

***Red States, Blue States, and the Welfare State:  
Political Geography, Representation, and Government Policy around the World***

OVERVIEW OF WORK IN PROGRESS:

This paper lays out the core arguments and presents some empirical results that will eventually be a book manuscript. Comments are welcome.

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Note that my presentation will be based primarily on sections 1-3.

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A passing glance at an electoral map of the United States for any recent election reveals a striking geographic cleavage. Outside the sun-belt, cities and mining areas vote overwhelmingly for Democrats and rural areas for Republicans, while suburbs have become mixed “swing” areas. Though theories of economic and political “modernization” have heralded the decline of the urban-rural cleavage and its replacement with the class cleavage, the United States electoral map and the campaign strategies adopted by candidates suggest substantial overlap between these cleavages. A quick glance around the world suggests that the United States is by no means unusual. Densely populated manufacturing and mining regions vote overwhelmingly for parties of the left and less industrialized and rural areas for parties of the right throughout Europe, even in many settings where cities are affluent and rural areas are mired in poverty. The strongholds of the left in Latin America are also its teeming cities, while conservative oligarchs rule the countryside.

The obvious geographic dimension to political competition that is ostensibly organized along a left-right divide is one of the most puzzling yet understudied political phenomena of our time. This paper introduces a research project that sets out to examine the causes and above all the consequences of this pattern. The basic argument has four steps. First, as a result of the economic geography of industrialization and urbanization, the political mobilization of the left has taken place primarily in densely populated urban and mining areas. As peasants moved from agriculture to mining and industry, political entrepreneurs faced incentives to mobilize their political support by promoting an agenda of risk-sharing and redistribution. This created a pattern that survives to this day: electoral support for the left is geographically concentrated in cities and mining regions, and overall, support for the left has been more concentrated than support for the right since universal enfranchisement.

Second, in order to draw out implications for electoral strategies and policy outcomes, I explore the distribution of preferences underlying these remarkably similar voting patterns with a combination of theory and cross-national survey research. Considering a single economic issue dimension, I argue that in many industrialized societies, the ideal point of the median voter in densely populated “proletarian” regions—which generally make up a minority of the population—is well to the left of the median for the rest of the population.

The remainder of the project asks what happens when different electoral rules are mapped onto this political geography. If small single-member districts are drawn onto this spatial array of preferences, under very plausible conditions an asymmetric distribution of district ideal points will imply that the median voter in the median district is to the right of the national median voter. This poses a dilemma for Social Democratic or Workers’ parties under single-member plurality districts (hereafter SMD). In order to maximize their seat share, they are tempted to move away from their urban core constituents toward the ideal point of the more conservative median voter in the median (often suburban) district.

But if the left abandons its base, it opens itself up to the possibility of an entrant to its left in the urban districts. The potentially seat-maximizing platform is not attractive to urban incumbents who will aim to set the platform in a way that is consistent with their own reelection interests rather than the party's interest in a legislative majority.

This leads to a simple empirical proposition taken up in the third section: in most situations, under SMD the left will be unable to avoid an inefficient distribution of support where it has too many surplus votes in cities, and will be the victim of systematic bias in the translation of votes to seats. I demonstrate that this is clearly the case among most OECD countries with small districts since World War II. Furthermore, many electoral systems were malapportioned throughout the post-war period, generally to the disadvantage of cities, as population continued to shift from rural to urban areas while reapportionment lagged behind. The over-representation of conservative rural areas is permanent and especially pronounced in many federations that rely on geographic rather than population-based representation. The key empirical result of this section is that in OECD countries with small districts, the translation of votes to seats almost always favors the parties of the right.

Finally, I explicitly contrast outcomes under SMD with those under PR or other electoral systems featuring large districts (e.g. direct presidential elections). If left-leaning voters are sufficiently concentrated, proportional representation should be better for the parties and voters of the left. The best way to test this proposition is to examine natural experiments in which the same voters are represented through different mechanisms: e.g. the U.S. Senate versus the House of Representatives, the Australian lower chamber versus the Senate, or *Land* versus federal elections in Germany. Preliminary analysis of adjusted ADA and Nominate scores reveals that among the U.S. states—especially those with the most pronounced leftist geographic concentration—the voting behavior of Senate delegations is significantly to the left of their respective House delegations, even though the Senate as a whole is to the left of the House because of over-representation of conservative states. In Australia, the Labour party performs much better in the Senate, which is elected through statewide PR, than in the SMD lower-chamber.

A more controversial implication is that the combination of political geography and electoral rules should have predictable policy effects over long periods of time. Relative to proportional representation, under which the mainstream parties have incentives to court the national median voter regardless of where she lives, SMD provides parties with incentives to ignore urban voters and appeal to voters in marginal constituencies. Though much more refined analysis lies ahead, this paper suggests that SMD—especially when combined with rural overrepresentation—is associated with a significantly smaller welfare state than proportional representation, both in OECD and larger country samples. The impressive correlation between majoritarian political institutions and the size of the welfare state is consistent with other recent cross-country empirical studies, but this project provides a more plausible causal mechanism.

Moreover, I attempt to show that the political geography perspective is most consistent with the data. First, measures of right bias in the translation of votes to seats and

malapportionment perform better than traditional measures like district magnitude in cross-country regressions. Second, I argue that demands for the welfare state are stronger in urban areas, leading to a positive relationship across countries and over time between urbanization and welfare expenditures. I show that this is the case in general, but the relationship between urbanization and the size of the welfare state is dampened in countries with single-member districts, where urban workers are less likely to be pivotal.

The goal of this overview is to lay out the main arguments, relate them to ongoing data collection and testing efforts, and discuss the preliminary results.

### **I. The geographic concentration of the left**

Industrialization generally involves massive population shifts from rural areas to cities, and in most cases to a single, relatively well-defined manufacturing core. As explained by Krugman and other economic geographers, agglomeration economies and transportation costs insured that industrialization in most countries was not evenly spread throughout space. Rather, it was highly concentrated in core regions, in some countries even individual cities, while the rest of the country remained a sparsely-populated agricultural hinterland. Economic concentration has faded somewhat over time as transportation costs have fallen, but has not disappeared altogether.

Economic geographers frequently refer to the core American manufacturing corridor comprising a parallelogram from Portland, Maine south to Baltimore, West to St. Louis and North to Green Bay, and the later emergence of a second core manufacturing area along the Western coast. Similar manufacturing cores can be identified in almost all industrialized countries: the Ruhr in Germany and Northern Italy, for example, or to take more extreme examples, the São Paulo region in Brazil and Buenos Aires in Argentina.

A first task in this project is to explore the relationship between economic concentration and support for the left. Industrialization involved a rapid concentration of population and production in these “core” areas along with some mining regions in the periphery. These areas also became the seedbed of socialism, along with areas characterized by commercial fishing and sharecropping. The growth of an urban working class undermined the risk-sharing networks of families, villages, and small agriculture. In contrast with the rural population, this led to the possibility of mobilizing workers and miners around the class cleavage and an agenda of risk-sharing and redistribution.

Whether or not one accepts a Marxian notion of urbanization and class-consciousness, demands for risk sharing and redistribution were likely greater in cities than in rural areas because of basic occupational and lifestyle differences. Demands for public risk sharing and redistribution were lower in the countryside because social insurance of a kind was provided by extended families, villages, and churches. Moreover, in contrast to urban dwellers, villagers could rely on gardens and livestock to get by during the most desperate times. New urban residents, having lost their access to traditional insurance mechanisms, likely had stronger preferences for a government role in income support, housing, etc. Moreover, urban dwellers are notoriously easier than peasants to mobilize around a redistributive agenda.

Another important mechanism in the early geographic concentration of the left is the declining influence of the church among densely populated workers. According to Lipset and Rokkan (1967, 12):

“The initial result of a widening of the suffrage will often be an accentuation of the contrasts between the countryside and the urban centers and between orthodox-fundamentalist beliefs of the peasantry and the small-town citizens and the secularism fostered in the larger cities and the metropolis.”

The basic concern in the political economy of democracy, laid out by Aristotle in *The Politics* and Madison and Hamilton in *The Federalist*, and formalized by Romer (1975), Meltzer and Richard (1981), and others is that the poor majority will mobilize and vote to expropriate the wealthy few. Thus capital owners in industrializing countries in the 19<sup>th</sup> century faced incentives to avoid full-franchise democracy. By the turn of the century, most OECD countries had developed rather elaborate forms of limited franchise elections, with the electorate limited to a minority of male property owners. Bartolini (2000) demonstrates the extent to which these electoral institutions frustrated the aspirations of socialist or workers’ parties. Acemoglu and Robinson (2000) argue that wealthy elites ultimately were forced to extend the franchise and abolish plural voting, non-secret ballots, etc. in the early 20<sup>th</sup> century because the poor threatened bloody revolutions, and since promises of redistribution without democracy were not credible, the optimal strategy for the wealthy elite was to extend the franchise. The threat of socialist revolution, even if latent, was a factor in some cases of franchise extension in the early part of the 20<sup>th</sup> century.<sup>1</sup>

The limited-franchise democracies all used something like single-member districts, and as Caramani (2003) has shown, the old parties of the enfranchised elite—which became the conservative party or parties after the extension of the franchise—were able to field competitive candidates in virtually every district. With some exceptions, the descriptive political geography literature shows that communist, socialist, or workers’ parties first gained support—often very strong support—only in a small number of urban or mining regions, and lagged behind the right in diversifying their support throughout the country.

The rather stark division between urban and rural has given way in most developed countries to a more complex geography involving suburbs and semi-urban areas that are segregated by income, and the transition to a service economy has diluted the phenomenon of dense proletarian enclaves. Yet as demonstrated in the empirical analysis below, the relative geographic concentration of the left has been quite stubborn around the world.

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<sup>1</sup> However, Llavador and Oxoby (2003) argue that most extensions in this period were not accompanied by overt threats of revolution, and in fact, the extensions were strategic choices by one segment of a divided elite attempting to gain advantage over the other. Rokkan (1970) made a similar argument. Lizzeri and Persico (2003) argue that franchise extensions were driven by elites who wished to combat patronage and create better incentives for the provision of public goods. Perhaps an important part of franchise extension—ignored in the new political economy literature—was the need to draft large numbers of disenfranchised poor for military service in World War I and then integrate them back into society after the war.

## *Voting data*

To examine this more carefully, I have begun an attempt to quantify levels of regional concentration of partisan support since the introduction of mass suffrage, with a goal of including all OECD countries and perhaps a large sample from Latin America and the Caribbean. Thus far I have been able to assemble data for a group of developed countries: the United Kingdom, Germany, Italy, France, Canada, the United States, and New Zealand.<sup>2</sup>

First, I have attempted to classify parties as “right” or “left” based on surveys of country experts contained in Laver and Hunt (1992), Warwick (1994), Castles and Mair (1984), Huber and Inglehart (1995), and the classifications of Bartolini (2000) and Caramani (2003). Fortunately these studies are rather consistent in their placement of parties. Using district-level data obtained from Caramani (2003), I have calculated regional concentration indices for the combined left and the combined right (leaving out parties consistently classified as centrist), as well as for the major parties individually. An “adjusted concentration index,” taken from Spiezia’s (2003) work on the geographic concentration of production, facilitates cross-national comparison of countries with regions of different size:

$$AGC_x = \frac{\sum_{i=1}^N |v_i - p_i|}{2(1 - p_{\min})}$$

where there are  $N$  districts and  $v_i$  indicates the share of the national vote for party  $x$  in district  $i$  and  $p_i$  indicates the share of all registered voters residing in district  $i$ . Thus the numerator is a geographic concentration index that captures the sum of the absolute values of the differences between the party’s share of its national vote obtained in each district and the corresponding district’s share of the population of voters. This alone would not facilitate cross-national comparison because the size of districts varies across countries, so it is divided by the maximum obtainable value of AGC—the value it would take if all the party’s votes were concentrated in the smallest district. The AGC index lies between 0 (no concentration) and 1 (maximum concentration).

[FIGURE 1 HERE]

Figure 1 presents the AGC indices for parties of the left and right in the countries for which I have thus far been able to organize district-level data. The first panel displays the combined left and combined right in the UK (excluding Northern Ireland) since 1929.<sup>3</sup> The Liberals, Social Democrats, and Liberal Democrats are excluded. Hence

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<sup>2</sup> Data for the European countries come from Caramani (2003), and Canadian data were obtained from the Canadian parliamentary library. American data were kindly provided by Jim Snyder, and New Zealand data by Jack Vowles.

<sup>3</sup> I present the combined left and right rather than simply the Conservatives and Labour in order to include the pre-war period, where votes for the right included independent conservatives and the National Party, while votes for the left went not only to Labour, but also Communists and a host of smaller parties. Since World War II, however, Figure 1 is essentially a plot of Labour and Conservatives.

since 1945 the plot essentially pits the geographic concentration of Labour against that of the Conservatives. It demonstrates that until 1997, votes for the left have been more geographically concentrated than votes for the right in Britain. In the future I will classify districts in order to measure the extent to which Labour support is concentrated in “proletarian” districts dominated by manufacturing, shipping, and mining, but Maps 1a and 1b, which depict districts won by Labour in 1992 and 1997 in red—tell much of the story. During a bad year, 1992, Labour was only able to win its core urban, manufacturing, and mining constituencies. In a good year, like 1997, it is able to win marginal suburban constituencies, but it has been consistently unable to win sparsely populated rural constituencies. The black arrows indicate elections won by Labour, revealing that Labour is only able to win when it manages to gain support outside its core support regions, thereby reducing its relative concentration.

[MAPS 1a AND 1b HERE]

Next consider the geographic concentration of the left in Germany. Again it is possible to extend the analysis back to the interwar period. During the interwar Weimar democracy, the units of observation are the 35 PR constituencies. During the postwar period, the units of observation are the single-member *Erststimmen* constituencies.<sup>4</sup>

As in the UK, support for the left has been consistently more geographically concentrated than that of the right, and again, the gap has closed in recent years. In this case, however, the interpretation of the last two elections—in which the geographic concentration of the left has fallen and that of the right has risen—is confounded by reunification. Once again, a recent electoral map illustrates the relationship between mining, industrialization, urbanization, and support for the left. The core support areas of the SPD are the densely populated cities of the Ruhr.

[MAPS 2-5 HERE]

In France, support for the Communists and Socialists has been highly concentrated in densely populated industrialized areas—especially Paris—as well as in mining regions (see Map 3). I have not yet been able to obtain time-series data for individual single-member electoral districts, but the AGC index displayed in Figure 1, calculated from data aggregated to the level of the Department, shows that support for the left has been more concentrated than the right in France as well, except for two elections in the 1970s.

Next, consider the case of Italy. With its famous “red peasants” in the “red belt” of the North-Central part of the peninsula, it does not conform as easily to the story about urbanization and industrialization, though the socialist movement did emerge from the urban working class in cities like Bologna and diffuse into a countryside in North-Central

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<sup>4</sup> There were 247 after Saarland joined the federation in 1957, 248 after 1965, then 328 after unification in 1990.

Italy that was, for a variety of reasons, fertile ground.<sup>5</sup> In any case, Figure One shows that support for the Italian left has been more geographically concentrated than that of the right throughout the postwar period, though as in the other countries discussed above, the difference has recently dissipated.<sup>6</sup>

Next consider New Zealand, where Figure 1 displays the geographic concentration of the combined right and left (though a simple comparison of the National and Labour parties looks quite similar). Again, the left is consistently more concentrated than the right, and as in Britain, Labour only forms governments when it manages to combat its natural disadvantage in the geographic distribution of support. Map 4 reveals that as in other countries, its core support districts are industrialized and densely populated.

The Canadian graph displays three parties rather than two, and leaves out Quebec because of the complexity added by its distinct party system. For reasons that will become clear below, the small leftist party, originally the CCF and now the NDP, has a highly concentrated support base, while two mainstream centrist parties have relatively similar levels of concentration.<sup>7</sup> Canada's regional cleavages have a strong impact on voting behavior and party positioning, but in spite of this, it is possible to identify a long-standing concentration of support for leftist parties in the industrialized corridor of Southern Ontario and in the Maritimes, as well as in some rather intriguing rural districts in Western Canada where European immigrants imported socialism to the prairie.

Finally, consider the country with the most famous electoral map in recent years. For the United States, I use presidential election results at the level of U.S. House districts in order to avoid confusion that would be created by the incumbency bias in House elections.<sup>8</sup> With three exceptions out of ten elections (data for 1964 are incomplete and I do not yet have the two 1990s elections), support for the Democrats is more concentrated than support for the Republicans. As demonstrated by Map 5, which displays county-level results for the 2004 presidential election, votes for Democrats are concentrated in urban, manufacturing, and mining areas in addition to some counties dominated by African Americans and Latinos.

## II. Geography, preferences, and incentives

A deeper question emerges naturally from these results: what lies behind the relative geographic concentration of support for the left at the district level in so many countries?

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<sup>5</sup> Some reasons cited by historians and political geographers include anticlericalism, the tradition of sharecropping, and the role of North-Central Italy in the resistance at the end of World War II, where many communists were in hiding.

<sup>6</sup> The units of observation are Italy's 32 electoral constituencies (prior to the constitutional change in 1992).

<sup>7</sup> Note that the concentration of the Conservatives increases in the late 90s because of the growth of the Reform Party in Western Canada.

<sup>8</sup> Moreover, House election results by party may not be very informative for present purposes since candidates are much freer to ignore official party platforms when running for office than in parliamentary systems, creating a situation in which candidates from both parties can run on platforms in New York that are to the left of the platforms on which both candidates are running in South Carolina. Such geographic platform discrimination is much more difficult in presidential elections.



The empirical pattern is striking, but in order to draw implications for electoral bias, party platforms, and policy outcomes, it is necessary to understand the underlying distribution of voter preferences. It is difficult to make inferences from the preferences revealed through voting behavior, since party platforms, not to mention the parties themselves, are endogenous.

In particular, a key goal of this project is to explore the impact of drawing small, single-member districts on the incentives of candidates and party leaders. The key insight of the political geography perspective proposed here is that party platforms are chosen in multiple heterogeneous districts. From Hotelling (1929) to the present, most of the literature on spatial models of politics ignores the problem that parties must choose a single platform in multiple, heterogeneous districts. While a single constituency model may be attractive in the context of the United States, where the de-linking of executive and legislative elections leaves individual legislative candidates some freedom to credibly articulate their own platform, it is not very attractive for SMD parliamentary systems like the UK, where voters get their cues about candidate platforms from national party labels, and individual candidates cannot run very far from the national platform.

One of the first multi-district models was Hinich and Ordeshook (1974), who prove the analog of the famous single-district result: two competing parties converge to the ideal point of the median voter in the median district. Yet beyond the obvious empirical fact that platforms do not converge, there are good theoretical reasons to believe that party platforms will diverge in equilibrium—even in a single-district model—once we introduce factors like entry by third parties (Palfrey 1984), uncertainty about voter ideal points (Osborne 2000), and policy-motivated candidates (Wittman 1983).

Likewise, the newer literature on platform choice with multiple, heterogeneous districts emphasizes divergence of platforms. Two distinct modeling approaches are useful here. First, Callander (2005) characterizes each district by the ideal point of its median voter, and considers a uniform distribution of districts, focusing on the competing needs of the two major national parties to appeal to moderates and deter entry in the extreme districts. The need to deter entry in the extreme districts pulls the major parties away from the national median voter. In cases of extreme heterogeneity of district ideal points, there are multi-party equilibria. This feature of the model sheds light on the traditional success of the Liberals in moderate British districts and the NDP in far-left Canadian districts.

Another approach is taken by Austen-Smith (1984), who views party platforms as aggregations of the policy positions of individual candidates. In the same vein, Snyder (1994) and Ansolabehere, Leblanc, and Snyder (2005) model national party platforms as aggregations of the preferred platforms of the party's legislative incumbents, and as a result, in equilibrium their platforms are biased toward the ideal points of voters in the party's core support regions, leading to platform divergence. In fact, when the distribution of district ideal points is asymmetric, it is possible for a party to become a "permanent minority" if it is unable to move away from the platform preferred by its incumbents.

Both the Callander (2005) and Snyder (2004) approaches provide useful perspectives on the political geography of industrialized societies. The fact that votes for the left are systematically more geographically concentrated than votes for the right suggests that there is an asymmetric distribution of district ideal points.

In order to see how this affects incentives under these theoretical frameworks, rather than drawing on a hypothetical example, I refer to an empirical example using U.S. survey data. Unfortunately, existing sampling techniques in survey research do not allow for district-level mapping of preferences.<sup>9</sup> Following the discussion in section one above, an alternative is to divide countries into “types” of districts, assume that these districts have identical medians and distributions within each type, and use survey responses to characterize those medians. In the United States, the General Social Survey includes markers identifying respondents as residents of central cities, suburbs, small towns, or rural areas since the 1970s.

A much better way to characterize voter ideal points than the blunt left-right self-placement scales is to conduct factor analysis on a large number of survey questions about attitudes toward the proper role of government in the economy and give each respondent a score. I have done this for a group of 15 questions appearing regularly in the GSS since the 1970s (see Ansolabehere, Rodden, and Snyder 2005). Figure 2 displays kernel densities of these scores over the entire period for urban, suburban, town, and rural residents.

[FIGURE 2 HERE]

Figure 2 suggests that the distribution of voter ideal points approximates a uniform distribution in each type of district. Suburbs are slightly to the left of small towns, which are slightly to the left of rural areas, but the ideal points of the three non-urban district types are clustered tightly together. What stands out is the fact that the entire urban distribution is shifted substantially to the left.

Let us characterize each district by its median, and make the reasonable assumptions that each district falls neatly into one of these categories,<sup>10</sup> that the GSS sample accurately reflects the distribution of American voters into these categories,<sup>11</sup> and that the hypothetical districts are perfectly apportioned. The distribution of district ideal points would then look like Figure 3.

[FIGURE 3 HERE]

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<sup>9</sup> One possibility for future research would be to infer ideal points from district-level demographic and income data.

<sup>10</sup> It is possible in theory to create pie-slice shaped districts radiating out from a city center and including large chunks of the surrounding suburbs or countryside so as to avoid creating exclusively “urban” districts. I have found no country that does this. In fact the district and boundaries commissions of many SMP systems include rules prohibiting the drawing of electoral districts that break up “natural” communities.

<sup>11</sup> In fact the percentages of voters in these categories in the GSS look very similar to the census.

Thirty percent of the districts are urban and well to the left of the national median voter, identified as “MV”, while the other 70 percent are clustered close together on the right. Not surprisingly, the median district (“MD” in Figure 3) is suburban. Importantly, the median voter in the median district is to the right of the national median voter. While Figure 3 pools over all surveys since 1980, a similar distribution can be obtained using each survey individually.

I have also begun to explore the British, Canadian, and New Zealand national election studies, characterizing voters according to less useful geographic markers like population density or population size, nevertheless revealing a strikingly similar distribution of hypothetical districts.<sup>12</sup> Moreover, applying the same technique to the Comparative Study of Electoral Systems and World Values Survey reveals that with some exceptions (most notably in Scandinavia, where industrialization took place outside the large cities), the urban median voter is well to the left of the median for the rest of the country, and the non-urban median is to the right of the national median.

What are the incentives faced by parties, then, under this asymmetric distribution of district ideal points? In the Hinich and Ordeshook (1974) model, both parties would converge on the median voter in the median district, and the parties would both offer platforms that are to the right of the national median voter. Urban leftists would simply be frustrated by the distance between their ideal points and the policies being offered by a “left” party that is preoccupied courting the marginal suburbs.

Callendar’s (2005) framework suggests that this is unrealistic, though, since the mainstream party of the left would need to worry about entry by a party positioning itself to its left in the urban districts. The mainstream leftist party would need to adopt a position to the left of the suburban median in order to deter entry in its urban core. It is pulled in two directions between its desire to please its urban base and its desire to expand its support into the moderate suburbs in order to win a legislative majority.

From a very different perspective without entry, Snyder (1994) implies something similar. The platform convention of the leftist party will be dominated by urban incumbents, who wish to distinguish their platform as much as possible from that of the right, and will put their own interests in retaining their seats above their party’s interest in forming the government. The platform will stay stubbornly to the left of that which would maximize seats, putting the left in danger of becoming a permanent minority.

This is perhaps not so far-fetched in the parliamentary SMD systems. Among OECD countries, in marked contrast to PR systems, the left has formed far fewer governments than the right in the postwar SMD parliamentary democracies (Iversen and Soskice 2005). Note that for New Zealand and Britain in Figure 1 above, support for the left is in general more concentrated than that for the right, and Labour only wins elections in the years when it is able to expand into the moderate districts. By the logic of Ansolabehere, Leblanc, and Snyder (2005), its platform is normally too far left to win

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<sup>12</sup> These surveys also include the respondent’s electoral district, which will make it possible to merge demographic data and get a more precise characterization of districts than in the United States.

these districts, but it can succeed when it is the beneficiary of a positive “valence shock,” e.g. a very bad economy or a scandal under the Conservatives.

When this happens, the party convention gains a new crop of moderate incumbents, pushing the platform to the right. This seems to have happened to the New Zealand Labour party in the 1980s and the British Labour party in the 1990s. However, if this goes too far, the left runs the risk of entry in the urban districts. Indeed, New Zealand Labour was plagued with this problem in the 1990s after moving its platform to the right, and some urban Liberal Democrats are now staking out positions to the left of Labour in Britain. Moreover, one possible interpretation of the Canadian party system is that the center-left Liberals simply could not move far enough left to accommodate the leftist districts and still compete effectively in the swing districts of suburban Ontario, so it has ceded the extreme left districts to the NDP, converging with the Conservatives around the median voter in the pivotal suburban districts.

In sum, when the economic geography of industrialization creates an asymmetric distribution of district ideal points, the left faces a more difficult balancing act between core and swing districts than does the right. The mainstream party of the left likely handles this problem differently in different countries and over time within countries, yet it is possible to draw out some relatively clear empirical implications.

First, over a long period of time, the left should experience a less efficient distribution of votes in systems with small districts, and under most plausible conditions, should suffer relative to the right in the translation of votes to seats. The next section takes up this claim.

Second, given the hypothesized asymmetric distribution of ideal points, relative to an electoral system featuring one national district, the imposition of small districts on an identical population should either move the platform of the major leftist party to the right or reduce its seat share. This is taken up in the fourth section, along with larger implications for the relationship between electoral rules and policies.

### **III. Geography, Votes, and Seats**

#### *The efficiency of support*

If the distribution of district ideal points is skewed as a result of the geography of industrialization, the mainstream party of the left is more likely to be the victim of electoral bias in the translation of votes to seats than is its counterpart on the right since its distribution of support is naturally less efficient.

There are a few ways for the left to avoid this type of electoral bias. First, as mentioned above, in a presidential system like the United States, it might be possible for legislative candidates to move some distance from the national platform and tailor their platforms to individual district medians. Alternatively, if ballot access is extremely limited such that

the mainstream party of the left need not worry about entry by leftist competitors, and it is able to suppress the interests of urban incumbents—perhaps by delegating platform choice to an insulated, strategic leadership body—it might have the leeway to move away from the urban median and court centrist districts. Moreover, the left might find a way to benefit from malapportionment, or while in power, it might succeed in counteracting its natural disadvantage through gerrymandering. Alternatively, the mainstream party of the left might not suffer from electoral bias if it cedes the far-left districts to an entrant and concentrates on the moderate districts.

### *Malapportionment*

Surplus votes in urban or “proletarian” districts are only part of the story. Even if support for both parties is equally concentrated, the introduction of plurality districts might favor one party or another through malapportionment—a deviation from the principle of “one person, one vote”—which is most prevalent in SMD systems, though still possible even in systems using proportional representation without a national upper tier. For instance, there is considerable disproportionality in the translation of votes to seats even in some PR systems like Spain, Norway, Greece, and Switzerland.

A subtle form of malapportionment emerges naturally as an outgrowth of industrialization. Throughout the first part of the 20<sup>th</sup> century, population was flowing steadily to urban areas, while censuses and reapportionment took place every decade at best. Left untouched, malapportionment in favor of the countryside would emerge quite naturally. In many countries, reapportionment does not occur automatically, but requires an act of the legislature, in which case over-represented rural groups can attempt to avoid or delay it. The experience of the U.S. state legislatures prior to the Baker versus Carr decision is not unique. Japan is famous for its resistance to reapportionment and the resulting over-representation of the countryside throughout the postwar period. In India, over-represented rural groups have also been able to avoid reapportionment since the 1970s.

Moreover, malapportionment in favor of rural, sparsely populated areas is often built into electoral systems from birth, especially in federations. From Philadelphia in the 1700s to the European Union today, at the moment when federal constitutional bargains are struck, smaller states are in a position to insist on the creation of a territorial upper chamber that over-represents them relative to their population. In theory this need not favor rural areas—in fact the United States Senate has not always over-represented relatively rural states—and the upper chamber of the postwar German constitution over-represents densely populated, relatively liberal city-states. Yet in practice, highly malapportioned upper chambers very frequently over-represent conservative rural areas. I am currently collecting data to examine this more systematically. Thus far it looks like the wealthy German city-states are curious outliers.

An intriguing possibility is that this is no accident. This form of malapportionment does not arise through benign neglect. Since the 19<sup>th</sup> century, the role of upper chambers traditionally has been to provide a counter-balance against the threat of socialism and

demands for redistribution that would arise in a well apportioned, more democratic lower chamber. When elites have been forced to extend the franchise, in many countries they took care to build in safeguards against redistribution. The German and British graphs above only hint at the extent to which the threat of socialism was geographically concentrated when the franchise was initially extended. Thus a reasonable strategy for the elites was to create legislative institutions to water down socialist support by drawing single-member districts around the socialists and over-representing the countryside. In addition to Europe at the turn of the century, this perspective also creates an illuminating interpretation of the highly malapportioned legislatures of Brazil, Argentina, and other Latin American countries, and perhaps some African countries. For the OECD cases analyzed here, I suspect that the largest malapportionment effects were in the early part of the century, and that they favored the right in most cases. More recently, the effect of “creeping” malapportionment is either ambiguous, or perhaps even favors the left, since city populations are declining in many societies and workers are moving to suburbs faster than reapportionments can keep up.

### *Estimating electoral bias with aggregate data*

In sum, both the efficiency of support and malapportionment are likely to push in the same direction—creating electoral bias in favor of the right—though it seems likely that these effects will have faded toward the end of the 20<sup>th</sup> century along with economic concentration and the prevalence of heavy industry, mining, unionization, and dense proletarian enclaves.

There are several ways to estimate electoral bias, each with its advantages and disadvantages. The most basic, but perhaps most flawed, is to follow Tufte (1973) and fit a vote-seat line for parties of the right and left for all elections in OECD countries since World War II. The key advantage of this approach is that it can be done easily for a large number of countries without district-level data. The disadvantages of this approach are that 1) it allows the natural disproportionality associated with landslides to cloud inferences, 2) it is difficult to interpret the vote-seat curve without a map of district ideal points, and 3) it does not allow for differentiation between the effects of efficiency of vote distribution, malapportionment, and other sources of electoral bias.

This approach does allow for a useful first cut at the hypothesis of long-term right bias. Using the sources listed above, I have classified parties as left, right, or center. Using lower-chamber legislative elections since 1945, Figure 4 displays individual graphs of fitted vote-seat lines for each OECD country with single-member districts (including Japan, which has relatively small districts), and for a point of reference, a graph for the classic case of PR without districts: the Netherlands. For the UK, Australia, New Zealand, and United States, I display separate graphs of the two major parties, and for Canada I also include the NDP. For the sake of simplicity given changes over time in party names in France and the multiplicity of parties in Japan, I sum the vote shares and seat shares of parties on the right and left in the latter two cases, though similar-looking

graphs result from plots of individual parties in the latter cases (e.g. the LDP vs. Socialists in Japan).<sup>13</sup>

[FIGURE 4 HERE]

The Netherlands graph in the lower right-hand corner displays a vote-seat line without bias. Fifty percent of the votes correspond to fifty percent of the seats, and the lines for left- and right-wing parties are directly on top of one another. However, in all of the SMP systems, the lines do not pass through the 50-50 point, and there is some horizontal distance between the lines for left- and right-wing parties at the fifty percent seat point. Though flawed in some respects, this distance can be taken as a first approximation of bias.

It is quite striking that in every single small-district OECD country save the United States and now Britain, this apparent bias since World War II favors the party of the right. For instance, in order to win 50 percent of the seats, the Australian Liberals need only 44 percent of the vote, while Labour needs 49 percent. Prior to changing the electoral law in 1993, the National Party in New Zealand could win half the seats with 42 percent of the votes, while Labour needed 47. The gap is also large in France and Japan. In Canada of course there is a huge gap if one considers the NDP as the “left” party and the others as center-right parties. The bias is much smaller if one compares the combined vote of the Liberals and NDP with the Conservatives, and basically zero if one simply compares the Liberals and Conservatives. In the UK, right bias appears if one leaves out the last decade, but essentially disappears thereafter. Only in the United States legislature is there a clear bias in favor of the party of the “left.”

According to the results of a pooled fixed effects regression including vote shares and seat shares of all of the parties competing in each postwar election in the SMD systems featured in Figure 4, parties of the left require around 48 percent of the vote in order to win half the seats, while parties of the right only require 43 percent. Pooling over all European PR systems during the same period, parties of the left and right both require around 48 percent.

However, the sizes of these gaps leave something to be desired as a cross-national measure of bias. In addition to the concerns raised above, though the signs never change, the magnitude of the bias can be affected by party coding, and there is no good way to make valid comparisons of 2-party and multi-party systems. Before moving to district-level data, an alternative approach is to borrow from the work of Thomas Cusack, who has calculated something he calls the “legislative center of gravity” for a group of OECD countries: he uses expert surveys to place all parties on a left-right scale and weights their ideology scores by lower chamber seat shares. To calculate the “electorate center of gravity,” he weights the ideology scores by vote shares. By subtracting the electorate from the legislative center of gravity, one obtains a measure of the extent to which disproportionality in the translation of votes to seats favors the right or left. The ideology

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<sup>13</sup> The graphs are also quite similar if I aggregate vote- and seat-shares of smaller parties in the other countries.

score increases as parties move to the right, so larger numbers indicate a bias in favor of the right. To obtain a country snapshot, I take averages over the entire post-war period. The advantage of this approach is that it gets around the difficulty of placing parties into two or three non-continuous categories, as above. The disadvantage is that the expert survey scores, which are of questionable cross-national validity, influence the bias measure.

[TABLE 1 HERE]

Table 1 demonstrates that PR systems display rather little bias in translating votes to seats, though by no means zero, while right bias is the norm in all plurality systems but the United States. Interestingly, according to this measure, two of the least proportional of the PR systems—Greece and Spain—do exhibit substantial right bias. Perhaps a better way to see the relationship between electoral rules and electoral bias is to examine the full range of variation in district magnitude rather than focus on the SMD-PR dichotomy.

[FIGURE 5 HERE]

Figure 5 plots the average right bias over the postwar period (using the Cusak data) against standardized district magnitude, as calculated by Milesi-Ferretti, Perotti, and Rostagno (2002). Again it is clear that countries with small districts display, on average, greater bias in favor of the right.

It is also possible to get a first impression of the impact of malapportionment using aggregate data. Though it does not address the crucial issue of which types of districts are being over-represented, Samuels and Snyder (2001) have calculated an index of legislative malapportionment for 78 countries:

$$\text{MAL} = \frac{1}{2} \sum |s_i - v_i|$$

where  $s_i$  = percent of total seats apportioned to district  $i$ , and  $v_i$  = percent of total population residing in district  $i$ . The index is also adjusted to account for the role of regional and national “upper tiers” that increase proportionality. A goal for further research is to extend something like this index all the way back to the expansion of the franchise for a reasonable number of countries. Progressive reforms and court decisions have severely reduced malapportionment in many countries since the 1960s, and this index will likely display useful time-series variation. Though a malapportionment index without an underlying mapping of district-level preferences is not very useful, Figure 6 does encourage more refined analysis.

[FIGURE 6 HERE]

It is a scatter plot of the Samuels-Snyder lower-chamber malapportionment index (collected in the mid-1990s) and the average right bias in the translation of votes to seats (center of gravity method) over the entire postwar period. The greater the extent to which countries deviate from the principle of “one person one vote,” the greater is the long-term advantage for the right in the translation of votes to seats.



### *Estimating electoral bias with district-level data*

As discussed above, a much better approach is to estimate electoral bias using district-level data. In the future I hope to assemble complete district-level data for a much larger group of countries over a longer time period, but for the moment, I focus on the following industrialized OECD countries using SMD since World War II: Australia, Britain, Canada, New Zealand, and the United States.

A problem with using aggregate data to contrast vote shares and seat shares is that it creates the appearance of bias when a national valence shock, such as war, recession, or scandal, creates a landslide. Any party with a very large vote share will appear to be the beneficiary of electoral bias, which confuses the swing ratio—or responsiveness of changes in seats to changes in votes—with bias. Using district-level data, one can attempt to examine whether the electoral system treats two parties equally under the hypothetical situation that all elections are equally close.

Perhaps the best way to do this is with the method of Gelman and King (1994), who simulate a set of hypothetical election results capturing the set of all possible election outcomes that could have occurred if all political conditions up to the start of the campaign were held constant and the campaign run again. One can then analyze the vote-seat curve for the two parties under a range of hypothetical vote shares of interest (say 45 to 55 percent). I intend to use a modified version of this approach in the future, but the key disadvantages for present purposes are that the hypothetical election results must be estimated using district-level demographic and other covariates that are simply not available in most countries, and that the model assumes an American-style two-party system.

A less sophisticated but also less data-intensive way to think about hypothetical elections is to apply a “uniform swing” to all districts in order to calculate electoral bias under hypothetical situations like equal or reversed vote shares of the parties (Brookes 1959, Johnson 2002). In the case of equal hypothetical vote shares, one can then calculate the number of seats that each party would have won, interpreting the difference as the electoral bias. The main problem with this approach is the assumption that vote swings are equal across districts from one election to another. The advantage is that, following the algebra of Brookes (1959), this quantity can be easily decomposed into several component parts: malapportionment (one party achieves disproportionate support in districts with fewer voters), turnout (disproportionate support in districts with more abstentions), minor party votes (disproportionate support in districts with more votes for minor parties), and most important given the argument above, the efficiency of the distribution of the party’s support.

Figure 7 displays the total electoral bias (in bold font) and the components of interest over the postwar period in the SMD countries. In order to get an accurate measure of the malapportionment effect, or any measure of the turnout effect, it is necessary to have district-level data on registered voters, which unfortunately I do not yet have for Canada,

New Zealand, and the United States (presidential elections). Thus the turnout effect is only included in the British and Australian graphs. The measure of the malapportionment effect is included for the other three countries, but it should be taken with a grain of salt since it conflates the turnout and malapportionment effects (the latter is calculated using total votes as a proxy for total registered voters in each district).

[FIGURE 7]

Positive numbers indicate bias in favor of the mainstream left party, while negative numbers indicate bias in favor of the right. The values can be interpreted directly as “extra” seats obtained by the favored party under the hypothetical scenario of equal vote shares.

Great Britain is the only case in which overall bias does not consistently favor the right. There was a pronounced bias in favor of the Conservatives until the late 1960s, but it has slowly transformed into Labour bias by the late 1970s. I cannot adequately explain this transformation here (see Johnston 2002), but much of the story is contained in the component parts. First, consistent with the argument above, the bias owing to the efficiency of support has favored the Conservatives rather consistently until very recently. Contrary to one of the hypotheses above, however, the malapportionment effect has consistently favored Labour, and has grown over time. The main reason for the effect is the fact that Scotland, the seedbed of the industrial revolution and a Labour stronghold, is over-represented by law. As Johnston (2002) points out, the pro-Labour malapportionment effect has grown over time primarily for two reasons: 1) Labour has worked very hard to lobby for favorable gerrymanders, and 2) the populations of pro-Labour mining towns and industrialized cities are dwindling rapidly.

In fact, the latter also helps explain why the “efficiency of support” effect has moved in Labour’s direction in recent years: its supporters have become less geographically concentrated by moving to suburban and semi-urban areas. Moreover, the rapid improvement of Labour’s support distribution in the 1990s is also driven by something else (recall the dramatic decline in concentration in Figure 1). After decades with a policy platform geared toward the urban left, Labour under Tony Blair has veered rightward rather dramatically in an explicit, and ultimately successful, attempt to appeal to marginal suburban constituencies.

It is also interesting to note that the overall bias is pushed in Labour’s favor because of the turnout effect—it wins more so-called “cheap seats” in districts with low turnout. One possibility flowing from the theoretical perspective laid out above is that turnout is lower in Labour’s urban bastions because landslide elections are foregone conclusions, and rational voters understand that their vote will not impact the outcome. This is worthy of further study.

Next, consider Australia, where my ongoing data collection efforts have thus far only reached 1972. In Australia, total bias is driven almost completely by the “distribution of support” effect, which puts Labour at a severe disadvantage in each election. As in the

other SMD countries under analysis, Labour is caught between appealing to its leftist proletarian base and the moderate, pivotal constituencies in places like suburban Sydney. As a result, it is difficult to achieve an efficient distribution of support across districts, and Labour is consistently punished by the vote-seat curve. The malapportionment effect is quite small, and has given a modest boost to Labour.<sup>14</sup> Since election participation is compulsory, the turnout effect is minimal.

The story is quite similar in neighboring New Zealand. Again, total bias is very tightly linked to the “distribution” effect, and again, Labour has almost always been on the wrong side of the vote-seat curve until very recently because of its inefficient distribution of support. As in Britain, Labour has dramatically improved its geographic distribution of support through a combination of advantageous redistricting, population shifts, and above all, an abrupt rightward shift in the policy platform in the 1980s.

Canada is slightly more complicated since, as described above, the left is split between a small, geographically concentrated NDP and a centrist Liberal party. The hypothetical situation of equal vote shares between the NDP (earlier called the CCF) and the Conservatives is a bit of a stretch, and the ideological positions of the Liberals and Conservatives are very close. Figure 7 provides both comparisons. I aggregate the votes and seats for the Reform party, a Western splinter from the Conservatives in the 1990s, with those of the Conservatives.

The overall bias clearly favors the Conservatives in both scenarios until the 1990s, when the right faced a coordination failure due to the entry of the Reform party in Western Canada. As in the other cases, this pattern of electoral bias is driven almost completely by the impact of the left’s less efficient distribution of support. As expected, the distribution of support for the NDP is less efficient relative to the Conservatives than that of the Liberals.

For the same reasons discussed in Section 1, I present data calculated from U.S. presidential elections aggregated to the level of the House district. It has been well-established that electoral bias has come to favor the Democrats in U.S. House elections by the 1980s, as captured by Figure 1 above. By the 1980s, distribution, malapportionment, and turnout effects were all pushing in the same direction (see, e.g. Grofman, Loetzle, and Brunell 1997; Johnston, Rossiter, and Pattie 1999). But unlike most other countries, incumbents are able to directly impact redistricting, and a pronounced incumbency advantage makes it difficult to infer anything about the underlying political geography from House elections. In fact, taking advantage of their simulation approach, King and Gelman (1991) analyze the vote-seat curve in U.S. House elections under the hypothetical scenario where there are no incumbents, demonstrating that the incumbency bias explains virtually all of the shift from pro-Republican to pro-Democrat partisan bias over the post-war period. They suggest that once incumbency bias is accounted for, the underlying political geography creates pro-Republican bias.

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<sup>14</sup> The opposite was almost certainly true prior to World War II in the legislature and until recently in the states (see Jackman 1994). Malapportionment in Australia was explicitly justified on the grounds that it would minimize the impact of socialism.

This point is echoed by Erikson (2002), who suggests that another way to get around problem of incumbency bias is to analyze presidential results at the level of House districts. That suggestion is taken up in Figure 7. Presidential results are also more useful because they are more in keeping with the spirit of the preceding theoretical section, which emphasized the problem of setting one party platform for heterogeneous districts. One way to interpret the U.S. panel of Figure 7 is as the bias that would result if the districts in the Electoral College were House districts rather than states.

As Erikson (2002) suggests, the underlying bias dramatically favors the Republicans. And again, this is driven almost exclusively by the inefficiency of the Democrats' urban support.

In sum, except for the impact of Scottish over-representation, electoral bias has overwhelmingly favored the right in these five SMD systems throughout the postwar period, and this bias is driven primarily by the left's inefficient distribution of support. To some extent, this effect appears to be diminishing in recent decades. Though further research is needed, two likely explanations are population movements and, perhaps more interestingly, platform movements.

[FIGURE 8 HERE]

Before moving on, Figure 8 hones in on the "efficiency of support" effect with a measure that is perhaps more intuitive given the discussion above. Following Johnston (2002), all votes above the number required to defeat the second-place finisher in a district can be viewed as "surplus." Under the hypothetical scenario of equal votes shares, an illuminating measure is the total number of surplus votes for each party divided by the number of seats it wins. A larger number of surplus votes indicates a less efficient distribution of support.

Figure 8 shows that in Britain and its former colonies that retained SMD, throughout the postwar period the mainstream party of the left faced much less efficient support than that of the right. Remarkably, the surplus votes ratio for the right surpassed that of the left in only seven of 70 elections for which data were available.

Finally, the analysis above points toward interesting further research on turnout and malapportionment. The turnout effect consistently "favors" the left, which wins more low-turnout districts. An interesting possibility is that turnout is suppressed in the lopsided proletarian districts, which might also help explain why turnout is lower in general in SMD than in PR systems. A small malapportionment effect also favors the left, which may reflect the declining population of proletarian areas as industrial economies become service economies.

#### **IV. Political Geography and the Difference between PR and SMD**

When the elite agreed to extend the franchise in European and other OECD countries, some countries retained SMP while others introduced proportional representation. If the emerging story of the previous sections is correct, anyone opposed to a public role for risk-sharing and redistribution would prefer the retention of SMD over PR in an industrialized society with a densely concentrated working class.

### *Party Platforms*

First, the left might consistently lose elections if—because of the need to deter entry or because of capture by urban leftists—it cannot move its platform sufficiently to the right to appeal to the median district. Indeed, among OECD countries, parties of the left have spent much less time in office in the postwar period in systems with SMD than in systems with PR. Perhaps more importantly, over time the mainstream party of the left faces intense pressure to moderate its platform under SMD. If it does so, both major parties might offer platforms that are to the right of the one preferred by the national median voter.

It is difficult to envision this type of asymmetry under proportional representation. Though theoretical treatments of party positioning under PR are complicated by the need to theorize about post-election coalitions, it is straightforward to see that in a highly proportional system, geographic clustering of preferences should have no impact on party strategies. Moreover, there is no reason to believe that policies should wander systematically from the preferences of the median voter. Cox (1997) presents a model where in equilibrium, parties position themselves along the left-right dimension at intervals roughly equal in terms of the percentage of the electorate located between them. Austen-Smith and Banks (1988) focus on strategic voting and come up with a similar type of equilibrium, where one party takes the position of the median voter while the other two parties locate symmetrically around the median. Under PR, the position of the median voter should be closely represented by a party, and at worst, the two most centrist parties will be equidistant from the median (Powell and Vanberg, 2000).

Under SMD, however, if the median district is to the right of the median voter and the left can ignore the problem of entry and choose the seat-maximizing platform, the equilibrium platform is to the right of the one that would be selected under PR or a winner-take-all national executive election without districts.

The best way to examine this hypothesis is with natural experiments where the same population is represented through different electoral mechanisms at the same time. The United States Senate and House of Representatives provide an excellent opportunity. If one sets aside the constraints imposed by the national party labels and assumes that incumbents' platforms and voting behavior cannot stray far from the median voter in their districts, adjusted ADA scores and Nominat scores can be interpreted as reflections of the preferences of the median voter in each district. Each House member will need to worry about the median in her district, while incumbent Senators will need to respond to the median in the state as a whole. If indeed the median district is to the right of the median voter in a state because of densely packed urban liberals, contrasting the average

ADA score of House members across a state delegation with the average of the two senators should reveal that Senators are to the left of their house delegations. Preliminary analysis reveals that this is indeed consistently the case for both ADA and Nominate scores since the 1950s, especially in the core manufacturing states of the Northeast and upper Midwest, even though over-representation of conservative states in the Senate insures that the chamber as a whole is to the right of the House.

Australia provides another possibility, since the lower chamber features single-member districts and the upper chamber is elected through PR. Given the importance of national party platforms in Australia's parliamentary system, the political geography logic should affect not party platforms across chambers, but the relative success of the parties. Indeed, within states, Labour receives a much larger seat share in the upper chamber than in the lower chamber. Differences between Land and Federal elections in some German states might provide similar research opportunities.<sup>15</sup>

A more controversial implication of the argument is that in the long-run, if two countries have similarly pronounced relative left-wing concentration in proletarian regions and are otherwise similar except for electoral rules, over time the major parties in the country using plurality electoral rules with small districts will develop policy positions that are to the right of their peers in the PR system due to their weaker incentives to cater to urban constituents.

Thinking back to the German graph in Figure 1, which demonstrated a consistent relative geographic concentration of the left, the platforms of the German parties may have evolved quite differently if Germany had chosen a pure SMD system after World War II. Survey research reveals that voters in Germany's densely populated, heavily industrialized regions are to the left of the rest of the country on the economic issue dimension. Without the second ballot and a translation of votes to seats that is ultimately highly proportional, it is plausible that the Christian Democrats could have ignored urban workers and avoided adopting a welfare-state agenda while still appealing to the median single-member constituency. However, under PR, the CDU was forced to court urban workers in order to succeed. Germany has built one of the world's largest welfare states, largely under the watch of the CDU. In comparative perspective, one is struck by the fact that the CDU's economic platforms, along with those of mainstream parties of the right in other PR systems of postwar continental Europe, have been well to the left of the mainstream leftist parties in SMD systems.

This proposition is consistent with casual empiricism: witness the rightward drift of Labour parties in the UK, Australia, and New Zealand, the moderation of the Canadian Liberals, and the lack of a true left-wing party in the United States. But it is almost impossible to prove since valid cross-national comparisons of party positions are extremely difficult to make.

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<sup>15</sup> For instance, Nordrhein-Westfalen does not have a second ballot; nor did Rheinland-Pfalz until 1991. Bavaria uses a regional upper tier for allocating list votes that appears tailor-made to limit the impact of SPD voters in Munich and Augsburg.

Budge et al. (1999) have gone to great lengths to code, sentence-by-sentence, the content of published party platforms in OECD countries since 1945. They have created variables for each party for each election measuring things like the percent of all sentences discussing “expansion of the welfare state” or “social justice,” along with things like “favorable mentions of labor.” They have also used factor analysis to present a composite “left-right” score for the parties. Perhaps the most natural way to compare party positions across countries is to compare major party “families.” Comparing Social Democrats, Socialists, and Labor parties on the one hand, and Christian Democrat and various mainstream conservative parties on the other, several indicators in the party manifesto data set seem to place both left- and right-wing parties in proportional systems systematically to the left of their cousins in SMD systems.

Another option is to rely on the expert surveys mentioned earlier, but again, there are reasons to be skeptical about cross-national comparability, since respondents are country experts who presumably view their task as an evaluation of the country’s parties vis-à-vis one another, and the heuristic might be to place the center-most party in a country in the middle of its spectrum even if it is far from the global center. In any case, preliminary analysis does suggest that the positions of mainstream social democratic and conservative parties in PR systems are viewed by expert survey-respondents as significantly to the left of those taken by their colleagues competing in plurality systems.

It is not clear if the validity of these measures warrant taking this analysis further, but the next step would be to conduct a quasi-experimental matching exercise, finding pairs of countries that are similar in every respect other than electoral rules in order to estimate whether they demonstrate significant differences in party platforms. Another possibility, also fraught with difficulty, is to examine whether party platforms have shifted with changes between SMD and PR in France, Italy, and New Zealand.

## **V. Is there an impact on policy?**

If the left is more concentrated than the right and the potential for vote-seat bias influences strategies adopted by political parties, the policies ultimately enacted should be affected by electoral rules. Perhaps the best way of assessing causality would be to examine countries where institutional rules have changed. A less attractive but more general approach to this research is with cross-national comparative case studies and regressions. This project will use both strategies, focusing on two possible policy effects: distributive politics and the welfare state.

### *Distributive Politics*

A key argument made above is that under realistic conditions of economic geography, PR gives political parties on both sides of the political spectrum incentives to court urban voters, while SMD encourages parties to ignore them. This argument is not far removed from the well-known literature on incentives for politicians to target “swing districts” when distributing pork-barrel projects (e.g. Dixit and Londregan 1997). The crucial twist in this project is that core urban centers are less likely to be pivotal, while the same urban

voters would be actively courted under PR. An attractive research strategy is to carefully select some countries with varying levels of relative left concentration and electoral rules and conduct detailed analysis of all expenditure projects according to whether they benefit urban, rural, or suburban areas. In countries with PR, this perspective would lead to the hypothesis that expenditure projects are evenly spread throughout the country. When the left is highly concentrated under SMD, however, one would expect that cities receive less per capita than the rest of the country.

### *The welfare state*

Finally, the political geography perspective places an emerging literature on electoral rules and the welfare state in a new light. An empirical relationship between proportional representation and social expenditures from the 1970s to the present has been demonstrated in several recent cross-national empirical studies. Persson and Tabellini (2003) find a correlation between PR (measured both as a dummy and with mean district magnitude) and what they interpret to be “social transfers” in the IMF’s *Government Finance Statistics Yearbook*. Milesi-Ferretti, Perotti, and Rostagno (2002) find a correlation between “deviation from proportionality” in the translation from votes to seats, and what they interpret as “transfers” in the GFS. Iversen and Soskice (2003) establish a relationship between PR and redistribution in the OECD using data from the Luxembourg Income Study.

On the theory side, Persson and Tabellini (1999, 2000) use a probabilistic voting model with two parties to obtain the result that SMD concentrates electoral competition in closely contested districts, creating incentives for geographically targeted expenditures, while PR creates incentives for general public goods and broad transfer programs (e.g. the welfare state). Milesi-Ferretti, Perotti, and Rostagno (2002) obtain a rather similar result using a more complex model in which voters strategically anticipate the legislative bargaining process. Finally, Iversen and Soskice (2003) pursue a very different modeling strategy, where proportional electoral rules affect the number of parties and redistribution takes place in multiple dimensions. This leads to a legislative bargaining scenario in which PR inherently favors the left in the coalition-building process, while SMD favors the right. In the long run, extended periods of control by the left in PR systems lead to larger redistributive programs that reflect the interests of lower-income voters.

Each of these models may well capture part of the link between PR and the welfare state, but each retains some rather restrictive and unrealistic assumptions, especially about geography. In the first two models, all districts are essentially identical; the only thing that distinguishes one jurisdiction from another is the density of swing voters, which is implicitly assumed to be exogenous. In both of these models, a basic assumption is that social transfers involve nation-wide groups (the poor, the elderly, etc.) and can be clearly distinguished from “geographic” or “targetable” transfers, and social transfers inherently have no geographic incidence or logic. Geography is completely orthogonal in the Iversen and Soskice (2003) model.



In contrast, the argument above encourages the view that all government expenditures, even on social transfers, are ultimately “targetable.” Voters in different electoral districts have distinctive preferences over public goods and redistribution, and various transfer programs demonstrate clear geographic patterns in their beneficiaries. For a variety of reasons, voters in dense manufacturing corridors have typically had stronger preferences for public goods and redistribution than non-urban voters—perhaps much more so in the early days of industrialization. Moreover, especially during the period when the modern welfare state and redistributive programs were erected, these programs were a response to the political mobilization of the (geographically concentrated) left. Autocorrelation in welfare transfers is extremely high within countries, and the rank ordering of countries by levels of social expenditure have changed little since the 1970s. Thus the size of today’s welfare state and the overall redistributiveness of government policy is driven by decisions made about entitlement programs 30 years ago or more.

Of these existing models, the theory suggested by the political geography perspective is closest to Persson and Tabellini (2000) in that it hinges on the notion that incumbents face incentives to favor marginal districts under SMD. Yet the causal mechanism is quite different. For Persson and Tabellini, support for social transfers is evenly spread through all districts, while here the argument is that during the crucial period of welfare state expansion, it was concentrated in the densely populated cities of the industrialized core. Moreover, preliminary survey data analysis suggests that urban voters still prefer higher taxes and transfers than rural residents. That is not to say that rural residents had no demands for government expenditures and redistribution—especially targeted farm subsidies—but with some exceptions (e.g. Scandinavia and Western Canada), the erection and expansion of the welfare state was not an attempt to attract rural votes.

Since there are several causal paths that might lead to a long-term correlation between proportionality and the size of the welfare state, the challenge for cross-national empirical analysis is to find ways of zeroing in on causal mechanism suggested by the political geography perspective. One approach is to begin with a standard regression of welfare expenditures (as a share of GDP) on the usual matrix of social, political, and demographic control variables like unionization, the share of the population above and below the working age, dependence on international trade, country size, etc., and add an interaction of a variable capturing the proportionality of electoral rules (either a PR/Plurality dummy or a measure of district magnitude) with a measure of the relative geographic concentration of the left. The hypothesis is that the effect of PR is only significant in the presence of a relatively concentrated left. Likewise, the presence of a concentrated left should only curb the growth of the welfare state in the presence of plurality electoral rules. To deal with the potential endogeneity of a left geographic concentration index based on district-level election outcomes, a measure of the geographic concentration of economic production or manufacturing would potentially serve as a valid instrument. In addition to data on social transfers since the 1970s used by others, I have been examining data assembled by Peter Lindert that go back to the turn of the century.

Though most of the work lies ahead, some interesting relationships are emerging from preliminary data analysis. For instance, in simple cross-national OECD regressions including the same control variables analyzed by others, either of the variables capturing right bias in the translation of votes to seats and the Sanuels-Snyder malapportionment index (two-chamber average) perform very well, and the variables used by others—PR dummies, district magnitude, and an index of overall (not ideologically weighted) disproportionality in the translation of votes to seats—lose their statistical significance.

The discussion above suggested that long-term average right bias in the translation of votes to seats is driven largely by the combination of left concentration and SMD, which implies that the left must either lose seats or moderate its platforms. In either case, the preferences of urban voters for social programs are less likely to be transformed into policy. If one accepts this argument, then Figure 9, while perhaps a bit of a stretch, is a promising plausibility probe for the political geography story about the rise of the welfare state. It is a scatter plot of the right bias measure based on Cusack and average social transfers as a share of GDP, as assembled by Peter Lindert from OECD data, showing a linear relationship between right bias and social expenditures.

[FIGURES 9-11 HERE]

It is also interesting to note that the cross-national malapportionment variable is correlated with social expenditures in the OECD, as demonstrated in Figure 10. Note that Figure 10 uses two-chamber averages of the Samuels-Snyder index for countries where upper chambers are as strong as lower-chambers (primarily federations). But bear in mind that the malapportionment variable is a poor proxy for the concept of interest since it does not adequately capture the extent to which conservative areas are over-represented, and among the SMD systems examined above, malapportionment actually favored the left in many instances. Moreover, since cross-national differences in social expenditures originated earlier than the 1990s, it will be helpful to have full time series variation on malapportionment. Finally, this type of analysis has promise well beyond the OECD. For instance, in Brazil, Argentina, and Mexico, expansions of the franchise earlier in the century and more recent returns to democracy have been accompanied by fairly transparent strategies to over-represent rural areas in order to limit the impact of urban labor groups on redistribution. Again, much work lies ahead, but as demonstrated in Figure 11, the malapportionment index is correlated with social expenditures in a large cross-country sample. Here the data on social transfers come from the GFS (as categorized by Persson and Tabellini). This variable also performs very well when inserted directly into Persson and Tabellini's cross-country regressions using the same data set.

This is somewhat surprising given the lack of evidence above for systematic right bias associated with SMD. However, note that the relationships in Figures 10 and 11 are driven by the concentration of federations in the southeast corners. The analysis above did not address upper chambers, where the most transparent anti-socialist malapportionment has taken place, especially in developing countries. There is a large literature pointing out that federations have significantly smaller welfare states than

unitary countries, but very weak stories about the causal mechanism. Preliminary data analysis suggests that the over-representation of rural areas in the upper chambers of federations may be an important part of the story. Various indicators of federalism lose their significance in cross-country regressions when the two-chamber malapportionment index is included.

Finally, an additional way to differentiate the political geography perspective from alternative causal claims linking electoral rules and the size of the welfare state is to focus on urbanization. If the welfare state arises in part as a response to demands of urban labor, it is useful to explore the relationship between urbanization rates and the size of the welfare state. Curiously, existing cross-national studies of welfare state expenditures do not include urbanization variables. The arguments above suggest that the demands of urban labor are most likely to be transformed into a large welfare state under perfectly apportioned PR than under SMD, especially SMD with malapportionment. I have simply added urbanization and malapportionment variables to the data set of cross-country averages used in Persson and Tabellini (2003) and explored interactions, the results of which are displayed in Table 2.

[TABLE 2 HERE]

Model 1 is simply the Persson and Tabellini baseline cross-section model of social security and welfare expenditures with the urbanization variable added. The coefficient for the single-member district majoritarian system dummy is similar to that reported by Persson and Tabellini, but the urbanization variable is also significant. The next model interacts the two. The interaction term and its components are jointly significant at the 5 percent level, and the coefficients suggest that urbanization only has a significant impact on the welfare state among systems with PR—the conditional coefficient is indistinguishable from zero for majoritarian systems. Furthermore, the coefficient for the majoritarian dummy is only negative and significant among the highly urbanized countries (above 65 percent) where demands for welfare state expenditures are presumably strongest.<sup>16</sup>

Next, model 3 adds the malapportionment variable (two-chamber average) to the baseline model. As suggested by Figure 11, there is a strong negative correlation between malapportionment and social expenditures. Finally, model 4 interacts this variable with urbanization, and again the interaction term and its components are jointly significant. Though the coefficient for urbanization is around .13 throughout the sample range, it is only statistically significant at the 5 percent level when malapportionment is relatively low (less than .12).<sup>17</sup> Again, it appears that institutions that might suppress the equal representation of urban interests do suppress the impact of urbanization on the welfare state. Finally, as with the simple majoritarian dummy, the size of the malapportionment coefficient is stable throughout the sample range, but only attains significance at relatively high levels of urbanization.

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<sup>16</sup> Note that a similar result can be obtained using a continuous district magnitude variable.

<sup>17</sup> The mean for this variable is .08 and the median is .05.

[FIGURE 12 HERE]

Figure 12 helps demonstrate these relationships using OECD countries and the more complete OECD measure of social transfers. It shows a very tight relationship between urbanization and social transfers among PR countries (in red), as indicated by the fitted regression line for PR countries, while except for France, the highly urbanized SMD countries (in blue) are all clustered in the lower right corner. Some of the countries falling below the regression line are also among those with legislatures that are most malapportioned in favor of rural areas.

Much work remains to be done, but these results suggest that the link between electoral rules and the size of the welfare state has something to do with political incentives to represent the interests of cities.

## VI. Conclusions

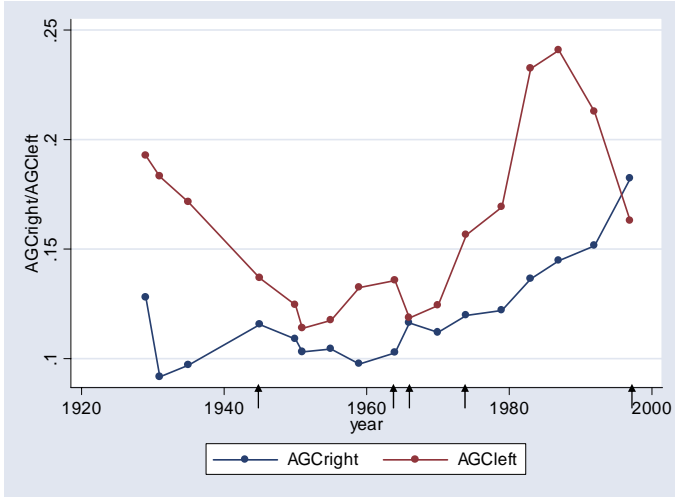
In many countries, urban voters place themselves to the left of non-urban voters, and the potential (and actual) support for the left is clustered in densely populated urban corridors where the working class, unions, and left mobilization originated. Thus ever since the expansion of the franchise, left-wing parties have been fighting uphill battles to expand the geographic scope of their support, with differing degrees of success in different countries.

The mapping of different electoral rules onto this underlying geography should have an impact on the fortunes and strategies of parties. When competing under single-member plurality districts in the presence of a highly lumpy geographic concentration of leftists, left wing parties must either moderate their platforms or be consistently punished in the translation of votes to seats—a problem that is only compounded if rural areas are systematically overrepresented through legislative malapportionment. In a similar country with PR, however, the left need not abandon its urban support base, and in fact the right must court urban votes more aggressively than under SMP.

This leads to the prediction that other things equal, when the left is highly concentrated in cities, government policy will be less favorable to large cities under SMP than under PR. Moreover, this logic provides a potentially powerful explanation for the fact that the welfare state has expanded more slowly in countries using SMD than in countries using PR, and in federations with highly malapportioned legislatures. This paper has mobilized preliminary support for these conjectures using a wide range of data, but considerable work lies ahead.

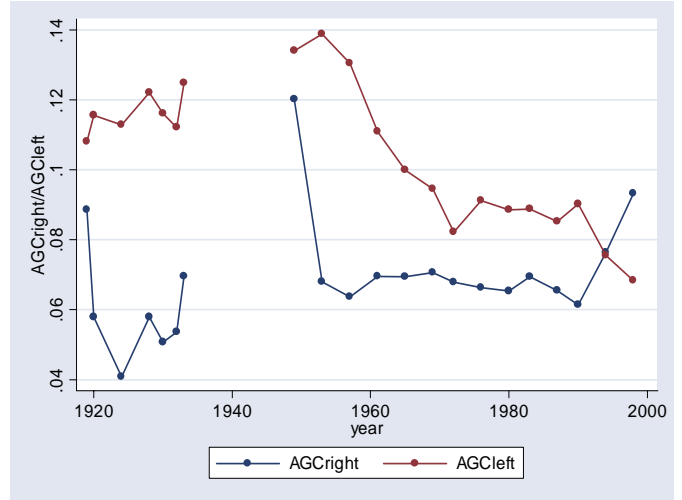
# Figure 1: Geographic Concentration of the Left and Right

**UK, geographic concentration of the combined right and combined left prior to 1945, Labour vs. Conservatives thereafter**



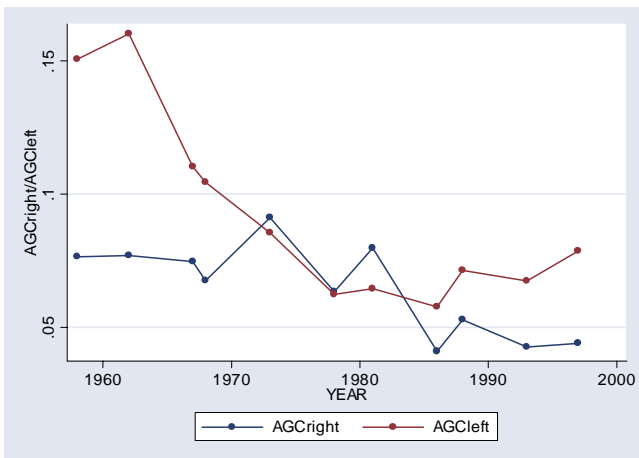
Unit of analysis: electoral districts

**Germany, geographic concentration of the combined left and combined right**



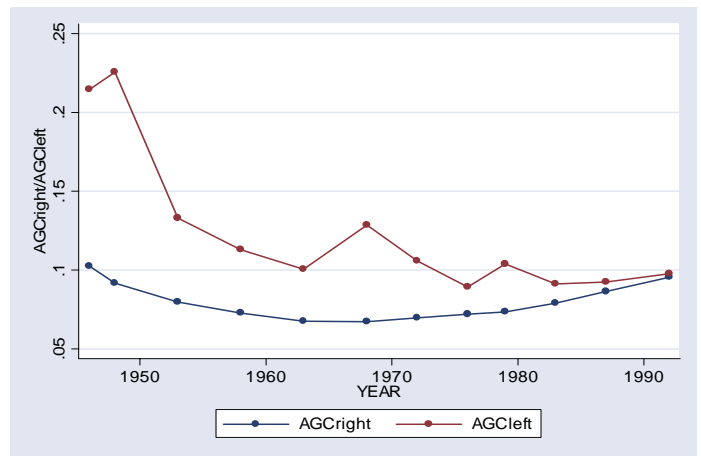
Unit of analysis: PR constituencies under Weimar, *Erststimmen* constituencies in postwar period

**France, parliamentary elections, adjusted geographic concentration indexes for the combined left and combined right**



Unit of analysis: departments

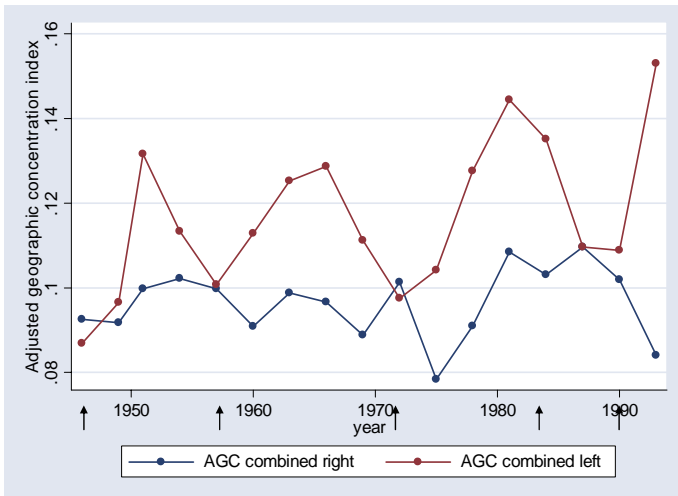
**Italy, geographic concentration of the combined left and combined right**



Unit of analysis: PR districts

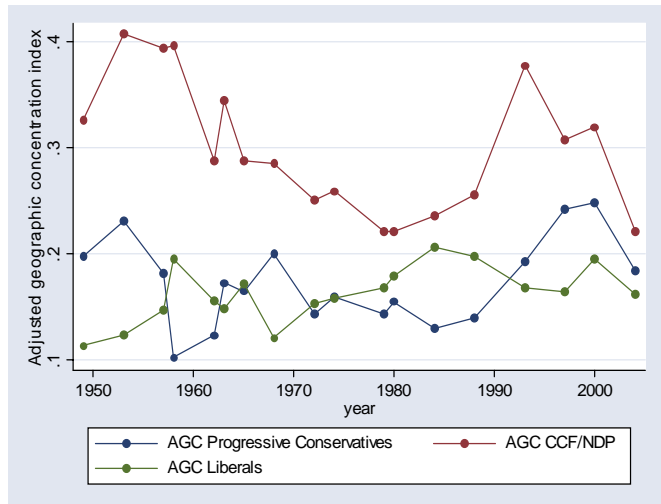
**Figure 1 (cont.)**

**New Zealand, geographic concentration of the combined right and combined left**



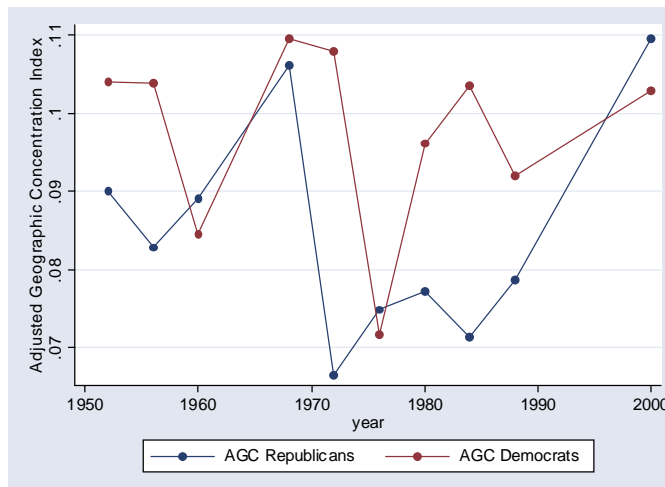
Unit of analysis: electoral divisions

**Canada, geographic concentration of the CCF/NDP, Conservatives, and Liberals (Quebec excluded)**



Unit of analysis: federal ridings

**USA, Geographic concentration of Democrats and Republicans in presidential elections**



Unit of analysis: House districts

Figure 2:  
Economic Issues Scale, GSS, 1980-2000

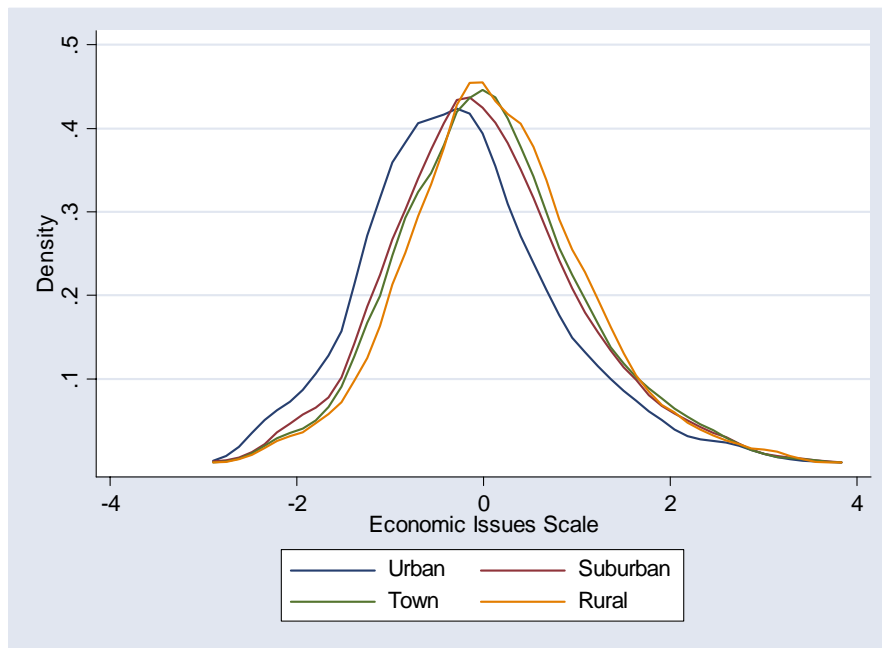


Figure 3:  
Hypothetical distribution of districts based on GSS,  
1980-2000

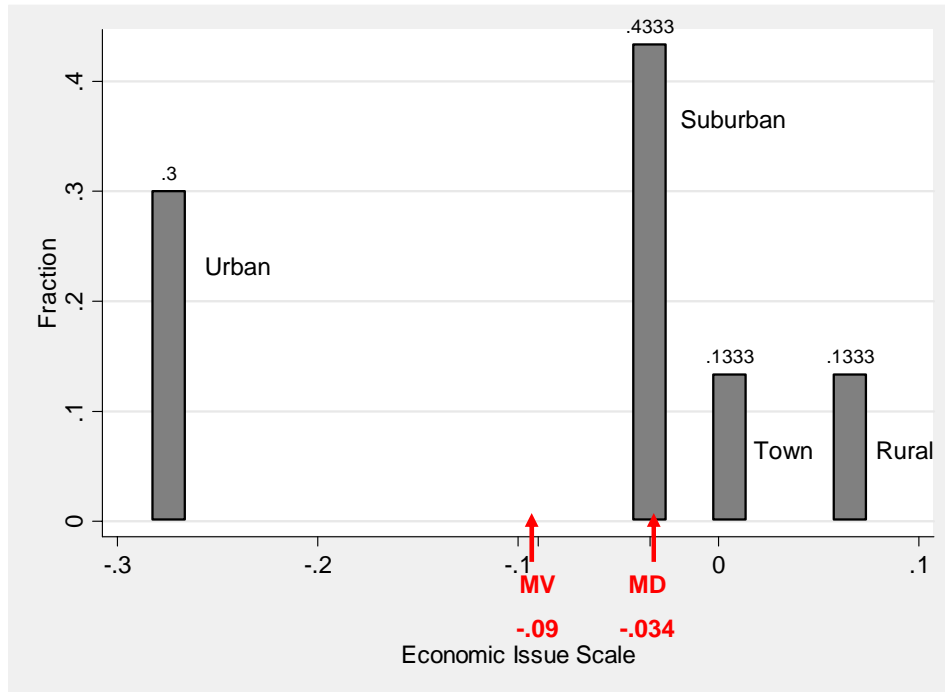
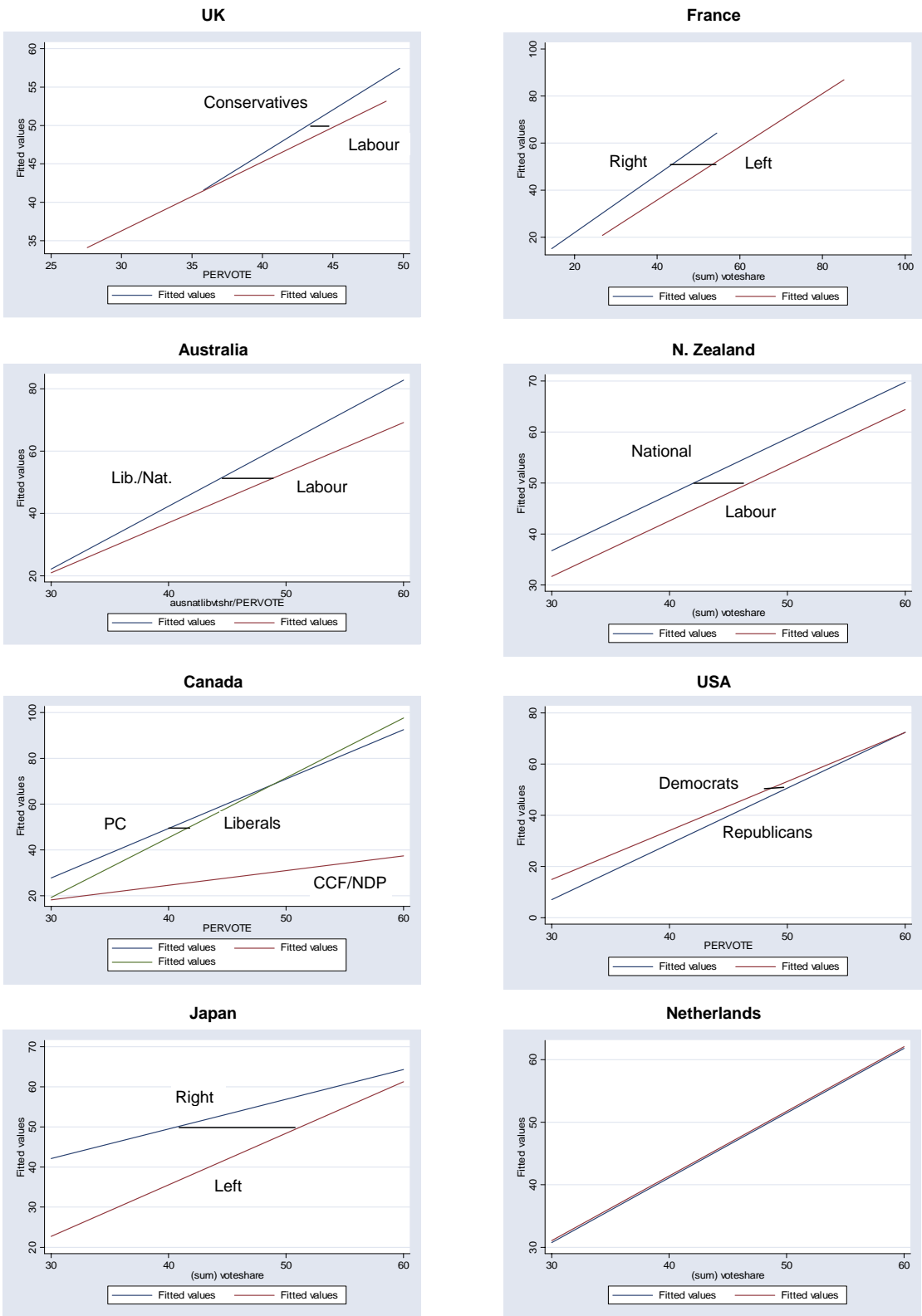
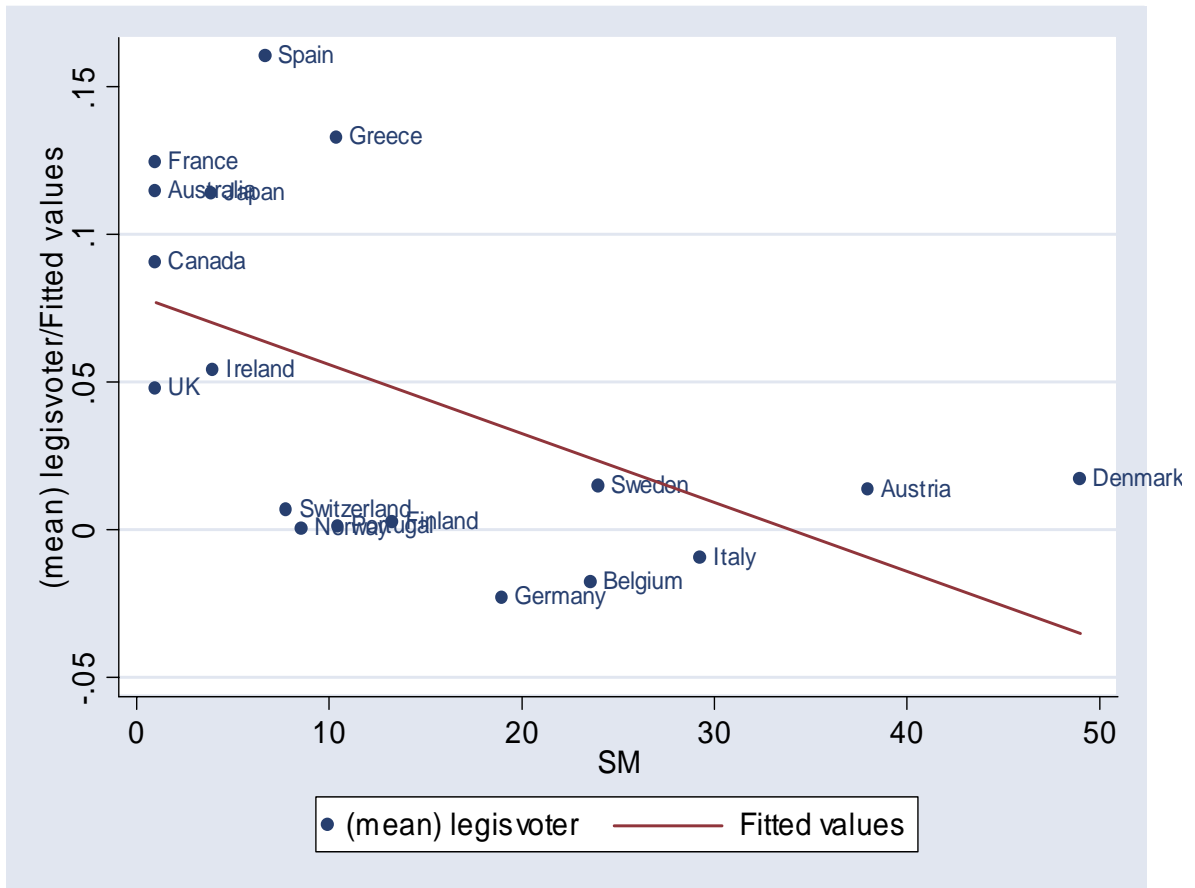




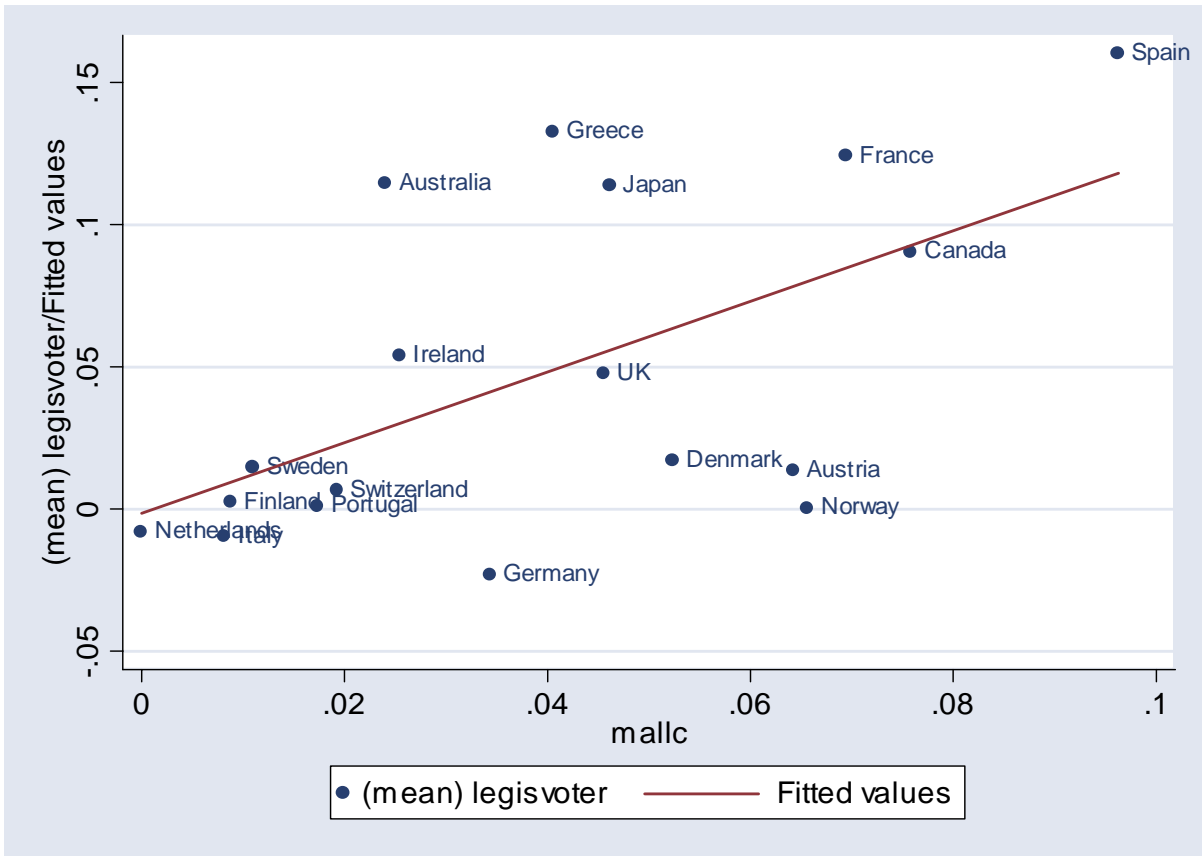
Figure 4: Seats and Votes in OECD Majoritarian Countries



**Figure 5: Standardized district magnitude and right bias in the translation of votes to seats**



**Figure 6: Lower-chamber malapportionment and right bias in the translation of votes to seats**



**Figure 7: Electoral bias and its components in SMD systems**

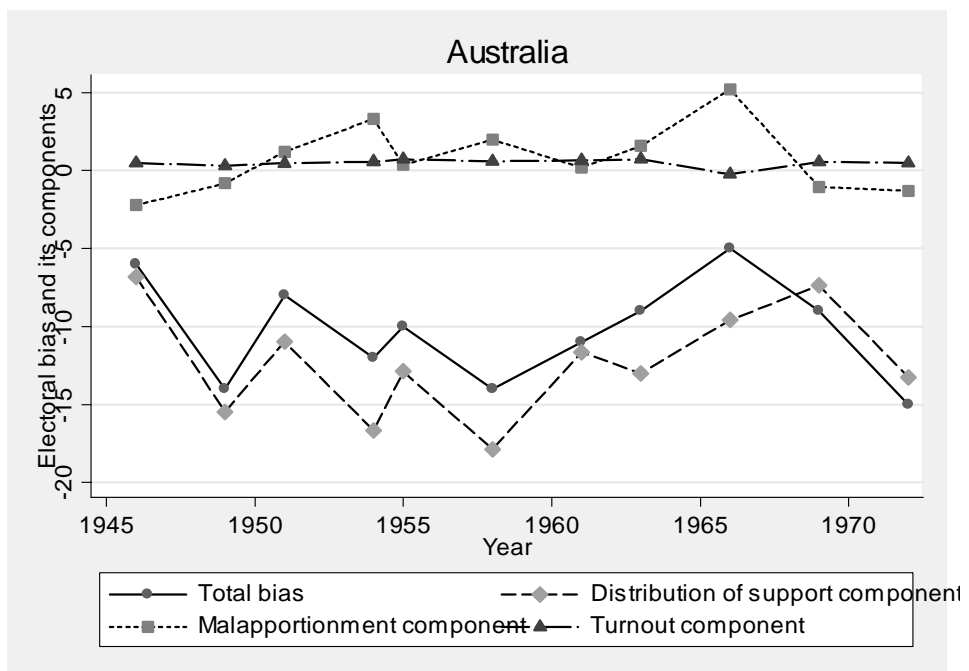
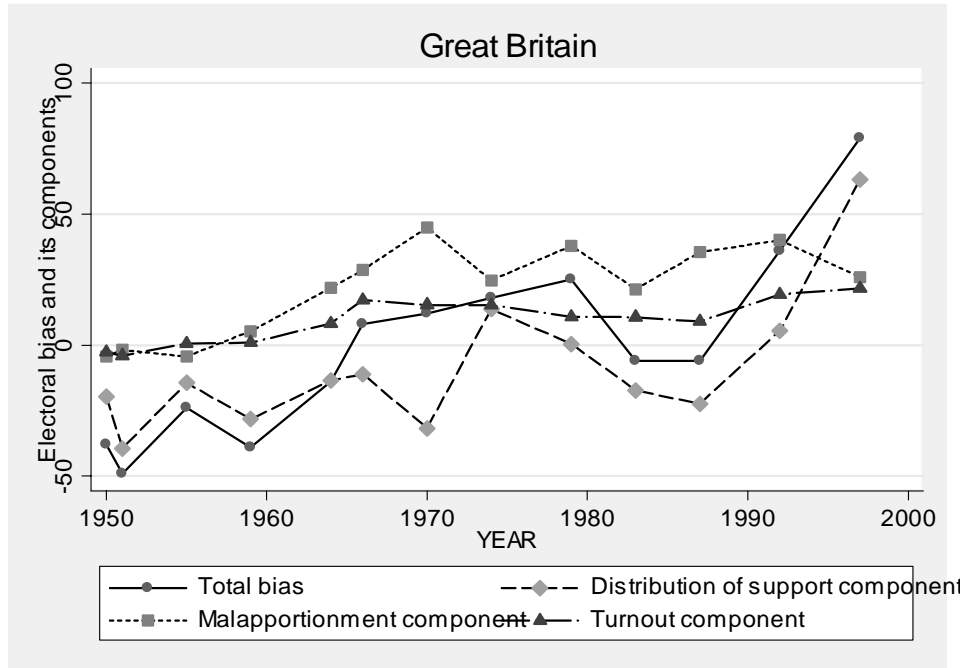


Figure 7, cont.

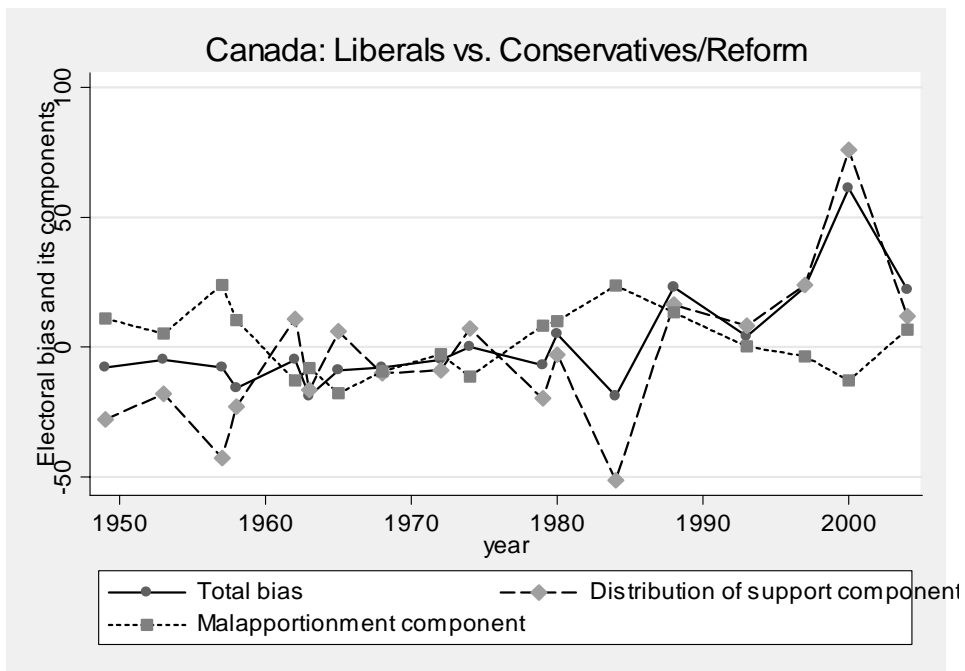
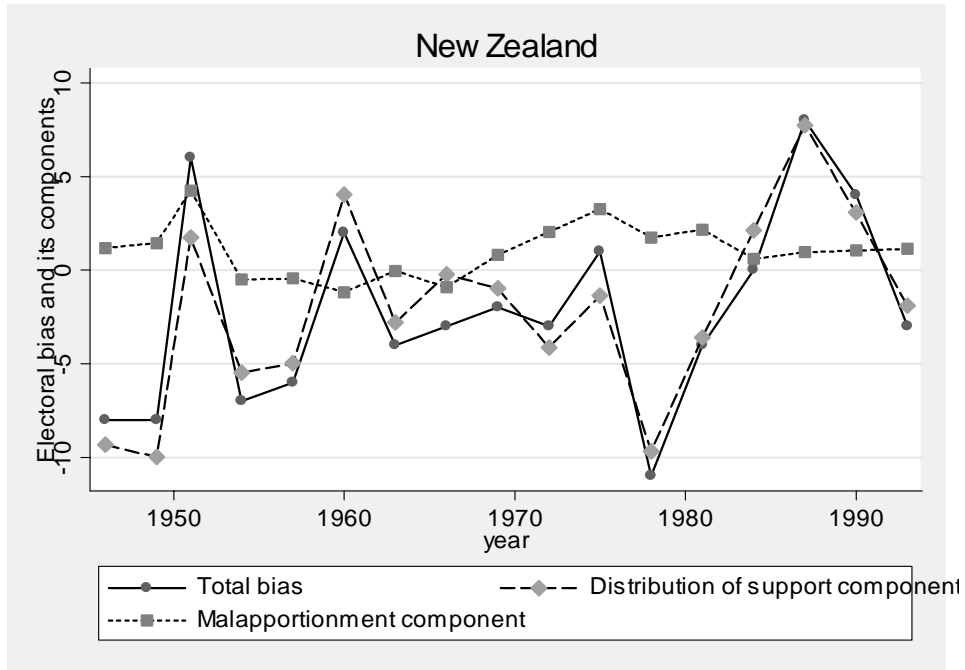
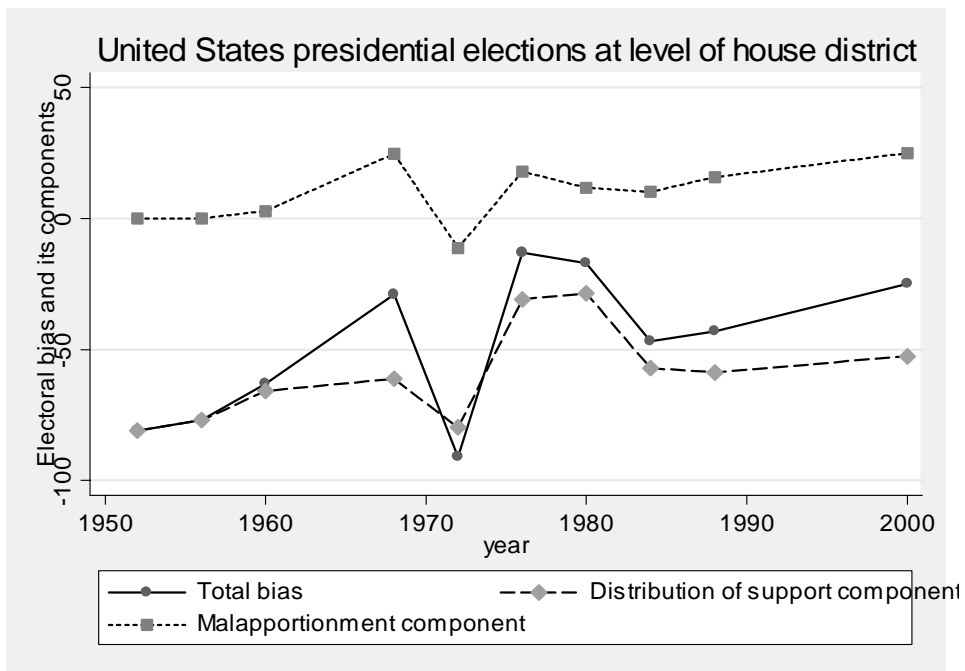
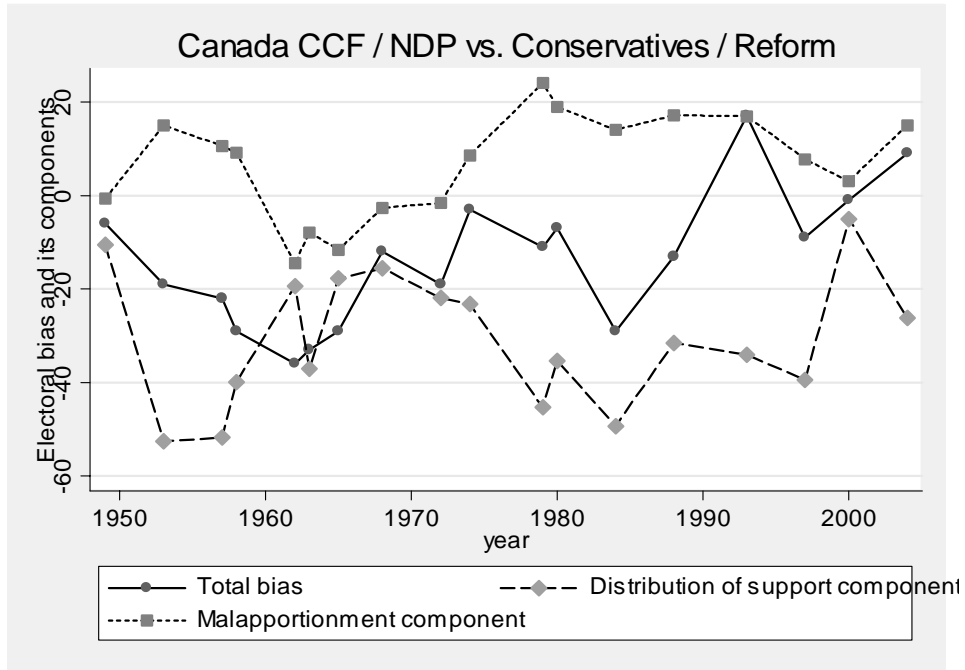


Figure 7, cont.



**Figure 8: Surplus votes/district won (hypothetical equal vote shares)**

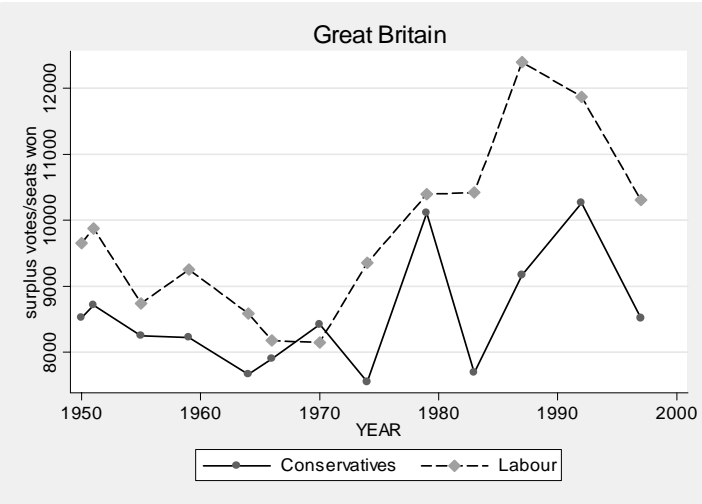
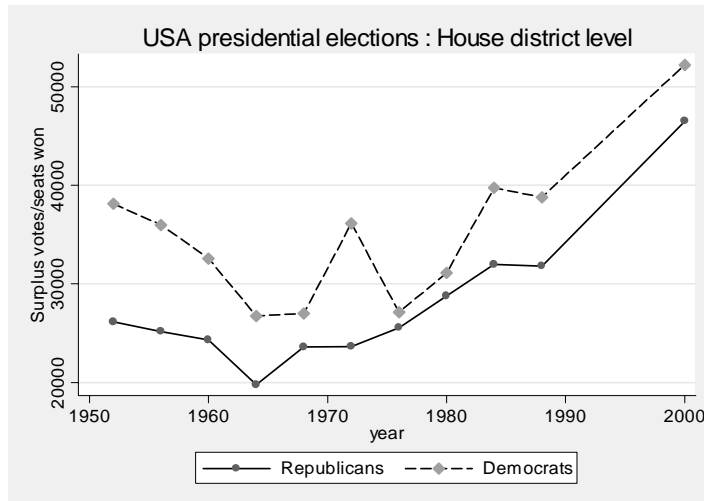
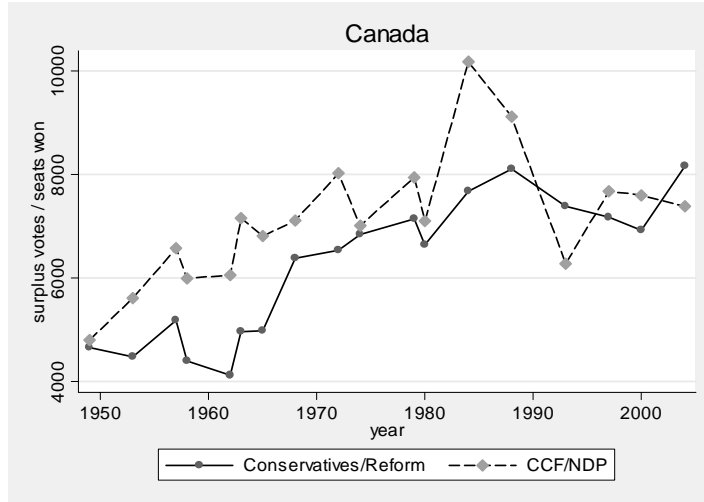
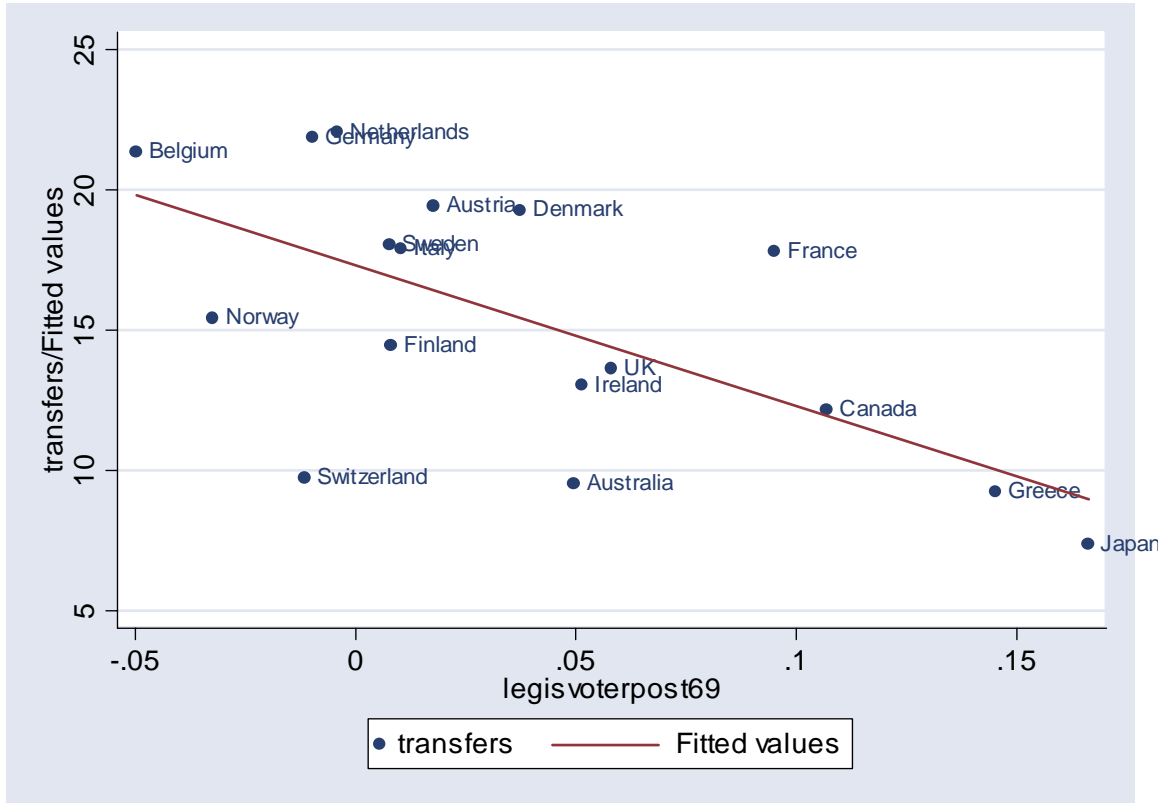


Figure 8, cont.

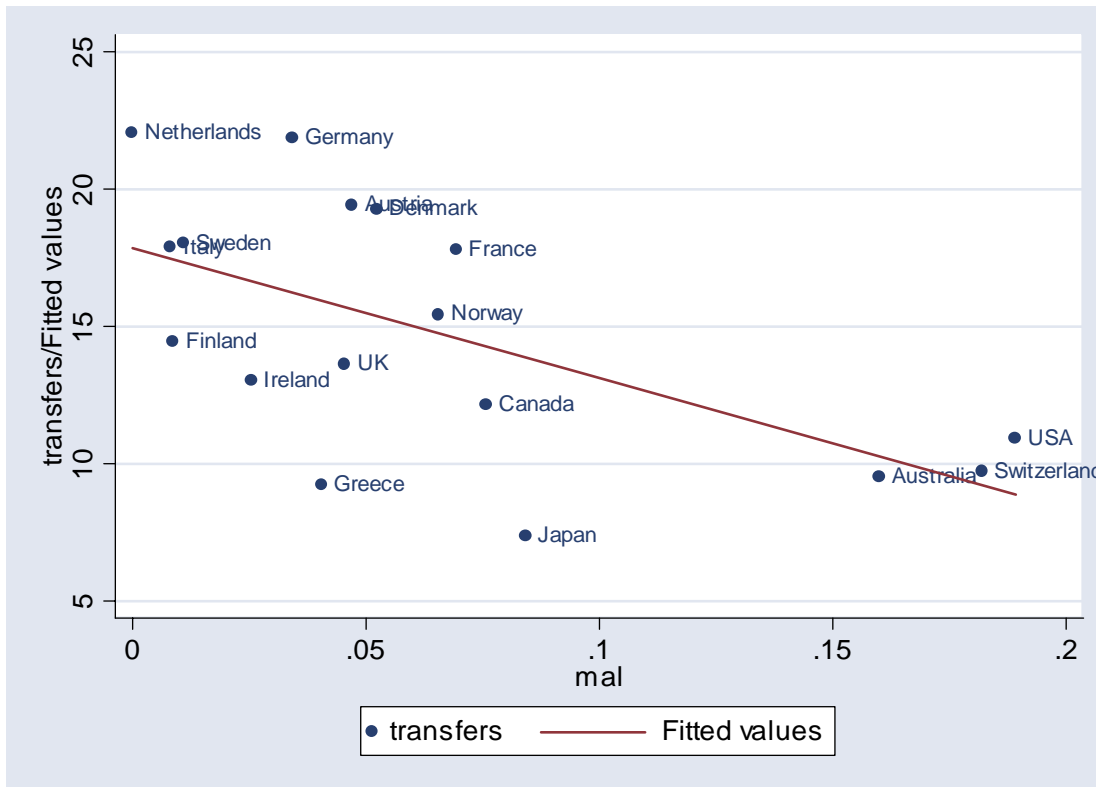




**Figure 9: Average right bias in translating votes to seats and social transfers/GDP (1960-1980)**



**Figure 10: Malapportionment (circa 1995) and average social transfers/GDP (1960-1980) in the OECD**



**Figure 11: Malapportionment (circa 1995) and average social transfers/GDP (1990-1998) around the world**

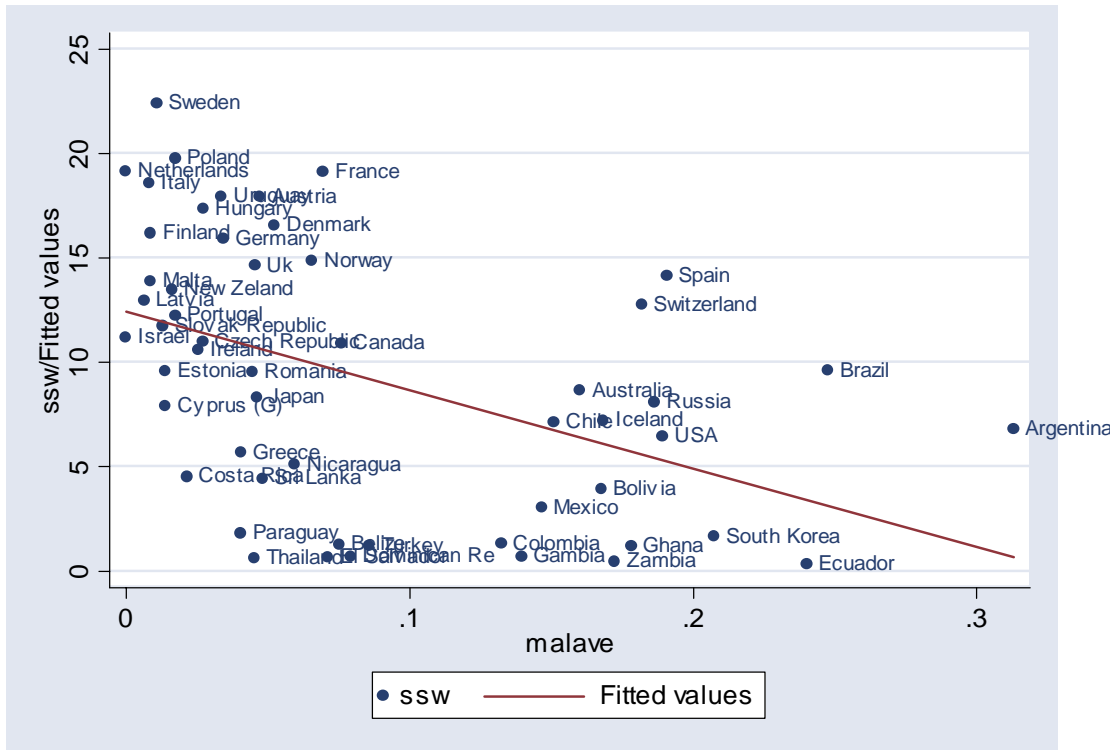
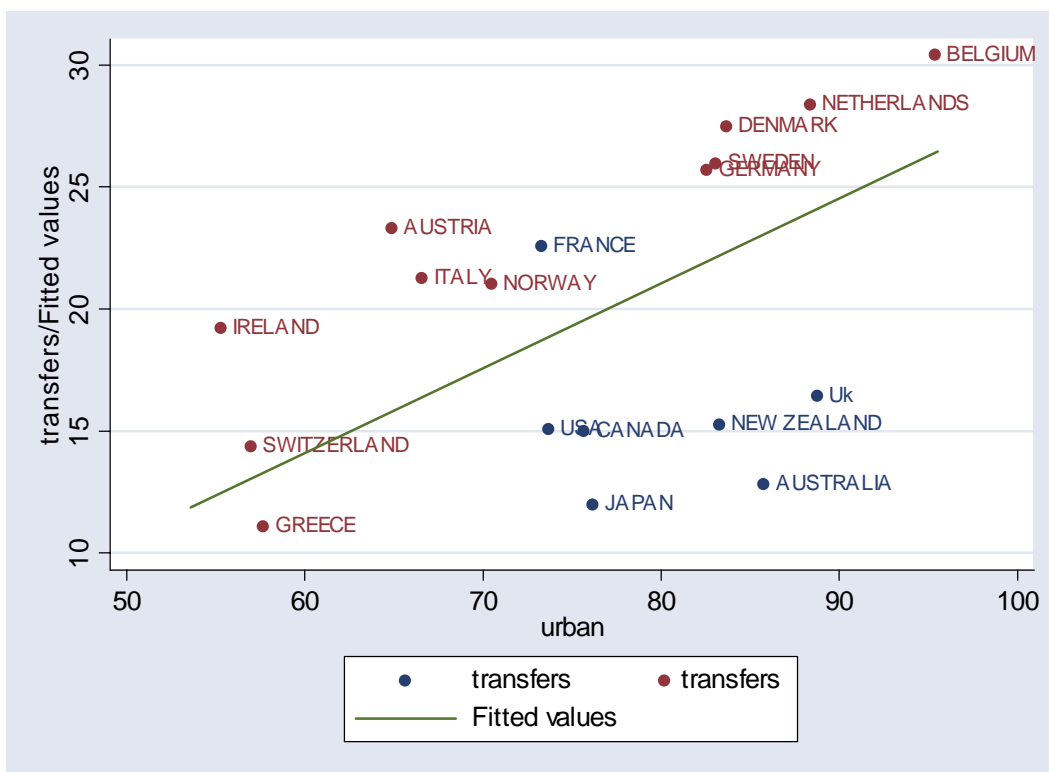
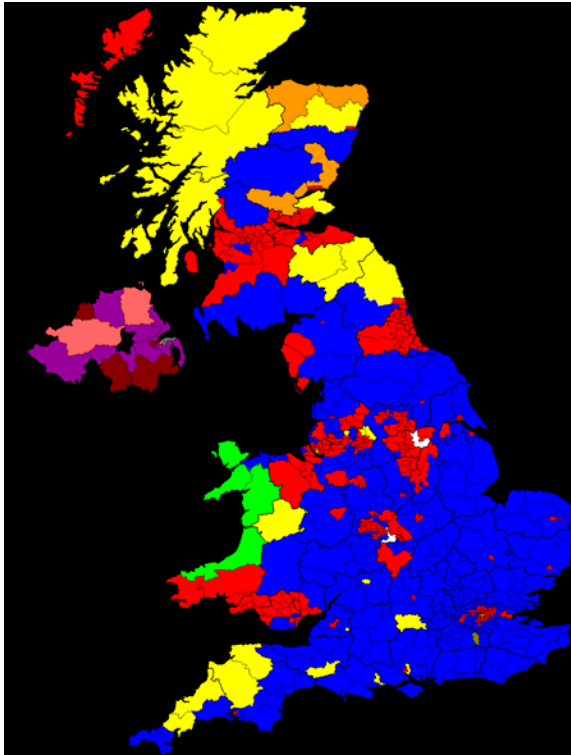


Figure 12: Urbanization and social transfers in the OECD

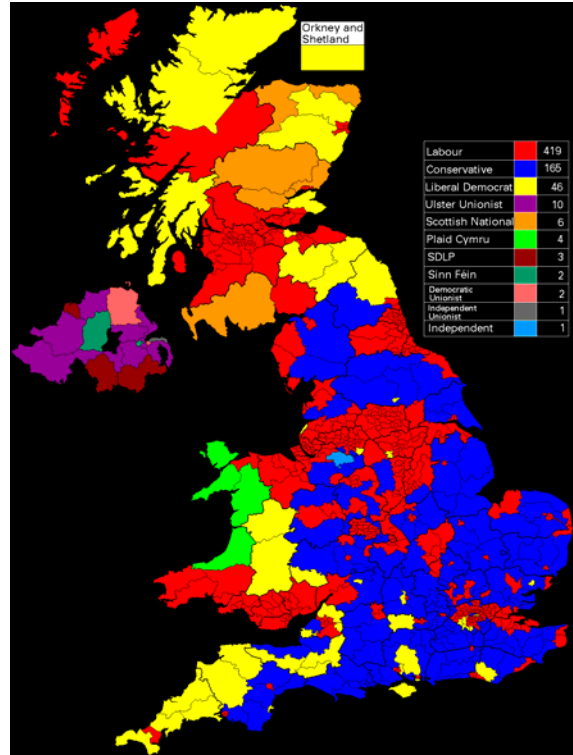


# Maps 1a and 1b

UK 1992 Election

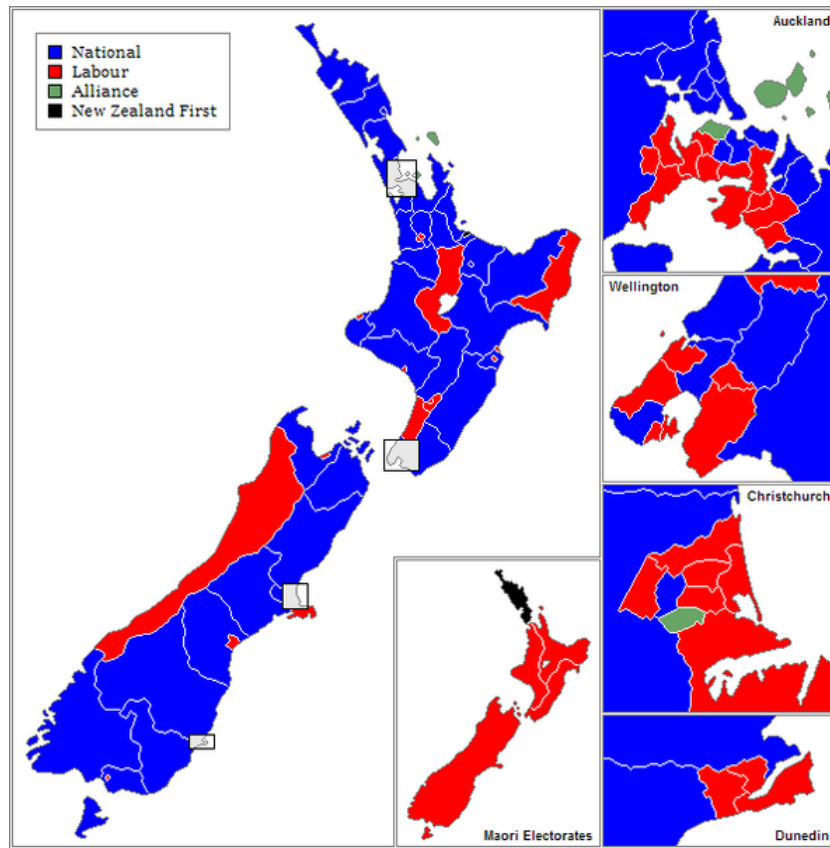


UK 1997 Election



# Map 2

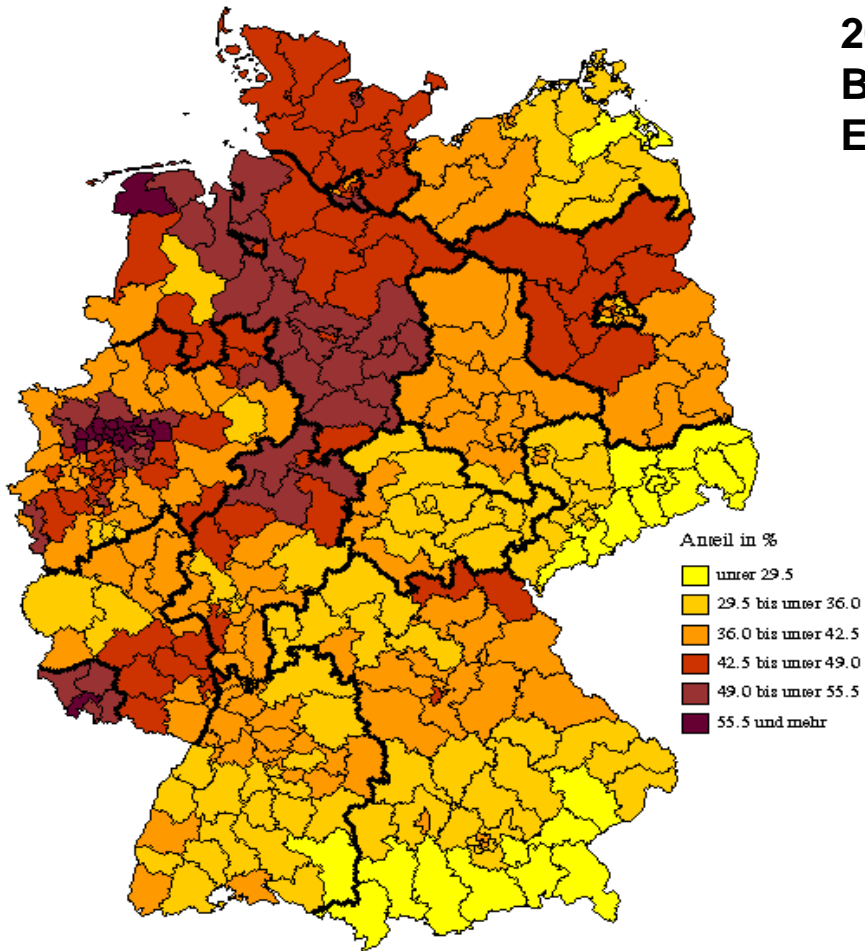
## New Zealand, 1993 election



# Map 3

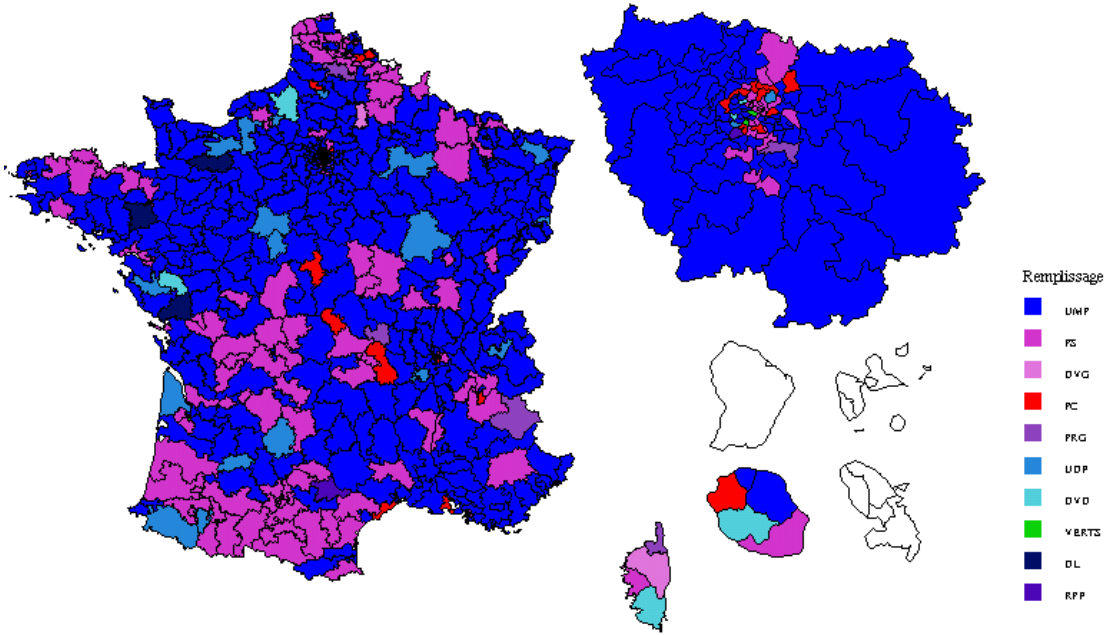
Zweitstimmenanteil der SPD nach Wahlkreisen  
Endgültiges Wahlergebnis

**Germany  
2002  
Bundestag  
Election**



# Map 4

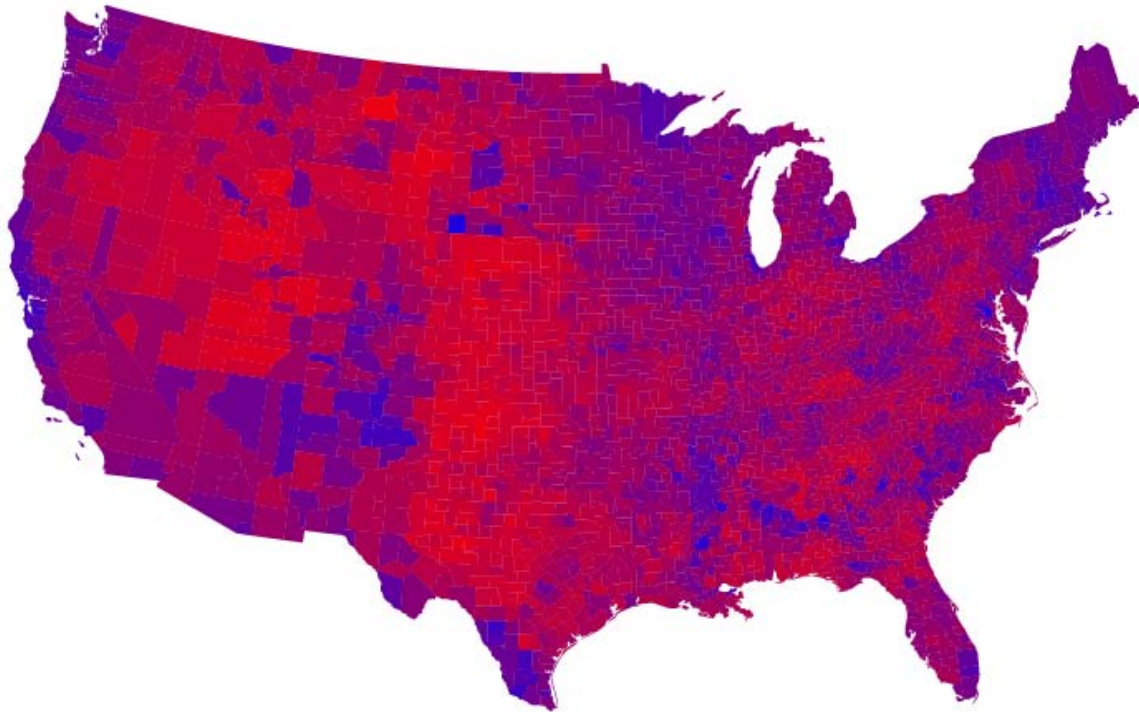
## France Legislative Elections 2002





**Map 5:**

**USA, county-level presidential election results, 2004**



**Table 1: Bias in translating votes  
to seats according to "center of  
gravity" method**

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<b>PR</b>	
Austria	0.02
Finland	0.01
Netherlands	0.00
Norway	-0.03
Italy	0.01
Belgium	-0.05
Sweden	0.01
Germany	-0.01
Spain	0.16
Denmark	0.04
Switzerland	-0.01
Portugal	0.00
Greece	0.15
<i>Average</i>	0.02
<i>Median</i>	0.01
 <b>Plurality</b>	
France	0.10
Australia	0.05
Canada	0.11
Japan	0.17
UK	0.06
Ireland	0.05
USA	-0.18
<i>Average</i>	0.05
<i>Median</i>	0.06

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**Table 2: Social security and welfare, cross-section averages**

	Model 1		Model 2		Model 3		Model 4	
Majoritarian dummy	-4.15	(1.57)***	0.54	(5.21)	-3.44	(1.87)*	-3.44	(1.89)*
Urbanization rate	0.09	(0.04)**	0.11	(0.05)**	0.13	(0.06)**	0.13	(0.06)**
UrbanXmajoritarian			-0.06	(0.07)				
Malapportionment					-38.33	(11.94)***	-36.22	(54.71)
UrbanXmalapportionment							-0.03	(0.70)
Presidentialism	-2.21	(1.98)	-1.35	(2.18)	-2.25	(2.69)	-2.25	(2.73)
Log real GDP per capita	-0.97	(1.62)	-0.72	(1.64)	-0.90	(2.05)	-0.89	(2.08)
Proportion working age	0.02	(0.18)	0.07	(0.19)	0.16	(0.25)	0.16	(0.25)
Gastil index	-1.63	(0.79)**	-1.36	(0.84)	-2.92	(1.13)**	-2.92	(1.15)**
Age of democracy	1.78	(3.77)	1.70	(3.77)	-1.41	(4.39)	-1.42	(4.46)
Trade/GDP	-0.01	(0.01)	0.00	(0.01)	-0.05	(0.02)**	-0.05	(0.02)
Federal dummy	0.12	(1.68)	-0.19	(1.72)	1.68	(1.99)	1.69	(2.05)
OECD	1.45	(2.30)	1.60	(2.31)	-0.04	(2.71)	-0.05	(2.75)
Africa	0.47	(3.55)	-1.36	(4.05)	11.06	(5.83)	10.95	(6.48)*
East Asia	-2.53	(2.82)	-3.97	(3.21)	1.43	(3.81)	1.42	(3.87)
Latin America	-4.35	(2.14)**	-4.57	(2.16)**	-0.02	(3.09)	-0.02	(3.14)
Mining/GDP	-0.15	(0.09)*	-0.13	(0.09)	-0.19	(0.14)	-0.19	(0.14)
Constant	17.35	(12.93)	9.40	(15.43)	12.69	(24.29)	12.47	(25.27)
r-square	0.73		0.73		0.76		0.76	
observations	66		66		51		51	