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 preliminary empirical results that will eventually be a book manuscript. Comments are welcome.

Prepared for the Annual Meeting of the American Political Science Association
Washington, D.C.

September 1-4, 2005

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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 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 presidential candidates suggest that if anything, the opposite has occurred, or that the two cleavages have somehow fused into one. A quick glance around the world suggests that the United States is by no means unusual. Urban areas vote overwhelmingly for parties of the left and rural areas for parties of the right throughout Europe, even in 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 urban-rural 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 three steps. First, as a result of the economic geography of industrialization and urbanization, the political mobilization of the left has taken place primarily in cities 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 creates a pattern that survives to this day: electoral support for the left is geographically concentrated in cities and mining regions. Preliminary empirical analysis undertaken in this paper shows that for a sample of OECD countries, survey respondents favoring left-wing policies are clustered in cities, and in a sample of European countries, electoral support for the left has been more geographically concentrated than support for the right since universal enfranchisement, though this difference is declining over time.

The second component of this project asks what happens when different electoral rules are mapped onto this underlying political geography. In contrast to proportional representation with large districts, small single-member plurality districts make it difficult for the left to avoid "wasting" votes in cities, and the translation of votes to seats exhibits a systematic bias in favor of the right. I demonstrate that this is clearly the case among most OECD countries 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. Not only do single-member plurality voting systems (hereafter SMP) and malapportionment generate bias in the translation of votes to seats, but perhaps more importantly, under some conditions they will force political entrepreneurs on the left to seek support in more conservative districts in order to get the more efficient distribution of votes needed to win legislative majorities, since the median voter in the marginal district is to the right of the median voter in the country as a whole.

The third step of the argument asserts that the combination of political geography and electoral rules should have predictable policy effects over long periods of time. Though much more refined analysis lies ahead, this paper suggests that SMP—especially when combined with rural overrepresentation—is associated with a significantly smaller welfare state and less inter-personal redistribution. The correlation between majoritarian political institutions and the size and redistributiveness 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 government 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.

Rather than examining one of these steps in full detail, this goal of this overview is to lay out the main arguments for each, 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.

[MAP 1 HERE]

This is demonstrated in Map 1, which demonstrates the concentration of U.S. manufacturing in the Northeastern and Western "cores" from the 1940s to the present. The concentration has faded but not disappeared. (One cannot help but notice a resemblance to today's "red" and "blue" states). On a different scale, industrial and population clustering can be found within most U.S. states. Similar manufacturing cores can be identified in almost all industrialized countries, and especially in countries at early stages of industrialization: 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.

This project sets out to explore and quantify 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. Urbanization 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. Speaking of the difficulty of mobilizing rural peasants around a redistributive agenda, Karl Marx complained as follows:

> Insofar as millions of families live under economic conditions of existence that separate their mode of life, their interests, and their culture from those of other classes and put them in hostile opposition to the latter they form a class. Insofar as there is merely a local interconnection among these small-holding peasants and the identity of their interests begets no community, no national bond, and no political organization among them, they do not form a class.
>
> Eighteenth Brumaire of Louis Bonaparte

Whether or not one accepts Marx's notion of 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 in urban areas, and a growing division between urban and rural areas that is not solely about economics. 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 19th 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 relatively wealthy 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 20th 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 20th century.[1]

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 suggests 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. Data analysis of countries around the world suggests that this concentration pattern is still extremely common.

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 Carribbean.[2] Thus far I have been able to complete a handful of European countries: the United Kingdom, Germany, Italy, and France.

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:

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

[1] 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.

[2] This is joint work with Johnathan Boysielal.

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 the combined left and combined right in the UK (excluding Northern Ireland) since 1929.[3] The Liberals, Social Democrats, and Liberal Democrats are excluded. Hence 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 going back to the 1920s in order to measure the extent to which Labour support is concentrated in cities, manufacturing, and mining regions, but Maps 2 and 3, 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.

[MAPS 2 AND 2a 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.[4]

[FIGURE 2 HERE]

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,

[3] 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.

[4] There were 247 after Saarland joined the federation in 1957, 248 after 1965, then 328 after unification in 1990.

urbanization, and support for the left. The core support areas of the SPD are the densely populated cities of the Ruhr.

[MAPS 3 and 4 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 4). I have been unable to obtain time-series data for individual single-member electoral districts, but the AGC index displayed in Figure 3, 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

[FIGURE 3 HERE]

Finally, 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 that in North-Central Italy that was, for a variety of reasons, fertile ground.[5] In any case, Figure Four 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.[6]

[FIGURE 4 HERE]

Certainly one can draw limited conclusions from only four cases, but the pattern is strikingly similar in each of these countries. The next step, of course, is to extend this analysis to a larger group of countries. I am finding similar patterns in Canada, New Zealand, and the United States. I should point out, however, that I am not finding such patterns of regional concentration in Norway and Sweden, where there are long traditions of support for the left in peripheral fishing and agricultural.

Geography and preferences

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? Do residents of urban areas have preferences on the most salient issue dimensions that are more left-skewed than the rest of the country? If so, this suggests the existence of a cleavage that cross-cuts with income, since urban areas almost always have much higher per capita income than rural areas.

[5] Some reasons cited by historians and political geographers include anticlericalism, the tradition of share-cropping, and the role of North-Central Italy in the resistance at the end of World War II, where many communists were in hiding.

[6] The units of observation are Italy's 32 electoral constituencies (prior to the constitutional change in 1992).

These questions invite analysis of survey data to move beyond election outcomes and examine the geographic correlates of political attitudes and preferences at the individual level. The *World Values Survey* and *Comparative Study of Electoral Systems* include questions related to the size of the respondent's city and include indicators of the respondent's region of residence. In joint work with Ana de la O, the latter have been merged with information about the relative level of industrialization of the region. We have also included ideological positions of each country's parties based on the expert surveys mentioned above. For a large sample including both OECD and Latin American countries, we find that urban residents place themselves to the left of rural residents on 10-point self-placement scales. This is true for the countries in both the WVS and the CSES, and surprisingly, the coefficients are still significant when we include the usual battery of control variables (income, age, gender, education, religiosity, marital status, race, etc.).

Moving beyond the self-placement scale, the WVS contains enough questions about political attitudes that we are able to conduct factor analysis for each country (after some reasonable imputation for missing values). Exploratory factor analysis revealed three underlying issue dimensions: One is related to left-right attitudes on redistribution and the welfare state. A second is related to traditional versus progressive social values. A third—especially important in countries with recent histories of authoritarianism—relates to attitudes about popular democracy. We have also experimented with analysis that constrains to only one factor. Regressing the factor scores on either a continuous population size variable or an urban-rural dummy yields that the attitudes of urban residents are significantly to the left of rural residents, even controlling for the demographic and other individual characteristics discussed above.

When comparing the three factors, it is clear that our geography results are strongest for the social values dimension.[7] In spite the claims of the vast modernization literature in political science and the assumption of a single, economic issue dimension in the workhorse economic models of democracy, we have identified a religious-moral values cleavage that is quite pronounced in some countries and, as suggested 40 years ago by Lipset and Rokkan, secular progressives are generally clustered in cities, while moral-cultural traditionalists are scattered in the suburbs and especially the small towns and rural areas. Moreover, higher income is associated with right-wing preferences on the economic dimension, but with left-wing preferences on the "values" dimension: a cross-cutting cleavage. And central city residents, though they have higher incomes than rural and small town residents, are often to the left on economic issues, and are almost always to the left on the "values" dimension.

Furthermore, we have analyzed the impact of attitudes and urban-rural residence on voting behavior, and find that even including the full battery of control variables as well as the three factor scores, urban residence is significantly associated with increased likelihood voting for the left in OECD countries.

[7] Since we are relying on the World Values survey, however, the questions related to social values are better and more plentiful, and those related to redistribution are few and perhaps not very good.

It is also useful to examine whether urban and rural preferences have different distributions. Figure 5 displays kernel densities of the factor scores on the economic and "moral values" dimensions for each of the four countries discussed above, displaying separate plots for respondents residing in large cities (in red) and those residing elsewhere (in blue). The median voter for the entire national sample is indicated with a black vertical line. In each case, the urban distribution is shifted slightly to the left of the rest of the country. And with the exception of the UK, the distribution is more left-skewed in the cities than elsewhere. By looking at the spot where the vertical median line hits the density plots, we can see that for both issue dimension in France and Italy, and for the moral values dimension in Germany, there is a larger density of moderates in non-urban areas. Something similar shows up when we pool all OECD countries. This point will become more important below: in countries with small districts, urban areas are less likely than the rest of the country to be "swing" districts.[8]

[FIGURE 5 HERE]

In sum, most (though not all) OECD countries display more concentrated support for the left in densely populated urban areas, and though much of this difference is accounted for by differences in preferences over redistribution and especially moral values, in some cases there is still some residual, unexplained urban effect on left voting.[9]

II. Electoral rules and geographic concentration

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 section is correct, anyone opposed to a public role for risk-sharing and redistribution would prefer the retention of SMP over PR.

First, the key observation is not that votes for the right and left are concentrated, but rather that the left is usually *more* concentrated. Thus parties of the left under SMP will find it difficult to avoid "wasting" votes among their core supporters in urban and mining areas. Second, even if the right and left are equally concentrated, right bias can be created through over-representation of rural areas. Through either of these mechanisms (or both), SMP can bias the translation of votes to seats in favor of the right. Perhaps more importantly, in contrast with perfectly-apportioned PR, the left under SMP will be forced to moderate its platform in order to expand its appeal into the marginal, non-urban districts. Each of these arguments is addressed in turn.

Wasted Votes

[8] There are some interesting exceptions. The pattern is exactly the reverse in Norway, where the countryside is significantly to the left (and more left-skewed) than the cities. In Sweden, the urban areas have a much smaller density of moderates than the countryside, but the "radicals" are evenly distributed on the right and the left, with no difference in overall means.

[9] Perhaps my preference variables are missing some other underlying issue dimension that correlates with urbanness-- elevated preferences for public goods or perhaps something about race. Or alternatively, the left created effective patronage machines in cities during the early period of dominance, over which they have maintained control to the present day.

If support for the left is more concentrated than that of the right due to exogenous circumstances of economic and political geography, under realistic assumptions about districting procedures and party platforms, disproportionality in the translation of votes to seats should systematically favor the right. It is possible in theory to create pie-slice shaped districts radiating out from a city center and including large chunks of the surrounding 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.[10]

Thus left-wing parties run the risk that their support will be inefficiently distributed across districts, with too many surplus votes in urban districts. The implications of this depend critically upon how party platforms are selected. If parties are monolithic actors who can target their platforms so as to maximize seats in the legislature, as envisioned in Downsian models of electoral competition, the left-wing party will move its platform away from that preferred by urban voters, and converge toward the median voter in the median district. If this is the case, the left should not experience any relative bias in the translation of votes to seats, leaving urban leftists frustrated.

However, party platforms are often not chosen by monolithic actors focusing on seat-maximization. They are often bargains among legislative incumbents, each of whom is more interested in keeping her own seat than enhancing the party's collective welfare (See Ansolabehere, Leblanc, and Snyder, 2005). Thus urban self-interested delegates at a party convention will resist pushing the platform to the right, even if this means a long-term disadvantage in the translation of votes to seats.

In PR systems with large districts—especially when there is an upper tier that assures nationwide proportionality—parties need not worry about the geographic efficiency of their support base.

The existing literature on disproportionality makes no assertions about systematic bias. For instance, the literature on the UK gives the impression that the vote-seat curve has been neutral through the postwar period, while much is made about Labour's recent advantage (see, e.g. Johnston et al 2002). Yet Figure 6 gives the complete picture for the postwar period.

[FIGURE 6 HERE]

The blue line is the difference between the adjusted geographic concentration index of the Conservatives and that of Labour (displayed above in Figure 1). It is positive (Labour support is more concentrated) for each year until 1997. The red line is the difference between the Conservative "swing" in the translation of votes to seats and the same

[10] In the future I will include historical and current district-level maps to make this clear.

quantity for Labour.[11] It is positive (the vote-seat swing is more favorable to the Conservatives) for 8 elections, very close to zero for three, and clearly negative (in favor of Labour) for only two elections. Moreover, the two lines move together (correlation .74). Labour's relative geographic concentration disadvantage in the postwar period seems to explain much of its disadvantage in the translation of votes to seats. In fact, only when Labour is able to expand beyond its core support regions and equal the geographic (de)concentration of the Conservatives by winning in a landslide—as in 1966, 1997, and again in 2001—can it experience a significant advantage in the vote-seat curve.

Though it is too early to judge, it is possible that the last two elections are the beginning of a longer-term trend in favor of Labour as a result of the depopulation of cities and the growth of suburbs, which apparently has the effect of moving Labour voters into more efficient locations. In the last two elections, Labour's vote concentration has fallen precipitously, while that of the Conservatives has been slowly climbing since the 1970s (see Figure 1). Labour has also seems to have been quite successful in lobbying for favorable reapportionments. Moreover, as discussed below, Labour has moved its policy platform to the right in order to win marginal districts. In any case, one should not read too much into swings caused by landslides associated with discredited incumbents. For most of the post-war period, on average the concentration of the left appears to have facilitated right bias in the translation of votes to seats in the UK. Until very recently, the British left would have apparently fared better under nationwide proportional representation.

Among the four countries under analysis, next consider France, the other country with single-member plurality districts.

[FIGURE 7 HERE]

In Figure 7, the difference between the geographic concentration of the (combined) left and (combined) right are displayed in red, showing that support for the left was more concentrated than that of the right for all elections but three. The blue line follows the bias in favor of the right in translating votes to seats, defined in the same way as above (but divided by 10 to facilitate comparison), showing that the vote-seat curve is more favorable to the right in all but three elections since 1958. Although the correspondence is not as clear as in Britain (simple correlation = .54),[12] it appears that the relative geographic concentration of the left is an important part of the reason for its disadvantageous position in the translation of votes to seats.

In contrast to these cases, Italy's highly proportional system of PR (until 1992) displayed virtually no vote-seat disproportionality in spite of its large differences in the geographic

[11] This is a flawed measure that is unduly affected by landslides. I am in the process of using district-level data to construct measures, following Grofman and Brunell (1997) Brookes (1959), Johnston (2002), and Gelman and King (1994) that capture the extent of bias in the hypothetical case that both major parties receive identical vote shares.

[12] Keep in mind that the AGC is imprecise because of the use of Department-level rather than district-level data.

concentration of the right and left. (A graph like Figure 6 or 7 merely shows a flat "bias" line at zero).

Finally, consider the natural experiment offered by the German electoral system. Its voters complete two ballots—one for a candidate in a single-member district, and another for a party-list. All of the winners of single-member constituencies go to the legislature, and the remainder of the seats are filled from the state-level party lists in order to achieve proportionality. In the end, this assures that disproportionality in the translation of votes to seats is very small as in Italy. Yet by looking at the single-member district results, it is possible to envision an alternative world in which the German legislature was filled through a British-style SMP system.

[FIGURE 8 HERE]

Figure 8 suggests that such a system would have given the CDU and CSU a sizable advantage in most elections. Averaging over all elections since 1953, the Union parties won 48 percent of the seats while winning 62 percent of the constituencies, while the SPD won 39 percent of the seats while winning only 37 percent of the constituencies. The natural experiment is not perfect, however, because one does not know if voters would have cast their district votes in the same way under pure SMP.[13] On the whole, however, it is difficult to escape the conclusion that PR has benefited the SPD because of its geographically concentrated support base. Future work will allow me to exploit cross-section variation in electoral rules and districting between the Länder.[14]

The next step is to examine whether this emerging story about geographic concentration and wasted votes for the left can be generalized. The best strategy is to collect district-level election data going back as far as possible for a large number of countries, along with the geographic concentration index, and calculate the extent to which the left must "waste" more votes than the right (or vice versa).

The district-level data collection will take some time, but in the short term it is possible to do some potentially illuminating though flawed cross-national analysis using aggregate national data. First, a way to examine bias in the translation of votes to seats 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. One problem with this approach is that virtually all countries except the United States have more than two important parties. In most cases these can be easily coded as left or right (e.g. the National Party in Australia, the NDP in Canada), but in some cases they cannot (centrist parties like the Liberals in Germany or UK or the Center Democrats in Spain).

[13] This is not a very important concern. In fact the continued existence of the Greens and FDP would be highly unlikely without the second ballot, and Duverger's law works well—the smaller parties receive very few votes in the constituencies.

[14] For instance, Nordrhein-Westfallen 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.

Using a variety of sources, I have attempted to classify parties as left, right, or center. I then sum the votes and seats received by each grouping and estimate vote-seat regressions for each grouping. In some two- or three- party systems it is useful to compare individual parties, but in most cases I compare party groupings.

Figure 9 provides individual graphs for each country with single-member districts (including Japan, which has relatively small districts), and for a point of reference, a graph for the classic PR case: the Netherlands.[15]

[FIGURE 9 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 to note that in every single non-PR country save the United States, this bias favors the party of the right. For instance, in order to win 50 percent of the seats, the British Conservatives must win 43 percent of the vote on average, while Labour must win 45 percent. In Australia, in order to gain 50 percent of the seats in the lower chamber of parliament, the Liberals need only 41 percent of the vote, while Labour needs 48 percent. Prior to changing the electoral law, the National Party in New Zealand could win an election with 42 percent of the votes, while Labour needed 47. The gap is also large in France. Smaller but still discernable gaps are found in Canada[16] and Japan.

I know of no other empirical study indicating such an advantage for the right in the translation of votes to seats.

However, the sizes of these gaps leave something to be desired as a cross-national measure of bias. Above all, though the signs are quite robust, the magnitude of the bias can in some cases be affected by the way in which I deal with centrist parties. Moreover, in some countries with a socialist-communist split, the left is more fragmented than the right, and the vote-seat curve might reflect the fact that votes are "wasted" for reasons other than political geography.[17]

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[15] I sum left and right parties in all cases here except the USA and UK. Note, however, that these graphs look quite similar if I use only the National vs. Labour party in New Zealand, the Liberals vs. Labour in Australia, the Liberals versus Conservatives in Canada, and the LDP vs. Socialists in Japan.

[16] In Canada the right bias is huge if one only classifies the CCF-NDP as "left." The bias is much smaller if one compares the combined vote of the Liberals and NDP with the Conservatives, and smaller yet if one ignores the NDP and merely compares the Liberals with the Conservatives.

[17] For instance, in Canada the NDP suffers because it is often a third-place finisher that must compete with a left-center party.

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 center of gravity 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 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 includes both measures. Unfortunately the two are only correlated at .51, though in general they tell similar stories. 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.

Perhaps a better way to see the relationship is to examine the full range of variation in district magnitude, since some countries (like Japan and Ireland) use small multi-member districts.

[FIGURE 10 HERE]

Figure 10 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). It appears that countries with small districts display, on average, greater bias in favor of the right.

Malapportionment

Yet wasted votes 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 manipulation or "gerrymandering" of district boundaries. And malapportionment—a deviation from the principle of "one person, one vote"—is still possible even in systems using proportional representation without a national upper tier. Table 1 reveals considerable disproportionality in the translation of votes to seats even in some PR systems like Spain, Norway, Greece, and Switzerland.

There are no reasons to expect that either the left or the right will be more predisposed to engage in gerrymandering or that one or the other is more likely to succeed. Indeed, from

modern Australia to interwar Britain, Massachusetts to Texas, evidence abounds that the right and left have both attempted to manipulate district boundaries in their favor.

Yet a more subtle form of malapportionment emerges naturally as an outgrowth of industrialization. Throughout the 20th century, population is flowing steadily to urban areas, and censuses and reapportionment take 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, casual observation suggests that 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 19th 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 extended. Thus a reasonable strategy for the elites was to create legislative institutions to over-represent 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.

Thus malapportionment, to the extent that it favors conservative areas, might create further bias in favor of the right when contrasted with pure PR. As demonstrated above, though there are a number of exceptions (mainly in Scandinavia), rural areas are often more conservative. Much better data collection will be required in order to distinguish between rural and non-rural over-representation and to capture the ideological leanings of over-represented areas. In many countries, apportionment merely creates bias in favor of the party in power during the last reapportionment. This is clearly the case in the United

States legislature, and I am finding strong evidence of this among the German single-member constituencies. In other cases, one simply must understand some facts about the local context, as in Britain, where a 1945 law still over-represents Scotland.[18]

Though it does not address the urban-rural issue, 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.

A malapportionment index alone, though, without some indicator of who is over-represented, is not very meaningful. In fact, it appears that malapportionment in Norway favors the left. Until better disaggregate data are collected, however, Figure 11 must suffice: 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.

[FIGURE 11 HERE]

In spite of the weaknesses of this approach, the relationship is intuitive and encourages more refined analysis. 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.

In addition to cross-national analysis, perhaps a better way of assessing the relationship between the urban concentration of the left, apportionment, and representation is to examine natural experiments where the same people are represented through different aggregation mechanisms (as with the German mixed electoral system discussed above). Further examples include executive versus legislative elections, federal versus state and local elections, and bicameralism. Thus the United States is an ideal laboratory. For instance, the malapportioned upper chamber is significantly to the right of the "one person one vote" lower chamber. Tim Groseclose has created adjusted ADA scores (comparable over time and across chambers) for individual members of both bodies from 1945 to the present. For virtually every year, the average ADA score for the Senate is significantly to the right of the house. There is no systematic evidence that individual state Senate delegations are to the right of their House counterparts, so the difference is driven by apportionment. In fact, if the ADA scores of individual senators are weighted by their states' populations, the average for the entire body shifts significantly to the left.

[18] Since Scotland is a Labour stronghold, in this case malapportionment partially offsets the "wasted votes" effect described above.

Party Positions

If wasted votes and malapportionment plague the left more than the right in industrialized, urbanized societies, this can have lasting effects other than frustration among leftists. One possibility is that the left, if it keeps the platforms favored by its concentrated urban support base, is less likely to form legislative majorities and control the executive under SMP than under PR. This would happen if party platforms were determined by urban legislative incumbents who put their own self-interest above that of the party. Though there are other plausible explanations, the left has controlled the executive less frequently in OECD countries with SMP than those with PR in the postwar period.

But it is naïve to expect that the left under SMP will simply cater to its urban core constituents and continue to lose elections. If it can overcome its own internal coordination problem and delegate platform decisions to strategists, the mainstream party of the left in SMP systems learns that it must cater to voters in marginal districts, which involves moderating its policy positions and moving further from the urban median voter.

If ideological positions are skewed to the left in the densely-populated urban industrial core and closer to a normal, if slightly right-skewed distribution elsewhere, the optimal strategy for a labor or social democratic party would be quite different under highly proportional nationwide PR than under SMP. When there is something like a single national district with perfect apportionment, as in the Netherlands, in a simple Downsian framework the parties would converge on the national median voter.

Following Persson & Tabellini and others who attempt to model incentives in plurality systems, under SMP the parties would converge on the median voter in the pivotal district. If the central-city districts are sufficiently left-skewed relative to the rest of the country, and these districts make up a sizeable but not overwhelming share of all districts, one can envision a range of realistic scenarios in which the median voter in the pivotal (median) district is to the right of the national median voter.[19]

[FIGURE 12 HERE]

Figure 12 provides a hypothetical example of the distribution of ideal points on a four point scale from a country with 50 voters, divided into five single-member districts of 10 voters each. The median voter in each of the urban districts prefers a left-of center policy of 2, while the median voter in two suburban districts and the rural district prefers 3. Thus the pivotal district prefers the policy 3, but the national median voter prefers 2. If

[19] I am struggling to find an empirical technique for addressing this. Surveys provide insufficient observations at the district level to get a mapping of preference distributions within districts. One possibility is to use the World Values Survey or CSES and contrast the urban median on the issue dimensions discussed above with the non-urban median and the national median. As can be visualized in Figure 5 above, in many OECD countries the non-urban median is to the right of the national median voter. If one accepts the notion that urban districts are never pivotal in systems with small districts, this would imply that the median voter in the pivotal (non-urban) district is to the right of the national median.

parties set platforms simply to maximize seats, they would converge on policy 2 under nationwide PR, but policy 3 under single-member districts.

This effect would merely be amplified if the rural right-skewed periphery were over-represented. Thus relative to PR, to the extent that parties must stake out consistent national positions,[20] plurality elections with small districts should pull the party platforms of the left rightward toward the median voter in the pivotal district. The platform of a continental European-style social democratic party, while perhaps attractive to voters in Washington, DC or London, would be too far from the median voter in their surrounding suburbs. By the same token, relative to SMP, the parties of the right in PR systems will be pulled leftward toward the national median voter.

Think once again of the German natural experiment described above. The CDU has been dominant in rural and suburban single-member constituencies, and could have ignored urban voters altogether without the need to win list votes on the second ballot. Proportional representation has forced it to appropriate much of the SPD's welfare state agenda, placing it well to the left of the mainstream "left" parties in the United States, Britain, and Australia.

This logic suggests the proposition that in the long-run, if two countries have similarly pronounced relative left-wing concentration in cities and are otherwise similar except for electoral rules, the major parties in the country using plurality electoral rules with small districts will develop policy positions that are to the right of the similar parties in the PR system due to their weaker incentives to cater to urban constituents. Though this proposition is consistent with casual empiricism, it is almost impossible to prove. Cross-national comparisons of party positions are extremely difficult to make, and there are many variables driving cross-country differences in party positions that defy measurement.

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

[20] This is an important stipulation, especially when the executive and legislature are elected separately. In the United States, for instance, party labels in legislative elections are only meaningful within but not across districts, since rural Democrats are free to adopt positions to the right of urban Republicans.

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.

Perhaps the best approach is to examine whether party platforms have shifted with changes between SMD and PR in France and New Zealand. The United States, with its fluidity of party platforms across levels of government and elections, may also provide for some natural experiments. For example, gubernatorial elections are akin to statewide PR, while legislative elections rely on SMD for the same population. Thus in states with sufficiently left-skewed cities, gubernatorial candidates should espouse platforms that are to the left of legislative candidates.

III. Is there an impact on policy?

If the left is more concentrated than the right and the potential for vote-seat bias or malapportionment influence 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. For example, Ansolabehere and Snyder (2003) find that in the U.S. state legislatures where rural voters were clearly to the right of urban voters—mainly the Northeast and Midwest—the change to "one person-one vote" associated with the Baker v. Carr decision was associated with significant changes in representation and ultimately policy. 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 and/or similar levels of

concentration of ideological positions throughout the country, this perspective would lead to the hypothesis that expenditure projects are evenly spread throughout the country.[21] When the left is highly concentrated under SMP, however, one would expect that cities receive less per capita than the rest of the country. The selection of countries for this analysis will have to await further analysis of survey data and district-level data on the concentration of the left.

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.

[21] An interesting possibility suggested by the kernel densities above, however, is that non-urban areas are favored even under PR if they contain higher densities of ideologically neutral voters.

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, urban voters have typically had stronger preferences for public goods and redistribution than rural 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 SMP. 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 (mainly Scandinavia), 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 SMP, perhaps aided by malapportionment, 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 13, 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 13 AND 14 HERE]

It is also interesting to note that the malapportionment variable is correlated with social expenditures in the OECD, as demonstrated in Figure 14. Note that Figure 14 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. 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.

[FIGURE 15 HERE]

Again, much work lies ahead, but as demonstrated in Figure 15, 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.

Note the concentration of federations in the southeast corners of both Figures 14 and 15. There is a well-established 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 legislature may be an important part of the story. Various indicators of federalism lose their significance in cross-country regressions when the 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.[22]

Next, model 3 adds the malapportionment variable (two-chamber average) to the baseline model. As suggested by Figure 15, 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).[23] Again, it appears that institutions suppressing 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.

[FIGURE 16 HERE]

[22] Note that a similar result can be obtained using a continuous district magnitude variable.
[23] The mean for this variable is .08 and the median is .05.

Figure 16 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 SMP 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.

IV. Conclusions

In many countries, urban voters place themselves to the left of rural 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, and where progressive, cosmopolitan social and moral values have taken hold. 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 PR than in countries using SMP, 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: UK, adjusted geographic concentration indexes for the combined right and combined left

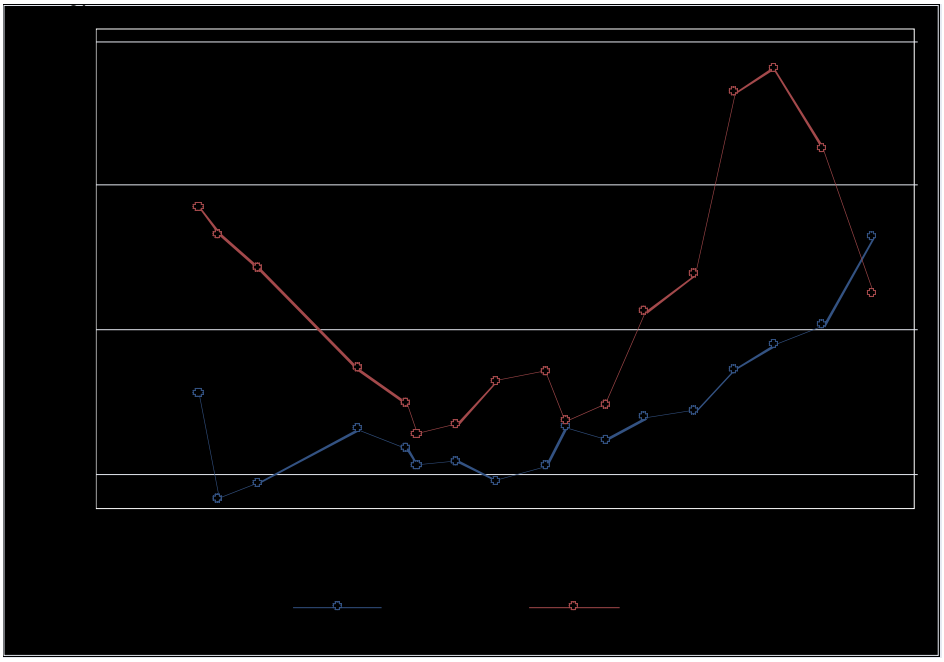

Figure 2: Germany, adjusted geographic concentration indexes for the combined left and combined right

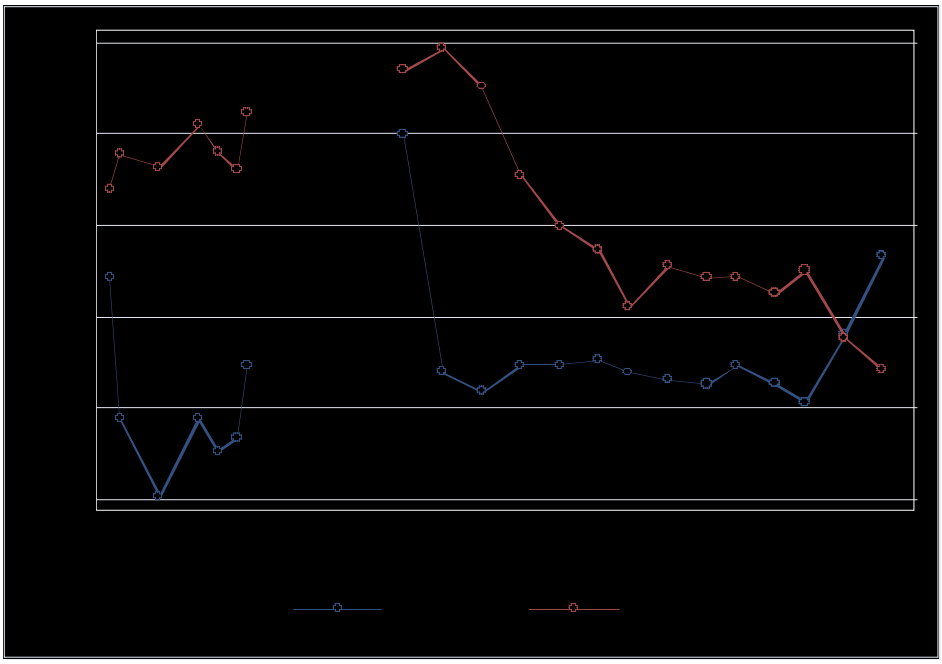

Figure 3: France, adjusted geographic concentration indexes for the combined left and combined right

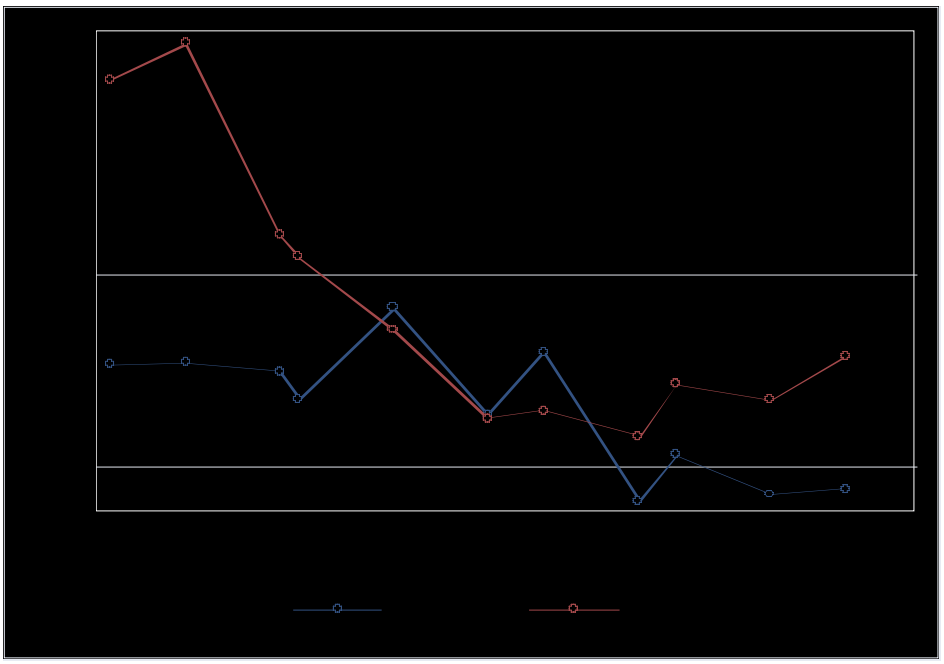

Figure 4: Italy, adjusted geographic concentration indexes for the combined left and combined right