest that most of the cross-national variation can be captured by two dimensions, one in which the liberal and social democratic archetypes serve as anchoring poles, and countries are largely distinguished by their reliance on means-tested benefits, and another which distinguishes countries by the degree of occupational and status-based differences in social insurance benefits.

tipoverty policies in particular: If differences in social policy result from the historical balance of power among class-based organizations, then in those countries in which parties of the left, particularly the social democratic left, have been especially strong, tax and transfer policies should be especially effective in diminishing market income inequality and alleviating poverty (see Bradley, Huber, Moller, Neilsen & Stephens 2003, Huber & Stephens 2001). Specifically, we should see levels of poverty relief increase with number of years in which a country's cabinet is formed by a leftist or social democratic party, and generally be higher in Esping-Andersen's (1990) social democratic regimes.

Figure 1.2 reports the bi-variate relationship between the historical strength of leftist parties (measured here as the number of years in which the governing cabinet was formed by leftist parties, beginning in 1946; see Huber et al. 2004, Huber & Stephens 2001) and welfare regime type, and poverty responsiveness, measured using the poverty relief ratio, \mathcal{R} . Although a positive relationship between the historical strength of the left and poverty responsiveness is evident in the left panel of Figure 1.2, this relationship is considerably weakened with the exclusion of the U.S.: With no political parties of the left, and levels of poverty responsiveness considerably less than the other countries included in the analysis, the U.S. exerts considerable leverage in this relationship. With only 15 countries included in Figure 1.2, any conclusions must be tentative. Nevertheless, particularly when comparisons are made across welfare regime types (right panel), a power resources approach accounts for few of the cross-national differences in levels of poverty responsiveness: Contemporary levels of poverty relief do not reflect cross-national differences in the historical balance of power among class-based organizations.⁵

⁵In fact, the relationship between the historical power of the left and poverty responsiveness will be used as a jumping-off point for future research: When do parties of the left have an incentive to stand for election? This question will be given more complete treatment in the conclusion of this project.

Figure 1.2: Power Resources and Poverty Responsiveness



NOTE. This Figure reports the bi-variate relationships between poverty responsiveness, and the historical strength of leftist parties (left panel), and welfare regime type (right panel). Country labels are reported in Table 3.2.

The solid line in the left panel reports OLS fitted values for all cases (standard errors are reported in parentheses):

$$\mathcal{R} = 0.438(0.0420) + 0.003(0.002)\{ \text{Historical Strength of Leftist Parties} \}. \quad (1.3)$$

The dashed line in the left panel reports OLS fitted values for an analysis that excludes the U.S.:

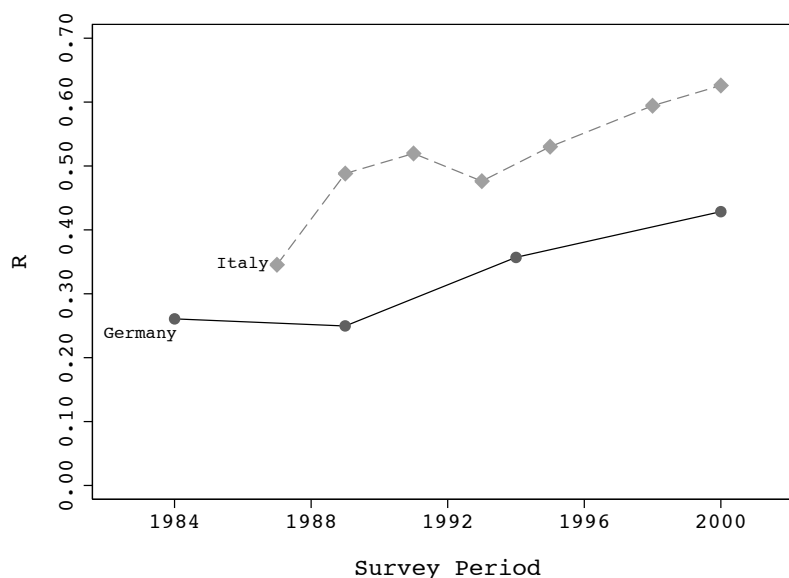
$$\mathcal{R} = 0.487(0.039) + 0.001(0.001)\{ \text{Historical Strength of Leftist Parties} \}. \quad (1.4)$$

SOURCE. LIS. Historical strength of leftist parties: Huber, Ragin, Stephens, Brady & Beckfield (2004). Welfare regime type: Esping-Andersen (1990).

Puzzle 3: Path Dependence and Poverty Responsiveness

Notice that both Esping-Andersen's (1990) and Huber & Stephens's (2001) power resources accounts of cross-national differences in social policy emphasize the long-run historical balance of power among political parties and organizations with class ties. Esping-Andersen (1990), in particular, attributes important differences in contemporary social policy to differences in working-class political formation and in the nature of rural coalitions during the period of industrialization. The path dependence of

Figure 1.3: Path Dependence and Poverty Responsiveness



NOTE. This Figure reports changing levels of poverty responsiveness in Germany and Italy between 1984 and 2000.

SOURCE. LIS.

early power distributions is heightened by the legacies of early social policies (see, e.g. Pierson 1996): Especially broad-based policies are quickly supported, with the consequence that their revision is enormously unpopular. Path dependence implies, as well, that populations are similarly skeptical of radical improvements in social policy. If, as Alesina & Glaeser (2004) suggest, the historical balance of power among class-based organizations tends to shape attitudes and opinions about poverty, dramatic changes in levels of benefits and eligibility criteria are likely to be met with resistance.

In fact, between 1984 and 2000, in Germany and Italy (both conservative welfare regimes) levels of poverty relief increased to over three times their original levels. Especially in Italy, as suggested in the introduction of this Chapter, legislators implemented social policy that much more comprehensive and generous than the

policy on which low-income Italian households relied. This dramatic change in policy is unaccounted for by power resources or policy legacy accounts of cross-national differences in antipoverty policy.

It turns out, however, that these changes we observe in Germany and Italy are well-accounted for by changes in Italy's electoral rules and in Germany's political geography. The next section of this discussion outlines current research on the relationship between legislators' electoral incentives and social policy.

1.4 Electoral Incentives and Social Policy

Current accounts of cross-national differences in social policy often treat electoral institutions as mechanisms that aggregate and articulate the preferences of a populations. In their account of the evolution of income support in the U.S., for example, Scholz & Levine (2001, 193) suggest that “[t]he antipoverty effects of the safety net vary with Americans’ attitudes toward welfare and assistance to the poor, because attitudes influence the evolution of specific programs.” Later in their discussion, Scholz & Levine (222) conclude that “the public and consequently politicians are indifferent about the poverty problem.” Esping-Andersen’s (1990, 16) makes a similar claim about the role of parliaments in the policy-making process: “Parliaments are, in principle, effective institutions for the translation of mobilized power into desired policies and reforms.” Even in Huber & Stephens’s (2001) account in which political parties play an important, policy-determining role, “state structure” – specifically federalism, presidential government, strong bicameralism, and provisions for referendums – determines only the number of veto points, or the likelihood that a policy expressing the will of the majority will be blocked (see also Bradley et al. 2003).

There is ample evidence, however, that “almost all important aspects of macroeconomic policy and performance” are determined by “the routine structures of poli-

tics” (Tuftte 1978, 137). In a wide variety of political settings, elected officials regularly manipulate (especially fiscal) policy to create favorable economic conditions in the months before or just after they stand for re-election, or to benefit their partisan constituencies more generally (for a recent review of the empirical literature supporting partisan and electoral business cycles, see Franzese & Jusko 2006). The relationship between electoral institutions and public policy outcomes is especially well-established: Social spending is positively related to the proportionality of the electoral system (see Iversen & Soskice 2006, Milesi-Ferretti, Perotti & Rostagno 2002, Persson & Tabellini 2003).

Why might PR electoral rules result in more generous and more comprehensive social policy? Current explanations of the generally higher levels of social spending associated with more proportional electoral rules attribute the relationship to the important ways in which electoral rules shape party competition, or to varying incentives to build broad-based coalitions, instead of providing geographically-targeted benefits.

Electoral Rules, Party Competition, and Social Policy

Iversen & Soskice (2006) and others (e.g. Persson, Roland & Tabellini 2003, Bawn & Rosenbluth 2006, Austen-Smith 2000) rely on an important regularity in comparative politics to establish the relationship between electoral rules and social policy: “Duverger’s Law” affirms that SMD electoral rules favor two-party competition. As a consequence, Iversen & Soskice suggest, voter preferences are imperfectly reflected in electoral competition under “majoritarian” rules. By their assumption, under SMD rules, party competition occurs between two parties that represent the interests of poor and wealthy voters, compete for the support of middle class voters. Thus, policy proposals tend to be moderate, reflecting the tax and transfer preferences of the pivotal middle class voters. However, both the low- and high-income parties have an

incentive to deviate from their campaign proposals once elected, and to implement the policies most preferred by their core constituencies, the low- and high-income voters. Because tax proposals are assumed to be progressive, with the low-income voters preferring a more progressive policy than the middle class voters would implement, the middle class voters stand to lose more by voting with the low-income voters, than with the high-income voters. Therefore, under SMD rules, middle-income voters will support, instead, the party that represents the interests of the high-income voters.

PR rules, however, create incentives for a larger number of parties to compete in each election. Iversen & Soskice (2006) assume that three parties compete under PR rules, with each party perfectly reflect the interests of their low-, middle- or high-income constituencies. With the electoral support of equally-sized constituencies, each party will win an equal share of seats, and the party representing middle-income voters will negotiate with the other parties to form a governing coalition. Specifically, the party representing middle class-income voters can establish a policy compromise with the party that represents low-income voters that benefits middle-income voters. That low-income voters would prefer this negotiated outcome to the policy that would result from a high- and middle-income governing coalition provides the stability of the coalition.

What is important for this analysis is that the policy that is implemented by the low- and middle-income governing coalition that results when elections are contested under PR rules is more redistributive than the tax and transfer policy that is implemented by the high-income party that governs under SMD rules. Therefore, because of the ways in which electoral rules affect the nature of party competition – specifically the number of parties that compete for election – electoral rules, following Iversen & Soskice (2006), have important implications for the interests that will be reflected in governing coalitions. As a consequence, redistribution will be more extensive when elections are contested under PR rules than under SMD rules.

Notice that the policy divergence results because Iversen & Soskice assume that, under SMD rules, one party will be responsive to the poor. Chapter 2 builds on Iversen & Soskice's (2006) analysis in important ways, but demonstrates that especially when the implications of electoral rules for party competition are not assumed, the existence of a low-income voter's party cannot be taken for granted.

Broadly-Based vs. Geographically-Targeted Benefits

With a somewhat different intuition, Milesi-Ferretti, Perotti & Rostagno (2002), Persson & Tabellini (2003) and others (e.g. Persson, Roland & Tabellini 2005, Lizzeri & Persico 2003, Persson & Tabellini 2000) also identify a mechanism through which PR electoral rules lead to more generous redistributive policy than SMD electoral rules:

[T]he winner-takes-all property of plurality rule reduces the minimal coalition of voters needed to win the election, as votes for a party not obtaining plurality are lost. With single-member districts and plurality, a party thus needs only 25% of the national vote to win: 50% in 50% of the districts. Under full proportional representation it needs 50% of the national vote. Politicians are thus induced to internalize the policy benefits for a larger proportion of the population, leading to the prediction of larger broad spending under proportional representation. (Persson & Tabellini 2003, 731)

Persson & Tabellini (2000), for example, present a formal analysis of legislators who can devote public resources either to a broadly-beneficial public good, or to a good or service that benefits only a well-defined geographic constituency (i.e. pork-barrel politics). As suggested above, incentives to build a more broadly-based coalition dominate under PR electoral rules, and narrowly-targeted benefits are generally provided only under SMD rules when new and exclusive goods can be directly attributed to incumbent legislators.

Summary

This literature, which attempts to account for the empirical relationship between social spending and the proportionality of electoral rules, provides an important foundation for this research. Nevertheless, this project departs from this literature in two important ways: First, this research challenges the distinction, made by Persson & Tabellini (2000) and others, between broadly-based social policy and “narrowly” or “geographically” targeted benefits. When poverty is geographically concentrated, antipoverty policies are rightly viewed as narrowly targeted. Especially because antipoverty policies are highly targeted, changes in policy are easily perceived and can be attributed to incumbent legislators. Following Franzese (2002), these characteristics make antipoverty policy – classified elsewhere as broadly-based social policy – especially well-suited for manipulation by re-election motivated legislators.

This research also breaks with current thinking about the relationship between electoral rules and social policy by recognizing the importance of conventional assumptions about the geographic distribution of voter types. Typically, the geographic distribution of voters is assumed to be fully integrated or fully segregated. Chapter 2 demonstrates, however, that when the geographic distribution of voters is taken into account, the generally positive relationship between electoral system proportionality and more comprehensive social spending is, in fact, conditional: When poverty is highly concentrated, SMD electoral rules may yield more generous transfers for low-income citizens than PR or MMD rules.⁶

⁶This research also, of course, builds on important work on the optimal distribution voter types for legislative responsiveness in the American context. The “majority–minority” districts literature focuses attention on the geographic concentration of African Americans, and questions how districts should be drawn to maximize the quality of legislative representation. My research shares with Shotts (2003) and (Cameron, Epstein & O’Halloran 1996) an interest in understanding how electoral geography affects incentives for policy responsiveness. However, this research is also concerned with varying the number of legislators elected in each district, as well as with the changing distribution of voter types.

1.5 Project Outline

How do electoral rules affect the poor? Under what conditions are elected officials likely to be more or less responsive to the poor? What are the distributional consequences of partisan and electoral incentives to be more or less responsive to the poor?

This research departs from current explanations of cross-national differences in social policy by recognizing that antipoverty measures are especially well-suited for manipulation by re-election-motivated legislators: Antipoverty measures are highly targeted policies that are readily perceived by the beneficiaries and can be directly attributed to incumbent legislators. In combination with the geographic distribution of income groups, electoral rules determine the electoral power of low-income citizens, and thus structure legislators' incentives to be responsive to this constituency. As a consequence, the effectiveness and generosity of antipoverty measures will reflect the share of legislators that rely on low-income citizens' electoral support.

Through a series of formal-analytic examples, Chapter 2 provides the theoretical foundation of this research, establishes the important modifying effect of electoral geography on the more general relationship between electoral rules and social policy, and yields important guideposts for empirical research.

Evidence in support of this election-motivated account of antipoverty policy takes two forms: First, I take full advantage of Italy's electoral reform and the dramatic change in Germany's electoral geography following re-unification to demonstrate that important improvements in the electoral power of the poor are quickly followed by increases in the effectiveness and generosity of antipoverty measures; Chapter 4 reports the results of this analysis. Second, in a broadly comparative analysis, Chapter 5 establishes the general – positive – relationship between the electoral power of a low-income voting bloc (i.e., the number of seats elected by low-income

citizens, if they all turn out to vote, and all vote for the same party), and levels of targeted poverty relief. Both of these analysis use a new measure of poverty responsiveness, developed in Chapter 3, as their dependent variable. The poverty relief ratio, \mathcal{R} , assesses the effectiveness of antipoverty transfers from the perspective of low-income citizens – an attribute that is important for the evaluation of an election-motivated account of antipoverty policy.

That cross-national and over-time differences in the effectiveness and generosity of antipoverty measures support the motivating intuition of this research – that antipoverty policy reflects the electoral incentives of legislators to be responsive to low-income citizens – is both surprising and a cause for concern. The Conclusion of this discussion considers the implications of this research for the quality of democracy in contemporary democratic societies, and establishes an agenda for future research.

Chapter 2.

How Electoral Rules Create Incentives to Represent Low-Income Citizens

How do electoral rules affect the political representation of low-income citizens? This section of the discussion presents the theoretical basis of an election-motivated account of partisan poverty responsiveness. Presenting a series of formal-analytic examples, I demonstrate how the electoral rules create incentives for parties and legislators to seek low-income citizens' support, and that differences in electoral rules therefore contribute to cross-national variance in antipoverty policy. These examples will serve as the guideposts for later empirical research.

2.1 Conventional Wisdom

As suggested in Chapter 1, earlier accounts of the relationship redistributive policy emphasize a stark division between PR or multi-member district (MMD) electoral rules and single-member district (SMD) rules.¹ From one perspective, by limiting the number of parties competing in elections, SMD rules favor the representation of middle- and high-income voters (Iversen & Soskice 2006). As a consequence, redistributive policy will be more generous on MMD rules than under SMD electoral rules. Alternatively, because the geographic basis of representation under SMD rules, legislators elected in SMD systems have fewer incentives to cultivate broadly-based coalitions of support, and instead provide geographically-targeted benefits

¹The expression “single-member district” distinguishes those electoral districts that elect only one legislator from others that elect more than one legislator.

(e.g. Milesi-Ferretti, Perotti & Rostagno 2002, Persson & Tabellini 2003, Persson & Tabellini 2000). Both of these perspectives, however, miss the important modifying effect of electoral context – specifically, the geographic distribution of citizens of different types – on the effect of electoral rules in structuring legislators’ policy-making incentives.² This section of the discussion demonstrates how and why the geographic distribution of voter types matters, especially the geographic distribution of low-income citizens and for the incentives of parties to seek their support.³ Put more concretely, this analysis is motivated by the question, given a specific geographic distribution of low-income citizens, which electoral rules are most favorable to low-income citizens?

2.2 A Simple Model of Electoral Politics

Electoral politics can be characterized by a two-stage game: An election campaign is held in which parties commit to redistributive policies in anticipation of voter decision-making. Then, in a second stage, elections are held, some citizens vote. In this analysis, voters cast a single (closed party list) ballot, and seats are allocated to parties according to a historically determined electoral rule. Governments are formed, and the proposed policies of the governing party or coalition are perfectly implemented.⁴

²Previous analysis explicitly assumes either complete segregation of voter types (e.g. Persson & Tabellini 2000) or an even geographic distribution where all types of voters are evenly distributed throughout the country (e.g. Milesi-Ferretti, Perotti & Rostagno 2002).

³While this analysis presents a standard tax and transfer model of electoral politics, the larger project is more interested in transfers targeted towards low-income citizens explicitly, and therefore has a slightly different dependent variable than other election-motivated accounts of redistributive policy: I concentrate exclusively on distributions made to low-income citizens.

⁴As the model presented here builds especially on Iversen & Soskice (2006), wherever possible, I have maintained their original assumptions. I do, however, depart from Iversen & Soskice’s (2006) analysis in important ways, and these differences are noted as they arise.

Citizens

Following much of the previous literature (e.g., Iversen & Soskice 2006, Milesi-Ferretti, Perotti & Rostagno 2002, Persson & Tabellini 2000) suppose that there are three types of citizens, defined by their income: there are low-income citizens (L), middle-income citizens (M), and high-income citizens (H).⁵

$$y_L < y_M < y_H \quad (2.1)$$

Then, a citizen's indirect utility function is defined by the following expression,

$$V_i(p_i) = y_i - T_i + B_i = y_i + p_i \quad (2.2)$$

for types $i \in \{L, M, H\}$, and where y_i reports the earnings income, T_i reports taxes assessed for each citizen type, and B_i reports any benefits that are distributed to citizens of type i . Thus, p_i reports the net benefits of redistributive policy.

Suppose, as well, that there are some factors, exogenous to electoral competition that prevent some citizens from voting, and that low-income citizens feel the effects of these factors more frequently than middle-income and high-income citizens.⁶

Thus, let π_i define the proportion of voters of type i in the electorate, and assume that

$$\pi_L < \pi_M < \pi_H \quad (2.3)$$

in the national electorate, although citizen types exist in equal proportions within the national population.⁷

Citizens may vote strategically. That is, they may vote for the party other than the party that offers their most preferred policy (i.e. by type), in order to

⁵As will become evident, relative (not absolute) poverty is applicable to this research. Thus, in the empirical analysis that follows, 'low-income citizens' are defined as those with incomes in the poorest third.

⁶See Wolfinger & Rosenstone (1980).

⁷Iversen & Soskice (2006) assume, instead, that "the voting population is equally divided between the three groups."

ensure a more favorable policy outcome. As we shall see, strategic voting has important implications for the incentives parties face to be responsive to different types of citizens.

Parties and Election Campaigns

Parties are groups of citizens who together stand for election: party **L**, party **M**, and party **H**. Thus, party utility is defined by Eq. (2.12). (Assume that there are no costs or benefit to office-holding beyond influence in policy making.) Parties that expect to hold the majority of seats in the assembly propose their most preferred policy. Here, policy proposals take the form of vectors, $\mathcal{P} = (p_L, p_M, p_H)$, that describe tax and transfer policies. Following Iversen & Soskice (2006), proposals are subject to several constraints: First, no group can be taxed at a rate beyond their capacity.

$$T_i \leq y_i \text{ for all } i \tag{2.4}$$

Also, tax policy must be (weakly) progressive, and redistribution must be (weakly) non-regressive.⁸

$$0 = T_L \leq T_M \leq T_H, \tag{2.5}$$

$$p_L \geq p_M \geq p_H. \tag{2.6}$$

Finally, the government's budget must be balanced.

$$\sum_i p_i = 0. \tag{2.7}$$

Let \mathcal{P}_i^* for each $i \in \{\mathbf{L}, \mathbf{M}, \mathbf{H}\}$ denote each party's most preferred policies, subject to the constraints described above. These most preferred policies are given

⁸Iversen & Soskice (2006) assume, instead, that $0 = T_L < T_M < T_H$: they do not allow for the case in which no redistribution occurs.

by the following vectors:

$$\begin{aligned}\mathcal{P}_L^* &= (y_M + y_H, -y_M, -y_H) \\ \mathcal{P}_M^* &= \left(\frac{y_H}{2}, \frac{y_H}{2}, -y_H\right) \\ \mathcal{P}_H^* &= (0, 0, 0)\end{aligned}\tag{2.8}$$

That is, L would tax M and H at their full capacities, and distribute benefits exclusively among low-income citizens. M would tax the high-income citizens at their capacity, and share the benefits with the low-income citizens. Finally, H prefers that no redistribution occurs.

Parties campaign by (simultaneously) proposing a policy that is expressed as a function of their own preferences. For example, a party may propose a coalition $\{\mathbf{I}, \mathbf{J}\}$ and a compromise policy $\mathcal{P}_{ij} = k_{ij}\mathcal{P}_i^* + (1 - k_{ij})\mathcal{P}_j^*$, with $k_{ij} \in [0, 1]$, and where \mathcal{P}_i^* and \mathcal{P}_j^* are the preferred policy vectors described in Eq. (2.8).⁹ The coalition that secures the support of the majority of voters will then implement the policy $\mathcal{P}_{ij} = (p_L^{ij}, p_M^{ij}, p_H^{ij})$. If a party expects to form the government on its own, then it simply proposes $k_{ij} = 1$, and implements its most preferred policy.

Note that parties may use k_{ij} to induce strategic voting, and attain a better policy outcome. Citizen voting rules, therefore, can be summarized in terms of values of k_{ij} , and are reported in Table 2.1. Here, the rows identify the proposing party, and the columns report the response of voters. Intuitively, k_i reports the extent to which party i is willing to compromise its policy in order to form a coalition

⁹This set-up is similar to the process by which Irish Labour and Fine Gael entered into their current pre-electoral coalition: In May 2005, Labour announced its decision to join Fine Gael in an electoral coalition, and shortly afterward, the parties released a joint policy statement, entitled “The Buck Stops Here.”

This framework, however, is slightly different from Iversen & Soskice’s (2006) set-up: Iversen & Soskice apply a Rubinstein bargaining framework, and find that parties in coalition would meet at the midpoint between their most preferred policies. This framework assumes that the coalition partners are equally impatient, and that there is no delay between offers. Instead, with my assumption of complete information, parties anticipate voter reactions to their proposals, and thus will compromise according to their interests.

Table 2.1: Citizen Voting Rules Under Different Policy Proposals

Party or Coalition	Citizen Type		
	H	M	L
L, M or H	H	if $0 \leq p_M \Rightarrow \mathbf{M}$ if $0 > p_M \Rightarrow \mathbf{H}$	if $\frac{y_H}{2} \leq p_L \Rightarrow \mathbf{L}$ if $\frac{y_H}{2} > p_L \Rightarrow \mathbf{M}$
{H, L}	H	if $k_{HL} = 1 \Rightarrow \mathbf{M}$ if $0 \leq k_{HL} < 1 \Rightarrow \mathbf{H}$	if $0 \leq k_{HL} \leq \frac{2y_M + y_H}{2(y_M + y_H)} \Rightarrow \mathbf{L}$ if $\frac{2y_M + y_H}{2(y_M + y_H)} < k_{HL} \leq 1 \Rightarrow \mathbf{M}$
{H, M}	H	if $0 \leq k_{HM} \leq 1 \Rightarrow \mathbf{M}$	if $k_{HM} = 0 \Rightarrow \mathbf{L}$ if $0 < k_{HM} \leq 1 \Rightarrow \mathbf{M}$
{L, M}	H	if $0 \leq k_{LM} \leq \frac{y_H}{2y_M + y_H} \Rightarrow \mathbf{M}$ if $\frac{y_H}{2y_M + y_H} < k_{LM} \leq 1 \Rightarrow \mathbf{H}$	if $0 \leq k_{LM} \leq 1 \Rightarrow \mathbf{L}$

NOTE. This Table reports the criterion under which each type of voter (columns) would support a policy proposal made by each party or legislative coalition (rows). The policy proposals are summarized by $k_{ij} \in [0, 1]$, such that the policy compromise is represented by $\mathcal{P}_{ij} = k_{ij}\mathcal{P}_i + (1 - k_{ij})\mathcal{P}_j$, where \mathcal{P}_i and \mathcal{P}_j are the preferred policy vectors described in Eq. (2.8).

with another party. To illustrate, consider L 's voting rules: In the left-most cell of the top row of Table 2.1, low-income citizens, L , will vote for the low-income party, \mathbf{L} , unless doing so will result in a policy that leaves L worse off than would be implemented under a government formed by the middle-income party, \mathbf{M} . In this case (i.e. when $\frac{y_H}{2} > p_L$), L will vote strategically for \mathbf{M} . (L never has an incentive to vote strategically for \mathbf{H} .) This same decision rule – that L will vote by type if $p_L \geq \frac{y_H}{2}$, and vote strategically for \mathbf{M} otherwise – is used to determine L 's voting behavior for each possible coalition. This exercise is then repeated for each citizen type, and viable coalitions are determined by compatible values of k_{ij} .

2.3 Equilibrium Concept

This analysis assumes that elections have a specific structure: First, parties anticipate voter decision-making during a campaign period and commit to policy proposals

that they will implement perfectly if elected.¹⁰ These policy proposals may include a coalition proposal and compromise policy, or may simply reflect each party’s most preferred policy outcome. In a second, election stage, voters cast ballots in favor of the party that will implement their most preferred policy. Importantly, coalitions and compromise policies are negotiated during the campaign period; parties may not renegotiate after the election is held, nor can they implement a policy other than that they proposed during the election campaign. If citizens and parties know the distribution of types within the electorate, the policies that will be implemented by the parties and coalitions that form the government, and the electoral rules that govern the distribution of seats within districts, the appropriate equilibrium concept, therefore, is sub-game perfection with weakly-undominated voting strategies. Sub-game perfection implies that the policies proposed by parties are optimal given anticipated voter decision-making. Weak dominance requires that voters do not support a party that will implement a policy that is contrary to their interests. In equilibrium, therefore, parties propose a policy that is a best response given anticipated citizen voting strategies and voters support parties according to their proposed policy outcomes.

2.4 The Geographic Distribution of Voter Types

Here, we are interested in whether and how the geographic distribution of voter types moderates legislators’ incentives to be responsive to different groups in society, created by electoral rules.¹¹ Therefore, without changing the national distribution of voter types (each group is approximately one-third of the population), imagine three archetypal countries in which the geographic distribution of voter types varies in the

¹⁰Assume, for example, that parties will be punished by the voters in future elections if they deviate from their campaign promises.

¹¹Earlier versions of this paper also considered a case in which voters were evenly distributed across geographic regions of the country, but in which turnout bias was severe, and high-income voters substantially out-numbered low- and middle-income voters together. In this case, electoral rules did not make any difference in policy outcomes: The high-income voters’ preferences prevailed. For clarity, I’ve limited this discussion to variance in the geographic distribution of low-income voters, leaving turnout bias to be taken up in future research.

following ways:

COUNTRY E. (Even Distribution). Voter types are evenly and equitably distributed through Country E, although a minimal level of turnout bias is maintained in each district. Specifically, Eq. (2.3) characterizes both the national electorate and the electorate of every district.

COUNTRY R. (Rural Poverty). Suppose that income is correlated with population density, such that, although Eq. (2.3) characterizes the national population (i.e., although turnout bias remains, citizen types exist in approximately equal proportions in the national electorate), citizen types are concentrated in the different regions in the following way:

$$\begin{aligned}
 \pi_H^U &> \pi_L^U > \pi_M^U = 0 \\
 \pi_M^S &> \pi_L^S > \pi_H^S = 0 \\
 \pi_L^R &> \pi_H^R > \pi_M^R = 0
 \end{aligned} \tag{2.9}$$

Thus, the high-income voters live predominantly in urban districts (denoted by the superscript U), the middle-income voters comprise the largest share of the suburban districts (S), and the low-income voters are the largest group of rural districts (R).

COUNTRY U. (Urban Poverty). Suppose now that income is negatively correlated with population density, such that, although Eq. (2.3) characterizes the national population (i.e., although turnout bias remains, citizen types exist in approximately equal proportions in the national electorate), citizen types are

concentrated in the different regions in the following way:

$$\begin{aligned}
 \pi_L^U &> \pi_H^U > \pi_M^U = 0 \\
 \pi_H^S &> \pi_M^S > \pi_L^S = 0 \\
 \pi_M^R &> \pi_H^R > \pi_L^R = 0
 \end{aligned}
 \tag{2.10}$$

Thus, low-income voters live exclusively in urban districts (U), high-income voters comprise the largest share of the suburban electorates (S), and the middle-income voters form the largest group in rural districts (R).

These countries represent, then, the three major classes of the geographic distribution of low-income citizens: In Country E, low-income citizens are evenly distributed throughout a country. In Country R, low-income citizens are over-represented in rural areas. Finally, in Country U, low-income citizens are over-represented in urban regions. The research question, then, is clarified: Given each of these geographic distribution, which electoral rules generate optimal policy outcomes for low-income citizens?

2.5 Three Hypothetical Electoral Systems

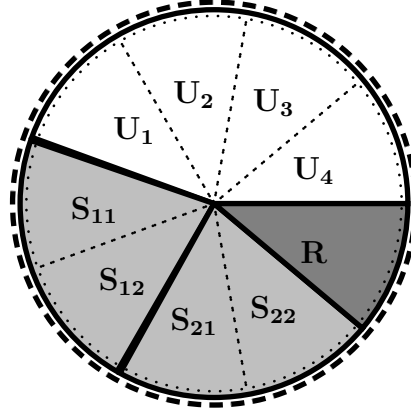
To investigate the effect of electoral rules on policy outcomes for the poor, I consider three hypothetical electoral systems that represent well the main differences between SMD and MMD systems:

Assembly S. (Single-member Districts) Nine legislators are elected in 9 single-member districts.

Assembly N. (National District) Nine legislators are elected in a national nine-member district.

Assembly V. (Varying District Size) Four members are elected in a (perhaps urban, denoted U_i) four-member district, 4 members elected in two two-member

Figure 2.1: District Structure Under Different Electoral Rules



NOTE. This Figure reports the nested structure of the electoral districts of Assemblies S (denoted by dotted lines), N (denoted by the dashed line), and V (denoted by solid lines). U_i , S_{ii} and R denote legislators elected in urban, suburban, and rural areas, respectively.

(suburban, denoted S_{ii}) districts, and one member is elected in a single-member (rural, denoted R) district.

All seats are allocated according to the simple Largest Remainder (Droop Quota) within each district.¹²

Note that assemblies S, N and V vary in two dimensions: First, the assemblies vary in the average number of legislators elected in each district. Second, the assemblies differ in the variance of legislators elected across districts.¹³ These dimensions

¹²This choice of formula is largely inconsequential, but offers the greatest advantage to smaller parties among the largest remainder methods. In the context of this example, then, the Hare Quota is most favorable to the party preferred by low-income citizens. To be clear, seats are allocated in the following way: First, the quota Q_d is calculated as $Q_d = N_d/S_d$, where N_d is the number of voters in district d , and S_d is the number of seats to be allocated in the district. Then, each party P is allocated n_P seats, where $n_P \leq \frac{V_d^P}{Q_d} \leq n_P + 1$, V_d^P is the number of votes cast in favor party P in district d , and $n_P \in \mathbb{N}$. Finally, any remaining seats are allocated according to the values of the remainder for each party, or $V_d^P - n_P \times Q_d$. Note that when applied to a single member district, the Largest Remainder (Droop Quota) allocation yields the simple plurality rule result.

¹³This research owes much to Monroe & Rose (2002): They argue that there exists a variance effect, such that greater cross-district variance, particularly when combined with low magnitude districts, results in the under-representation of urban interests.

are evident in Figure 2.1, which summarizes district structures associated with assemblies S (denoted by the interior dotted lines), N (denoted by the exterior dashed line), and V (denoted by the solid lines).

Then, using the geographic distribution described in the previous section, and the simple model of electoral politics described above, the application of each of these rules to a particular country can be evaluated in the policies implemented.

2.6 Policy Outcomes under the Rules of Assembly N

Because the national distribution does not change with the geographic distributions of voter types – all citizen types exist in approximately equal proportions – the rules governing Assembly N yield the same policy outcome for each country case. When the different groups of citizens comprise approximately equal shares of the electorate, the parties can expect to hold equal shares of seats in the assembly: **H**, **M** and **L** will each hold three seats. Thus, in order to form a government, parties must propose coalitions and compromise policies. To determine viable coalitions and compromise policies, then, we need only identify optimal proposals through backwards induction from citizen voting rules (described in Table 2.1) and electoral responses. This analysis can be summarized with the following claims:

Proposition. *H is never a coalition partner.*

To see this, notice that there is no value of k_H that **H** can propose to sustain a **H**, **L** coalition. Any value of $k_H > \frac{2y_M + y_H}{2(y_M + y_H)}$ will not maintain the support of **L**, who will vote strategically for **M**, and any value of $k_H < 1$ will not maintain the support of **M**, who will vote strategically for **H**. Furthermore, any **H**, **L** proposal weakly dominates any **{H, M}** proposal that **H** can make: Any $k_H > 0$ will allow **M** to form the government, and impose $p_H = -y_H$, which is the same policy that $k_H = 0$ implies.

Corollary. *The only sustainable governing coalition is $\{\mathbf{M}, \mathbf{L}\}$.*

Note that L will vote by type for any value of k_L that ensures that L will do at least as well under a $\{\mathbf{M}, \mathbf{L}\}$ coalition as by voting strategically for \mathbf{M} . Thus, \mathbf{L} need only to ensure that its policy proposal maintains the support of M , or that $p_M \geq 0$, which is what M can secure by voting strategically for \mathbf{H} . Thus, L must propose $k_L \leq \frac{y_H}{y_H + 2y_M}$. The compromise policy is, therefore, defined by the vector:

$$\mathcal{P}_{ML} = (y_H, 0, -y_H). \quad (2.11)$$

To summarize, when no party expects to hold the majority of seats in the legislature, all voters vote by type, and a $\mathbf{L}\text{-}\mathbf{M}$ coalition will form the government, tax H at full capacity, and distribute the benefits entirely among low-income citizens. With no incentive to moderate its policy, \mathbf{H} proposes $\mathcal{P}_H = \mathcal{P}_H^*$. When different income groups form approximately equal proportions of the electorate, and elections are contested within a single national district (i.e. are perfectly proportional), then, we can expect governments to represent well the preferences of low- and middle-income citizens, and implement policy that target benefits to low-income citizens.

2.7 Policy Outcomes in Country E.

In most countries, however, elections are not contested in a single national district, and the interaction of the electoral rules and the geographic distributions of low-income citizens structure have important effects on legislators' incentives to seek the support of low-income citizens. In this subsection, and the two that follow, I consider the relationship between electoral rules and redistributive policy outcomes in countries with different geographic distributions of low-income citizens. As a benchmark example, I consider first Country E, in which all income groups are evenly distributed

throughout the country.

Assembly S. Consider electoral politics in the case where elections are contested in SMDs throughout the country: Although voters of each type exist in roughly equal proportions in each district, there are slightly more high-income voters than either middle- or low-income voters. Thus, if all citizens vote by type, **H** will win in every district, and implement its most preferred policy, $\mathcal{P} = \mathcal{P}_H^*$; see Eq. (2.8). Note, however, that L has an incentive to vote strategically: L strictly prefers the policy proposed by **M** to that which **H** proposes. Therefore, all parties propose $\mathcal{P}_i = \mathcal{P}_i^*$, **M** wins the election with the support of L , without any compromise in policy, and implements $\mathcal{P} = \mathcal{P}_M^*$. H cannot improve this policy outcome by voting strategically.¹⁴

Assembly V. Now consider the case in which elections are contested in districts of varying size: Again, type H voters constitute a slightly larger share of the electorate in each district, and if citizens vote by type, **H** can expect to win 2 of the urban seats, 2 suburban seats, and the rural seat. **M** will win 1 urban seat, and 2 suburban seats. **L** will win 1 urban seat. Thus, **H** can implement $\mathcal{P} = \mathcal{P}_H$ without moderation. However, as before, L can improve this outcome by voting strategically for **M**. Note that **M** can be assured of L 's support, without any moderation of M 's preferred policy.

¹⁴Suppose, instead that **H** can propose a policy that does not encourage L to vote strategically. Specifically, suppose that **H** can propose $\mathcal{P} = (\frac{y_H}{2}, 0, -\frac{y_H}{2})$, such that L is indifferent between a government formed by **H**, and a government formed by **M**. Note that there is no policy that **M** can propose that leaves M better off. To see this, suppose that **M** and **H** were competing for L 's support. Both **M** and **H** would have to propose $\mathcal{P} = \mathcal{P}_L = (y_H, 0, -y_H)$. As this outcome would leave M no better off, and as there are no benefits derived from office holding beyond the policy outcome, **M** has no incentive to make this proposal. Also, H strictly prefers this outcome to what would result from L 's strategic voting: A government formed by **M** would impose $p_H^M = -y_H$. Thus, by conceding $-\frac{y_H}{2}$, and preventing P from voting strategically for **M**, **H** has secured a better policy outcome than what could be achieved otherwise. Therefore, in equilibrium, citizens will vote by type, **H** will form the government, and will implement the policy $\mathcal{P} = (\frac{y_H}{2}, 0, -\frac{y_H}{2})$. From the perspective of the low-income citizens, this policy is equivalent to the equilibrium outcome described in the text.

Although more discussion of this point will be offered in the summary section, it is worth noting here that when income groups are evenly distributed throughout the country, low-income citizens do no better when elections are contested in MMDs of varying size, than when elections are contested in SMDs. (Note as well, however, that the policy that results when elections are contested in single national district leaves low-income citizens better off than under the rules of either Assembly S, or Assembly V.)

2.8 Policy Outcomes in Country R.

Consider, now, the country case in which low-income citizens are over-represented in rural regions ¹⁵: Which electoral rules generate the best policy outcome for low-income citizens in this case?

Assembly S. Note that if citizens vote by type, **H** will win 4 urban seats, **M** will win the 4 suburban seats, and **L** will win the rural seat. Thus, no party holds the majority of seats in the assembly, and parties must negotiate a governing coalition and a compromise policy. As we saw in the case of Assembly N, the only viable governing coalition is formed by **L** and **M**, which will implement the policy $\mathcal{P}_{ML} = (y_H, 0, -y_H)$.

Assembly V. Under a fairly equitable distribution of types within each district that meets the criterion listed in (2.9), **H** can expect to be elected to 2 urban seats, **M** will win 2 suburban seats, and **L** will win 2 urban seats, 2 suburban seats, and 1 rural seat. Thus, **L** forms the government, and implements $\mathcal{P} = \mathcal{P}_L^*$ without compromise. Note that **M** cannot improve this outcome by voting strategically for **H**: **M** does not comprise a sufficiently large share of the electorate in any district to change the allocation of seats.

¹⁵One distribution that meets the criteria in (2.9), and maintains a fairly equitable national distribution lets $\pi_H^U = 0.62$, $\pi_M^S = 0.74$, and $\pi_L^R = 0.51$.

Unlike the previous country case of Country E, when the electoral rules of Assembly S and Assembly V did not yield different policy outcomes, these different electoral rules generate an important difference in policy outcomes when low-income voters are geographically concentrated in rural areas: Transfers to low-income citizens are considerably larger when elections are contested in MMDs of varying sizes, than in SMDs or a single national district.

2.9 Policy Outcomes in Country U.

Finally, we consider the case in which low-income citizens are concentrated in urban regions.¹⁶

Assembly S. When elections are contested in SMDs, if all citizens vote by type, **L** can expect to win 4 urban seats, **H** will win the 4 suburban seats, and **M** will win the rural seat. As in the case above, no party will hold the majority of seats in the assembly, and parties must negotiate a governing coalition and a compromise policy prior to the election. Again, **H** is not a viable coalition partner for either **M** or **L**. Therefore, an $\{\mathbf{M}, \mathbf{L}\}$ coalition will form the government and implement the policy $\mathcal{P} = \mathcal{P}_{ML}$, with $p_L = y_H$.

Assembly V. When elections are contested in MMDs of varying size, **L** will be elected to 2 urban seats, **M** wins 2 suburban seats, and **H** wins 2 urban seats, 2 suburban seats, and 1 rural seat. Then, **H** forms the government, and implements $\mathcal{P} = \mathcal{P}_H^*$ without compromise. Note that **L** cannot improve this outcome by voting strategically for **M**: **M** and **L** do not comprise a sufficiently large share of the electorate in any district to change the allocation of seats.

As we saw in the case of Country R, the interaction of electoral rules, and the geographic distribution of low-income citizens in Country U generate quite different

¹⁶A distribution that meets the criteria in (2.10), and maintains a fairly equitable national distribution lets $\pi_L^U = 0.74$, $\pi_M^S = 0.65$, and $\pi_W^R = 0.66$.

policy outcomes: Low-income citizens are much better off under the rules governing Assembly S, than under the rules governing Assembly V. Note that this finding cuts against the conventional wisdom regarding the relationship between electoral rules and redistributive policy: When low-income citizens are concentrated in urban districts (i.e. districts that elect a large number of legislators when elections are contested in MMDs), SMD rules create incentives for more extensive redistributive policy than exist under MMD (with varying district size) rules.

2.10 Summary: Evaluating Policy Representation

Suppose that cross-national differences can be summarized by a electoral concentration index,

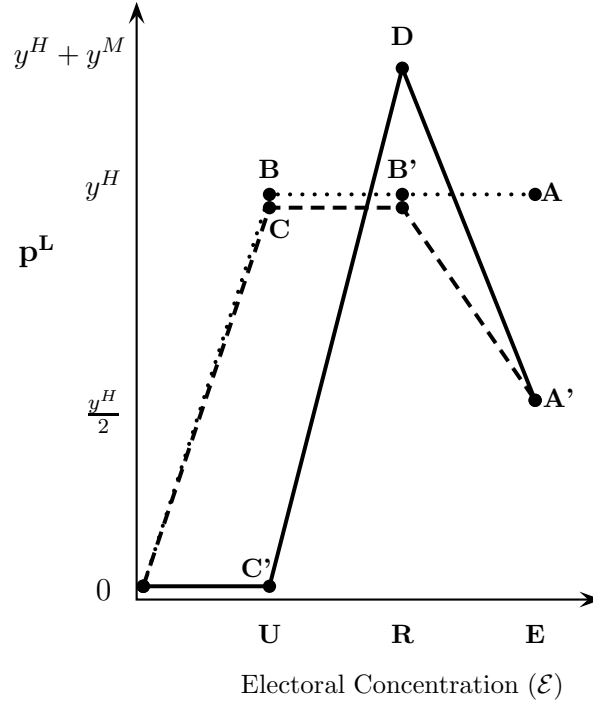
$$\mathcal{E}_i = 1 - \sqrt{\sum_{d=1}^D \frac{n_d}{N} \left(\pi_d^i - \frac{n^i}{N} \right)^2} \quad (2.12)$$

where $d = 1 \dots D$ denotes each electoral district, n_d reports the number of citizens residing in district d , N reports the number of citizens in the national electorate, n^i reports the number of type i citizens, and π_d^j reports the proportion of type j citizens residing in district d . This electoral concentration index, \mathcal{E} , will equal one when type j citizens exist in proportions equal to their national proportion in every electoral district (i.e. for Country E), and decreases as type j citizens become geographically concentrated and under-represented in district electorates.¹⁷

Figure 2.2 reports the benefits distributed to the low-income citizens (p_L), under each set of electoral rules, for each of the country cases considered here. The horizontal axis reports estimates of \mathcal{E} for each of the country cases considered here, and the vertical axis reports p_L for each set of electoral rules, for each country. By summarizing the results of this analysis in Figure 2.2, the important modifying effect of the geographic concentration of low-income citizens becomes quite clear: Notice,

¹⁷For the geographic distributions used in this analysis, $\mathcal{E}_L^R = 0.91$, and $\mathcal{E}_L^U = 0.63$.

Figure 2.2: Policy Outcomes Under Different Electoral Rules



NOTE. This Figure describes reports policy outcomes under different electoral rules, Assembly S (dashed line), Assembly N (dotted line), and Assembly V (solid line), for the different country cases. The horizontal axis reports the degree to which low-income citizens are geographically concentrated, with higher values indicating a more even distribution.

first, that much of the previous literature compares policy outcomes in national MMDs and SMDs, which correspond to points **A** and **A'** in Figure 2.2. As we have come to expect, distributions to low-income citizens are greater when elections are contested in a national MMD, than under SMD rules when low-income voters are evenly distributed throughout the country (Country E). However, when MMDs of varying sizes, and different geographic distributions of voter types are taken into account, the conventional wisdom – that MMDs create incentives for more extensive redistributive policy – is not very informative. Notice, for example, that when low-income citizens are geographically concentrated (as in Countries R and U), for example, SMD rules

yield the same policy outcomes as elections contested in a national MMD (see points **B** and **B'** in Figure 2.2). Further, note how SMDs and MMDs of varying sizes affect policy when low-income citizens are concentrated in urban regions (Country U; points **C** and **C'**): Contrary to the conventional wisdom, in this case SMDs rules yield more extensive redistributive policy than MMDs of varying sizes.¹⁸ Finally, note that when low-income citizens are concentrated in rural regions (Country R), and elections are contested in MMDs of varying sizes (though not a in national MMD), policy is perfectly responsive to low-income citizens.

2.11 Guideposts for Empirical Research

To summarize the analytic examples presented in this discussion in more general terms, if elections are not contested in a national MMD, there exists a curve (or, more likely when the number of legislators elected in each district is large, a set of curves) that defines the relationship between a group's geographic concentration and the incentives for legislators to be responsive to that group. The shape of this geographic-responsiveness curve, and in particular, the level of geographic concentration that induces maximum responsiveness (where the curve peaks), is determined by the electoral rules. Thus, to see how electoral incentives affect antipoverty policy in a particular setting, we ought to be conscious of both the extent to which low-income citizens are geographically concentrated (our location across the horizontal axis), and how electoral rules favor or inhibit the representation of geographically concentrated interests (the shape of the curve).

In Chapter 4, I use focused case studies to investigate these different components of electoral incentives: Italian election reform replaced a system in which all members were elected in MMDs of varying sizes (like the rules governing Assembly V), with a system in which most members were elected in SMDs (similar to Assembly S).

¹⁸Following Monroe & Rose (2002), MMD rules dilute the electoral strength that comes with geographic concentration, and ultimately result in no redistribution of income.

Thus, the process of Italian election reform replaced one geographic-responsiveness curve with another, while maintaining the pre-reform geographic distribution of voter types. In Germany, by contrast, reunification did not change the electoral rules (i.e. the shape of the geographic-responsiveness curve), but rather the geographic distribution of low-income citizens (or, the position on the horizontal axis). In both of these cases, the changes in electoral rules and context strengthened legislators' and parties' incentives to be responsive to low-income citizens, and shifts in antipoverty policy track these changes quite well.

The insights gained through the formal-analytic examples presented in this discussion are also useful in thinking about cross-national analysis. In particular, these examples have important implications for how the geographic concentration of low-income citizens and antipoverty responsiveness ought to be measured: In evaluating the effect of electoral rules on redistributive policy, what matters is the distribution of voter types within and across electoral districts, as well the number and allocation of seats within each district.

Chapter 3.

Measuring Poverty Relief

3.1 Introduction

How can antipoverty programs be compared reliably across countries? To illustrate the challenges associated with cross-national comparison of antipoverty policy, this introductory section summarizes key components of poverty relief in three archetypal welfare systems. Following Esping-Andersen (1990), the US is presented as an example of a “liberal” welfare regime. Germany represents a “conservative” welfare regime, and Sweden represents a “social democratic” welfare regime.

Example 1. Antipoverty Programs in the US (2001)

Low-income families in the US can draw on support provided by a complex structure of means-tested non-contributory programs, usually administered by state governments. Temporary Assistance for Needy Families (TANF), the Food Stamps and housing assistance programs, and the Earned Income Tax Credit (EITC) are the cornerstones of American antipoverty policy, and provide cash transfers, near-cash benefits, and tax credits, respectively, to low-income families, according to their earnings, age and the composition of their households. EITC, for example, reduces a family’s tax liability, and in those cases in which the tax credit exceeds taxes owed, EITC can provide a tax refund to low-income working households. Elderly, blind and disabled citizens who are in need of additional support can receive cash transfers through the Supplemental Security Income (SSI) Programme. Finally, the unemployed (by definition, those who

are not working, but who are looking for work) receive benefits that are determined by their recent wages; the duration of benefits is limited to 26 weeks in most states (though in 2001, benefits could be received for up to 39 weeks in some states). Support for healthy unemployed adults who are childless is quite limited.

Example 2. Antipoverty Programs in Germany (2001)

Low-income households in Germany receive income support through a combination of contributory social insurance and non-contributory social assistance programs. The cost-of-living assistance program (“Hilfe zum Lebensunterhalt”), for example, provides cash transfers to those who are unable, or only partially able, to provide for themselves and their families. Transfer amounts are determined by household expenses, as well as household earnings and composition. This program is supplemented with a highly structured housing allowance program, as well as programs that provide support for single parents. A family allowance (“Kindergeld”) provides a monthly tax refund to all families with dependent children, and is supplemented by a means-tested child-raising allowance provided to parents who serve as the primary care-takers of young children. Unemployment insurance programs provide support to the young and unemployed. Benefit amounts are determined by recent earnings, and the duration of benefits (from 6 to 32 months) is determined by the recipient’s employment history (number of monthly contributions), and age.¹ Unemployment assistance provides means-tested income support for those who have exhausted their insurance claims.

Example 3. Antipoverty Programs in Sweden (2001)

Antipoverty income support in Sweden is provided through comprehensive social insurance programs, the Social Welfare Allowance, and a means-tested housing benefit for low-income workers. Unlike the German cost-of-living assistance program, social

¹Those who are over the age of 52 and unemployed can qualify, instead, for early retirement if they have contributed to the public pension plan for at least 15 years, been employed eight of the previous ten years, and been unemployed for 12 of the previous 18 months.

assistance in Sweden generally does not provide partial support, and eligibility is determined by the exhaustion of other sources of support. Levels of housing support are determined by the cost of housing, household assets and composition; additional housing supplements are available for the elderly, and those receiving other social assistance transfers. Universal family benefits are available to households with dependent children. Advance alimony payments are made as supplementary family transfer to single-parent families (the absent parent may be fully or only partially liable to the state for this amount). Unemployment insurance benefits are comprised of benefits received through voluntary contributions to (usually trade union-associated) Insurance Societies, as well as unemployment assistance benefits for those who do not belong to Insurance Societies, or who have just completed their studies. Benefits received through Insurance Societies are tied to recent earnings and can last for up to 600 days (with participation in labor market programs), while basic insurance benefits provide a daily flat rate, for up to 300 days.

Research Question

As the examples of antipoverty programs in the US, Germany and Sweden illustrate, low-income citizens in different countries draw upon different combinations of contributory, non-contributory, universal, and means-tested programs, in which eligibility and transfer amounts are determined varyingly by work history, household earnings and assets, and household composition. The task of this discussion is to determine how antipoverty program outcomes can be measured in a way that reflects both their scope and success in a wide variety of political contexts, and in a way that reflects a low-income voter's perspective on poverty responsiveness.

Here, I begin with the question, "What is the potential subset of citizens who would benefit from antipoverty programs?" Recognizing that the way in which poverty is defined is political, this question leads us to consider how poverty is con-

ventionally measured, and how it may be measured in this research to best analytic advantage. Then, I take full advantage of Luxembourg Income Study (LIS) data to estimate parameters that describe the relationship between market income and social transfers in each country, and construct a measure that is similar to the Gini coefficient,² which reports the extent to which redistributive transfers are concentrated among low incomes (specifically, those with equivalised³ market incomes in the first third of the national market income distribution). Unlike conventional measures of social policy (e.g., government expenditure, income replacement rates), the measure of poverty responsiveness presented in this Chapter reports antipoverty policy as it appears from the perspective of low-income citizens, taking into account all transfers a household receives through the complex antipoverty policy structures of their country, recognizing the rate at which transfer levels decline with increased earnings, and the generosity of universal transfers.

In the end, this analysis relies on fairly specific understandings of those at risk of poverty, and poverty relief. The poor are identified entirely by their income,⁴ for example, and poverty responsiveness is measured in terms of cash and near-cash transfers instead of labor market policy. Indeed, the form that poverty responsiveness

²Gini coefficients provide measures of income inequality by reporting the relationship between the cumulative income distribution and the cumulative population distribution. A perfectly equitable society, for example, in which the cumulative percentage of income corresponds to the cumulative percentage of population (i.e., 20 percent of the population accounts for 20 percent of the cumulative income distribution), corresponds to a Gini coefficient of zero. Conversely, for societies in which all income is concentrated among the wealthiest few percent, estimated Gini coefficients would approach one.

The poverty responsiveness measure developed in this discussion is similar to Gini coefficients in that it uses a hypothetical distribution as a benchmark for reliable cross-national comparisons, and estimates the distribution of social transfers, relative to market income. The poverty responsiveness measure, however, differs from Gini coefficients in that it incorporates individual-level transfer amounts, rather than cumulative transfers.

³“Equivalised” income measures adjust for the size of the household: Although other adjustments sometimes take into account the ages of children and number of earners, total household is most often divided by the square root of the number of household members (Atkinson, Rainwater & Smeeding 1995). The implied elasticity factor of 0.5 represents economies of scale in consumption: A household with four members, for example, requires twice the income of a single-member household to achieve similar levels of consumption.

⁴For this reason, they are usually referred to as “low-income citizens,” leaving “the poor” for more conceptual parts of the discussion.

takes likely reflects the electoral incentives of legislators to represent the interests of the poor (this question is taken up in Chapter 6). As we shall see, these restrictions in the conceptualization of poverty and poverty responsiveness facilitate cross-national comparison. Nevertheless, these definitions of poverty and poverty relief are also situated in their broader, more conventional context. This Chapter begins by describing the main data source used in this research, the Luxembourg Income Study (LIS), and then uses LIS data to derive measures of poverty and poverty relief. In each case, the measures developed here are then compared to those used more often in the literature.

3.2 The Luxembourg Income Study (LIS)

LIS data represent a 25-year collaboration among household income and labor force surveys in 30 countries. For large nationally-representative samples in each country, LIS data report income by source – market income, for example, is distinguished from social transfers, and transfers are reported by type – in addition to the socio-demographic characteristics of each household (including place of residence). Thus, LIS data reveal the geographic distribution of low-income citizens for each country, and the extent to which low-income citizens benefit through redistributive antipoverty policy.

Two other features of the LIS data make them especially well-suited for this project: First, through the provision of standardized measures for 30 of countries (see Table 3.1), LIS promotes broadly comparative cross-sectional analysis. The second feature of the LIS data that is especially important for the research design of this project lies in the length of the LIS time series for, in particular, Germany and Italy. In both cases, the LIS data-files include several observations from the years before and after the key change in electoral incentives (i.e., German reunification, and Italian electoral reform). As a consequence, Germany and Italy can be treated as cases of

Table 3.1: LIS Observations

Country (Year of Study)	(1) Total Sample ^a	(2) Working-Age Sample ^b	(3) Proportion of Total Sample Excluded ^c
Taiwan (2000)	13,801	10,904	0.21
Norway (2000)	12,919	9,727	0.25
Finland (2000)	10,423	7,829	0.25
Switzerland (2002)	3,642	2,711	0.26
Mexico (2002)	17,167	12,722	0.26
Slovenia (1999)	3,859	2,753	0.29
Poland (1999)	31,428	22,215	0.29
Luxembourg (2000)	2,418	1,675	0.31
Israel (2001)	5,787	4,009	0.31
United States (2000)	49,633	33,253	0.33
Canada (2000)	28,970	19,556	0.33
Belgium (2000)	2,724	1,416	0.34
Australia (2001)	6,786	4,462	0.34
Russia (2000)	3,126	2,024	0.35
France (2000)	10,305	6,703	0.35
Estonia (2000)	6,068	3,913	0.36
Czech Republic (1996)	28,148	17,981	0.36
Germany (2000)	10,985	6,983	0.37
Denmark (2000)	82,062	51,036	0.38
Hungary (1999)	2,013	1,248	0.38
United Kingdom (1999)	24,988	15,400	0.38
Slovak Republic (1996)	16,336	9,980	0.39
Sweden (2000)	14,491	8,625	0.40
Italy (2000)	8,001	4,688	0.41
Romania (1997)	32,187	19,041	0.41
Netherlands (1999)	5,007	2,937	0.42
Spain (2000)	4,822	2,708	0.44
Ireland (2000)	2,865	1,532	0.46
Greece (2000)	3,898	2,140	0.45
Austria (2000)	2,513	1,337	0.47
Average		9,820	0.35

NOTES. ^a This column reports the total number of households surveyed.

^b This column reports the number households in which the “head” of household is of working age (between 25-59 years of age), and which report some disposable income.

^c This column reports the proportion of the total sample excluded from all further analysis (i.e., in which the head of the household is 24 or younger, or 60 and older, or which reports no disposable income).

SOURCE. LIS.

natural experiments, allowing changes in antipoverty policy to be linked to changes in legislators' electoral incentives. In the broadly comparative cross-sectional analysis (Chapter 6), only the most recent LIS observations of each country are included.

The second column of Table 3.1 reports the size of the working-aged sample for each country. Following the convention of recent comparative analysis of welfare programs (e.g. Kenworthy & Pontusson 2005), this research excludes households in which the "head" of the household is less than 25 years of age, or older than 60 years of age. This exclusion prevents cross-national differences in the administration of pensions, and transfers in support of education, from confounding measures of poverty relief. More specifically, because the measure of poverty relief that is presented below relies on the relationship between market income and social transfers, it is important to exclude those who might rely disproportionately on transfers for reasons other than poverty relief.

3.3 Measuring Poverty

Who, from the perspective of legislators, comprises the set of *potential* beneficiaries of antipoverty policy? Recognizing that the way in which poverty is officially defined within each country results from a political process, this research is challenged to identify those with low income, who live at risk of poverty, in a way that has cross-national functional equivalence.

One way to identify those at risk of poverty is to specify an income level that represents the minimum amount of income needed to cover basic housing, food, clothing and medical costs, and then to classify all those with incomes less than this threshold as the poor. This is the basis of the official poverty line in the U.S., which was originally defined according to the cost of food necessary for a minimally adequate diet, and then adjusted for family size, and other necessary expenses (i.e., the original amount was multiplied by three). Current estimates augment the initial

income threshold for inflation, and continue to classify all those with incomes below the threshold as living in poverty (Department of Health and Human Services, Office of the Secretary 2000). This measure of poverty, however, has been increasingly criticized because it neglects how household expenses have changed over time and the changing demography of the American population. Compared to the share of household budgets spent on food in the 1960s (when the measure was developed), for example, groceries comprise a much smaller proportion of current household expenditures (Citro & Michael 1995). As a consequence, the U.S. poverty line increasingly under-estimates the amount of money needed to keep a household economically stable. Other “absolute” measures of poverty are subject to similar criticisms: They neglect variance in the cost of living across time and space.

In an alternative approach to the study of poverty, analysts have emphasized the “relative” nature of poverty. The European Union, for example, defines poverty as a condition that limits “the capacity of the individual to participate fully in the society in which she or he lives,” and uses “income measures of poverty that are related to some extent to the overall income distribution nationally” (Council of the European Union 2007, 10). Usually, the relative poverty threshold is defined as a proportion of the median (equivalised) income in each Member state, and the poverty rate reports the percentage of the population with income levels below this threshold (e.g., usually 0.6 or 0.7 of the median income; see Whelan, Layte & Maitre 2004). Advantages of relative measures of poverty lie in their explicit reference to the context of poverty, and thus take into account cross-national and temporal differences in consumption patterns.

This research builds on the relative poverty concept, although it is operationalized in a slightly different way: Here, the at-risk-of-poverty threshold is set equal to the thirty-third income percentile of the national market (equivalised household) income distribution. Thus, following the theoretical framework put forward in Chapter

2, the poor are defined as those who comprise the bottom third of the market income distribution. This strategy offers the important advantage of a common share of the electorate for cross-national analysis. Differences in responsiveness to the poor, therefore, cannot be attributed to differences in the size of the poor population, but must be attributes (e.g. its geographic distribution) of this common share of the population instead.

Three concerns for cross-national research immediately arise, however, when poverty is measured relative to the national income distribution: First, particularly when countries vary significantly in the extent of economic development, a relative poverty threshold may correspond to quite different levels of economic vulnerability. These differences can be illustrated using the current U.S. poverty line, which in 2000 (for single-person households, under the age of 65, residing in the continental U.S.) was estimated to be \$8,959 (Department of Health and Human Services, Office of the Secretary 2000). As seen in Table 3.2, which reports the poverty thresholds used in this research in 2000 U.S. dollars,⁵ there is some cross-national variation in the purchasing power of the poor – especially when the more heterogeneous countries in the lower section of the table are taken into account. By emphasizing cross-national differences in the consumption abilities of low-income people, these comparisons highlight a potentially confounding factor in this analysis: Policy may be more (or less) responsive to poverty in some national settings than in others because the experience of poverty itself varies cross-nationally. To ensure the validity of cross-national comparisons, the analysis that follows excludes all countries in which the estimated poverty threshold is less than the official U.S. poverty line. Although there are a few cases rather close to this threshold for inclusion (e.g., Greece and the Czech Republic), most of the excluded countries have poverty thresholds well-below the official U.S. poverty line.

⁵Currency conversions are based on the exchange rates published by World Bank Group (2006).

A second related concern about the specific poverty threshold measure used in this research is centered on its relationship to overall levels of inequality. Consider, for example, how the poverty threshold used here relates to the median market income in each country (the last column of Table 3.2 reports these ratios). In countries in which active labor market policy measures ensure a relatively equitable market income distribution (e.g., Norway), this ratio is somewhat higher than in those countries with considerably higher levels of market income inequality (e.g., United Kingdom). On average, the poverty thresholds to median market income level ratios approximate 70 percent of the median income, the conventional measure of the poverty threshold in European poverty research (see, Whelan, Nolan & Maitre 2007). Taiwan remains the single country case with a poverty threshold that exceeds the U.S. poverty line, but with a threshold-to-median ratio that indicates considerably more inequality in the lower end of the income distribution than any other country. For this reason, Taiwan is excluded from the analysis that follows.

Finally, low income reflects only one dimension of the risk associated with poverty (see, e.g., Nolan & Whelan 2007). A multidimensional approach to the study of poverty would also take into account deprivation related to education, health and general welfare, and is consistent with current understanding of the relationship between poverty and social exclusion. Nevertheless, income remains closely related to other components of poverty (Whelan, Layte & Maitre 2004), and more importantly, income remains the primary basis of eligibility for antipoverty programs in developed democracies: Following up on the examples presented at the beginning of this Chapter, Table 3.3 summarizes antipoverty programs in the countries included in this analysis. Those policies described in Columns (1), (2), and (3) provide the central components of each country's poverty responsiveness, though there are often supplement programs intended to meet basic food, housing, child care, and medical needs (Column (4)). As Table 3.3 demonstrates, although in some countries antipoverty

program benefits are also determined by assets and household composition, current income levels serve as the primary basis of eligibility. As a consequence, very little is lost in using income to define the group of citizens who are potential beneficiaries of antipoverty programs.

Summary: Measuring Poverty

In the case studies and broadly comparative analysis presented in the following Chapters, I estimate the extent to which benefits are concentrated among those households that comprise the bottom third of the (equalized household) market income distribution. This conceptualization keeps with current conventional emphasis on relative poverty, and offers important analytical advantages for cross-national research. As suggested in this section, however, defining poverty in this way introduces differences in economic vulnerability and in levels of inequality that will be taken into account later in the analysis.

Table 3.2: Relative Poverty and Conventional Poverty Thresholds

Country (Year of Study)	Country Label	(1) Poverty Threshold ^a (ψ)	(2) % of Median Income ^b
Italy (2000)*	IT00	9,951	0.72
Spain (2000)*	ES00	11,156	0.74
France (2000)*	FR00	11,449	0.73
Israel (2001)	IL01	12,426	0.63
Austria (2000)*	AT00	12,644	0.76
Ireland (2000)*	IE00	13,524	0.73
Australia (2001)	AU01	13,953	0.67
Belgium (2000)	BE00	15,037	0.81
United Kingdom (1999)	UK99	16,143	0.65
Sweden (2000)*	SE00	16,694	0.75
Canada (2000)	CA00	17,821	0.71
Finland (2000)	FI00	17,936	0.75
Germany (2000)	DE00	18,592	0.77
Netherlands (1999)	NL99	19,019	0.78
United States (2000)	US00	20,613	0.69
Luxembourg (2000)*	LX00	20,957	0.74
Denmark (2000)	DK00	21,796	0.75
Switzerland (2002)	CH02	24,702	0.78
Norway (2000)	NO00	25,107	0.80
Average		16,817	0.73
Excluded			
Russia (2000)*		949	0.55
Hungary (1999)*		2,887	0.65
Estonia (2000)*		2,799	0.66
Mexico (2002)*		2,340	0.67
Romania (1997)		3,080	0.76
Poland (1999)		3,224	0.64
Slovak Republic (1996)		3,706	0.75
Slovenia (1999)*		6,916	0.77
Czech Republic (1996)		7,894	0.77
Greece (2000)*		8,701	0.75
Taiwan (2000)		14,350	0.39

NOTES. “*” denotes countries in which gross market income measures are not available, and the poverty threshold, ψ , is estimated using net (equivalised household) market income levels (earnings net of taxes and employer and employee social insurance contributions).

^a This column reports the 33rd percentile of the national (equivalised household) market income distribution, in 2000 US dollars.

^b This column reports the ratio of the 33rd percentile income amount to the median income of the national (equivalised household) market income distribution.

SOURCE. LIS.

Table 3.3: Summary of Antipoverty Policies in the European Community

	Minimum Income Provisions		(4) Other Non-Contributory Income Support Programs
(1) Legislation	(2) Eligibility	(3) Duration	
Austria (2000)	Legislation enacted by sub-national governments.	Determined by total income, exhaustion of other claims, and the number of dependent family members. Some Länder extend benefits to non-citizen immigrants.	– Supplementary long-term care benefit.
Belgium (2000)	Law of 7 August 1974 instituting the right to “minimum de moyens d’existence, Mimimex.”	A residual right of resident nationals, benefits depend upon the number of dependent family members, their employment status, and their resources.	– Supplementary means-tested benefits for the elderly, and disabled. – Advance on payment of alimony for low-income families. – Guaranteed family benefits are reduced in proportion to family income.
Denmark (2000)	Law of 10 August 1997 on active social policy.	Determined by resources, and dependent children. Receipt of benefits is subject to agreement to participate in re-training or other “activation” measures.	– Child benefits are distributed in addition to minimum supplements. – Supplements for dental or pharmaceutical expenses. – Accommodation allowances. – Also, supplements available to assist those who are disabled or who care for disabled or terminally ill family members.
Finland (2000)	Act on Social Assistance of 30 December 1997.	Without age or national restrictions, eligibility is determined by all earnings and assets of the family.	– Housing allowance.

(Continued on the next page)

Minimum Income Provisions		(4) Other Non-Contributory Income Support Programs	
(1) Legislation	(2) Eligibility	(3) Duration	
France (2000)	Law of 1 January 1988, amended. Law No. 92-722 of 29 July 1992.	Differential amounts based on family income and the number of dependents, for French citizens and residents, at least 25 years of age.	<ul style="list-style-type: none"> – Entitlement to social housing allowance. – Means-tested differential allowance for single parents, and pregnant women. – Special and supplementary benefits for those with low incomes, who are not entitled to general old-age benefit. – Supplementary differential allowance for disabled adults. – The integration allowance provided a means-tested benefit to certain groups of job-seekers.
Germany (2000)	Social Assistance Law (“Bundessozialhilfegesetz, BSHG”) of 30 June 1961; coordinated 23 March 1994, last amended by the Law of 21 July 1999.	German citizens and residents, without age restrictions, are eligible with the exhaustion of other claims, and according to income levels and assets.	<ul style="list-style-type: none"> – Supplements for special needs determined by age, and number of children. In addition to the universal “Kindergeld,” low-income families are entitled to a child-raising allowance (“Erziehungsgeld”). – Other supplements include housing allowances, and back-to-work assistance.

(Continued on the next page)

Minimum Income Provisions			(4) Other Non-Contributory Income Support Programs
(1) Legislation	(2) Eligibility	(3) Duration	
Ireland (2000)	Social Welfare (Consolidation) Act of 1993, as amended.	Irish citizens and residents over the age of 18 are eligible for differential amounts, subject to the exhaustion of social security benefits, cash income, and the number of dependents (regardless of their age).	Unlimited.
Italy (2000)	Legislation enacted by sub-national governments.	Italian nationals and residents of any age, with differential levels of support determined by all family earnings and assets, except the family dwelling.	<ul style="list-style-type: none"> - The Back to Work allowance supports long-term unemployed people who wish to set up their own business, or to take up work in certain industries. - The Old Age, and the Widow's and Widower's Non-Contributory Pensions provide support for those with low-income who do qualify for contribution-based pensions. - The One Parent Family Payment provides means-tested support for low-income, single-parent families. - A Carer's Allowance supports those with low-income, who live with and care for people who need full-time attention. - Additionally, low-income residents may qualify for rent/mortgage interest relief, exceptional needs payments, and allowances for back-to-school clothing and footwear. - The Social Allowance provides a means-tested non-contributory benefit to those over the age of 65. - Additional non-contributory pensions and benefits support those with low incomes and disabilities. Support is based on individual (not family or household) income.

(Continued on the next page)

Minimum Income Provisions		(4) Other Non-Contributory Income Support Programs	
(1) Legislation	(2) Eligibility	(3) Duration	
Luxembourg (2000)	All residents over the age of 25 are eligible if they have not left work without just cause, or if they care for a child or a disabled person, and are of low-income status. Differential amounts are determined by the composition of the household, and the number and ages of dependents.	Unlimited.	– Rent supplements may also be provided.
Netherlands (1999)	All residents, aged 18 years or older, with differential amounts based on income and assets. Homeowners receive a loan (credit mortgage) that must be paid back when the claimants own income is adequate.	Unlimited.	– The Supplementary Benefits Act provides support for the low-income disabled, and for those for whom the unemployment benefits to which they are entitled are insufficient.
Spain (2000)	Those with low-income between the ages of 25 and 65, who are capable of working and are willing to participate in a reintegration program, and who have exhausted other benefits, are eligible for these benefits. Differential amounts are determined by resources and the composition of the household.	Generally 1 year, though benefits can be extended.	– A non-contributory pension policy provides support for the elderly and the disabled who do not qualify for standard contributory pensions. – A supplementary means-tested child benefit.

(Continued on the next page)

Minimum Income Provisions			(4) Other Non-Contributory Income Support Programs
(1) Legislation	(2) Eligibility	(3) Duration	
Sweden (2000)	Law of January 1982. While there are no nationality or age requirements, legal residents are eligible only if they have no assets, and have experienced an event which leads to a change in living conditions.	Unlimited.	– Additional support for those with “certain functional impairments.”
United Kingdom (1999)	Income Support (General) Regulations, 1987, and the Social Security Administration Act, 1992. Benefits are allocated by independent Adjudication Officers to UK resident citizens over the age of 18, who interpret eligibility regulations that take into account most income and capital resources, excluding other non-contributory benefits and the applicant’s home.	Unlimited.	– Supplementary policies include in-kind pharmaceutical, dental and vision benefits, and school meals, as well as a Housing Benefit. – Additional support for those with low-incomes and disabilities, who are in transition back to work. – An Income-based Job-seeker’s Allowance provides support to those who do not qualify for sufficient unemployment benefits. – The Housing Benefit offers rent support to those with low-income and few capital resources. – The Council Tax Benefit provides those with up to 100% of their liability for local authority services.

NOTES. Table 3.3 briefly describes the antipoverty policies in the European Community.
SOURCE. European Commission (2006).

3.4 Measuring Poverty Relief

With the poor identified as the bottom third of the (equivalised household) market income distribution, this section of the discussion addresses the question of how to measure poverty responsiveness in a cross-national setting: To what extent are benefits targeted towards low-income citizens? How does this targeting vary cross-nationally? By addressing these questions, this section derives the measures of poverty responsiveness that will be used as the right-hand side variable in the analysis presented in later Chapters.

An additional set of questions considered along with those more central to this analysis address the extent to which conventional welfare regime cluster analysis are helpful in understanding cross-national variation in poverty responsiveness. In Esping-Andersen's (1990, 37) important study of welfare policy, the centrality of "de-commodification" emphasizes levels of support provided to those outside of the labor force, or "the degree to which individuals, or families, can uphold a socially acceptable standard of living independently of market participation." Esping-Andersen's (1990) criteria, however, for the classification of welfare regimes are based largely on the income replacement rates for a "normal" worker, on the determinants of eligibility for pensions, sickness and unemployment benefits, and on the composition of social expenditure.⁶ These criteria reveal little about the benefits low-income citizens actually receive, and say almost nothing about the ability of those who may be outside of the traditional labor force (i.e., those "persistently" at risk of poverty, see Council of the European Union) to "uphold a socially acceptable standard of living independently of market participation." This research, therefore, will address the extent to which

⁶Esping-Andersen's (1990) de-commodification index is based upon minimum and standard pension, sickness and unemployment benefits for a normal worker with average earnings, contribution periods, and benefit duration. Esping-Andersen's (1990) stratification index, which measures how benefits vary across social groups, is derived from estimates of the extent to which pension benefits are distinguished by occupation, the existence of special privileges for the civil service, the proportion of social transfers devoted to means-tested programs, social program coverage rates, and the ratio of average to maximum benefits.

the welfare regimes approach to the study of social policy is helpful in identifying meaningful differences in poverty responsiveness.⁷

This section begins by identifying specific challenges to the study of poverty responsiveness within the framework of an election-motivated account of antipoverty policy, and then, using LIS data, this section presents a measure of poverty relief that reflect different dimensions of antipoverty policy as they likely appear to low-income citizens.

Challenges

The challenges of measuring poverty relief in the contexts of an election-motivated account of antipoverty policy, and in a cross-national comparative analysis, are two-fold: First, because of the explicit theoretical connection between antipoverty policy and voter decision-making, it is important for this research that measures of policy reflect outcomes that would be visible at the individual level. Changes in budgetary expenditures, which are often used as evidence of social responsiveness, for example (see Huber & Stephens 2001), may be obscured by the political process itself, or may ultimately imply few changes in the amounts of benefits low-income citizens receive. As a consequence, spending data provide noisy measures of the policies low-income citizens experience.⁸

⁷Although Esping-Andersen (1990) provides a useful reference point for this analysis, Esping-Andersen's original classification has been adjusted by many analysts (e.g. Pontusson 2005). The most important revision is offered by the firm-centered "Varieties of Capitalism" literature (see Hall & Soskice 2001), for example, which collapses Esping-Andersen's three regime types into a two-fold distinction between liberal market economies, in which competitive markets structure firm behavior as in Esping-Andersen's liberal regimes, and coordinated market economies, in which outcomes are determined by non-market relationships, especially negotiated agreements between firms and trade unions, as in many of Esping-Andersen's conservative and social democratic regimes.

⁸Others (Bradley et al. 2003, Milanovic 2000) use changes in aggregate measures of inequality, or changes in the shares of market and disposable income distributions accounted for by different income groups. However, changes in aggregate measures of inequality may not reflect changes in the economic well-being of those with low income. Finally, other recent studies incorporate or adapt OECD measures of income replacement rates, which report ratios of income derived from benefits to market income (e.g. Bäckman 2005). Because, however, benefits often vary according to the length of time a recipient is out of work, past earnings, and the number of dependents, income replacement rates must be calculated for the 'typical' (often 40 year old) worker, in very specific circumstances

The second challenge results from the cross-national variance in the antipoverty policy instruments. As seen in Table 3.3, the policies from which low-income citizens benefit vary substantially across the set of countries included in this analysis. These differences were evident in the examples presented at the beginning of this Chapter: Social insurance programs, for example, are much more central to antipoverty policy in Germany and Sweden, than are the American social insurance programs. Using the descriptions presented in Table 3.3, similar comparisons underscore the different forms antipoverty programs take in the countries included in this analysis. What is less clear from a comparison of policies, however, is how much support low-income citizens receive through various antipoverty programs.

(Martin 1996, Whiteford 1995). More importantly, income replacement rates are not very useful for describing the benefits received by those who have no market income.

Table 3.4: Support Received by Low-Income Citizens from Different Types of Social Policies

Country (Year of Study)	(1) Minimum Income Provision ^a	Other Non-Contributory Programs		(4) Social Insurance ^d
		(2) Means- Tested Programs ^b	(3) Other ^c	
Ireland (2000) ^e	0.03	0.30	0.34	0.33
United States (2000)	0.05	0.68	0.00	0.28
Australia (2001)	0.12	0.85	0.00	0.03
United Kingdom (1999)	0.15	0.37	0.32	0.17
Canada (2000)	0.17	0.45	0.32	0.07
Liberal Average	0.10	0.53	0.20	0.18
Finland (2000)	0.03	0.24	0.12	0.61
Norway (2000)	0.05	0.10	0.36	0.49
Sweden (2000)	0.07	0.07	0.28	0.59
Netherlands (1999)	0.10	0.09	0.50	0.31
Denmark (2000)	0.11	0.11	0.24	0.54
Social Democratic Average	0.07	0.12	0.30	0.51
Austria (2000)	0.01	0.06	0.57	0.36
Belgium (2000)	0.02	0.41	0.01	0.56
Switzerland (2002)	0.03	0.19	0.00	0.78
Germany (2000)	0.03	0.14	0.47	0.36
France (2000)	0.05	0.33	0.25	0.37
Italy (2000)	0.05	0.03	0.02	0.89
Conservative Average	0.03	0.19	0.22	0.55

NOTES. Table 3.4 reports the average proportion of each type of cash or near-cash transfer received by low-income citizens, of total transfers, in each country. Of the transfers received by low-income citizens in Ireland, for example, 3 percent come from minimum income provisions. Country groupings reflect Esping-Andersen's (1990)'s welfare regimes.

^a This column reports the average proportion of transfers low-income households receive from minimum income provisions. Although transfer amounts may be determined by the composition of each low-income household, eligibility for these benefits is primarily determined by current market income and assets.

^b Eligibility for these non-contributory benefits is determined by a coincidence of low earnings income and other specific circumstances (e.g., the existence of dependent children, exhaustion of unemployment benefits, need for housing support).

^c This column reports the average proportion of total transfers received from non-contributory non-means-tested (i.e., universal or near-universal) programs. Eligibility is determined by the existence of specific circumstances (e.g., care of dependent children or disabled adults, pursuit of advanced education or training).

^d Eligibility for transfers included in this column is determined by explicit or implicit (e.g., long-term residency) employment-based contributions. This column includes transfers paid through unemployment insurance programs, wage replacement for maternity or paternity leave, sickness and disability insurance.

SOURCE. LIS.

Table 3.5: Support Received by Very Low-Income Citizens from Different Types of Social Policies

Country (Year of Study)	(1) Minimum Income Provision ^a	Other Non-Contributory Programs		(4) Social Insurance ^d
		(2) Means- Tested Programs ^b	(3) Other ^c	
Ireland (2000)	0.04	0.30	0.06	0.60
United States (2000)	0.10	0.47	0.00	0.43
Australia (2001)	0.18	0.79	0.00	0.03
United Kingdom (1999)	0.27	0.44	0.15	0.14
Canada (2000)	0.58	0.23	0.15	0.03
Liberal Average	0.24	0.45	0.07	0.25
Finland (2000)	0.08	0.31	0.07	0.55
Norway (2000)	0.15	0.08	0.09	0.67
Sweden (2000)	0.20	0.11	0.13	0.56
Denmark (2000)	0.28	0.18	0.05	0.50
Netherlands (1999)	0.34	0.06	0.19	0.41
Social Democratic Average	0.21	0.15	0.11	0.54
Austria (2000)	0.03	0.13	0.14	0.70
Italy (2000)	0.06	0.02	0.01	0.91
Belgium (2000)	0.07	0.14	0.01	0.77
Germany (2000)	0.11	0.30	0.18	0.41
Switzerland (2000)	0.12	0.23	0.00	0.65
France (2000)	0.16	0.34	0.10	0.40
Conservative Average	0.09	0.20	0.07	0.64

NOTES. Table 3.5 reports the average proportion of each type of cash or near-cash transfer received by those in the first five percentiles of the equivalised household market income distribution (i.e., the very poor). Table 3.4 provides more information about the coding of policy types and country groupings.

SOURCE. LIS.

In fact, as seen more precisely in Table 3.4, countries vary considerably in the extent to which low-income citizens benefit from minimum income provisions, other non-contributory programs, and social insurance transfers. Table 3.4 reports the average proportion of transfers received by low-income citizens from each type of policy instrument.⁹ Here, minimum income provisions correspond to the guarantees of sufficient resources described in Table 3.3, and refer to policies that provide income support. Eligibility for these benefits is determined exclusively by current market income and assets (though transfer amounts may vary by household composition), in contrast to the means-tested non-contributory programs (Column (2) of Table 3.4) in which eligibility is also determined by the existence of specific coincident circumstances (e.g., the presence of dependent children, the absence of a spouse, the exhaustion of unemployment insurance benefits). Other non-contributory programs (Column (3)) provide universal or near-universal (non-means-tested) benefits according to existence of specific conditions (e.g., the presence of dependent children). Finally, eligibility for social insurance benefits is determined by contributions to sector-specific or public insurance plans. Table 3.4, therefore, provides insight into the types of policies from which the poor benefit, and importantly, how reliance on different types of policies varies cross-nationally. Table 3.4 lists the countries according to Esping-Andersen's (1990) typology of welfare regimes. Liberal welfare regimes, of which the U.S. is considered archetypal, have historically been characterized by their tenant that "public obligation enters only where the market fails" (Esping-Andersen 1990, 43). Thus, social policy in liberal regimes provides for those in "demonstrable and abject" need through means-tested social assistance programs.¹⁰ Although, as seen in Table 3.3,

⁹Although the LIS data categorize social transfers into 46 different policy categories (including, for example, general social assistance benefits, as well as social assistance benefits associated with the exhaustion of unemployment benefits, etc.), there are some cases in which more than one type of transfer are reported in the same LIS variable and cannot be distinguished.

¹⁰Esping-Andersen suggests that the incomplete provision of social insurance would undermine the competitiveness of the market, and as a consequence, it is not surprising that universal social protection measures are often implemented in otherwise liberal regimes.

most countries implement some form of means-tested poverty relief, in other regime types, policy may emphasize other types of programs. For example, antipoverty measures in social democratic regimes, like the archetypal Sweden, are motivated by the so-called “flat rate” principle, in which benefit levels are largely invariant to economic need or history of contributions. The basic unemployment assistance benefits, for example, are provided at a standard rate and for a standard length of time, regardless of past earnings. In contrast, benefits in conservative regimes (e.g., Germany) are closely tied to past occupational status (especially one’s history of contributions), and vary by personal circumstances, including age, household composition and expenses.

While the LIS data will not allow us to fully distinguish between the different regimes by looking at sources of support for low-income households,¹¹ we might expect to see a greater reliance on means-tested social assistance in liberal regimes, and a greater emphasis on contributory social insurance programs in social democratic regimes. Although the important sources of support for low-income citizens in conservative regimes are less easily anticipated, particularly because the defining feature of conservative social policy is in its relationship to occupational status, we might expect somewhat less reliance on unconditional minimum income provisions. Indeed, there is some evidence in Table 3.4 that is consistent with Esping-Andersen’s regimes classification. For example, reliance on minimum income provisions and other means-tested programs is generally greater in liberal regimes, than in countries of other regime types. Alternatively, reliance of low-income citizens on contributory social insurance programs is typically greater in social democratic and conservative systems. Careful inspection of the data presented in Table 3.4, however, reveals that the differences between subgroups are remarkably fragile: The ranges of values often overlap considerably, and the differences in means observed above are often contingent on the classification of one or two countries in each subgroup. In short, while a welfare

¹¹Important differences, for example, arise in criteria used to determine eligibility, and in the duration of benefits.

regimes approach may usefully characterize entire systems of social policy, it may offer little help in understanding determinants of support for low-income citizens.

What Table 3.4 makes clear, in sum, is that the types of policies from which low-income households benefit vary considerably cross-nationally. More importantly, as seen in the first column of Table 3.4, minimum income provisions – the policies most obviously directed towards antipoverty goals – *never* comprise the most important source of income support for low-income citizens. Table 3.5 replicates the earlier analysis for very low-income households (the first five percent of the equivalised household market income distribution), and even within this subset of very low-income households, reliance on minimum income provisions remains quite limited. Minimum income provisions comprise the most important source of income support even among the very poor in only one country: Canada. Further, as with the larger subset of low-income citizens, the welfare regimes approach is not obviously helpful in anticipating cross-national patterns of poverty relief.

Tables 3.4 and 3.5 present two implications for this research project: First, legislators have a variety of policy instruments through which they can provide antipoverty responsiveness. Following Franzese & Jusko (2006, 550), an electioneering Ramsey Rule for antipoverty policy likely holds: Elected representatives “will use all policy tools, in proportion to their effectiveness in satisfying their electoral goals.” Along with questions of how much poverty relief is supplied, the last Chapter will take up the question of which policy instruments legislators emphasize in antipoverty programs. The second implication of the analysis presented in this section, is that as a consequence of the cross-national variety of policy instruments used in antipoverty programs, any analysis that focuses on one specific type of policy (e.g., minimum income provisions) would miss important sources of support for low-income citizens. And so, as suggested above, the second challenge of measuring poverty relief lies in deriving a measure that reflects the varying composition of policies implemented in

each country.

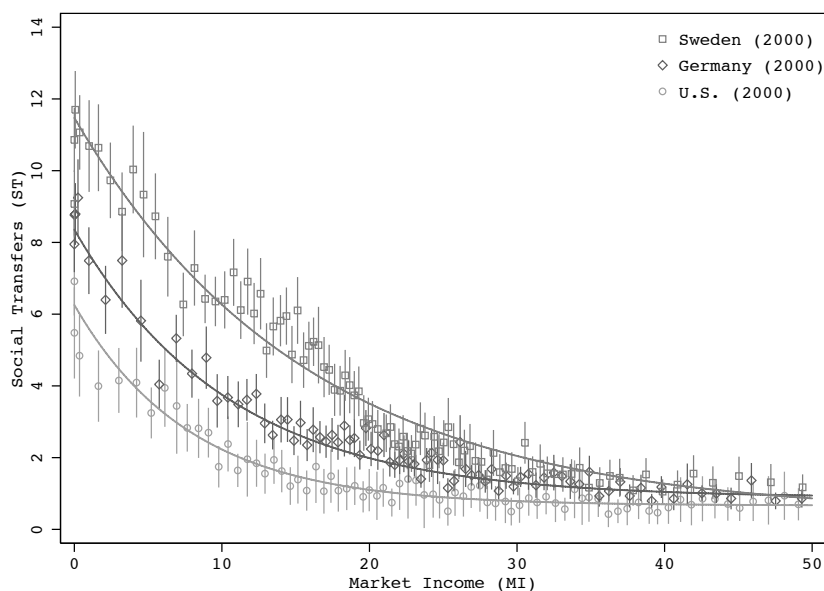
Dimensions of Poverty Relief

The LIS data present an obvious way to overcome the challenges in evaluating a cross-national, electoral account of poverty relief: As suggested above, for large samples in each country, the LIS data report both the total amount of transfers received by each household, as well as detailed information about the household's earnings and investment (i.e., market) income. In fact, the relationship between total social transfers and market income provides a useful basis of a measure of poverty responsiveness. Consider Figure 3.1, which reports the bi-variate relationships between (equivalised household) market income and social transfers for Esping-Andersen's archetypal countries, Sweden (square points), Germany (diamond points), and the U.S. (round points). Each data point represents the mean values estimated for one per cent of each working aged national sample (see Table 3.1), and all currency amounts are standardized to (thousands of) 2000 U.S. dollars.

Later in this project, I will present more rigorous cross-national comparisons of the relationship between market income and social transfers. Here, patterns in the relationships between market income and social transfers in Sweden, the U.S., and Germany can be usefully compared to identify dimensions of poverty relief. There are three important differences in the American, German and Swedish distributions: First, note that the amount of support provided to those with no market income (at the extreme left-hand side of the distribution) varies across these three countries, and is more generous in Sweden than in either Germany or the U.S. Second, these countries vary in the rates at which transfer amounts vary with small increases in market income.¹² Finally, a closely-related third feature concerns the distribution of universal- or near-universal benefits. As seen in Table 3.4, non-means-tested non-contributory

¹²This feature is similar to Barr's (2004) "horizontal efficiency," which corresponds to the distribution of benefits among low-income citizens: Do all citizens with incomes below a specified poverty threshold receive support?

Figure 3.1: Social Transfers and Market Income



NOTE. Figure 3.1 reports the bi-variate relationship between total social transfers and market income for Sweden (2000; square points), the U.S. (2000; circle points), and Germany (2000; diamond points). Each data point represents the mean social transfers and market income values for one per cent of each working age sample (see Table 3.1). All currency amounts are reported in thousands of 2000 U.S. dollars, for equivalised households. Error bars denote 95 per cent confidence intervals. This Figure exclude the top one, six, and 22 per cent of the German, Swedish and American income distributions, respectively.

transfers provide an important source of support for low-income residents in some countries (including Germany and Sweden). Differences in these amounts, as well as benefits distributed through social insurance programs, are reflected in the relative levels of the tails of the distribution, not surprisingly with Sweden and Germany distributing somewhat more contributory and non-contributory universal benefits than the U.S.¹³ Nevertheless, because low-income citizens may benefit disproportionately from these types of policies, a measure of poverty responsiveness, therefore, ought to include universal benefits as well as levels of support for those with little or no market income, and the rate at which these levels of support vary within increases in income.

To generate a summary measure that reflects these three components of poverty

¹³This feature is similar to Barr's (2004) "vertical efficiency," which describes the extent to which benefits are concentrated among those with low-income, or are they more generally distributed.

relief, I suggest that the relationship between market income and social transfers in each country is well-approximated by the non-linear expression:

$$ST_{ij} = \alpha_j + \beta_{1j} \exp(\beta_{2j} MI_{ij}) + e_{ij}, \quad (3.1)$$

where ST_{ij} denotes social transfer amounts, and MI_{ij} denotes market income, for individuals $i = 1 \dots n$ in countries $j = 1 \dots J$, the parameters $\alpha_j > 0$, $\beta_{1j} > 0$, and $\beta_{2j} < 0$ describe the bi-variate relationship within each country, and e_{ij} is a stochastic residual term. The solid lines in Figure 3.1 demonstrate that, in fact, this non-linear specification fits the LIS data in Germany, Sweden and the U.S. quite well.

The specification in Eq. (3.1) provides an accessible substantive interpretation. Notice that, when $\beta_{2j} < 0$,¹⁴ individuals who have no market income receive social transfers in the amount of $\alpha_j + \beta_{1j}$. Similarly, for very high levels of MI_{ij} , ST_{ij} is expected to take on the value α_j . Thus, (with the identification restriction) α_j describes the basic level of transfers for which all or most members of a society are eligible (including social insurance programs), $\alpha_j + \beta_{1j}$ reports transfers made to residents with no market income, and β_{2j} reports the curvature of the line, or the rate at which benefit levels decline increased market earnings.¹⁵ The parameters α_j , β_{1j} , and β_{2j} , therefore, jointly describe the antipoverty policy that characterizes a specific country, and can be used as the basis for a comparison of poverty relief within a society over time, or across societies more generally.¹⁶

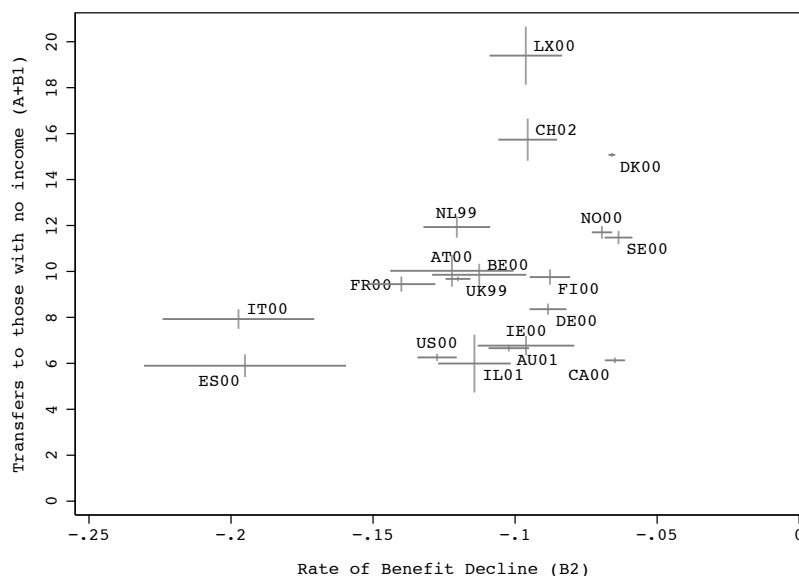
Looking at the cross-national distribution parameter estimates (see Figure 3.2), which plots average transfers to those with no market income ($\alpha + \beta_1$) against the average rates at which benefit levels decline ($\beta_2 < 0$), we find a clear pattern of increasing poverty responsiveness: Countries in the upper right corner, for example, are those that provide large transfers to those with no market income which drop

¹⁴This restriction ensures that the parameters are identified.

¹⁵While this is a useful way to interpret β_2 , it is not precisely correct: The rate at which benefits decline is also a function of β_1 .

¹⁶This function is identified with the restriction that β_1 and β_2 do not equal zero.

Figure 3.2: Social Transfers and Market Income: Parameter Estimates



NOTE. Figure 3.2 reports of estimates of the parameters $\alpha + \beta_1$ and β_2 for the countries included in this analysis. Error bars denote 95 percent confidence intervals.

SOURCE. LIS.

off relatively slowly with small changes in market income. Those countries situated towards the lower left-hand corner of Figure 3.2 provide little support for those with no market income, and what benefits are provided, drop off quickly with increases in income. What is less apparent in Figure 3.2, however, is distinct clusters of countries reflecting the conventional types of welfare systems. Although there is some clustering, particularly of the Scandinavian countries in the upper right-hand corner of the Figure, there is quite a bit of variance, in both dimensions, within these clusters. Further, when considered in this way, these data do not reflect cross-national differences in the underlying market income distributions: How well, for example, do transfers to those with no market income ($\alpha + \beta_1$) support the beneficiaries, given their national context?

Of course, a cross-national comparison based on only one (or even two) of the parameters α_j , β_{1j} or β_{2j} would be an incomplete, and potentially misleading, measure

of poverty relief. Measures based on the benefits received by any particular low-income household (perhaps, the median) would be similarly misleading. To illustrate, consider Figure 3.3 which reports the relationship between market income and social transfers in two hypothetical countries. As in Figure 3.1, here the horizontal axis reports market income, and the vertical axis reports corresponding social transfers. In each panel, the solid line denotes the relationship between market income and social transfers, i.e., Eq. (3.1), and the dotted line reports the linear function,

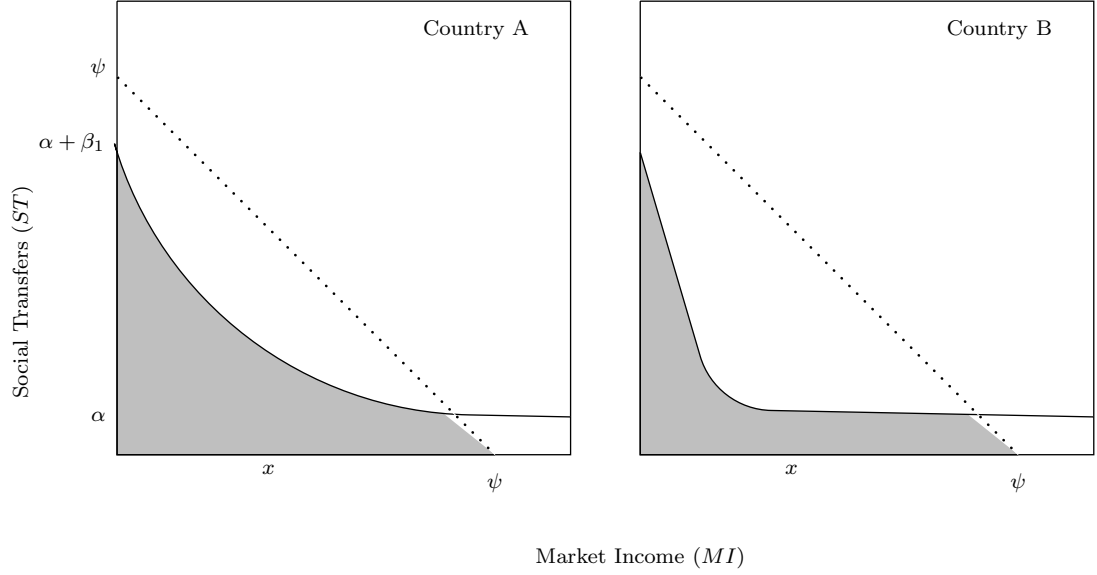
$$ST_i = \psi - MI_i. \quad (3.2)$$

(The reason for Eq. 3.2's inclusion will become apparent shortly.) By construction, the parameters are fixed such that $\alpha_A = \alpha_B = \alpha$, $\beta_{1A} = \beta_{1B} = \beta_1$, but with β_2 varying across cases: $\beta_{2A} > \beta_{2B}$. If comparisons are made on the basis of benefits provided to those with no market income, or universal and social insurance transfers, Countries A and B are indistinguishable. However, a comparison of the relief received by other low-income households (e.g., household x) shows that the apparent similarity of Countries A and B can be misleading.

In Figure 3.3, the dotted lines which report the linear function Eq. (3.2), reflect the amount of transfers necessary to bring each household's income to the level of the current poverty threshold. Thus, the extent to which the estimated relationship between social transfers and market income approximates Eq. (3.2) reflects the extent to which a country is successful in providing poverty relief through the provision of cash transfers.

Using the threshold ψ , then, the extent to which social transfers provide poverty relief can be estimated as the ratio of the shaded region in each panel of Figure 3.3, to the area defined by the triangle, $(0, \psi)$, $(0, 0)$, and $(\psi, 0)$. This ratio

Figure 3.3: Comparing Poverty Relief



NOTE. Figure 3.3 reports the relationships between market income (MI) and social transfers (ST), in two hypothetical countries, as expressed by the function $ST = \alpha_j + \beta_{1j} \cdot \exp(\beta_{2j} \cdot MI)$. Here, $\alpha_A = \alpha_B = \alpha$, $\beta_{1A} = \beta_{1B} = \beta_1$, and $\beta_{2A} > \beta_{2B}$. The dotted line represents the function, $ST_i = \psi - MI$, where ψ denotes a poverty threshold.

can be estimated according to the following expression:

$$\mathcal{R} = \frac{\int_0^\tau (\alpha + \beta_1 \cdot \exp(\beta_2 \cdot MI)) \partial MI + \int_\tau^\psi (\psi - MI) \partial MI}{\int_0^\psi (\psi - MI) \partial MI}, \quad (3.3)$$

where τ reports the point of intersection for Eqs. (3.1) and (3.2).¹⁷

Integrating over the region of 0 to ψ yields the following expression for \mathcal{R} :

$$\mathcal{R} = \frac{1}{\psi^2} \left(\frac{2\beta_1(\exp(\beta_2\tau) - 1)}{\beta_2} + 2\alpha\tau + 2\psi\tau - \tau^2 \right) - 1 \quad (3.4)$$

Notice that the value of \mathcal{R} increases as universal transfers, and transfers to those with no market income, increase, and increases as the rate at which benefits decline decreases:

$$\frac{\partial \mathcal{R}}{\partial \alpha}, \frac{\partial \mathcal{R}}{\partial \beta_1} \text{ and } \frac{\partial \mathcal{R}}{\partial \beta_2} > 0 \quad (3.5)$$

Thus, \mathcal{R} reflects well the dimensions of poverty responsiveness considered in the

¹⁷The parameter τ was identified by searching for the value that equated Eqs. (3.1) and (3.2).

discussion above.

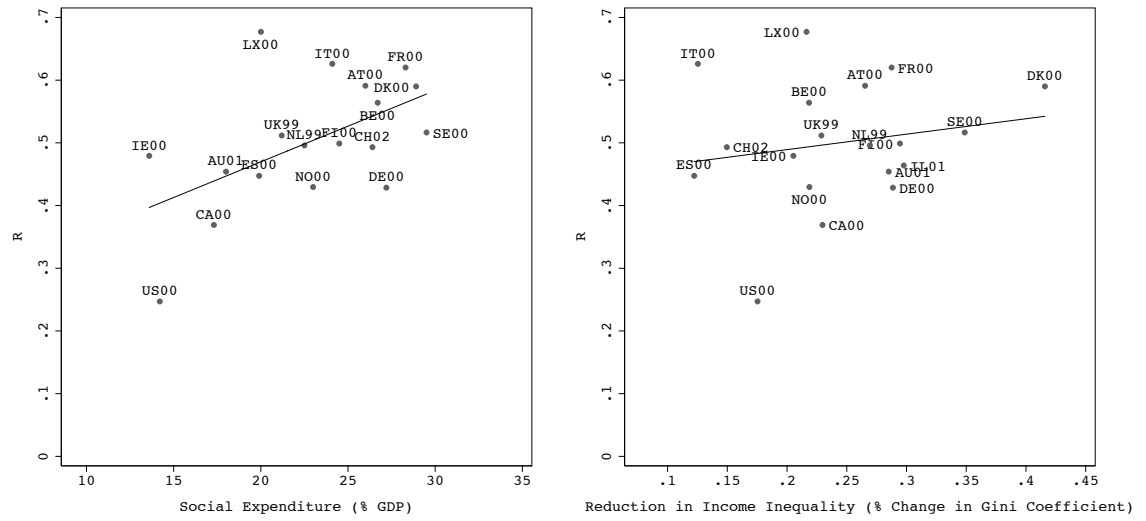
Table 3.6 reports estimates of the parameters α , β_1 , β_2 and τ for each country included in the analysis, as well as estimates of the poverty responsiveness ratio, \mathcal{R} (estimates of ψ are reported in Table 3.2).¹⁸ Although in some ways, these data conform to Esping-Andersen's expectations – the countries listed at the very top of Table 3.6 are countries with liberal welfare regimes, and the countries in the last two rows have social democratic regimes – there is little evidence of welfare regime clustering in the data presented in Table 3.6.

To see how the measure \mathcal{R} compares to more conventional measures of social spending, Figure 3.4 plots \mathcal{R} against social spending (as a percentage of GDP, left panel), and against the reduction in income inequality through redistributive policy (estimated as the percent reduction in Gini coefficients, right panel). In both cases, \mathcal{R} and the conventional measures are positively correlated. Nevertheless, for countries with similar levels of social spending, and similar reductions in income inequality, we see quite different levels of poverty relief: The U.S. and Ireland (both liberal regimes), for example, look quite similar by conventional measures, but demonstrate quite different levels of poverty relief.¹⁹ Similarly, Switzerland and Belgium (both conservative regimes), demonstrate similar levels of social spending but quite different levels of poverty relief. This variance suggests that the poverty responsiveness ratio reflects a dimension of social policy that is not well-captured by welfare regimes analysis.

¹⁸The parameters α , β_1 and β_2 are estimated in Stata SE, using a non-linear least squares (NLS) specification (specifically, Stata's `nl` procedure). Starting values of 1, 2, and $-.1$ were established for α , β_1 and β_2 , respectively.

¹⁹Although Ireland and the U.S. spend similar proportions of their GDP on social policy, their allocations across social spending priorities are quite different: For example, while Ireland spend 1.6 percent of their GDP on family benefits, including family allowances and support for maternity leave, the U.S. spends 0.4 percent of its GDP on family support policies. U.S. policy, instead, favors the support of the elderly, spending 5.2 percent of its GDP on social security; Ireland devotes roughly half of this amount to the support of the elderly (Organisation For Economic Co-Operation and Development (OECD) 2004).

Figure 3.4: Poverty Relief and Conventional Measures of Social Policy



NOTE. Figure 3.4 compares the poverty responsiveness ratio to more conventional measures of social policy outcomes, social spending (as a percentage of GDP, left panel) and income inequality reduction through redistributive policy (measured as the proportionate deduction in Gini coefficient, right panel). Solid lines report ordinary least-squares (OLS) fitted values (standard errors reported in parentheses):

$$\mathcal{R} = 0.242(0.103) + 0.011(0.004)\{ \text{Social Expenditure} \} \quad (3.6)$$

and

$$\mathcal{R} = 0.440(0.082) + 0.246(0.322)\{ \text{Reduction in Income Inequality} \}. \quad (3.7)$$

SOURCES. Social spending: Organisation For Economic Co-Operation and Development (OECD) (2004). Reduction in income inequality: LIS.

Table 3.6: Poverty Relief in Developed Democracies

Country (Year of Study)	Parameter Estimates ^a			RMSE	τ^b	\mathcal{R}^b
	α	β_1	β_2			
United States (2000)	0.6650 (0.0256)	5.5925 (0.0790)	-0.1275 (0.0035)	3.3079	19.4818 (0.1809)	0.2472 (0.0030)
Canada (2000)	0.4502 (0.0474)	5.6803 (0.0649)	-0.0649 (0.0018)	2.4706	15.2595 (0.0381)	0.3690 (0.0028)
Germany (2000)	0.8813 (0.0700)	7.4763 (0.1274)	-0.0884 (0.0033)	2.7253	15.8736 (0.1264)	0.4286 (0.0052)
Norway (2000)	0.8227 (0.0703)	10.8806 (0.1412)	-0.0694 (0.0018)	3.0254	21.9067 (0.1508)	0.4295 (0.0039)
Spain (2000)	0.5400 (0.0971)	5.3563 (0.2545)	-0.1951 (0.0181)	3.0408	9.8286 (0.2898)	0.4474 (0.0174)
Australia (2001)	0.0390 (0.0601)	6.6205 (0.0890)	-0.1022 (0.0036)	1.9526	11.9662 (0.0652)	0.4539 (0.0061)
Israel (2001)	0.6785 (0.0701)	5.3129 (0.6450)	-0.1143 (0.0065)	2.5003	10.0661 (0.3139)	0.4639 (0.0490)
Ireland (2000)	0.5551 (0.1628)	6.2163 (0.2326)	-0.0961 (0.0087)	2.4965	10.7600 (0.1343)	0.4792 (0.0128)
Switzerland (2002)	0.6398 (0.1527)	15.0969 (0.4657)	-0.0956 (0.0053)	4.6239	22.2636 (0.4496)	0.4929 (0.0131)
Netherlands (1999)	0.5648 (0.1098)	11.3683 (0.2445)	-0.1205 (0.0060)	3.3620	16.9863 (0.2776)	0.4958 (0.0113)
Finland (2000)	0.9705 (0.0912)	8.7840 (0.1708)	-0.0877 (0.0036)	3.6431	14.5037 (0.1317)	0.4990 (0.0067)
United Kingdom (1999)	0.5558 (0.0326)	9.1189 (0.0564)	-0.1201 (0.0022)	2.4935	13.8605 (0.0629)	0.5116 (0.0042)
Sweden (2000)	0.4034 (0.1511)	11.0709 (0.1768)	-0.0636 (0.0025)	4.1215	10.6747 (0.0821)	0.5165 (0.0062)
Belgium (2000)	0.7174 (0.1853)	9.1362 (0.2813)	-0.1126 (0.0084)	2.8039	11.9283 (0.2048)	0.5639 (0.0146)
Denmark (2000)	0.2026 (0.0387)	14.8717 (0.0509)	-0.0659 (0.0006)	3.3232	16.6227 (0.0277)	0.5901 (0.0018)
Austria (2000)	0.9466 (0.2187)	9.0808 (0.3687)	-0.1222 (0.0111)	3.4423	8.4739 (0.1981)	0.5911 (0.0191)
France (2000)	0.6687 (0.0947)	8.7780 (0.1745)	-0.1400 (0.0061)	3.7848	7.8596 (0.0945)	0.6202 (0.0102)
Italy (2000)	0.8509 (0.1023)	7.0772 (0.2239)	-0.1974 (0.0136)	4.0317	7.4842 (0.1437)	0.6260 (0.0169)
Luxembourg (2000)	1.8380 (0.2472)	17.5569 (0.6450)	-0.0962 (0.0065)	5.7119	14.9558 (0.3631)	0.6770 (0.0195)

NOTES. Table 3.6 reports parameters that describe the relationship between market income and social transfers, and the poverty relief ratio, \mathcal{R} .

^a The parameters reported in this column are estimated by NLS (see Eq. 3.1), with conventional Gauss-Newton standard errors in parentheses.

^b τ reported the estimated point of intersection of Eqs. (3.1) and (3.2). Standard errors for both τ and \mathcal{R} , reported in parentheses, are estimated using repeated draws from the posterior distributions of the NLS parameters.

Active Labor Market Policies (ALMPs)

In using the relationship between market income and social transfer, this analysis assumes that poverty responsiveness, at least as a component of electoral strategy, is generally achieved through redistributive policy. As a consequence, this analysis neglects pre-market income policy measures (i.e., “active” labor market policies, ALMP) that are intended to provide poverty relief, and potentially under-estimates a country’s more general level of poverty responsiveness. Consider, for example, public sector job creation measures: What would the market income of public sector job creation program participants earn in the absence of these programs? In an extreme case, in which poverty responsiveness occurs entirely through similar ALMPs, the measure of poverty responsiveness described above (Eq. 3.4), in this case $\mathcal{R} = 0$, would be extremely misleading. For this analysis, therefore, it may be important to consider how pervasive ALMPs are in the developed democracies considered in this analysis.

Table 3.7 reports the percentage of the labor force in each country that benefits from ALMPs generally, and direct job creation programs specifically, relative to the number of beneficiaries of out-of-work income maintenance and support programs, in the countries generally studied in comparative analysis of welfare policy. Although the OECD data reported here do not correspond directly to the analysis here (i.e., these data are not restricted by age), these aggregate-level statistics allow us to evaluate the relative importance of market income manipulation in the complete set of antipoverty policy measures.

Column (1) reports the percentage of the labor force that benefits from direct job creation programs, or programs that are intended to provide at least temporary employment to the unemployed, usually through public works programs. Although these programs are somewhat notorious, as most observers note, however, and as clearly evident in Table 3.7, job creation programs usually benefit only a very small

Table 3.7: Market Income Manipulation: Active Labor Market Programs

Country (Year) ^a	(1) Direct Job Creation Program Participants, ^c as % of Labor Force	(2) Total ALMP Participants, ^b as % of Labor Force	(3) Out-of-work Income Support Program Partici- pants, as % of Labor Force ^d	(4) Ratio of Participants in Redistributive Programs to Participants in Active Programs, (3) to (2)	(5) Ratio of Spending on Unemployment Income Support Programs to ALMP Spending ^e
Sweden	0.00	7.27	6.60	0.91	0.64
United Kingdom	0.01	1.52	3.18	2.09	0.65
Norway	0.00	2.19	4.79	2.19	0.94
Ireland	1.26	3.58	8.63	2.41	1.04
Netherlands	0.62	7.81	9.08	1.16	1.24
Switzerland	0.00	1.80	3.18	1.77	1.28
Italy	0.21	..	2.92	..	1.29
Finland	0.46	3.51	13.37	3.81	1.32
Germany	0.82	5.15	10.02	1.95	1.67
Denmark	0.01	5.67	8.65	1.53	1.75
France	1.16	5.53	9.76	1.76	1.95
Canada	0.08	2.23	1.97
Australia	0.66	1.81	7.39	4.08	2.14
Belgium	2.53	7.69	14.88	1.93	2.14
Austria	0.04	..	6.55	..	2.60
United States	3.00
Average	0.53	4.29	7.07	2.13	1.60

NOTE. Table 3.7 reports the number of participants in active labor market programs, and more specifically, direct job creation programs, as a percentage of the total labor force. “..” denotes data-points that are not reported by OECD.

^a Data corresponding to 2002 are reported unless measures for both variables are not available.

^b Active labor market programs include: Training, recruitment and employment maintenance incentives, integration of the disabled, start-up incentives, and direct job creation.

^c Direct job creation programs include those intended to provide either temporary or regular employment to otherwise unemployed persons.

^d This column reports the percentage of the labor force that receives unemployment insurance payments or other unemployment benefits, including those in early retirement programs. Beneficiaries of non-contributory antipoverty measures are generally not included in the percentages of recipients reported here (the exceptional cases are Denmark and the Netherlands). Data reported in this column do include, however, unemployment programs that allow older unemployed workers to receive similar benefits without fulfilling work availability requirements.

^e Spending on ALMP includes public employment services and the administration of benefits, as well as all ALMP programs listed above.

SOURCE. Organisation For Economic Co-Operation And Development (OECD) (2006).

(usually very specific) proportion of a country's labor force. In fact, job creation programs are rarely the central component of a country's ALMPs.²⁰ Training programs, for example, typically serve as the core of ALMP in the EU (Kluge, Card, Fertig, Góra, Jacobi, Jensen, Leetmaa, Schaffner, Schmidt, van der Klaauw & Weber 2007), and provide an important source of income support for their participants. Although less directly, employment incentive and start-up incentive programs also provide market income support for those not regularly employed. Thus, Column (2) reports the total percentage of each country's labor force that benefit from ALMPs, including direct job creation measures (and the integration of the disabled).

To allow for comparison with "passive," or redistributive measures, Column (3) reports the percentage of labor force members that benefit from unemployment income support policies. Note that beneficiaries of non-contributory, antipoverty programs are not included in this measure, with the exception of those in Denmark and the Netherlands, and that ALMPs often supplement the incomes of those receiving unemployment benefits. As a consequence, a comparison of Columns (2) and (3) likely understates a country's emphasis on redistributive poverty responsiveness, relative to market income manipulation. Nevertheless, as seen in Column (4), which reports the ratio of the percentage of the labor force benefiting from redistributive policies to the percentage of those participating in ALMP programs, emphasis on redistributive measures exceeds ALMP efforts, on average, by a factor of two. Similar patterns emerge when spending efforts on the different types of policies, for which the data are more complete, are taken into account (see Column 5).

In sum, note first that despite their notoriety direct job creation programs comprise a very small part of any country's antipoverty policy, and by themselves, are unlikely to bias estimates of poverty responsiveness, \mathcal{R} . Although redistributive

²⁰With the exceptions of Belgium (40 per cent), France (47 per cent), Ireland (50 per cent), and the Netherlands (35 per cent), EU ALMP expenditures on direct job creation programs are typically less than 25 per cent.

measures are more prominent than ALMP programs in most countries, the measure of poverty responsiveness \mathcal{R} , probably underestimates the scope of antipoverty policy in some cases.

3.5 Conclusion

This Chapter presents the measure of poverty responsiveness that is used as the basis of the analysis presented in the following Chapters. In a way similar to a Gini coefficient, the poverty responsiveness ratio compares the joint distribution of social transfers and market income, to a hypothetical distribution in which all low-income households are lifted out of poverty. This measure overcomes the challenge presented by the cross-national variance in the composition of antipoverty programs, and unlike conventional measures of social policy outcomes, \mathcal{R} reflects well the perspective of low-income voters.

This Chapter also presents some early evidence which suggests that a welfare regimes perspective may be less helpful in understanding cross-national variation in poverty responsiveness. This secondary theme is addressed more rigorously in the last Chapter of this project. Before proceeding to the broadly comparative analysis of Chapter 5, however, the next Chapter takes advantage of natural experiments in Italy and Germany, in which legislators' incentives to be responsive to low-income citizens changed in dramatic ways. As we shall see, in both cases, legislators' strengthened electoral incentives to be responsive to low-income citizens were quickly followed by more responsive antipoverty policy.

Chapter 4.

How Changing Electoral Incentives Can Help the Poor

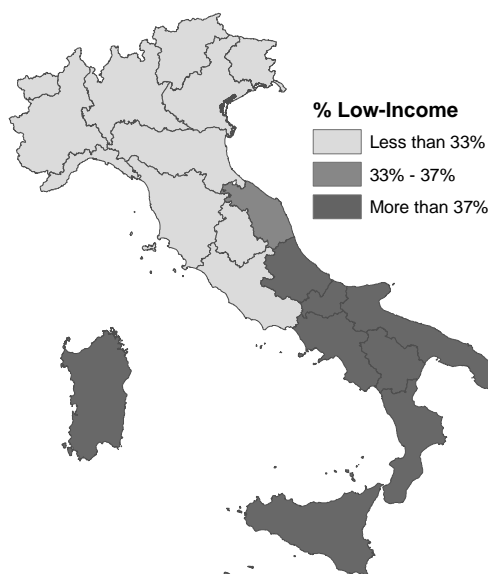
4.1 Introduction

This chapter offers an empirical test of whether distributions to low-income citizens are structured by electoral incentives. Evaluating this relationship empirically poses a particular challenge: For good reasons, as Acemoglu & Robinson (2006) and others (e.g. Huber & Stephens 2001) suggest, welfare state generosity tends to be highly correlated with the proportionality of electoral rules.¹ As a result, the independent effects of electoral incentives are difficult to distinguish from other factors related to welfare policy in a broadly comparative, cross-sectional analysis. Instead, I evaluate changes in distributions to low-income citizens following major changes in electoral rules, and in the context in which elections are held: I present evidence from Italy, before and after the electoral reforms of the early 1990s, and from Germany, before and after reunification.

As is evident in Figure 4.1, the Italian poor live mostly in the South. (Here, following the convention established in the previous Chapter, the poor are those of working age with market incomes in the lowest third in the national market income

¹Acemoglu & Robinson (2006) argue, for example, that regime transitions ought to be viewed from within a framework of redistributive conflict, and that the type of democratic institutions reflects a commitment made by elites to include low-income citizens in the policy-making process. From a somewhat different perspective, Huber & Stephens (2001) attribute differences in welfare policy to the dominant partisanship of governments, and suggest that MMD rules facilitated the representation of social democratic parties.

Figure 4.1: The Geographic Distribution of Low-Income Citizens in Italy, 1988-96



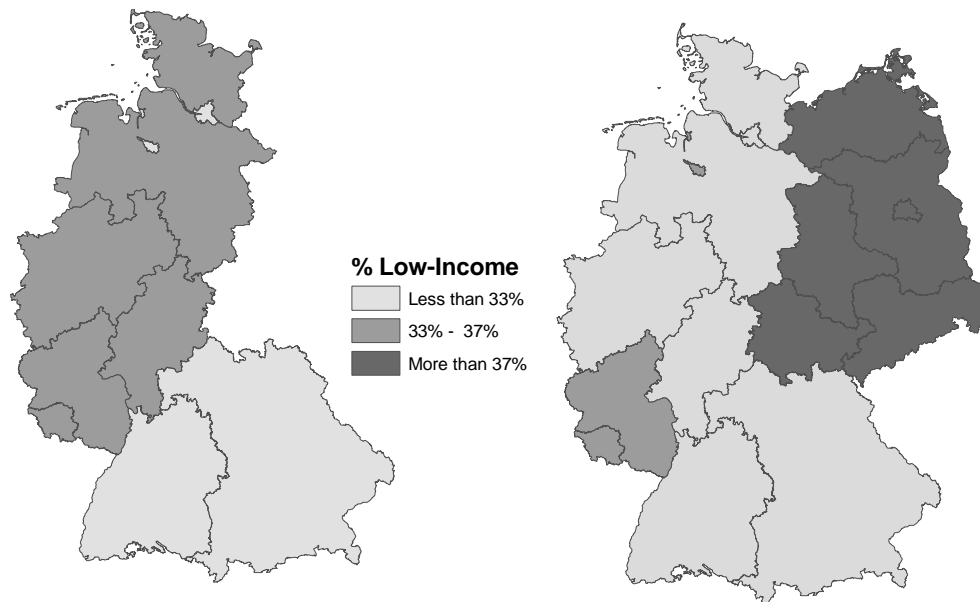
NOTE. This Figure reports the geographic concentration of low-income citizens (i.e., those with incomes in the lowest third of the market income distribution) within the regions of Italy.

distribution.) As a result, when the process of electoral reform replaced large MMDs, in which seats were allocated according to a proportional representation (PR) rule, with a system in which most of the seats are elected in single-member districts (SMDs) under plurality rules, new incentives to be responsive to low-income citizens arose.

While Germany has not recently changed its electoral rules, reunification changed the distribution of low-income voters across electoral districts. Prior to reunification in Germany, low-income citizens were fairly evenly distributed across the German Länder (see Figure 4.2). However, with reunification, low-income citizens are now under-represented in the former West German area, and over-represented in the East. And, while German electoral rules are intended to generate strictly proportional outcomes – that is, the distribution of votes should match the distribution of seats in the legislature – they nevertheless favor geographically concentrated interests. First,

to qualify in the national allocation of seats, a party must be supported by either 5 per cent of the national vote distribution, or win three SMD seats. Second, a party is entitled to keep any SMD seats it wins in excess of its national allocation (excessive mandates), which allows geographically concentrated interests to be over-represented by comparison to the national distribution of support. In these ways, German electoral rules favored the representation of low-income citizens in the post-reunification period.

Figure 4.2: The Geographic Distribution of Low-Income Citizens in Germany, 1984-1990 and 1994-2001



NOTE. This Figure reports the geographic concentration of low-income citizens (i.e., those with incomes in the lowest third of the market income distribution) within the regions of Germany.

In this discussion, I demonstrate how electoral rules created new incentives to be responsive to low-income people by tracking the changing seat share that would be allocated to a low-income voting bloc before and after electoral reform in Italy, and before and after reunification in Germany. Then, I consider whether these new incentives had real effects on policy outcomes. Because I am examining each country

over a short time period, this research design offers the advantage of controlling for the effects of historical legacy and political culture. Any changes in the distribution of benefits to low-income citizens that are consistent with the implications of changes in electoral rules or context can reasonably be attributed to changes in electoral incentives.

4.2 Electoral Reform in Italy

Italy's electoral reform replaced a system in which elections were contested in MMDs and seats were allocated according to a open-list PR rule,² with a system in which most seats were contested in SMDs under plurality rules. The details of these systems will be considered shortly. For the purposes of this discussion, however, there are three important features of the Italian electoral reform process: First, from the earliest stages of the electoral reform process, SMDs were closely tied to the reformers' objectives. Second, the pace of reform, from the initial collection of half a million signatures to the implementation of new electoral laws was quite quick. And third, the electoral reform process was not the result of any broader initiative to be more responsive to low-income people.

A brief history of the electoral reform process illustrates these points. Following the Italian regulations for referendum initiatives, the "Committee for Referendums on Electoral Laws" (COREL), led by Mario Segni, a former Christian Democratic backbencher, presented the following proposal to Italy's Constitutional Court: (1) the reduction of the number of preference votes used in lower house elections, from three to one; (2) the introduction of a SMDs for the election of the Senate;³ and (3) the introduction of SMDs for local elections. The Court eventually approved all three proposals, and referendums were held in June 1991, on the first proposal, and in April

²That is, voters could cast preference votes for up to four candidates on a party list.

³It was generally understood that a reform of the Senate would imply a parallel reform of the Chamber of Deputies (Katz 2003).

Table 4.1: Electoral Reform Time-Line

Date	Event
Feb 1990	COREL is established and begins its campaign for electoral reform referendums
Apr-Jul 1990	COREL collects over 1.25 million signatures supporting its referendum proposals
Jan 1991	The Constitutional Court approves referendum question on reduction of preference votes
June 1991	Referendum on reduction of preference votes approved by 96 per cent of voters
Jan 1992	COREL presents a revised version of the question on SMDs to the Constitutional Court for approval
Jan 1993	The Constitutional Court approves a set of eight referendum questions, that includes COREL's second proposal on SMDs
Mar 1993	Legislative reform to incorporate SMDs in local elections
Apr 1993	Referendum on electoral reform, including COREL's proposal for SMDs
May-June 1993	Committee on Constitutional Affairs drafts and debates proposed electoral reform, in which 70 per cent of seats are elected in SMDs by plurality rules
Jul 1993	Senate approves the proposed electoral reforms
Aug 1993	Chamber of Deputies approves the proposed electoral reforms

NOTE. This Table reports key events in Italy's electoral reform process.

SOURCES. Donovan (1995), Katz (2003, 1996).

1993, on the second proposal. (The third proposal, the adoption of SMDs in local elections, was implemented by the legislature in March 1993, without a referendum.) This period, “the three years from early 1990 to the spring of 1993 saw a virtually continuous mobilization in favor of electoral reform” (Donovan 1995, 54).

Historical accounts of the reform process usually emphasize two sets of objectives pursued by the reformers (Table 4.1 provides an time-line of the key events). For Segni and COREL, in particular, the electoral reform process centered on the creation of a two-party system of electoral competition that would allow alternation in government, and on the establishment of a direct relationship between legislators and their constituents (Donovan 1995, Katz 2003, 48). As a result, it is not surprising that SMDs were a core tenet in the reformers' platform: Following Duverger's law, which is generally understood to imply that simple plurality voting in SMDs yields two-party competition (see Riker 1982), SMDs have long been associated with

two party competition. Indeed, the introduction of SMDs was a core component of COREL's initial referendum proposal. Under Italy's pre-reform electoral rules, parties only rarely won a sufficient number of seats to form the government, and the more frequent negotiated coalitions were notoriously fragile. Some reformers, including Radical Party member Marco Pannella, expressed a desire to limit, weaken or "close down" the number of existing parties through the electoral reform. More generally, with elections contested in SMDs, reformers hoped that Italian electoral politics would gain new competitiveness, and by consequence, they argued, greater democratic legitimacy (Katz 2003). Thus, from the very beginning of the electoral reform process, SMDs were closely associated with the objectives of the campaign. Further, the overwhelming support for electoral reform in the 1991 referendum likely made the eventual adoption of SMDs a virtual certainty.⁴

The second important feature of the Italian electoral reform process is the pace at which the reform occurred. Notice in Table 4.1 that once COREL had met the administrative requirements of referendum initiatives (i.e. collecting signatures and gaining the approval of the Constitutional Court), the referendums, with their mandate for reform, quickly followed. The uncertainty regarding the timing of elections and the implementation of the electoral reform was undoubtedly heightened by the *tangentopoli* ('kick-back city' or 'bribeville') corruption scandals, and subsequent *mani pulite* (clean hands) investigation: Many prominent government officials were implicated, including the former Prime Minister and head of the Partito Socialista Italiano (PSI), Bettino Craxi, who came to symbolize the *tangentopoli* scandals.

Finally, the third important feature of the Italian electoral reform process is that it was not part of a larger initiative to incorporate low-income citizens. Instead, Donovan suggests that the electoral reform was symptomatic of strong anti-

⁴Two more referendums on electoral reform, that would have abolished the MMD component of Italy's mixed system, were held in 1999 and 2000. However, after Casa delle Libertà's poor showing in the regional elections of 2005, then-Prime Minister Berlusconi pushed through parliament legislation that re-established a system in which all members are elected in MMDs.

Table 4.2: Support for Italy's 1993 Referendum on Electoral Reform, by Region

Region	%	Regional Average	%		
Emilia-Romagna	87.8	Northern regions	85.1		
Veneto	87.5				
Lombardy	85.9				
Piedmont	83.1				
Trentino-South Tyrol	81.0				
Friuli-Venezia Giulia	80.5				
Liguria	79.7				
Aosta Valley	77.7				
Tuscany	83.8	Central regions	81.1		
Marches	81.3				
Latium	79.8				
Umbria	77.8				
Abruzzo	71.1	Southern regions	64.4		
Apulia	68.2				
Basilicata	64.4				
Campania	63.9				
Molise	61.7				
Calabria	54.9				
Sardinia	72.5			Insular regions	64.8
Sicily	62.3				
		TOTAL	77.0		

NOTE. This Table reports the proportion of votes cast in favor of the 1993 referendum on election reform, for each Italian region, and for Northern, Central and Southern Italy.

SOURCE. Ministero dell'Interno (2006).

partitocrazia sentiment, resulting from the tangentopoli scandals. Moreover, the geographic distribution of support for the electoral reform referendum reaffirms its largely Northern foundation (see Table 4.2): Though support for the electoral reform process was quite high throughout the country, support was especially strong in the Northern regions, where low-income citizens are most under-represented. It seems unlikely, therefore, that the process of electoral reform can be seen either as an initiative of those representing the interests of low-income citizens, or as the result of low-income voter support.

In sum, these features – the prominence of SMDs, the pace of electoral reform, and its Northern origins – suggest that (1) legislators could rationally anticipate the

implications of the electoral reform movement for their electoral incentives, (2) there was a great deal of uncertainty about when the reforms would be implemented in an election, and (3) the electoral reform movement did not arise from a broader initiative to be more responsive to low-income citizens (i.e. the electoral reform was exogenous with regards to poverty relief).

Changing Electoral Incentives in Italy

In the pre-reform period, seats in the Chamber of Deputies were allocated in a two-tier system: First, seats were allocated within each district (according to the Hagenbach-Bischoff, or Droop, formula in districts electing fewer than 21 seats and the Imperiali formula in larger districts).⁵ Then, remaining votes were aggregated at the national level, and unallocated seats were distributed according a simple quota system with largest remainders.⁶ Voting was compulsory, and voters were able to cast up to three or four preference votes on open-list ballots, depending on the number of legislators to be elected.

As suggested above, the electoral reform process resulted in a radically different electoral system. Though the technical changes implied by the referendums were abrogative – Italian law dictates that referendums can only delete law, and as a result, the formal changes brought about by the referendums were slight – the legislators found in the overwhelming support a mandate for a system in which SMDs played a prominent role. In the post-reform period, 75 per cent (475) of the seats in the Chamber of Deputies were elected in SMDs by plurality rules, and, to ensure the representation of smaller parties, 25 per cent (155) were elected in 26 MMDs. Voters cast two ballots, and seats in the second tier are allocated by the d’Hondt quota. The

⁵The Hagenbach-Bischoff formula uses a quotas of the $(V/D+1)+1$, where V reports the number of valid ballots, and D reports the district magnitude. The Imperiali formula, instead, uses the quota $(V/D+2)$ (see, e.g. Farrell 2001).

⁶A simple quota is calculated by V/D , where V reports the number of valid ballots, and D reports the district magnitude.

Table 4.3: Allocation of Seats, Before and After Italy's Electoral Reform

Region	A. Pre-Reform	B. Post-Reform	
	MMD	SMD	MMD
North			
Piemonte	12	3	2
Lombardia	15	0	2
Val d'Aosta	0	0	
Trento Alto Adige	2	1	0
Veneto	10	2	2
Friuli Venezia Giulia	2	0	0
Liguria	4	1	1
Emilia Romagna	6	0	1
Central			
Marche	5	5	1
Lazio	18	13	4
Toscana	7	1	1
Umbria	3	1	0
South			
Abruzzo	6	8	1
Molise	2	2	0
Campania	40	43	8
Puglia	24	33	5
Basilicata	2	4	0
Calabria	14	15	3
Islands			
Sicilia	35	37	8
Sardinia	8	9	1
<hr/>			
TOTAL	215/627 (34.2%)	178 217/630 (34.6%)	40

NOTE. This Table reports the number of seats that would be allocated to a low-income voting bloc, before and after the electoral reforms of the early 1990s.

Senate is elected under similar rules.

To illustrate how this change in electoral rules created new incentives to be responsive to low-income citizens, suppose that there exists a low-income voting bloc such that all low-income citizens vote together, and all turn out to vote. How many seats would this low-income voting bloc receive under the pre- and post- reform electoral rules?

To estimate the number of seats a low-income voting bloc could win, before and

after Italy's electoral reform, I take the following steps (technical details are reported in Appendix 5.A). First, using Luxembourg Income Study (LIS) data, which report individual-level income by source, I classify low-income citizens according to their relative market income position. Then, using the regional identification variables LIS provides, I estimate the proportions of each region that qualify as low-income. Focusing on the Chamber of Deputies, and using these proportions to represent the vote share of a low-income voting bloc in each region, I then allocate seats according to the rules governing elections, before and after the electoral reform. That is, in the pre-reform period I allocate seats according to the Hagenbach-Bischoff or Imperiali quota systems, depending on the size of the electoral district (ignoring remainders, the allocation of which depends upon the shares of votes won by other parties, and the second tier allocation). In the post-reform case, I allocate SMD seats according to the procedure described in Appendix 5.A, and calculate the PR distribution of seats at the regional level (ignoring remainders and using a Droop quota, instead of the d'Hondt formula), taking into account the scorporo, or deduction for SMD seats won. This strategy allows a pre- and post- reform comparison of the number of seats a low-income voting bloc could win if a party were successful in cultivating its support (see Table 4.3).

There are several features of Table 4.3 that are important for this discussion: First, notice that a low-income voting bloc could secure more SMD seats in the post-reform era than its total number of seats won in the pre-reform MMD rules. Although the difference in the total number of seats is rather modest – a result ensured by Italy's mixed electoral system, the decisiveness of the support a low-income bloc for each legislator elected in an SMD is considerably greater than under MMD rules. Second, not surprisingly, almost all of the SMD seats allocated to the low-income voting bloc are won in Italy's Southern regions; the low-income citizens in these regions represent about 12 per cent of the national population. Particularly with the

new clarity of attribution, these features of Table 4.3 suggest that Italy's electoral reform implemented a system that favored the representation of low-income citizens: Securing their support in the post-reform period was an efficient way to win a large number of seats that did not exist under the pre-reform electoral rules. As a result of this reform, efforts at poverty relief should reflect increased incentives to represent the interests of those with low incomes.

4.3 Germany's Changing Electoral Context

Elections to Germany's lower house, the Bundestag, are also governed by a mixed electoral system. In a way similar to the reformed Italian system, voters cast two votes (though not ballots): The first vote elects an SMD constituency candidate; the second vote contributes to the votes cast in favor of Land-wide MMDs. Seats are first allocated among parties according to the share of national party list votes received, and then, following the Niemeyer largest remainder method, are distributed among the Länder according to the geographic distribution of electoral support for each list.⁷ The number of seats won by constituency candidates is subtracted from what each party is entitled to, according to the regional Niemeyer allocation, and remaining seats are filled in the order specified in the Land party lists.

The result of these electoral rules, as suggested above, is a nearly proportional outcome. That is, the shares of seats held by parties correspond almost perfectly to their shares of the national vote distribution. Nevertheless, the German electoral system favors the representation of geographically concentrated interests in two important ways: First, in order to participate in the national Niemeyer allocation, a

⁷The Niemeyer allocation first calculates the total number of seats to be allocated to each party, on the basis of a simple quota with largest remainders, and the party list votes. Then, for each party, the seats are allocated among the Land lists according to the geographic distribution of support: A simple quota is calculated for each party, and then seats are allocated among the regions according to the ratio of the number of votes each party received in each region, to this quota (with remaining seats allocated according to the largest remainders). This allocation represents the total number of seats a party is entitled to within each region. See Federal Returning Officer (2002) for more details.

party must win at least three of the SMD seats, or five per cent of the national vote distribution. Second, excessive mandates (or overhang seats) are those in which a party secures more SMD seats in a region than they are entitled to by the Niemeyer allocation. The party is allowed to keep these seats, and by consequence, have a seat share that exceeds its vote share. Thus, for the purposes of this discussion, the advantage of geographically concentrated interests under German electoral rules lies in the whether or not participation in Niemeyer allocation is assured.⁸

With German reunification, five Länder were re-established, and 160 seats were added to the Bundestag. No other changes were made to German electoral rules, except for a one-time difference in the threshold used in the Niemeyer allocation: In the December 1990 election, party lists needed only to secure five per cent of the votes cast in either East or West Germany in order to qualify for the first allocation of seats. Unlike the Italian case, there can be no question strategic anticipation of the change in electoral incentives, nor that changes in the German electoral incentives to be responsive to low-income citizens were exogenous to the process of change itself (i.e. German reunification cannot be attributed to the actions of low-income citizens, nor to a broader initiative to be more responsive to the poor). As a result, changes in poverty relief can be attributed with some confidence to the changes in the electoral context that followed German reunification.

Changes in the Electoral Context

Following a similar strategy as in the case of Italian electoral reform, here I consider how the allocation of seats to a low-income voting bloc varies with the change in Germany's electoral context. As before, I use LIS data to calculate the proportion of low-income citizens residing in each of Germany's Länder. Then, using the Niemeyer

⁸It is worth noting, nevertheless, that the number of excessive mandates has increased substantially in the post-reunification period: In elections prior to reunification, the number of excessive mandates range from one to five. The post-reunification period has seen no fewer than five excessive mandates (in 1990), and as many as 16 excessive mandates (in 1994).

Table 4.4: Allocation of Seats, Before and After German Reunification

Region	A. Pre-Reunification		B. Post-Reunification	
	MMD	SMD	MMD	SMD
Bavaria	25	0	20	2
Baden-Württemberg	21	0	19	0
Rhineland-Palatinate & Saarland	4	10	4	10
Hamburg	3	1	2	2
Schleswig-Holstein	3	4	5	0
Lower Saxony	3	19	11	8
North Rhine-Westphalia	1	50	34	9
Berlin	0	0	0	13
Hesse	0	16	11	1
Bremen	0	1	0	2
Saxony			0	21
Saxony-Anhalt			0	13
Brandenburg			0	11
Thuringia			0	11
Mecklenburg-Vorpommern			0	8
TOTAL	60	101	106	111
	161/496 (32.4%)		217/656 (33.1%)	

NOTE. This Table reports the number of seats that would be allocated to a low-income voting bloc, before and after reunification.

allocation rule described above, I estimate the number of seats (again, ignoring remainders) that would be allocated to a low-income voting bloc if all low-income citizens vote together, and all turn out to vote. Using the strategy described in Appendix 5.A, I estimate the number of direct mandates, or SMD seats, that a low-income voting bloc would win within each region, and then subtract this number from the regional Niemeyer allocation. As in the Italian case, this strategy allows a pre- and post-reunification comparison of the number of seats allocated to a low-income voting bloc (see Table 4.4).

There are several important features of the data reported in Table 4.4: As we saw in the Italian case, the mixed-member electoral rules ensure that the difference in the total share of seats secured by a low-income voting bloc before and after reunification is decidedly modest, although it is larger after reunification. More important,

I think, is the proportion of seats elected through a direct mandate in regions that elect no indirect or regional MMD legislators. With the opportunity to be directly rewarded for geographically-targeted benefits, this larger group of legislators – for whom the electoral support of low-income citizens is especially important – have strong incentives to be responsive to the poor. As a result, even in the absence of excessive mandates and large changes in the seat shares elected by a low-income voting bloc, German reunification created an electoral context that favored the representation of low-income citizens.

4.4 Measuring Poverty Relief in Italy and Germany

The analysis in this section uses the strategy for measuring poverty relief that was outlined in Chapter 3. Specifically, the poverty relief ratio \mathcal{R} (Eq. 3.3) uses the relationship between social transfers and market income to estimate the extent of redistribution, relative to the amount of redistribution needed to increase the income of all low-income household to the level of the poverty threshold. This measure incorporates all possible sources of income support, and therefore reflects changes in transfers to those with no income, universal or near-universal transfers, and in the rate at which benefits to those with low-incomes decline. Following the convention established in Chapter 3, all income and transfer amounts are reported in thousands of 2000 US dollars.

Poverty Relief in Italy

As suggested in the introduction to this discussion, until recently Italian social policy was characterized by very limited benefits that were highly targeted. Indeed, Ferrera (2004, 122) presents evidence that the “(distorted) welfare capitalism Italian-style,”

by which Ferrera means an inefficient system of social policy that favored specific demographic (e.g. the elderly) and occupational groups (e.g. industrial workers), continued and consolidated throughout the 1980s. However, beginning in the early 1990s, a series of social reforms were implemented that, although most of the early changes centered on pension and health care reform, may also have implied significant changes for low-income people (see e.g. Ferrera 2004). This period of social reform coincides with the period of electoral reform that established electoral rules favorable to low-income people. Does the relationship between market and social transfers reflect incentives for more extensive poverty relief?

Table 4.5: Change in Responsiveness, Before and After Italy's Electoral Reform

	Pre-Reform				Post-Reform		
	(1) 1987	(2) 1989	(3) 1991	(4) 1993	(5) 1995	(6) 1998	(7) 2000
\mathcal{R}	0.3454 (0.0117)	0.4882 (0.0124)	0.5196 (0.0136)	0.4763 (0.0170)	0.5302 (0.0171)	0.5943 (0.0180)	0.626 (0.0169)
α	0.5448 (0.0426)	0.4904 (0.0472)	0.506 (0.0562)	0.9469 (0.0623)	0.9632 (0.0703)	1.0054 (0.0987)	0.8509 (0.1023)
β_1	4.8718 (0.1636)	7.6002 (0.1643)	7.4426 (0.1796)	5.1966 (0.2003)	5.4698 (0.2086)	6.4473 (0.2293)	7.0772 (0.2239)
β_2	-0.3069 (0.0208)	-0.2842 (0.0130)	-0.2632 (0.0132)	-0.3252 (0.0278)	-0.2917 (0.0235)	-0.2202 (0.0176)	-0.1974 (0.0136)
τ	10.0932 (0.2557)	10.1276 (0.1627)	9.7487 (0.1724)	8.2966 (0.2534)	7.8495 (0.2204)	7.8152 (0.1862)	7.4842 (0.1437)
ψ	10.8581	11.0462	10.8275	9.5937	9.3669	9.9744	9.9515
RMSE	2.347	2.503	2.730	3.237	3.397	3.965	4.0317
N	5,452	5,574	5,217	4,920	4,905	4,444	4,688

NOTE. This Table reports parameters estimated in NLS regression models, as described in Table 3.6. Gauss-Newton standard errors are reported in parentheses.

In fact, patterns of poverty relief generally do reflect changes in electoral incentives: Table 4.5 reports parameters from estimated to describe the relationship between market income and social transfers, for each LIS observation. Looking across

the top row of Table 4.5, then, estimates of \mathcal{R} are consistently higher in the post-reform period, indicating more extensive poverty relief measures were implemented. To provide a substantive interpretation, an individual with no market income reported receiving \$5,419 in transfers in 1987, and reported receiving average transfers of \$8,105 in the post-reform period; this represents an increase in benefits of almost 50 percent. The empirical evidence of changing patterns in poverty relief presented in Table 4.5, therefore, should be interpreted as consistent with the change in electoral incentives, implemented by Italy's electoral reform.

Poverty Relief in Germany

In contrast to the Italian welfare system, German social policy is quite comprehensive. In addition to a long-established social assistance program, needs-based benefits include support for children and for housing-related expenses. Basic entitlements and qualifications are dictated by federal law, with benefits administered by local authorities, who are dependent on local tax bases.⁹ Because there is no direct transfer structure established between the federal government and local authorities, change in federal policy results in adjustments that are often “non-transparent and indirect” (Adema, Gray & Sigrun 2003, 14). Thus, the establishment of long-term care insurance in 1994 did much to benefit low-income citizens by lessening demands made on local social assistance resources. Other policies, like a 1993 regulation that prevented asylum seekers and other non-resident aliens from claiming social assistance benefits, similarly reduced the number of social assistance claims. As a result, without pursuing a policy agenda explicitly intended to increase poverty relief, after reunification, the German government was able to be more responsive to low-income citizens.

Using the methods applied to the Italian case (see also 3), I track patterns in poverty relief, before and after Germany's reunification. The results of this analysis

⁹Although there is some variation across the Länder, it is quite limited (Adema, Gray & Sigrun 2003), with slightly lower benefit rates in the Eastern states.

Table 4.6: Change in Responsiveness, Before and After German Reunification

	Before Reunification		After Reunification	
	(1) 1984	(2) 1989	(3) 1994	(4) 2000
\mathcal{R}	0.2607 (0.0079)	0.2496 (0.0066)	0.3570 (0.0063)	0.4285 (0.0052)
α	0.3059 (0.0490)	0.2207 (0.0571)	0.2464 (0.0617)	0.8813 (0.0700)
β_1	5.6178 (0.1462)	5.9207 (0.1749)	6.4821 (0.1324)	7.4763 (0.1274)
β_2	-0.1790 (0.0102)	-0.1278 (0.0069)	-0.1161 (0.0050)	-0.0884 (0.0033)
τ	15.4763 (0.3182)	18.3240 (0.3362)	15.2448 (0.1845)	15.8736 (0.1264)
ψ	16.1347	19.1137	16.5963	18.5923
RMSE	1.989	1.865	2.178	2.7253
N	3,785	3,081	4,538	6,983

NOTE. This Table reports parameters estimated in NLS regression models, as described in Table 3.6. Gauss-Newton standard errors are reported in parentheses.

are reported in Table 4.6, with estimates of \mathcal{R} reported in the top row. As with the Italian case, the pattern of change in poverty relief, summarized by the statistic \mathcal{R} is consistent with the change in electoral incentives: Looking across the bottom row, values of \mathcal{R} are consistently larger in the post-reunification period (Columns 3 and 4) than in those observations made prior to reunification. For someone with no market income, reported transfers increased from \$5,923 in 1984, to \$8,332 in 2000; this represents an increase of 40 percent. Therefore, the evidence presented in Table 4.6 is consistent with the changes in electoral incentives resulting from German reunification.

4.5 Alternative Explanations

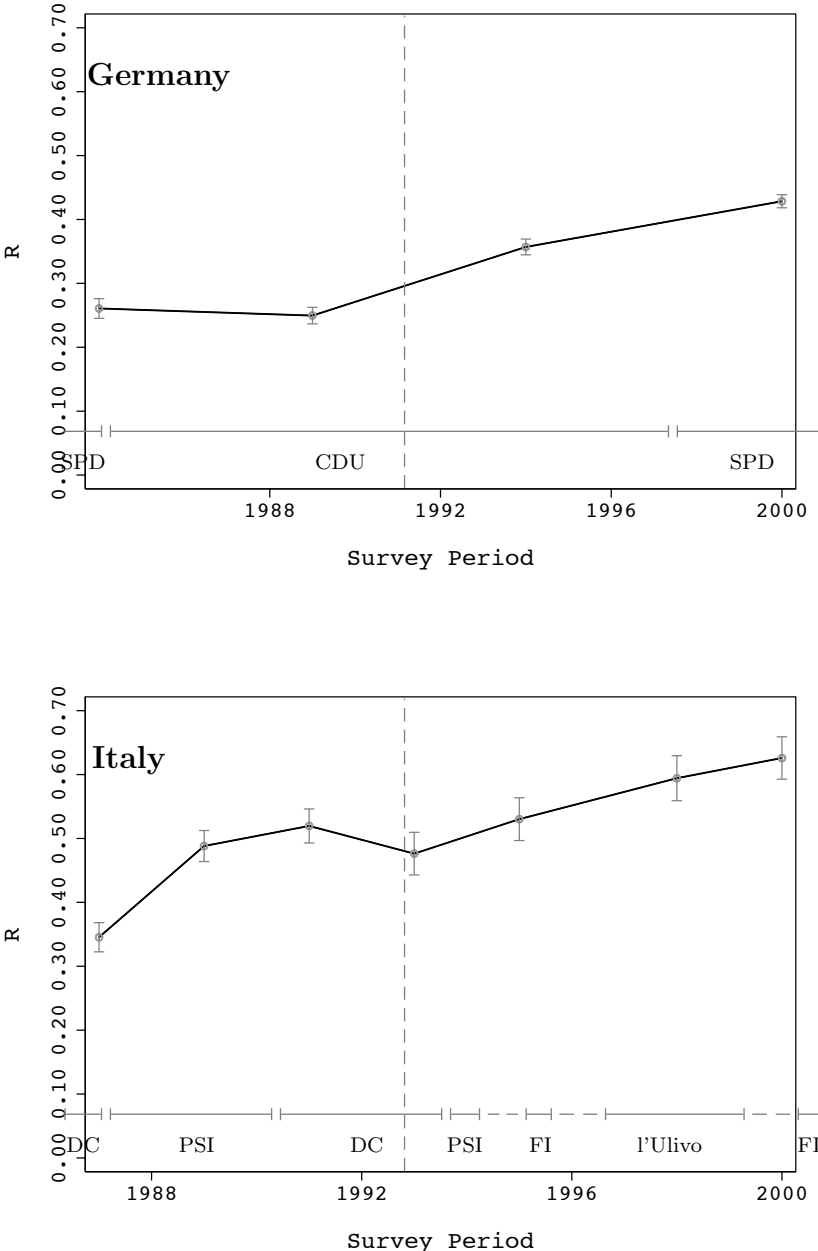
This section considers two other possible accounts of the increase in poverty relief in post-reform Italy and post-reunification Germany: Is the increase in poverty relief attributable to a leftward change in the partisan composition of government? Does the increase in poverty relief reflect the commitment to social protection expressed by the Maastricht Treaty?

In fact, there is little evidence that the increases in poverty relief can be attributed either to ideological shifts in governing coalitions or to European community obligations. Consider first how the partisan composition of German and Italian governments changed throughout the pre- and post reform and reunification periods: Figure 4.3 reports estimates of \mathcal{R} for both Germany and Italy, and reports the partisan affiliation of Germany's Chancellors and Italy's Prime Ministers throughout this period.

In Germany, the Christian Democratic Union (CDU), the predominant conservative party, governs with the support of the Christian Social Union (CSU) and the Free Democratic Party (FDP) continuously from 1983 to 1998 – a period that includes almost the entire period considered in this analysis. As a result, the increase in poverty relief seen in Germany in Figure 4.3 cannot be attributed to ideological changes in the composition of the government.

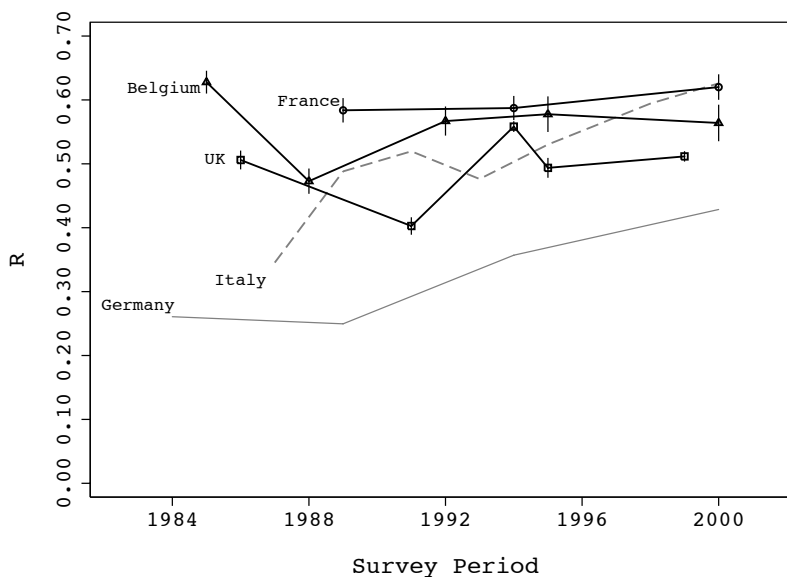
The relationship between the ideological composition of government and changes in antipoverty policy is equally elusive in Italy. Here, as well, the period leading up to Italy's electoral reform was dominated by a single party, Democrazia Cristiana (DC), that governed in coalition with both major and minor opposition parties until its collapse in 1994. Thus, both the decline in poverty relief seen in prior to 1990, and the increase in the first post-reform observation resulted from DC policy. Further, the continued increase in poverty relief throughout the post-reform period occurs under

Figure 4.3: Poverty Relief and Incumbent Parties in Germany and Italy



NOTE. This Figure reports estimates of \mathcal{R} , and its 95 per cent confidence intervals, for both Germany and Italy, as well as the party of the Prime Minister for both countries. Parties labels are as follows: CDU= Christlich Demokratische Union, SPD= Sozialdemokratische Partei, DC= Democrazia Cristiana, PSI=Partito Socialista Italiano, and FI= Forza Italia.

Figure 4.4: Poverty Relief in Other EU Partner Countries, 1982-2002



NOTE. This Figure reports estimates of \mathcal{R} for Italy and Germany, as well as France, and the United Kingdom. Error bars report 95 per cent confidence intervals.

technical non-party governments and the first government formed by the conservative Forza Italia leader, Silvio Berlusconi. Therefore, with no predominant shift in the ideological composition of the Italian executive occurring during this period, the increase in poverty relief seen in Figure 4.3 cannot be attributed to a leftward shift in government.

As suggested above, another possible explanation for the increase in poverty relief could lie in obligations to the European Community. Indeed, the Maastricht Treaty was ratified in 1992, included a commitment to broader social protection, and implied public sector reform for both Germany and Italy, any change in welfare policy could reasonably be attributed to the European integration process: Much has been made of the effect of Maastricht obligations on Italian social policy in particular (see, e.g. Ferrera 2004). Importantly, though, for both Italy and Germany, meeting the Maastricht criteria required austerity measures, or general cuts in social spending in

the post-reform or post-reunification period (e.g., Leibfried & Obinger 2003). However, in both countries, though, as reported above and seen now in 4.4, poverty relief increased throughout this period. This increase is especially noteworthy when the pattern of poverty relief in Germany and Italy is compared to other key EU partners, France, Belgium, and the United Kingdom (see Figure 4.4): Poverty relief in Belgium and the UK reflects continued welfare retrenchment during the early 1990s, and returns to original levels shortly afterward as their economies improved. In contrast, levels of poverty relief in France changed little over the period in which dramatic changes are observed in Germany and Italy. Although, of course, Figure 4.4 provides some evidence that is consistent with a convergence explanation – all countries end up with levels of poverty relief between 0.35 and 0.5 – the cross-national differences in initial levels of poverty relief, in combination with the timing of Germany and Italy’s improved levels of poverty relief makes the politics of European integration an especially unlikely explanation of the changes we observe in Germany, after reunification, and in Italy, after electoral reform.

4.6 Conclusion

Do electoral incentives structure distributions to low-income citizens? The evidence presented in this discussion is consistent with an election-motivated account of poverty relief. By recognizing that antipoverty policy is well-suited for manipulation by electorally motivated legislators, this discussion breaks with current thinking about welfare policy in several ways. First, poverty relief may have little to do with the relative strength of class-based organizations, as the power resources accounts suggest, but may instead reflect legislators’ electoral incentives. Second, the evidence presented here challenges current thinking about the relationship between MMD electoral rules and more generous social spending: When low-income voters are geographically

concentrated, as is the case in both Italy and post-reunification Germany, elections contested in SMDs may create incentives for greater poverty relief than exist when elections are contested MMDs.

Important questions, of course, remain: Does the relationship between electoral incentives to seek the support of low-income citizens and poverty relief seen here hold more generally? This question motivates the analysis presented in Chapter 5.

Chapter 5.

Electoral Politics and Poverty Relief in Contemporary Democratic Societies

5.1 Introduction

How do electoral rules affect the poor? Chapter 4 addresses this question by taking advantage of two “natural experiments” in the relationship between electoral rules and poverty responsiveness: Italy’s electoral reform, in the early 1990s, and German reunification. In each case, the resulting change in electoral geography (i.e., the interaction between the geographic distribution of voter types and electoral rules) strengthened legislators’ incentives to be responsive to low-income voters, and the generosity of poverty relief measures increased substantially. While the results of these country case-studies are consistent with an election-motivated account of antipoverty policy, the shifts in electoral geography coincide with periods of profound change in both Italy and Germany. As a consequence, some alternative explanations for the observed increases in poverty relief cannot be evaluated.

This chapter, therefore, takes up the question of the relationship between electoral geography and poverty responsiveness in a broadly comparative cross-national analysis. This strategy allows the more rigorous investigation of this relationship, and the evaluation of potentially confounding variables, including those typically emphasized in the conventional accounts of cross-national differences in social policy. Here, the measure of poverty responsiveness developed in Chapter 3, the poverty relief ratio \mathcal{R} , serves as the dependent variable. Then, using a strategy that is similar to what

was employed in Chapter 4 – assuming the existence of a low-income voting bloc, and then assessing its electoral strength – this chapter takes as the key independent variable, the share of seats a low-income voting bloc could win under current electoral rules.

5.2 Measuring the Electoral Power of Low-Income Voters

How many seats could a low-income voting bloc elect, if all low-income voters turned out to vote, and they all voted the same way? There are two steps involved in measuring the electoral power of a low-income voting bloc for the complete set of LIS countries:

1. Using LIS and sometimes other data resources, I estimate the proportion of low-income voters in each electoral district, within each country. (“Low-income” refers to those who comprise the lowest third of the national market income distribution.)
2. Using these proportions of low-income voters in each district, seats are allocated according to current electoral rules of each country.

This section of the discussion describes each of these steps, leaving more technical information for Appendix 5.A.

Estimating the Geographic Distribution of Income

Three different strategies are used to estimate the proportion of each lower house electoral district that is composed of low-income households:

- (A) Whenever possible, LIS data are used directly (e.g., Finland). That is, when the LIS data report each respondent household’s region of residence and the regions reported correspond to the country’s electoral districts (or to regions

that comprise the electoral districts), the proportion of low-income households in each district is estimated in a straight-forward way.

- (B) In several cases (e.g., Australia), data on the distribution of income within electoral districts are available from other sources. Sometimes the construction of income measures or samples differ from the measures or samples used the analysis presented in Chapter 3; these differences are noted in Appendix 5.A.
- (C) When income data corresponding to the electoral district are not available, LIS data are usefully combined with other resources to estimate the proportion of low-income citizens in each electoral district.

To illustrate, the geographic distribution of low-income households in France, was evaluated in several steps: While LIS data do not report each household's electoral district (*circonscription*), they do include each respondent's region of residence. One way to proceed, therefore, might be to use the regional proportions of low-income households to estimate the proportion of low-income households in each electoral district. This strategy, however, would fail to reflect within-region cross-district variance in the concentration of poverty.

Alternatively, although *Institut National de la Statistique et des Études Économiques* (INSEE) does not report income data that correspond to the measures of poverty used in this analysis, INSEE does report data on the structure of the labor force – data that correspond to LIS variables – within each electoral district. Using LIS data, I estimate the proportion of low-income households in each labor force status and industrial sector for each French region, and then use this relationship in combination with the INSEE labor force data to estimate the proportion of low-income citizens in each district. This latter strategy has the advantage incorporating within-region across-district differences that are related to the distribution of poverty, but would be misleading if poverty

rates vary within labor force status and industrial sector categories, within each region. For this reason, this strategy is pursued only when LIS regions do not correspond to electoral districts and other measures of the geographic distribution of income are unavailable or are quite different from the measure developed here.

- (D) Finally, when available data only roughly correspond to electoral districts, and/or are insufficiently detailed to be combined with LIS data in a meaningful way (i.e., only unemployment rates are available), the electoral strength of a low-income voting bloc is estimated by calculating the binomial expectation of the number of seats won within a region. For Italy and Germany, the two country cases for which this strategy was followed, the binomial parameter p , the probability of winning each seat in the SMD components of each system, is calculated in a way that incorporates regional levels of poverty, and the within-region cross-district variance in unemployment rates.

Appendix 5.A reports the specific details of the estimation strategy used for each country and lists the electoral districts in which a low-income voting bloc could elect (lower house) members of the national legislature.

Allocating Seats to a Low-Income Voting Bloc

The second task in assessing the electoral strength of a low-income voting bloc involves the allocation of seats according to the electoral rules of each system. Following the classification of electoral systems used in Chapter 2, this section of the discussion distinguishes between systems in which all legislators are elected in single-member districts (SMDs), systems in which all legislators are elected in a single nation-wide district, and systems in which the number of legislators varies across districts (usually in a way that reflects population density). Countries included here in a fourth category, “mixed” electoral systems, form a hybrid category and typically have two

or more levels of nested districts, with separate (but sometimes related) allocations of seats at each level. Using this classification, then, this section outlines the general strategy used for seat allocations, for countries in each category of electoral rules. More complete details are included in Appendix 5.A.

SINGLE-MEMBER DISTRICT SYSTEMS

The “first past the post” systems, included in Table 5.1 typically allocate legislative seats to the candidate who is supported by the largest share of votes cast, although some countries impose additional criteria (i.e., the location of the “post”) or vary in how ballots are counted (how candidates get “past”). For example, winning candidates in France must secure the support of a majority of voters, or a second run-off election is held between the two most competitive candidates. Australia also requires that winning candidates are supported by a majority of voters, but instead of holding a run-off election, voters rank order candidates when they cast their ballots. Then, ballots that give first preference to less popular candidates are re-allocated in the order of each voter’s preference until one candidate is surpasses a 50 percent threshold.

Table 5.1: Single-Member District Systems

Seat Allocation Rule	Country
(A) Simple Plurality	Canada, United Kingdom, United States,
(B) Alternative Vote	Australia
(C) Two-Round Majoritarian	France

Even without the alternative vote and majoritarian revisions of a simple plurality rule, the challenge of analyzing SMD systems for this analysis lies in identifying a threshold of representation: When is a low-income voting bloc large enough within a district such that it is likely to be pivotal in the election of that district’s legislator? Following Lijphart (1994, 28; also Boix 1999), this analysis sets an effective threshold of 35 percent for all SMD systems, and allocates a district’s seat to the low-income

voting bloc if the proportion of low-income voters exceeds 35 percent. This threshold, Lijphart suggests, represents the mid-point between an upper threshold that defines the largest share of votes a candidate in a SMD could receive without winning the seat (50 percent), and a lower threshold that identifies the smallest share of votes with which a candidate could win her seat when faced with three or four competitors (20-25 percent), yielding a “rough but reasonable estimate” that, if fewer than four or five parties typically stand for election in these SMD systems, likely over-states the electoral power of low-income citizens. As a consequence, this relatively low threshold – recall that low-income citizens comprise the bottom third, or 33 percent of the national income distribution – will understate differences between SMD and MMD systems in the representation of low-income citizens.

NATIONAL DISTRICT SYSTEMS

In the two countries in which seats are allocated in a single national district, according to a PR allocation rule – Israel and the Netherlands – a low-income voting bloc could secure a third of the seats in the legislature.

VARYING DISTRICT-MAGNITUDE SYSTEMS

Legislators in the lower houses of countries included in Table 5.2 contest their seats in multi-member districts that vary in magnitude, or the number of legislators elected, usually with population density. These electoral systems, however, share few other features: They differ in the seat allocation rule, the number of electoral districts, and whether seats are allocated in one round, within each district, or across multiple tiers (see Table 5.2). Appendix 5.A describes each system in some detail, as well as the strategy used to estimate the number of seats a low-income voting bloc could elect in each country. Here, I outline the general strategy used to allocate seats to a low-income voting bloc within each district.

Analysts of electoral rules typically distinguish between “highest average” and

Table 5.2: Varying District Size-Magnitude Systems

Seat Allocation Rule	Countries
(A) Single-Transferable Vote	Ireland
(B) Single-Tier Systems	Belgium, Finland, Luxembourg, Norway, Spain, Switzerland
(C) Multi-Tier Systems	Austria, Denmark, Sweden

“largest remainder” formulas (e.g., Farrell 2001), and emphasize implications for the proportionality of seat distributions. This distinction is also important for this analysis: Highest average allocation rules require complete information about the distribution of support for all political parties that contest each election, while the number of seats allocated to a political party under largest remainder rules can be well-approximated without knowledge of the distribution of support for other political parties. Consider, for example, an election contested in a five-member district, with the following distribution of support for the five political parties that contested the election (see Table 5.3). A common highest-average formula for the allocation of seats is the d’Hondt formula:¹

$$A_t^p = \frac{v^p}{s_{t-1}^p + 1} \quad (5.1)$$

For each party p , the index, $t = 1..T$, denotes each round of seat allocation until all seats within a district are allocated, such that for each party, the denominator used to calculate the average A_t^p reflects the number of seats won in previous allocations. In the first round, $s_{t-1}^p = 0$ for each party. Then, after the first seat is allocated to Party A ($A_1^A > A_1^p$ for $p \neq A$), Party A’s “average,” $A_2^A = 150$. Seats are then allocated to Parties B, C and then A, in order of the highest “averages.” Finally, when the “averages” are re-calculated to reflect the seats won in the second allocation, Party D is awarded the fifth seat.

As the example presented in Table 5.3 illustrates, a “highest average” seat

¹This discussion owes much to Rae’s (1971) discussion of electoral rules.

allocation requires complete knowledge about the number of parties competing in each district, and their levels of support. If, instead, seats are allocated according to the Droop quota, a common “largest remainder” allocation formula, in which the numbers of seats allocated to especially larger parties are well-approximated by the (rounded) ratios (\hat{S}^p) of each party’s vote share to a “quota” (Q) that incorporates the total number of valid ballots (V) and number of seats (s) to be allocated in district d :

$$\hat{S}^p = v^p \div \left(\frac{V}{s+1} + 1 \right) \tag{5.2}$$

$$\approx \frac{v^p}{V} \cdot (s+1). \tag{5.3}$$

Importantly, little knowledge and few assumptions about the number of parties competing in each election or about distribution of support for other parties is needed to estimate the seats won by each party. For this reason, a Droop quota is used to estimate the number of seats won by a low-income voting bloc in those systems in which seats are typically allocated according to a “highest average” formula. These systems are noted with asterisks (*^{*}) in Table 5.2.

Table 5.3: PR “Highest Average” and “Largest Remainder” Seat Allocations

Party	Votes	“Highest Average”			“Largest Remainder” Seats (\hat{S}^p)
		1st (A_1^p)	2nd (A_2^p)	3rd (A_3^p)	
Party A	300	1st (300)	4th (150)		2 (1.796)
Party B	250		2nd (250)		1 (1.497)
Party C	200		3rd (200)		1 (1.198)
Party D	130			5th (130)	1 (0.778)
Party E	80				0 (0.479)
Party F	40				0 (0.240)
TOTAL	1000				

MIXED ELECTORAL SYSTEMS

As suggested at the beginning of this section, the countries included in Table 5.4 are distinguished by multiple levels of nested electoral districts, and separate (though sometime related) seat allocation processes. Germany and Italy elect between one-half and three-quarters of sitting legislators in SMDs. The remaining legislators are elected in MMDs, and seats are allocated to party lists according to a compensatory or parallel vote tabulation. In this analysis, seats in SMDs are allocated according to the strategy proposed above (i.e., using an effective threshold of 35 percent), and PR seats are allocated according to the rules governing each country (though a Droop quota is used in place of “highest average” calculations).

Table 5.4: Mixed Electoral Systems

Seat Allocation Rule	Countries
(A) Simple Plurality – MMD	Germany, Italy

The Electoral Power of Low-Income Voters

How many seats could a low-income voting bloc elect, if all low-income voters turned out to vote, and they all voted the same way? Table 5.5 reports the results of this analysis, specifically the number of electoral districts in which low-income citizens are over-represented, and the shares of seats a low-income voting could win in each country. The data reported in Column (2) will serve as the key independent variable in the analysis that follows, the electoral strength of a low-income voting bloc.

Note, first, that the success of a low-income voting bloc varies within electoral system groups, and particularly within the group of SMD countries. In the US and the UK, for example, the electoral success of a low-income voting bloc is potentially quite limited, while the largest seat share observed is France. This variance in the electoral strength of a low-income voting bloc within SMD systems, and observed across the

complete set of countries more generally, is especially startling when one recalls that the low-income voting bloc represents the same proportion of the electorate in each country.

Second, while there is a direct correspondence between the number of districts in which low-income voters are over-represented and their share of seats under SMD rules, there is no correspondence in the systems with varying district magnitudes. What matters for the representation of low-income citizens under varying district-magnitude rules is whether or not low-income voters are over-represented in rural districts that elect a small number of legislators (e.g. Finland, Norway and Sweden): Under these circumstance, the dis-proportionality of low-magnitude districts, typically found in the rural regions of these countries, can favor the legislative representation of the low-income voters.

Table 5.5: Seats Elected by a Low-Income Voting Bloc

Country	(1) # of Districts ^a	(2) Seat Share ^b
SINGLE MEMBER DISTRICT SYSTEMS		
United States	22/435	5%
United Kingdom	49/641 ^c	7%
Canada	48/309	16%
Australia	51/150	34%
France	382/555 ^d	47%
NATIONAL DISTRICT SYSTEMS		
Netherlands	0/1	33%
Israel	0/1	33%
VARYING DISTRICT-MAGNITUDE SYSTEMS		
Austria	1/43	33%
Belgium	5/11	33%
Denmark	12/17	33%
Luxembourg	0/4	35%
Spain	28/52	35%
Ireland	12/43	36%
Finland	9/15	37%
Switzerland	21/26	37%
Norway	14/19	38%
Sweden	20/29	40%
MIXED ELECTORAL SYSTEMS		
Germany	8/15 ^e	33%
Italy	11/26 ^f	35%

NOTES. This Table reports estimates of the number of seats that a low-income voting bloc could secure if all low-income citizens cast ballots, and cast ballots for the same party. Please refer to the Appendix materials for details of how these estimates were calculated.

^a This column reports the number of districts in which low-income citizens are over-represented.

^b This column reports the total share of seats secured by a low-income voting bloc. The districts in which these seats are secured are listed in the Appendix materials.

^c The 18 parliamentary constituencies in Northern Ireland are excluded from the denominator reported in this column, but are included in the calculation of the seat share a low-income voting bloc could win.

^d The 15 overseas districts are excluded from the denominator reported in this column, but are included in the calculation of the seat share a low-income voting bloc could win.

^e This ratio refers to the MMD *Länder*, not the SMDs.

^f This ratio refers to the MMD *circoscrizioni*, not the SMDs, the *collegi uninominali*.

5.3 Electoral Power and Poverty Responsiveness

This section explores the relationship between electoral geography and poverty responsiveness. Taking the measure of the electoral power of a low-income voting bloc, developed in the previous section, as the key independent variable, this section considers the extent to which cross-national variance in poverty responsiveness can be attributed to legislators' incentives to be responsive to low-income voters. Specifically, are legislatures more generous in their antipoverty provisions when a larger proportion of their members owe their seats to the support of low-income citizens?

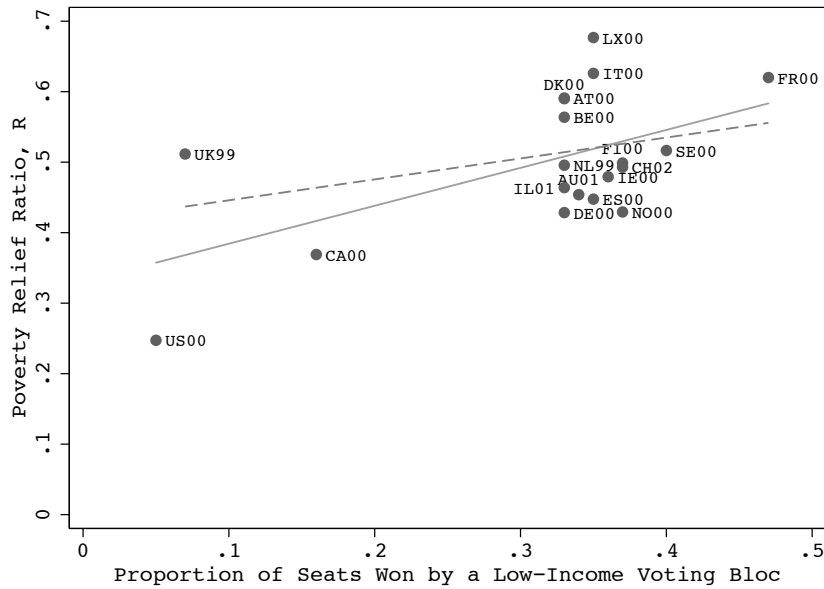
Figure 5.1 reports the bi-variate relationship between the electoral strength of a low-income voting bloc (horizontal axis), and levels of poverty relief. As seen in Figure 5.1, the observed relationship between the electoral strength of a low-income voting and poverty responsiveness is consistent with an electorally-motivated account of antipoverty policy: Poverty relief generally increases with the share of seats low-income voters can elect, if all low-income citizens turned out to vote and all voted the same way.

Alternative Explanations

While the small number of country cases included in this analysis limits the number of alternative explanations that can be considered simultaneously, in this section I consider the relative explanatory power of two variables, often emphasized by other political economic explanations of social spending: the historical power of the left and union strength. As Chapter 1 suggests, the historical dominance of leftist parties is associated both with greater social spending and a more redistributive program of taxes and transfers.² Following Bradley et al. (2003), the historical power of the left is measured as the cumulative number of years in which the cabinet was formed by a

²It is quite likely that leftist parties dominate when electoral rules favor the representation of low-income voters. This proposition motivates a second component of this project, on the partisan representation of the poor.

Figure 5.1: Electoral Power and Poverty Responsiveness



NOTE. This Figure reports the bi-variate relationship between the share of seats potentially secured by a low-income voting bloc and the poverty relief ratio, \mathcal{R} , estimated for each country. See Chapter 3 for a complete discussion of the poverty relief ratio; Appendix 5.A provides information about how the electoral power of low-income voters was assessed for each country. Country labels are reported in Table 3.2. The solid line reports ordinary least-squares (OLS) fitted values (standard errors reported in parentheses):

$$\mathcal{R} = 0.3305(0.0624) + 0.5379(0.1881)\{\text{Seat Share}\}. \quad (5.4)$$

The dashed line reports OLS fitted values from a model that excludes the US:

$$\mathcal{R} = 0.4163(0.0758) + 0.2967(0.2226)\{\text{Seat Share}\}. \quad (5.5)$$

leftist party. Years in which a leftist party contributed members to a cabinet, but did not form the cabinet itself, are entered as the fraction of seats the left party held. As Chapter 1 suggests, conventional accounts of the role of union strength in determining the generosity of social policy treats “generous social policy as a quid pro quo for wage restraint on the part of the unions” (Bradley et al. 2003, 200). Thus, where wage-setting is characterized by centralized bargaining by powerful comprehensive unions, social spending generally, and (some forms of) poverty relief measures ought

to be more generous. Here, the measure of union strength is based on Kenworthy's (2001) analysis, and on data reported in Huber et al.'s (2004) *Comparative Welfare States Data-set*. This measure distinguishes those cases in which centralized wage bargaining occurs between powerful union confederations and coordinated employer organizations, and those in which coordinated wage bargaining occurs only within industries, if at all.

Table 5.6 reports the results of a regression of the poverty relief ratio, \mathcal{R} on the measures of union strength and left party dominance. Note, first, that the electoral power of a low-income voting bloc contributes to the observed cross-national variance in poverty relief, even when union strength and the historical dominance of left parties is taken into account: An increase in the share of seats secured by a low-income voting bloc is associated with an increase in levels of income support provided to low-income citizens. Second, while left party dominance contributes to cross-national variance in poverty relief, its explanatory power is considerably compromised when the electoral strength of low-income citizens is taken into account. Finally, union strength does not appear to contribute to cross-national variance in poverty relief. If the observed negative relationship is to be taken at face value – note the relative magnitude of the standard error on this coefficient – there is some evidence that societies generally good to workers are less generous to those outside of the labor force. These two observations, that left party dominance is closely related to the contemporary electoral strength of a low-income voting bloc and that union strength does not contribute to cross-national variance in poverty relief, will serve as jumping off points for future research.

Table 5.6: Electoral Power and Poverty Responsiveness

	(1) Union Strength	(2) Left Party Dominance	(3) Complete Model
Seat Share	0.52597 (0.1966)	0.4678 (0.2039)	0.4582 (0.2289)
Union Strength	3.7428 (4.9795)	-0.0705 (4.388)	0.5067 (4.5902)
Left Party Dominance		0.2935 (0.1827)	0.1135 (0.1783)
Intercept	47.5950 (3.5211)	33.1963 (6.1311)	43.8535 (4.2030)
		32.7942 (6.0663)	32.7547 (6.3209)
N	16	16	16
RMSE	9.9592	8.3005	9.3349
		8.1739	8.5034

NOTES. This Table reports parameters estimated in a least-squares regression analysis. Israel, Spain, and Luxembourg are excluded. See Chapter 3 for a complete discussion of the poverty relief ratio; Appendix 5.A provides information about how the electoral power of low-income voters was assessed for each country.

SOURCES: Union Strength: Kenworthy (2001), Huber et al. (2004). Left Party Dominance: Huber et al. (2004).

5.4 Conclusion

This Chapter tests the core intuition of this research, that poverty relief reflects the electoral incentives of legislatures, in a broadly comparative analysis. Specifically, the empirical evidence in this Chapter suggests that cross-national variance in poverty relief should not be attributed to the historical dominance of leftist parties, nor to union strength, but rather to the electoral power of a low-income voting bloc: Poverty relief measures tend to be most generous when large proportions of the legislature owe their seats to the electoral support of low-income voters.

Appendix 5.A Measuring the Electoral Power of the Poor

This Appendix reports the specific details of the estimation strategy for each country, and lists the electoral districts in which a low-income voting bloc could elect (lower house) members of the national legislature, and is organized according to types of electoral systems, with the main distinction reflecting the number of legislators elected in each district.

SINGLE MEMBER DISTRICT SYSTEMS

(A) Simple Plurality Rules

Canada. Estimates of the proportion of low-income citizens in each electoral district are calculated using 2001 Census data (corresponding to 2000 calendar year Statistics Canada 2003), reported for each Federal Parliamentary Riding (2003 Representation Order). The income measure includes all sources of income, including social transfers and is reported by income category, distinguishing one-person households from households including two or more people. Because the data are reported in this way, the equivalency adjustment used in calculating the thresholds reported in Table 3.2 can be taken into account: For single person households, those with total income less than \$19,999 (in Canadian dollars; an amount slightly less than the \$20,744 threshold observed in the LIS data) are identified as low-income households. For those household with two or more members, a poverty threshold of \$29,999 was used to identify low-income households (an amount slightly more than \$29,336, the unequivocalised threshold for two-person households). Following the strategy used in the other single member, simple plurality systems, a threshold of representation of 35% is used to identify electoral districts in which low-income citizens are likely to be pivotal.

Table 5.7 lists these districts, by province.

Table 5.7: Districts and Seats Won by a Low-Income Voting Bloc in Canada

Province	Number of Ridings per Province	Federal Parliamentary Ridings
British Columbia	2/36	Southern Interior, Vancouver East
Ontario	2/106	Hamilton Centre, York West
New Brunswick	3/10	Acadie - Bathurst, Madawaska - Restigouche, Miramichi
Newfoundland and Labrador	4/7	Avalon, Bonavista - Gander - Grand Falls - Windsor, Humber - St. Barbe - Baie Verte, Random - Burin - St. George's
Manitoba	4/14	Churchill, Dauphin - Swan River - Marquette, Winnipeg Centre, Winnipeg North
Saskatchewan	5/14	Desnethe - Churchill River, Prince Albert, Regina - Qu'Appelle, Saskatoon - Rosetown - Biggar, Yorkton - Melville
Nova Scotia	6/11	Cape Breton- Canso, Central Nova, Cumberland - Colchester - Musquodoboit Valley, South Shore - St. Margaret's, Sydney - Victoria, West Nova
Quebec	22/75	Beauport - Limoliou, Bourassa, Drummond, Gaspie - Iles de la Madeleine, Hochelaga, Jeanne - Le Ber, Joliette, Laurentides - Labelle, Laurier - Sainte-Marie, Haute-Gaspesie - La Mitis - Matapdia - Matane, Megantic-L'Erable, Outremont, Papineau, Quebec, Bas-Richelieu - Nicolet - Becancour, Rimouski-Neigette - Temiscouata - Les Basques, Montmagny - L'Islet - Kamouraska - Riviere du Loup, Rosemont - La Petite-Patrie, Saint-Leonard - Saint-Michel, Saint-Maurice - Champlain, Sherbrooke, Trois-Rivieres

United Kingdom. To identify those electoral constituencies in which low-income citizens are likely to be pivotal, I used data collected under the auspices of the *Annual Survey of Hours and Earnings* (Office for National Statistics 2002). This data-set reports deciles of the gross income distribution within the (202) local authorities in the UK. These low-level geographic areas were matched to parliamentary constituencies according to the “Standard Names and Codes” (SNAC) protocol, provided by National Statistics. Then, those districts in which the 30th percentile of the income distribution was less than the 33rd percentile of the national market income distri-

bution were identified as those districts in which low-income citizens are pivotal (see Table 5.8).

The ASHE data offer the important measures of gross earnings distributions (the main component of market income), at much lower levels of geographic aggregation than is available through LIS, which uses the 11 Government Office regions (these also correspond to the Eurostat NUTS 1 regions). The ASHE data, however, provide a conservative estimate of the proportion of low-income citizens in any district: Only individuals with earnings are included in the sample. As a consequence, the estimate of the number of seats a low-income voting bloc could secure is likely quite conservative.

Table 5.8: Districts and Seats Won by a Low-Income Voting Bloc in the UK

Region	Parliamentary Constituencies
Greater London	Wimbledon
South East	Isle of Wight
North West	Blackpool North and Fleetwood, Blackpool South
West Midlands	Ludlow, North Shropshire, Shrewsbury and Atcham, The Wrekin
Yorkshire and the Humber	Cleethorpes, Great Grimsby, Kingston upon Hull East, Kingston upon Hull North, Kingston upon Hull West and Hessle
Wales	Blaenau Gwent, Brecon & Radnorshire, Caernarfon, Carmarthen West and South Pembrokeshire, Ceredigion, Clwyd South, Conwy, Meirionnydd Nant Conwy, Merthyr Tydfil and Rhymney, Montgomeryshire, Preseli Pembrokeshire
North East	Berwick-upon-Tweed, Blyth Valley, Darlington, Gateshead East and Washington West, Hexham, Houghton and Washington East, Middlesbrough, Middlesbrough South & East Cleveland, Newcastle upon Tyne East and Wallsend, North Tyneside, Sedgefield, Sunderland North, Sunderland South, Tynemouth, Wansbeck
South West	Christchurch, East Devon, Exeter, Falmouth and Camborne, Mid Dorset and North Poole, North Cornwall, North Dorset, North Devon, South Dorset, South East Cornwall, South West Devon, St. Ives, Teignbridge, Tiverton and Honiton, Torbay, Torridge and West Devon, Totnes, Truro and St. Austell, West Dorset

United States. Estimates of the percentage of the each congressional district electorate composed of low-income households are generated using the *US Census of Housing and Population, Summary File 3* (U.S. Census Bureau 2002). These data offer the important advantage of direct correspondence to congressional districts. It should be noted, however, that the SF3 data report total income— a measure that includes social transfers, as well as earnings income, etc. — rather than market income. Further, because of the way in which these data are reported, a poverty threshold of \$19,999 was used, instead of the threshold reported in Table 3.2, \$19,618.

To calculate the seat share a low-income voting bloc could secure in the House of Representatives, I use Lijphart’s (1994) effective threshold of representation for majoritarian systems, 35%: If low-income households comprise 35% or a greater share of the congressional district, it is allocated the seat from that district. Table 5.9 summarizes the distribution of seats secured by a low-income voting bloc, by state.

(B) Alternative Vote Rules

Australia. Seats in Australia’s House of Representatives are elected under Alternative Vote Rules (ATV), in single member districts (of “Commonwealth Electoral Division”). ATV rules are similar to the single member, simple plurality rules that regulate elections in the United States, the United Kingdom and Canada in that candidates who receive the majority of the vote are elected. However, when all candidates fail to secure a majority of the votes cast — when, under SMSP rules, seats are allocated to the candidate who wins a plurality of the votes cast — ATV rules invoke voters’ ranking-ordering of preferences. Ballots in which the voters’ first preferences are allocated to the candidate winning the smallest vote share are re-allocated to the candidates ranked second by these voters. This process is repeated, with ballots reallocated at each step and according to voters’ preferences, until a candidate has secured the majority of the vote share. In practice, however, although at least

Table 5.9: Districts and Seats Won by a Low-Income Voting Bloc in the US

State	Congressional District Number	Counties, or parts of counties, included in district
Alabama	7	Choctaw, Clarke, Dallas, Greene, Hale, Jefferson, Marengo, Perry, Pickens, Sumter, Tuscaloosa, and Wilcox Counties
Arkansas	1	Arkansas, Baxter, Clay, Cleburne, Craighead, Crittenden, Cross, Fulton, Greene, Independence, Izard, Jackson, Lawrence, Lee, Lonoke, Mississippi, Monroe, Phillips, Poinsett, Prairie, Randolph, St. Francis, Searcy, Sharp, Stone, and Woodruff Counties
California	30	Los Angeles County
	33	Los Angeles County
Florida	17	Broward, and Miami-Dade Counties
Kentucky	5	Bath, Bell, Breathitt, Clay, Floyd, Harlan, Jackson, Johnson, Knott, Knox, Laurel, Lawrence, Lee, Leslie, Letcher, McCreary, Magoffin, Martin, Menifee, Morgan, Owsley, Perry, Pike, Pulaski, Rockcastle, Rowan, Wayne, Whitley, and Wolfe Counties
Louisiana	2	Jefferson and Orleans Parishes,
	5	Allen, Avoyelles, Caldwell, Catahoula, Concordia, East Carroll, Evangeline, Franklin, Iberville, Jackson, La Salle, Lincoln, Madison, Morehouse, Ouachita, Pointe Coupee, Rapides, Richland, Tensas, Union, West Carroll, and Winn Parishes
Michigan	15	Monroe, Washtenaw, and Wayne Counties
Mississippi	2	Attala, Bolivar, Carroll, Claiborne, Coahoma, Copiah, Hinds, Holmes, Humphreys, Issaquena, Jefferson, Leake, Leflore, Madison, Montgomery, Quitman, Sharkey, Sunflower, Tallahatchie, Tunica, Warren, Washington, and Yazoo Counties,
	4	Clarke, Forrest, George, Greene, Hancock, Harrison, Jackson, Jasper, Jones, Lamar, Marion, Pearl River, Perry, Stone, and Wayne Counties
Missouri	8	Bollinger, Butler, Cape Girardeau, Carter, Dent, Douglas, Dunklin, Howell, Iron, Madison, Mississippi, New Madrid, Oregon, Ozark, Pemiscot, Perry, Phelps, Reynolds, Ripley, St. Francois, Scott, Shannon, Stoddard, Taney, Texas, Washington, Wayne, and Wright Counties
New York	10	Kings County
	12	Kings, New York, and Queens Counties
	15	Bronx, New York, and Queens Counties
	16	Bronx County
North Carolina	1	Beaufort, Bertie, Chowan, Craven, Edgecombe, Gates, Granville, Greene, Halifax, Hertford, Jones, Lenoir, Martin, Nash, Northampton, Pasquotank, Perquimans, Pitt, Vance, Warren, Washington, Wayne, and Wilson Counties
Oklahoma	3	Alfalfa, Beaver, Beckham, Blaine, Caddo, Canadian, Cimarron, Creek, Custer, Dewey, Ellis, Garfield, Grant, Greer, Harmon, Harper, Jackson, Kay, Kingfisher, Kiowa, Lincoln, Logan, Major, Noble, Osage, Pawnee, Payne, Roger Mills, Texas, Washita, Woods, and Woodward Counties
Pennsylvania	1	Delaware and Philadelphia Counties
South Carolina	6	Berkeley, Charleston, Dorchester, Georgetown, and Horry Counties
Texas	15	Bee, Brooks, Goliad, Hidalgo, Kleberg, Live Oak, Nueces, and San Patricio Counties
West Virginia	3	Barbour, Brooke, Doddridge, Gilmer, Grant, Hancock, Harrison, Marion, Marshall, Mineral, Monongalia, Ohio, Pleasants, Preston, Ritchie, Taylor, Tucker, Tyler, Wetzel, and Wood Counties

four major parties compete for election, most of the seats are allocated to two major parties or coalitions, and election results closely resemble outcomes that characterize elections held under SMSP rules. For this reason, and to limit the influence of assumptions made about the number of parties competing, this analysis uses the same seat allocation rule as was used in the SMSP systems: Seats are allocated to the low-income voting bloc in those districts in which the proportion of low-income citizens exceeds 35% of the population.

To estimate the proportion of low-income citizens in each district, I use income data collected as part of the 2001 Census: For each district, the Australian Bureau of Statistics reports the number of individuals in 14 gross income categories (including social transfers) and eight age categories (Australian Bureau of Statistics 2001). Including only working-aged individuals (in this case, 25-64 years old), estimates of the number of low-income citizens are based on the number of individuals whose yearly earnings are less than \$10,884 (AUD\$15,599), an amount slightly lower than that listed in Chapter 3 (\$13,613). Table 5.10 lists those districts in which the proportion of low-income citizens exceeds 35%.

Table 5.10: Districts and Seats Won by a Low-Income Voting Bloc in Australia

State	Commonwealth Electoral Divisions
New South Wales	Blaxland, Charlton, Cowper, Fowler, Gilmore, Gwydir, Hunter, Lyne, New England, Newcastle, Page, Parkes, Paterson, Reid, Richmond, Shortland, Throsby
Northern Territory	Lingiari
Victoria	Ballarat, Bendigo, Corio, Gellibrand, Gippsland, Maribyrnong, Mcmillan, Wannon
Western Australia	Brand, O'Connor

(C) Two-Round Majoritarian Rules

France. Legislative seats in France are allocated in single member districts, when a candidate secures 50% of the votes cast in their district. If, after the first round

election, no candidate has secured this majoritarian, the two candidates who secured the largest vote shares stand in a a second round election. The candidate winning this second round election will then be allocated the seat. Following Lijphart (1994) and Powell (2000), I use the 35% threshold of representation, and allocated seats in those districts in which low-income citizens comprise at least 35% of the district to a low-income voting bloc.

Under current rules, seats are allocated in 555 single-member electoral districts (“circonscriptions électorales”, plus 15 overseas SMDs). While income data are not available at this low level of aggregation, census data collected in 1999 on the composition of the labor force are available for each district (National Institute for Statistics and Economic Studies (INSEE) 2002). Using the LIS data to generate estimates of the proportion of low-income households for each labor force category (in which the head of household is classified as employed in agricultural, industrial, construction, service work, or is unemployed), for each of eight regions, and then using these regional proportions, the proportion of low-income citizens in each district is estimated in a way that reflects within-region variance in labor market conditions. Table 5.11 reports, by region, those districts in which a low-income voting bloc exceeds 35% of population within the electoral district.

VARYING DISTRICT SIZE-MAGNITUDE SYSTEMS

(A) Single Transferable Vote

Ireland. Legislators in Ireland’s lower house of representatives, (“Dail Eireann”) are elected in MMDs and seats are allocated according to a Single-Transferable vote rule. In practice, this implies that voters rank candidates on a single ballot, and in a first allocation, seats are distributed according to a Droop quota “largest remainder” formula (see Eq. 5.2). The surplus votes cast in favor of any candidate whose share

Table 5.11: Districts and Seats Won by a Low-Income Voting Bloc in France

Region	Number of Seats in Region	Departments (Number of Seats in Department)
Mediterranean	65/65	
North	38/38	
South-West	40/62	Arige (2), Aveyron (2), Corrze (2), Creuse (2), Dordogne (3), Gers (2), Gironde (7), Haute-Garonne (3), Haute-Vienne (2), Hautes-Pyrnes (1), Landes (1), Lot (2), Lot-et-Garonne (3), Pyrnes-Atlantiques (2), Tarn (4), Tarn-et-Garonne (2)
Paris Basin	61/103	Aisne (5), Ardennes (3), Aube (3), Calvados(3), Cher (1), Eure(4), Eure-et-Loir (1), Haute-Marne (1), Indre (1), Indre-et-Loire (2), Loir-et-Cher (2), Loiret (1), Manche (2), Marne (2), Nivre (2), Oise (5), Orne (2), Sane-et-Loire (4), Seine-Maritime (10), Somme (5), Yonne (2)
West	39/73	Charente (4), Charente-Maritime (4), Ctes-d'Armor (3), Deux-Svres (2), Finistre (1), Ille-et-Vilaine (1), Loire-Atlantique (5), Maine-et-Loire (4), Mayenne (2), Morbihan (4), Sarthe (4), Vende (3), Vienne (2)
Center-East	24/63	Ain (1), Allier (3), Ardche (3), Cantal (1), Drme (3), Haute-Loire (2), Isre (1), Loire (4), Puy-de-Dme (3), Rhne (3)
Paris	0/99	
East	0/52	

of votes exceeds the quota (and thus is automatically elected) are redistributed to candidates who are listed as each voters' second preference, in proportion to the preferences of all ballots cast in favor of the successful candidate. Seats are allocated to each candidate whose vote share exceeds their district's quota, and votes are redistributed until all of the seats in the district are filled. If, at any stage in the allocation of seats, no candidate is supported by a share of votes which exceeds the quota, votes for the least popular candidate are re-distributed according to the distribution of preferences expressed by her supporters.

To estimate the number of seats won by a low-income voting bloc in Ireland, I consider only the first allocation of seats, using the approximation of Droop quota given in Eq. (5.2) as the basis of this calculation. This strategy avoids assumptions

about the number of candidates competing in each district and voters' rank order preferences.

Generating estimates of the proportion of low-income citizens in each constituency involves a number of steps: The LIS data report the Eurostat NUTS 3 region for each household. Each of the eight NUTS 3 regions, however, includes between two and 12 districts (in the Midland and Dublin regions, respectively), each electing three to five seats. Fortunately, although the Central Statistics Office Ireland does not report distributions of income within the 43 electoral districts, the published census data include the number of employed and unemployed (male) residents for each district. Using corresponding head-of-household employment status data, which are included in LIS, I've identified the proportion of low-income households in each employment status group, for each region, and use these proportions here to estimate the proportion of low-income citizens in each electoral district. This strategy offers the important advantage of incorporating within-region variation in the geographic distribution of income by incorporating differences in the structure of the labor market; an alternative strategy would be to simply impute the region proportion of low-income citizens for each electoral district. In practice, proportions of low-income citizens estimated in this way have regional means that are within a one or two percentage points of the LIS-generated regional proportions. Table 5.12 reports the number of seats in each region that could be elected by a low-income voting bloc.

(B) Single-Tier Systems

Belgium. Legislative seats in Belgium are allocated in 11 multi-member districts (largely corresponding to provinces) that range in magnitude from 4 seats in Luxembourg, to 24 seats in Antwerp. Although seats are typically allocated according to "highest average" d'Hondt formula, this analysis uses the Droop quota approxima-

Table 5.12: Districts and Seats Won by a Low-Income Voting Bloc in Ireland

Region	Number of Seats	Dail Constituency
Border	10/18	Donegal South – West (2), Louth (2), Sligo - North Leitrim (2), Donegal North - East (2), Cavan-Monaghan (2)
Dublin	12/47	Dublin North - West, Dublin South - Central, Dublin South - East, Dublin - Central, Dublin South, Dublin North, Dublin North - Central, Dublin Mid - West, Dun Laoighaire, Dublin South - West, Dublin West
Mid-East	5/18	Meath West, Kildare North, Wicklow, Kildare South, Meath East
Midland	4/9	Laoighis - Offaly (2), Longford - Westmeath (2)
Mid-West	4/12	Limerick West, Clare, Limerick East (2)
South-East	7/20	Tipperary North, Tipperary South, Waterford, Wexford (2)
South-West	10/25	Carlow-Kilkenny (2), Kerry North, Kerry South, Cork South - West, Cork South - Central (2), Cork-East (2), Cork North - Central (2), Cork North - West
West	7/17	Galway West (2), Galway East (2), Roscommon - South Leitrim, Mayo (2)

tion, Eq. (A-2), as the basis of this analysis.

As with several of the other countries included in this analysis, unfortunately, income data are not available at the district level of analysis. Data on the age structure of each district, however, are available for each district through Eurostat, and can be usefully combined with regional information about the geographic distribution of poverty from the LIS data-set:³ The LIS data provide the respondents' region of residence (Brussels, Flemish Region and Walloon Region), as well as their age. To estimate the number of seats a low-income voting bloc could secure, first, using LIS data, I calculate the regional proportion of low-income citizens in several age categories that correspond to Eurostat age categories. Then, I use these proportions to estimate the number of low-income citizens, given their age distribution, for each district. This strategy has the important advantage of reflecting within-region

³In this case, Eurostat unemployment data yield within-region proportions of low-income citizens that are quite different from BLS estimates of regional proportions. The Eurostat age data, used here instead of unemployment rates, yield within-region estimates that are much closer to the LIS regional estimates.

district-level variation in the composition of the districts. Table 5.13 reports the number of seats in each region that could be elected by a low-income voting bloc.

Table 5.13: Districts and Seats Won by a Low-Income Voting Bloc in Belgium

Region	Number of Seats	Province
Brussels-Capital Region	5/22	Brussels-Halle-Vilvoorde
Flemish Region	7/24	Antwerp
	4/12	Limburg
	6/20	East Flanders
	2/7	Leuven
	5/16	West Flanders
Walloon Region	2/5	Brabant-Wallon
	7/19	Hainaut
	6/15	Liege
	2/4	Luxembourg
	3/6	Namur

Finland. Legislative seats in Finland are allocated in way that is similar to the Belgian allocation of seats: 200 seats are allocated in 15 multi-member districts that range in the number of seats allocated from one in Åland, to 34 in Uusimaa, according to the d’Hondt formula (the modified Droop quota, described above, is used here instead). With a few exceptions, the boundaries of the electoral districts correspond to the boundaries of Finland’s 20 administrative districts.⁴ Because the LIS data identify the administrative district of each household, the geographic distribution of income can be estimated directly from the LIS data; no supplementary data are needed. Table 5.14 reports the number of seats in each district, with districts grouped by province, that could be elected by a low-income voting bloc.

Luxembourg. Elections to Luxembourg’s 60-seats legislature are contested in four multi-member districts that range in magnitude from 7 to 23 seats. Seats are allocated according to the Droop quota (see Eq. 5.2).

⁴The city of Helsinki comprises a district in itself, and several electoral districts combine two or three administrative districts.

Table 5.14: Districts and Seats Won by a Low-Income Voting Bloc in Finland

Province	Number of Seats	District
Southern Finland	4/21	Helsinki
	4/12	Kymi
	5/14	Tavastia
	9/34	Uusimaa
Western Finland	7/17	Vaasa
	6/18	Pirkanmaa
	4/9	Satakunta
	4/10	Central Finland
Eastern Finland	6/17	Finland Proper
	4/6	Northern Karelia
	4/10	Northern Savonia
	3/6	Southern Savonia
Oulu	10/18	Oulu
Lapland	3/7	Lapland
Aland	0/1	Aland Islands

The LIS data, however, provide no geographic information about the location of the Luxembourg respondents. To estimate the geographic distribution of income, therefore, I use a strategy similar to that implemented in the analysis of Belgium: Using the relationship between age (of household heads) and low-income status, and data on the age structure within each Luxembourg canton (which combine to form the electoral districts Statec 2003), I estimate the proportion of low-income voters for each district. Then, using the Hagenbach-Bischoff seat allocation rule, I estimate the number of seats a low-income voting bloc could secure in Luxembourg's Chamber of Deputies. Table 5.15 reports the regional distribution of these seats.

Table 5.15: Districts and Seats Won by a Low-Income Voting Bloc in Luxembourg

District	Number of Seats
East	3/7
South	8/23
Center	7/21
North	3/9

Norway. Legislative elections in Norway are contested in 19 multi-member districts, that range in the number of seats elected from 4 (in Aust-Agder) to 17 (in Oslo). The electoral districts correspond to the Norwegian counties; the numbers of seats in each district reflect both the distribution of the population and the geographic size of each county, with the result that voters in rural areas are over-represented in the *Storting*. Following elections, seats are allocated first according to the modified Sainte-Lague method, which uses a slightly different quota from the more common d'Hondt allocation rule used in several of the other systems included in this analysis (the d'Hondt denominator in the expression for A_t^p , Eq. 5.1, is replaced by the series $1, 4, 3, 5, \dots, (2s_{t-1}^p - 1)$). Then, an additional “leveling” seat is allocated within each district to the party whose seat share is less than its vote share (provided that the party meets the nation 4% threshold). The number of seats elected in each district varies slightly across elections; the analysis presented here reflects the 2001 distribution of seats.

The LIS data do not report the Norwegian respondents’ region of residence. Therefore, to estimate the distribution of poverty, I use the national relationship between low-income status, age (whether the respondent is 25-39 years of age, or aged 40-54), and labor market activity (whether the head of household is employed, unemployed or receiving a pension), in combination with similarly-coded data on the county-level relationship between age and labor market activity (Statistics Norway 2001). Table 5.16 reports the results of this analysis, with the distribution of seats secured by a low-income voting bloc listed by district.

Spain. Spain’s 52 provinces serve as the multi-member districts for the Congress of Deputies. Although a PR allocation rule was used, seats are allocated (according to the d'Hondt “highest average” formula, though the approximate Droop quota, Eq.A-2, is used in this analysis) such that each province has at least two seats (plus one seat for each of Spain’s autonomous cities, Ceuta and Melilla); the distribution of

Table 5.16: Districts and Seats Won by a Low-Income Voting Bloc in Norway

County	Seats in County
Finmark	2/4
Aust-Agder	2/4
Oppland	3/7
Buskerud	3/7
Sogn and Fjordane	2/5
Vest-Agder	2/5
Møre and Romsdal	4/10
Sør-Trøndelag	4/10
Oslo	6/16
Hedmark	3/8
Vestfold	3/8
Østfold	3/8
Rogaland	4/11
Hordaland	6/17
Troms	2/6
Nord-Trøndelag	2/6
Telemark	2/6
Akershus	5/15
Nordland	4/12

the remaining 248 seats reflects the distribution of the population. As a consequence, most districts elect fewer than eight seats, while the districts that include Barcelona and Madrid elect 31 and 35 legislators, respectively.

LIS data identify the (NUTS 1, groups of autonomous communities) region of each respondent household, but not the province in which they reside. Regions include between one (Madrid) and 16 (Castile and León) provinces. Fortunately, Spain's Instituto Nacional de Estadística reports data on the structure of the labor force (by industrial sector and rates of unemployment) within each province (for the first quarter of 2000 Instituto Nacional de Estadística N.d.). Using LIS data on the economic activity and industrial sector of each working-aged head of household, in combination with income data for each household, I have calculated the proportion of low-income households in each labor force group (agricultural, industrial, service, construction and unemployed works), for each region. Then, using these regional proportions, I estimate the proportion of low-income households in each labor force

category for each province. Finally, Table 5.17 reports the number of seats that would be allocated to a low-income voting bloc in each region.

Table 5.17: Districts and Seats Won by a Low-Income Voting Bloc in Spain

Region (Seats in Region)	Community	Seats	Province
South (33)	Andalusia	3/6	Almería
		4/9	Cádiz
		3/6	Córdoba
		3/7	Granada
		3/5	Huelva
		3/6	Jaén
		4/10	Málaga
		5/12	Seville
		4/10	Murcia
		1/2	Ceuta and Melilla
Centre (33)	Castile and León	2/3	Ávila
		2/4	Burgos
		2/5	León
		2/3	Palencia
		2/4	Salamanca
		2/3	Segovia
		1/2	Soria
		2/5	Valladolid
		2/3	Zamora
		Castile-La Mancha	2/4
	2/5		Ciudad Real
	2/3		Cuenca
	2/3		Guadalajara
	3/6		Toledo
	Extremadura		3/6
		2/4	Cáceres
East (22)	Catalonia	7/31	Barcelona
		2/6	Girona
		1/4	Lleida
		2/6	Tarragona
	Valencian Community	3/12	Alicante
		1/5	Castellán de la Plana
		4/16	Valencia
		2/8	Balearic Islands
North-east (12)	Basque Country	1/4	Álava
		2/6	Guipúzcoa
		2/8	Biscay
	Aragon	1/3	Huesca
		1/3	Teruel
		2/7	Zaragoza
	Navarre	2/5	Navarre
		1/4	La Rioja
North-west (10)	Asturias	2/8	Asturias
	Cantabria	1/5	Cantabria
	Galicia	2/8	Corunna
		2/4	Lugo
		1/4	Orense
		2/7	Pontevedra
	Madrid (7)		7/35
Canary Islands (7)	Las Palmas	4/8	Las Palmas
	Santa Cruz de Tenerife	3/7	Santa Cruz de Tenerife

Switzerland. Seats in Switzerland's National Council are contested in the 26 districts (corresponding to the cantons and half-cantons), each electing between 1 (in 6 cantons) and 34 legislators (in Zurich). Ballots are cast in complex ways, as voters can cast votes for candidates across party lists, or cast multiple votes for their most preferred candidates. Seats are allocated according to the Hagenbach-Bischoff highest average rule.⁵

LIS data report only the region of each respondent's residence, not the canton, and so a strategy similar to that used in several other cases included in this analysis is used here, as well: Swiss Statistics reports the distribution of workers over three economic sectors (primary, secondary and tertiary), as well as the unemployment rate, for each canton, in the on-line *Regional Portraits* (Swiss Statistics 2004). Using the LIS data, the proportion of low-income households is calculated for each of these categories (using the head of household's economic activity). Finally, using these regional proportions in combination with the Swiss Statistics data on the composition of the labor force within each canton, I estimate the proportion of low-income citizens in each canton. Table 5.18 reports the results of this analysis.

⁵Although there are differences in practice, particularly in small electorates, here the Hagenbach-Bischoff allocation that is functionally equivalent to the Droop quota.

Table 5.18: Districts and Seats Won by a Low-Income Voting Bloc in Switzerland

Region (Seats in Region)	Seats in Canton	Canton
Eastern Switzerland (23)	1/1	Appenzell Innerrhoden
	1/1	Appenzell Ausserrhoden
	1/1	Glarus
	1/1	Nidwalden
	1/1	Obwalden
	1/1	Uri
	3/6	Thurgau
	1/2	Schaffhausen
	2/4	Schwyz
	2/5	Graubünden
	4/10	Lucerne
	1/3	Zug
	4/12	St. Gallen
Espace Mittelland (19)	1/2	Jura
	3/7	Fribourg
	3/7	Solothurn
	2/5	Neuchâtel
	10/26	Berne
Lake Geneva region (13)	3/7	Valais
	4/11	Geneva
	6/18	Vaud
Zürich (8)	8/34	Zürich
Northwest Switzerland (7)	2/7	Basel-Land
	4/15	Aargau
	1/5	Basel-Stadt
Tessin (4)	4/8	Ticino

(C) Multi-Tier Systems

Austria. Legislative seats in Austria’s National Council are allocated in three steps, or across three tiers: Voters cast ballots for candidates contesting seats allocated within 43 local electoral districts, or *regionalwahlkreise*, and for candidates competing for election within the Austrian states (*landeswahlkreise*). Allocations within the states are compensatory: Seats won within districts are subtracted from state-level allocations. A final allocation of seats occurs at the national level, and taking into account all valid votes, and allocates any remaining seats to parties that have secured at least one lower-tier seat or four percent of the national vote share.

To identify the strength of a low-income voting bloc in this complex system, I replicate these three stages of seat allocations, using LIS and data published in the *“Statistisches Jahrbuch”* (Statistik Austria 2008). LIS data report each respondent’s region of residence. Statistik Austria reports the composition of the labor force (specifically, the number of workers in the primary, secondary and tertiary sectors, and the number of registered unemployed workers, in 2001 and 2002, respectively) for each of the 35 NUTS 3 regions, which correspond to groups of *Bezirks*, Austria’s traditional “districts” and independent cities. Then, using the regional relationship between labor force group and low-income status, observed in the LIS data, in combination with the Statistik Austria labor force composition data, I estimate the proportion of low-income citizens in each electoral district. The results of the seat allocations made using these data are reported in Table 5.19.

Table 5.19: Districts and Seats Won by a Low-Income Voting Bloc in Austria

Region (Seats in Region)	State	Seats in District	District
Östösterreich (25)	Burgenland	1/3	Burdenland Süd
		1/4	Burdenland Nord
	Niedersterreich	2/4	Niederösterreich Süd
		2/4	Niederösterreich Süd-Ost
		3/7	Weinviertel
		2/5	Waldviertel
		2/5	Niederösterreich Mitte
		2/5	Wien Umgebung
		2/6	Mostviertel
	Wien	1/3	Wien Innen-Ost
		1/3	Wien Innen Süd
		1/3	Wien Innen-West
		2/7	Wien Süd
		1/5	Wien Nord-West
		1/6	Wien Nord
		1/6	Wien Süd-West
Westösterreich (23)	Obersterreich	3/6	Müviertel
		3/6	Traunviertel
		3/7	Linz und Umgebung
		2/5	Innviertel
	Salzburg	3/8	Hausruckviertel
		1/3	Salzburg Stadt
		1/4	Flachgau/Tennengau
		1/4	Lungau/Pinzgau/Pongau
	Tirol	1/3	Innsbruck
		1/3	Oberland
		1/3	Unterland
		1/5	Innsbruck-Land
		0/1	Osttirol
	Vorarlberg	1/4	Vorarlberg Nord
		1/4	Vorarlberg Süd
Südösterreich (12)	Krnnten	1/3	Klagenfurt
		1/3	Kärnten West
		1/3	Villach
	Steiermark	1/4	Kärnten Ost
		1/3	Steiermark Süd
		1/3	Steiermark Süd-Ost
		1/3	Steiermark Nord
		1/3	Steiermark Nord-West
		1/3	Steiermark West
		1/4	Steiermark Ost
		1/4	Steiermark Mitte
		1/5	Graz

Denmark. Legislative seats in Denmark's *Folketing* are allocated in two tiers, first according to the Saint-Laguë highest average allocation rule in 17 multi-member districts (corresponding to Denmark's counties), and second, in a compensatory allocation, according to the Danish highest average formula.⁶ As a consequence of this two-tiered allocation, Danish seat allocations are highly proportional, with party seat shares closely matching their national vote shares.

To estimate the electoral power of a low-income voting bloc, LIS data can be used directly: The county of residence is reported for each respondent.⁷ Table 5.20 reports the results of this analysis.

⁶This formula is similar to the d'Hondt formula, but like the Saint-Laguë formula, uses a different series of divisors.

⁷Although the cities of Copenhagen and Frederiksberg together form three electoral districts, they jointly form one LIS category.

Table 5.20: Districts and Seats Won by a Low-Income Voting Bloc in Denmark

Region (Seats in Region)	Seats in County	County
Jutland (19)	2/7	South Jutland County
	2/6	Ribe County
	3/9	Vejle County
	2/7	Ringkøbing County
	5/16	Århus County
	2/6	Viborg County
	5/13	North Jutland County
Øerne (15)	4/14	Copenhagen County
	2/9	Frederiksborg County
	1/5	Roskilde County
	3/8	West Sjællands County
	2/7	Storstrøms County
	1/2	Bornholms County
	4/12	Fyns County
Copenhagen and Frederiksberg (6)	2/4	Southern District
	2/6	Eastern District
	2/4	Western District

Sweden. Elections to the *Riksdag* are contested in 29 MMDs (*valkrestar*), with 39 seats allocated in a second nation-wide tier to ensure the proportionality of the result, for those parties securing at least four percent of votes cast, or 12 percent of the votes cast in any constituency. A modified Sainte-Lague highest average allocation rule is used for the allocation of seats in both tiers. Following the convention established above, a Droop quota is used in the allocation of first-tier seats in this analysis. (Seats allocated in the second tier are excluded from this analysis to avoid assumptions about the distribution of support for other parties.)

Although LIS data do not report the electoral districts in which each Swedish respondent lives, LIS does report each respondent's county. With two exceptions, the boundaries of the 22 counties largely coincide with the boundaries of Sweden's electoral districts: The Skåne county contains four electoral districts, and Västra Götalands county is comprised of five electoral districts. Here, the county proportions

of low-income citizens are used for each of the composite districts. The results of this analysis are reported in Table 5.21.

Table 5.21: Districts and Seats Won by a Low-Income Voting Bloc in Sweden

Region (Seats in Region)	Seats	District
Middle Norrland (8/16)	3/5	Jämtlands County
	5/11	Västernorrlands County
North Middle Sweden (16/35)	6/13	Dalarna County
	5/11	Värmlands County
	5/11	Gävleborg County
Upper Norrland (9/20)	5/11	Västerbotten County
	4/9	Norrbottn County
East Middle Sweden (27/62)	6/12	Örebro County
	5/11	Västmanlands County
	5/12	Uppsala County
	5/12	Södermanslands County
	6/15	Östergötland County
South Sweden (20/48)	6/13	Skåne County South
	2/5	Blekinge County
	4/10	Malmö
	4/10	Skåne County West
	4/10	Skåne County North-East
Småland and the Islands (12/30)	2/2	Gotland County
	4/8	Kalmar County
	4/13	Jonkoping County
	2/7	Kronoberg County
West Sweden (28/70)	5/11	West Gotalands County North
	5/11	West Gotalands County East
	3/7	West Gotalands County South
	7/18	Gothenburg City
	5/13	West Gotalands County West
	3/10	Hallands County
Stockholm (22/70)	9/28	Metropolitan Stockholm
	13/42	Stockholm County

MIXED ELECTORAL RULES

(A) Simple Plurality – MMD

The electoral systems of Germany and Italy are described in the text of Chapter 4. Here, the discussion focuses on the estimation of the number of seats a low-income voting bloc could win in each case.

Note, first, that while LIS data report geographic regions for each respondent, these regions do not correspond to the primary electoral districts in either country. These regions roughly correspond to the primary districts in pre-reform Italy and the secondary districts in post-reform Italy, and they correspond perfectly to the secondary districts in Germany. To use the observed data to estimate the proportion of low-income citizens in each district (L_d for $d = 1, \dots, D$) with a region, let L_r denote the (observed) regional proportion of low-income voters. Then, the relationship between L and L_d may be expressed in the following way,

$$L_d = L_r + u_d. \tag{A-1}$$

Here, u_d describes within-region cross-district variation. Suppose u_d is well-approximated by a normal distribution $u_d \sim N(0, \sigma_u^2)$, for the bounded interval $[0, 1]$. Then, given knowledge of σ_u^2 , the proportion of low-income citizens in any district d can be estimated using a the normal probability density function. Specifically, we can estimate L_d and σ_u^2 , the probability, p , that the proportion of low-income citizens in any district d in the region, is greater than the electoral threshold τ . If σ_u^2 is known, this is easily accomplished using the cumulative normal distribution function for the truncated

distribution of τ (i.e., $0 \leq \tau \leq 1$):⁸

$$p = 1 - \frac{\Phi\left(\frac{\tau - L_r}{\sigma_u}\right)}{\left(\Phi\left(\frac{1 - L_r}{\sigma_u}\right) - \Phi\left(\frac{-L_r}{\sigma_u}\right)\right)} \quad (\text{A-2})$$

When L_r is not observed directly, but is estimated from LIS data, there is an additional sampling variance component, $\epsilon \sim N(0, \sigma_\epsilon^2)$, in the expression for L_d :

$$\hat{L}_d = L_r + u_d + \epsilon \quad (\text{A-3})$$

Note that because u_d and ϵ are uncorrelated, the residual component, $u_d + \epsilon$, is distributed $N(0, \sigma_u^2 + \sigma_\epsilon^2)$. Thus, the quantity of interest, p , can be estimated according to the following expression:

$$\hat{p} = 1 - \frac{\Phi\left(\frac{\tau - \hat{L}_r}{\sqrt{\sigma_u^2 + \sigma_\epsilon^2}}\right)}{\left(\Phi\left(\frac{1 - \hat{L}_r}{\sqrt{\sigma_u^2 + \sigma_\epsilon^2}}\right) - \Phi\left(\frac{-\hat{L}_r}{\sqrt{\sigma_u^2 + \sigma_\epsilon^2}}\right)\right)} \quad (\text{A-4})$$

In this analysis, \hat{L}_r is estimated directly from the LIS data, and τ is the specified electoral threshold. Thus, the challenge lies in estimating the variance of the residual component,

$$\sigma_u^2 + \sigma_\epsilon^2. \quad (\text{A-5})$$

The first component of Eq.(A-1) σ_ϵ^2 , the variance of the proportion of low-income citizens living in the region, is estimated according to the usual expression for the variance of a proportion,

$$\hat{\sigma}_\epsilon^2 = \frac{\hat{L}(1 - \hat{L})}{n_r} \quad (\text{A-6})$$

where n_r denotes the number of respondents residing in the region ($\sum_r n_r = N$).

The second component of Eq. (A-5), σ_u^2 , the within-region cross-district variance, however, cannot be estimated directly using the LIS data: Data reporting

⁸In practice, the denominator of Eq. (A-2) is almost always equal to one.

each respondent's electoral district are not available. Instead, using unemployment data, which are reported at levels of aggregation that generally approximate both the regional level at which the LIS data are reported and the electoral districts in both Germany and Italy (Eurostat 2008b).⁹ Thus, an estimate of the ratio of the within-region cross-district variance in unemployment, to the cross-region variance in unemployment, provides a way to approximate σ_u^2 :

$$\hat{\sigma}_u^2 = \rho \bar{\sigma}_u^2 \tag{A-7}$$

Here, ρ reports the ratio of the within-region cross-district variance in unemployment to the cross-region variance in unemployment, and $\bar{\sigma}_u^2$ reports the cross-district variance in L , or the proportion of low-income citizens. Thus, with estimates of the proportion of low-income citizens residing in each region, and the within-region cross-district variance in this proportion, the number of seats allocated to a low-income voting bloc can be estimated in a straightforward way.

Germany. Let s_r^S and s_r^M report the total numbers of SMD and MMD seats to be allocated in region (*Land*) $r = 1..R$. Then, using the procedure described above, let \hat{p}_r denote the probability that the proportion of low-income citizens in each district in region r exceeds the electoral threshold τ . The number of SMD seats won by a low-income voting bloc in region r , S_r^S , can be approximated for each region by a binomial function, in which the probability of a low-income voting bloc electing k

⁹The unemployment data are reported for the NUTS 1, 2 and 3 administrative units. In Germany, NUTS 1 units correspond to the Länder, and NUTS 3 units generally correspond to the electoral districts, although there are some electoral districts that intersect with several NUTS 3 units (there are 439 NUTS 3 units, and 328 SMDs in the post-reform period). Matching the NUTS 3 units with the electoral districts was done using spatial information provided by EUROSTAT and the Federal Returning Officer. This allowed weighted estimate of unemployment to be calculated for each district, with weights corresponding to the relative geographic areas of the component NUTS 3 units.

In Italy, the NUTS 3 units are slightly larger than the post-reform SMDs (there are 475 SMDs, and 110 NUTS 3 units). As a result, and because the spatial data are not available for the Italian SMDs, district-to-region ratios were calculated using NUTS 3-level unemployment data instead of SMD level data.

seats within region r is approximated by the following expression:

$$P(S_r^S = k) = \binom{d_r}{k} p_r^k (1 - p_r)^{d_r - k} \quad (\text{A-8})$$

The electoral strength of a low-income voting bloc can then be estimated as the expectation of a binomial distribution with parameters p_r and d_r :

$$E(S_r^S) = p_r \cdot d_r. \quad (\text{A-9})$$

Under Germany's Neimeyer allocation rule, the total number of MMD seats S_r^M to be allocated to a low-income voting bloc in each region can be calculated according to the following expression:

$$S_r^M \leq L_r \cdot \frac{n_r}{N} \cdot S \leq S_r^M + 1 \quad (\text{A-10})$$

where $S = \sum_r s_r^S + \sum_r s_r^M$ reports the total number of seats in the legislature. Finally, the number of direct mandates (S_r^S) is subtracted from the MMD allocation (S_r^M), yielding the number of list seats mandates allocated to a low-income voting bloc in region r . Table 4.4 reports the results of this analysis.

Italy. SMD district seats are allocated using the same strategy as that which was used in the analysis of Germany. The allocation rule for MMD seats, however, is considerably less complex than the German allocation: In Italy, MMD seats are allocated according to a simple quota, with the denominator in Eq. (5.2) equal to the number of seats to be allocated.¹⁰ The results of this analysis are reported in Table 4.3.

¹⁰As noted in Chapter 4, there is also a *scoporo*, or vote-share penalty for winning applied to parties winning SMD seats: A winning party's vote share is adjusted by the vote share won by the second-place party prior to the PR allocation. Here, to avoid assumptions about the number of parties competing, no *scoporo* is applied.

Chapter 6.

Conclusion: Looking Ahead

How do electoral rules affect the poor? Under what conditions are legislators likely to be more or less responsive to the poor? What are the distributional consequences of electoral incentives to be more or less responsive to the poor?

This research makes an important departure from current explanations of cross-national differences in social policy by recognizing that antipoverty measures are especially well-suited for manipulation by re-election-motivated legislators: Antipoverty measures are highly targeted policies that are readily perceived by the beneficiaries and can be directly attributed to incumbent legislators. As Chapter 2 demonstrates in a series of formal-analytic examples, the geographic distribution of income groups exerts an important modifying effect on the relationship between electoral rules and redistributive policy – a effect ignored by other analysts of this relationship. By incorporating electoral geography, this research challenges the conventional wisdom and asserts that, when poverty is highly concentrated, the electoral incentives created by SMD electoral rules favor more redistributive policy, and more generous targeted provisions for low-income households, than do the electoral incentives created by MMD rules.

To demonstrate the plausibility of this election-motivated account of antipoverty policy, I take full advantage of two “natural experiments” in the relationship between electoral rules and social policy: First, Italy’s electoral reform in the early 1990s replaced MMD rules with a system in which most seats were elected in SMDs, strength-

ening legislators' incentives to be responsive to the poor. Second, the dramatic change in Germany's electoral geography following re-unification also strengthened legislators' incentives to be responsive to low-income voters. Directly following these exogenous changes in legislators' electoral incentives, the effectiveness and generosity of antipoverty benefits increased substantially in both countries, providing important empirical support for an election-motivated account of antipoverty policy.

Support for the core intuition of this research – that legislators provide antipoverty support in proportion to their need for the electoral support of low-income citizens – is also evident in the a broadly comparative analysis, presented in Chapter 5. Here, I establish the general positive relationship between the electoral power of a low-income voting bloc (i.e., the number of seats elected by low-income citizens, if they all turn out to vote, and all vote for the same party), and levels of targeted poverty relief.

As Chapter 1 suggests, that the empirical evidence is consistent with an election-motivated account of antipoverty policy is both surprising and a cause for concern. The substantive implications of the analysis presented here are surprising because of apparent general commitment to political equality in contemporary democratic societies. The results of this research are, more importantly, a cause of concern because they imply that the institutions that provide the democratic legitimacy of our governments also undermine opportunities for democratic equality.

6.1 Opportunities for Future Research

This discussion presents research that will serve as a foundation for a research agenda motivated by questions about how electoral institutions affect the quality of democratic representation and policy responsiveness, especially for low-income citizens. In this last section of this discussion, I outline opportunities for future research that build on the analysis presented in this discussion.

Electoral Politics and the Composition of Antipoverty Policy

In developing a measure poverty relief, Chapter 3 draws attention to two important features of antipoverty policy: First, in addition to the levels of poverty relief provided, eligibility criteria for antipoverty benefits differ cross-nationally, and low-income households receive varying levels of support from minimum-income, social insurance, and other types of income assistance. It was suggested then that the composition of antipoverty policy reflects legislators' incentives to "use all policy tools, in proportion to their effectiveness in satisfying their electoral goals" (Franzese & Jusko 2006, 550). What determines the electoral effectiveness of minimum income assistance provisions, for example? Why might legislators privilege (contributory, and thus exclusionary) social insurance policies over other policy instruments?

Chapter 3 also draws attention to the very targeted nature of antipoverty policies in some countries: Levels of income support for low-income working-age households are not necessarily related to overall levels of social spending in each country. Although Ireland and the U.S., for example, spend similar proportions of their GDP on social policy, Ireland spends considerably more than the U.S. on family benefits, while Americans devote larger proportions of their social spending to support for the elderly (Organisation For Economic Co-Operation and Development (OECD) 2004).¹ Because this analysis is restricted to working-age households, the poverty relief ratio, \mathcal{R} , likely under-represents the antipoverty efforts of countries, like the U.S., that focus support on non-working-age households. This, of course, raises an important question: What explains cross-national differences in the focus of antipoverty measures?

¹It is not the case, however, that the U.S. generally spends more than other countries included in this analysis on support for the elderly: In 2000, the 30 OECD countries spent an average proportion of 7.4 percent of GDP on old age support programs; the U.S. spends an amount equivalent to 5.2 percent of its GDP, and Ireland spends 2.6 percent of its GDP on income support for the elderly. In the U.S., this represents almost half of social spending, while in Ireland, this proportion is slightly more than one-fifth of social spending. A similar analysis of spending on family benefits shows an OECD average of 1.9 percent of GDP, 1.6 percent of Ireland's GDP and 0.4 percent of GDP in the U.S. devoted to family benefits.

Does the focus of antipoverty measures reflect legislators' incentives, too, or is it here that beliefs about the nature of poverty become especially important?

Using the analysis presented in Chapter 3 as a platform, future research will investigate the composition and focus of antipoverty policy, with an emphasis on the political representation of different low-income constituencies.

The Partisan Representation of the Poor

The analysis presented in Chapters 4 and 5 rely on the idea of a low-income voting bloc – that is, that all low-income voters turnout to vote, and they all vote for the same party. To what extent does this occur? What explains the varying extent to which, first, low-income citizens turnout to vote, and second, share a partisan identity?

These questions, I think, are related to larger questions about the partisan representation of the poor: What explains the varying electoral success of leftist parties? Do parties mobilize low-income voters as their core constituency only when electoral rules favor the representation of their interests (i.e. when a low-income voting bloc is likely to secure a large number of seats)? Notice that in its current form, for example, the theoretical foundation of this research lacks an account of legislative politics: Are antipoverty transfer rightly viewed in the same light as conventional “pork-barrel” policies, that reflect the initiative of individual legislators? In fact, while this is a useful way to think about the relationship between the geographic distribution of low-income citizens and the targeted provision of anti-poverty measures, the implications of a pork-barrel politics model are less clear in MMD systems.

As Chapters 1 and 5 demonstrate, however the historical strength of leftist parties – that is, the cumulative, historical presence of leftist parties in governing coalitions – is positively (if weakly) related to current levels of poverty relief in each country, and to other more conventional measures of social policy. This suggests that

a model of legislative politics that emphasizes policy leadership and agenda-setting may be most appropriate. As a consequence, understanding the varying electoral success of leftist parties seems especially important. A second avenue of future research, therefore, will draw on the historical distribution of income to investigate when political parties mobilize a constituency of low-income voters. Within a broadly comparative framework that recognizes the important of electoral geography, this future research will build on the analysis presented here to establish the relationship between the partisan and political representation of the poor.

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