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CONGRESSIONAL DISTRIBUTIVE POLITICS AND STATE ECONOMIC PERFORMANCE

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ABSTRACT

This paper tests several theories of the effects of congressional representation on state economic growth. States that were represented by very senior Democratic congressmen grew more quickly during the 1953-1990 period than states that were represented by more junior congressional delegations. We find some, but weaker, evidence that states with a high fraction of their delegation on particularly influential committees also exhibit above-average growth. We also test partisan models of distributive politics by studying the relationship between a state's degree of political competition and its growth rate. Our findings support both nonpartisan and partisan models of congressional distributive politics. In spite of our findings with respect to economic growth, we can not detect any substantively important association between congressional delegation seniority, the degree of state political competition, and the geographic distribution of federal funds. The source of the growth relationships we identify therefore remains an open question.

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Roberts (1990) found that when Senator Henry "Scoop" Jackson, the ranking Democrat on the Senate Armed Services Committee, died unexpectedly in September 1983, the stock market values of defense contractors based in his home state of Washington declined. The share prices of contractors based in Georgia, the home state of the next-most-senior Democratic Senator on the committee, Sam Nunn, increased. When Senator George Mitchell of Maine announced his plan to retire from the Senate at the end of his current term, the New York Times reported that "the most agonizing part of his decision ... was recognizing that his position enabled him to help his home state in ways that a freshman taking his place could not." (March 6, 1994, p.11)

This "event study" and testimonial evidence is only a small part of a vast empirical literature that has examined the link between Congressional representation and the distribution of government-controlled economic benefits. There is ample anecdotal evidence that some senior congressmen have represented districts with disproportionate shares of some types of federal spending. Pearson and Anderson (1968) provide a particularly compelling account of former congressman Mendel Rivers ("Rivers Delivers") of South Carolina, who chaired the House Armed Services Committee, and his efforts to channel military spending to his district. Yet systematic empirical studies of committee membership and the distribution of spending, such as Goss (1972), Ray (1980, 1981), Ritt (1976), Rundquist (1978), and Rundquist and Griffiths (1976), or congressional seniority and the distribution of spending, such as Greene and Munley (1980) and Kiel and McKenzie (1983), yield weak evidence on the impact of representation on the distribution of expenditures.

At least three conceptual difficulties plague empirical efforts to link representation and the distribution of policy outcomes. First, representatives from districts with particular interests will be attracted to committees with control over district-relevant issues. Finding that farm state legislators are more likely to serve on the Agriculture Committee, and that their districts receive above-average levels of spending in farm support programs, is hardly evidence of a causal link between committee membership and the allocation of spending. Second, the complex institutional structure of Congress, and the possibility of log-rolling and other types of coalition formation, make it difficult to identify influential members. Senior representatives who are not affiliated with a particular committee may influence legislative outcomes within the committee's jurisdiction by promising actions in other legislative spheres. Finally, recent work such as Kiewiet and McCubbins (1991) and Cox and McCubbins (1993) highlights the role of political parties in Congress, and suggests the rational self-interest of individual legislators may be served by furthering the party's fortunes, even when that comes at some expense to their own district.

Our research differs from previous empirical studies of distributive politics in two important ways. First, we analyze the effects of political institutions on an economic outcome, the growth rate in state per capita personal income, as well as on an intermediate "input," the allocation of federal spending. Our approach recognizes the possibility that legislators affect constituent welfare in many ways besides the direct allocation of federal spending, for example by promoting regulatory and tax policies that are favorable to district interests. One disadvantage of studying overall

economic growth is that congressional structure may account for a relatively small share of its variation across jurisdictions.

A second innovation is our test of whether congressional party objectives affect the distribution of economic growth. We argue that if party members are interested in both their own re-election probabilities and the probability that their party will control a majority of legislative seats, then the collective interest of party members may require channelling higher-than-average resources to districts where the party's electoral majority is least certain. We try to identify these districts, which tend not to be represented by senior congressmen, and then to compare their growth rates to those of "safe" one-party districts. This interpretation of the objectives of congressional parties yields empirical predictions that are distinct from the predictions of models based on the district representative's committee power or seniority alone.

This paper is divided into seven sections. The first summarizes both nonpartisan and partisan models of congressional distributive politics. We focus on three classes of models: those that emphasize congressional seniority per se, those that emphasize membership on particular committees, and those that emphasize the objectives of congressional political parties. Section two describes the data that form the basis for our state-by-state analysis of congressional delegation composition, state political competitiveness, and economic growth In the 1953-1990 period.

The third section presents our empirical results. We find that states with a higher fraction of very senior Democratic representatives in their delegation experience faster per capita income growth than states with less senior delegations. We do not

find such a pattern for senior senators. We find weak evidence that states with members on particularly influential House committees experience more rapid growth. The strongest correlation we find is between states in which the two major political parties are competitive, measured either based on congressional or presidential vote shares, and state economic growth. More competitive states exhibit faster growth. Section four illustrates our empirical results by contrasting actual state growth rates with our estimates of what growth rates would have been assuming that all states had average political characteristics.

The fifth section considers the interpretation of the correlations we observe. We evaluate, and find little support for, the possibility that more rapid economic growth leads to significantly better re-election prospects for incumbent congressmen, hence to more senior delegations or greater representation on key committees. The direction of causality is less clear in the case of political competitiveness. Section six tests the hypothesis that seniority, committee membership, and the degree of political competition affect state growth through the geographic distribution of federal spending. We find no consistent association between spending patterns and the political variables that are correlated with economic growth. Although it is possible the influential representatives affect policies other than spending, such as regulation, that affect economic growth, we do not yet have a convincing interpretation of what explains the correlation between political variables and economic growth. A brief concluding section suggests several directions for further investigation.

1. Distributive Politics and Congressional Institutions

The first set of studies that adopted the rational choice perspective to study Congress maintained that legislators attempt to maximize their chances of re-election by maximizing the policy benefits that they delivered to their constituents.[1] This literature recognized that the amount of influence over particular federal policies varies widely across legislators, as a function of committee position or seniority rank. It did not, however, attempt to explain the origins of such institutions, or to understand the process by which different legislators were assigned to different committees. Nevertheless, it provided the theoretical underpinning for a substantial empirical literature that tested for geographic patterns in the distribution of federal spending, and tried to relate these patterns to congressional committee assignments.

One of the difficulties with this simple analysis of the distribution of economic spoils is explaining how small majorities of congressmen can pursue programs that benefit their constituents at the expense of others. Weingast (1979) developed the notion of "universalism" to explain how some legislation with highly localized benefits, such as rivers and harbors bills, could pass with near-unanimity. Universalism argues that it is in the rational self-interest of all congressmen to participate in a unanimous coalition sponsoring such legislation, rather than to try to be part of a smaller majority with a more narrow distribution of benefits. Universalism suggests a much richer relationship between an individual representative's committee assignment and policy

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[1]Shepsle and Weingast (1994) survey more than two decades of research that applies the rational choice perspective to Congress.

outcomes than the simple models described above, but as Weingast (1994) argues, in practice it has proven difficult to identify and test such relationships.[2]

We test two hypotheses about the role of committees about the allocation of government-controlled economic benefits. The first, which we label the "seniority hypothesis," predicts that more senior legislators, who are more likely to control influential committee posts and other positions of influence in their party leadership, should be able to channel greater economic benefits to their constituents. We distinguish this from a second hypothesis, the "committee hypothesis," which argues that influential committee members, and not senior members per se, should be able to channel benefits to their constituents. The two hypotheses differ because the seniority hypothesis allows for legislative bargaining of the type described in Fiorina (1981), which may enable senior members to achieve favorable policy outcomes, even if they do not serve on key committees with direct policy control.

A substantial body of recent research on Congress has concentrated on explaining its "industrial organization" and providing a positive explanation for particular institutions. Weingast and Marshall (1988) and Krehbiel (1991) illustrate this research program. In addition, a number of studies, such as Cox and McCubbins (1993), Rohde (1991), and Snyder (1993), have called attention to the potential importance of political parties, rather than individual legislators or the set of all legislators in the chamber, as key decision makers. While data on the geographical

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[2]Krehbiel (1991) presents some evidence calling into question the degree to which universalism characterizes the approval of pork-barrel legislation. Other recent attempts to test universalism include Collie (1988) and Stein and Bickers (1993).

distribution of economic benefits may not be able to differentiate positive theories of congressional institutions, such as Gilligan and Krehbiel's (1990) information-based model, from earlier models that viewed committee assignments and committee structure as exogenous, it is possible to test partisan models of distributive politics.

A party's influence on policy is discontinuous in its share of the elected representatives; it increases dramatically if it wins a majority. This can affect the career prospects of individual party members, who are more likely to win re-election if their party is in the majority and consequently has greater control over resource allocation. If legislators in the majority party are concerned with preserving their majority, and if channelling resources to highly-competitive political jurisdictions is more likely to result in winning an extra congressional seat than channelling the same resources to a "safe" district, then legislators may vote to allocate resources to these marginal districts.[3] These districts are unlikely to overlap with the "safe" districts typically represented by very senior congressmen. Partisan distributive politics models therefore predict a different allocation of economic rewards than the nonpartisan distributive politics models described above.

2. Data Construction

This section describes the measures of economic performance, congressional delegation seniority, committee membership, and political competition that form the

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[3]Wright (1974) and Fleck (1993) present empirical evidence that FDR pursued a related form of distribution toward marginal jurisdictions in allocating the benefits of New Deal programs.

basis for our study. We focus on states rather than congressional districts as the geographic unit of analysis for three reasons. First, there is much more detailed information on economic conditions at the state than at the district level. The primary source of economic data on congressional districts, the decennial census, limits the frequency at which we can observe economic conditions. Redistricting also makes it impossible to construct a panel data set on economic conditions in congressional districts.[4] Second, some of the benefits from a powerful legislator may "spill over" to adjacent districts. This would translate into benefits for state economic performance that are not captured at the district level. Finally, testing the influence of senators, who represent entire states, requires use of state-level data.

2.1 State Economic Growth

Our primary measure of state economic performance is the growth rate of state per capita personal income. Although growth has not been used in previous studies of congressional distributive politics, the link between political institutions and economic growth has attracted attention, notably from Olson (1982) and Gray and Lowery (1988). We consider growth rates rather than the level of per capita income because levels may be affected by many state-specific factors, such as natural resource endowment or historical industrial composition, that are not subject to

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[4]If a congressman boosts economic activity, this may attract new residents to his district, and lead to a subsequent change in the district boundaries. This raises the possibility of non-randomness in the set of congressional districts with constant boundaries across redistricting years.

legislative control.[5] We focus on income rather than an obvious alternative, employment, because income better captures the value of the economic activity taking place in a state. One limitation of personal income is that it is gross of taxes paid to federal, state, and local governments. We have replicated our analysis using disposable income, which is net of taxes, with results very similar to those reported below.

Figure 2.1 presents state growth rates during our sample period. The average rate of growth in real per capita personal income between 1949 and 1990 is 2.1%. The standard deviation of this growth rate, computed across all states and years, is 3.7%. The figure shows the substantial divergence in growth rates across states, as well as the broad regional patterns in growth rates. States in the South and the Northeast grew most quickly during this period, while states in the Midwest and North Central regions grew slowest. There is substantial variation over time in relative state growth rates. States in the South experienced the most rapid growth in the first half of the sample period, while states in the Northeast grew quickly in the later years. The Midwest and North Central regions of the country experienced slower growth in both periods.

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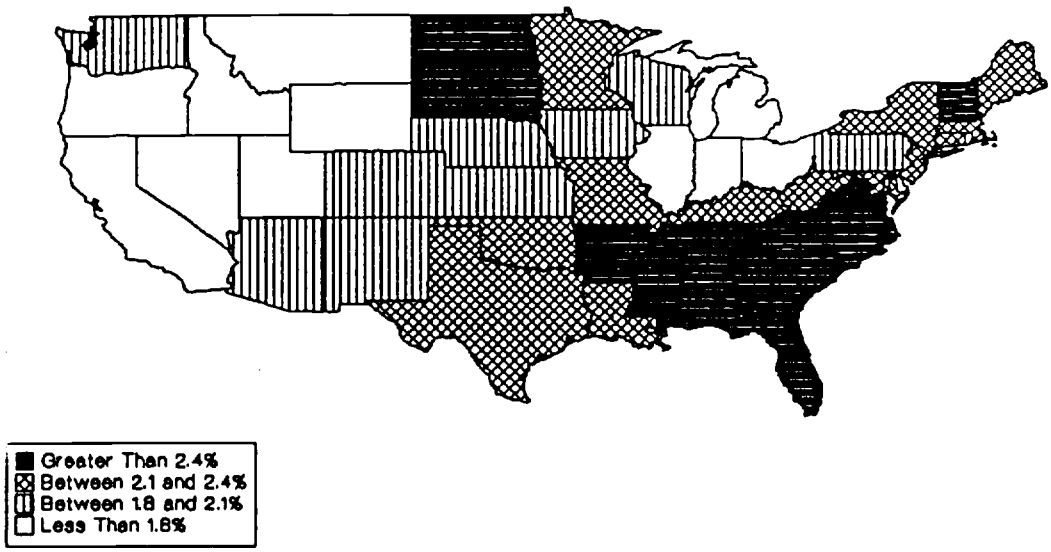
[5]Per capita income controls for interstate population movements that could shift the aggregate level of output in a state. Normalizing by population does, however, mean that if a successful legislator brings resources to his district, and these resources attract migrants who bid down per capita income, we will understate his positive effects on economic activity. We discuss this issue further below.

Figure 2.1: State Average Growth Rates, 1953 -1990
Real Per Capita Personal Income



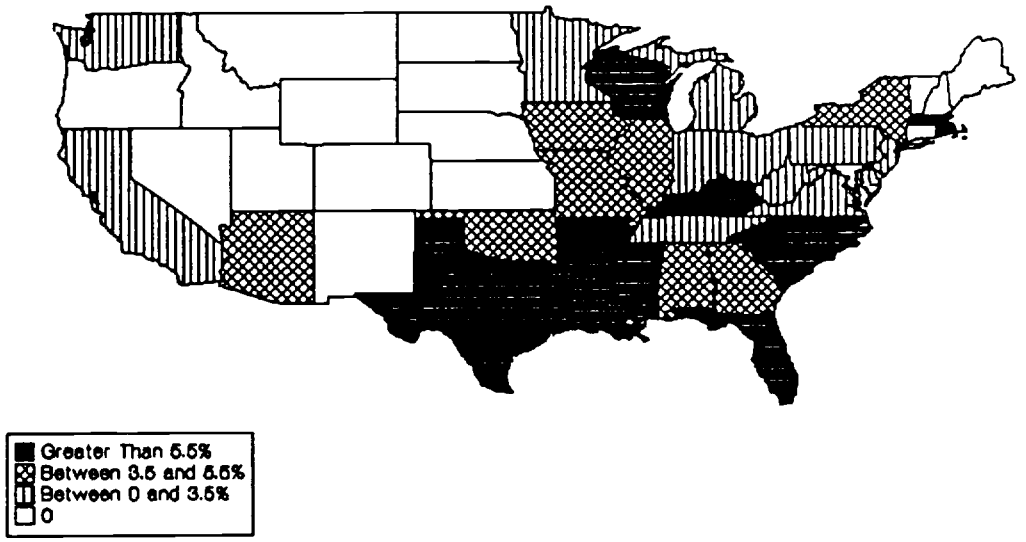
2.2 Congressional Delegation Seniority and Committee Membership

We develop two sets of measures of the potential influence of a legislator on growth. The first set is derived from data on congressional seniority, the second set from information on committee assigments and committee ranks. We employ a semi-parametric estimation approach that imposes minimal restrictions on the relationship between these variables and economic growth. We assign each member of the House of Representatives (Senate) to one of eleven (seven) seniority categories. For the House, we define six categories for Democrats and five for Republicans because there were an average of 81 more Democratic than Republican representatives during our sample period. Our categories correspond to the top twenty members of each party,

ranked by seniority, those ranked twenty-one to sixty, sixty-one to one-hundred, etc. We then construct eleven summary statistics for the seniority of each state's congressional delegation in each year, corresponding to the fraction of the state's representatives in each category. For the Senate, we follow an analogous procedure, defining four categories for Democrats and three for Republicans.

Figure 2.2 shows the average distribution of the 20 most senior House

Figure 2.2: Concentration of Top 20 Senior Democrats
Percent of Delegation, 1953-1990

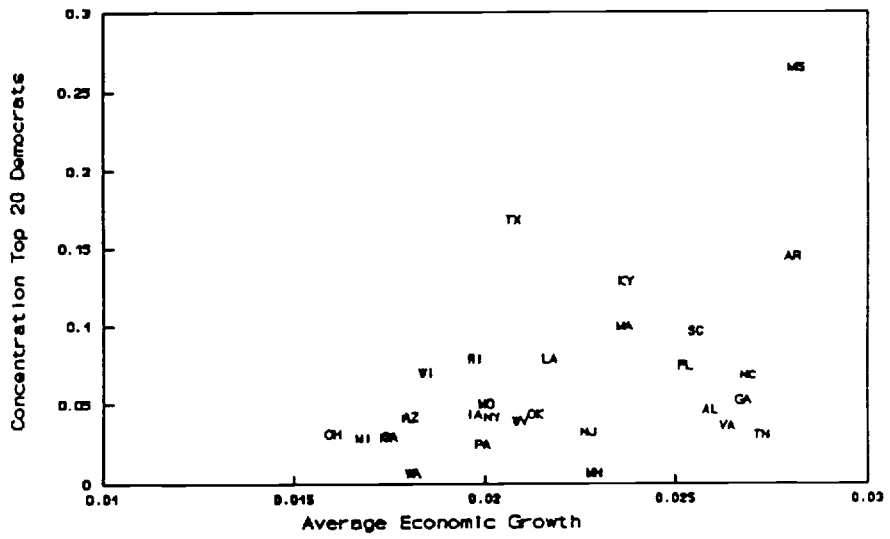


Democrats across state congressional delegations. The states with the highest average seniority are concentrated in the South. Mississippi's delegation is the most senior on average, with over one quarter of its members in the most senior twenty.

The next highest state, Texas, averages 17% of its congressmen in the top 20. In the early part of our sample period, the disparities between Southern and other states were even more dramatic than the sample averages suggest. Six states, Alabama, Arkansas, Georgia, Louisiana, Mississippi, and Texas, held 38% of the top 20 positions in the first half of our sample, compared with 22% in the second half. A higher fraction of the senior House Democrats represent Northern districts during the second half of the sample.

Figure 2.3 plots the average growth rate of state per capita income over the

Figure 2.3: Average Economic Growth and Concentration of Senior Democrats, 1953 - 1990



1953-1990 period against the average fraction of the state's House delegation among the twenty most senior Democrats. The figure shows a strong positive association

between these variables ($\rho = .42$). Mississippi, the state with the most senior Congressional delegation, also exhibits one of the highest state growth rates. Even excluding Mississippi, the figure shows a strong positive correlation between average seniority and growth ($\rho = .41$).[6]

We also compute measures of congressional influence based on committee assignments and committee rank in the House. We focus on five particularly influential committees, Agriculture, Appropriations, Armed Services, Public Works, and Ways and Means. We compute the fraction of the members of each state's House delegation on these committees, and also calculate the fraction of the delegation members who are chairs, or ranking minority members, on these five committees. The pattern of membership on, and chairmanship of, influential committees in the House is similar to the pattern of seniority. Focusing on state averages for our sample period, the correlation between top twenty Democrats and committee chairs is .59, and the correlation between top twenty Democrats and membership on the key committees is .30.

These measures of committee influence, while similar to those in many previous empirical studies of distributive politics, suffer from two potentially serious limitations. First, they require a somewhat arbitrary determination of which committees are

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[6]This discussion of average state seniority is a somewhat misleading guide to our subsequent empirical analysis. Many of our equations include state fixed effects, which control for any association between average state growth rates and average delegation composition.

included in the influential set.[7] While it is widely accepted that committee assignments, chairmanships, and positions in the party leadership affect a representative's influence, it is difficult to evaluate the position of any individual representative. Our nonparametric seniority measures, in contrast, recognize that senior congressmen have some latitude in choosing their committee positions. Secondly, a congressman's preferences for a committee assignment are affected by the particular needs and circumstances of his district.[8] To the extent that systematic differences in preferences for committee assignment are correlated with the district growth potential, correlations between growth and committee membership may be spurious.

2.3 Indicators of State Political Competition

In addition to the foregoing measures of congressional delegation competition, we also construct two measures of the degree of political competition in each state, as proxies for the partisan incentive to channel resources to the state. We then relate these measures to state economic growth. The first is the absolute value of the

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[7]The set of influential committees can also vary over time. The House Ways and Means Committee was probably more powerful before 1974 than after that year's House reforms, when some of its functions were shifted to the Steering and Policy Committee.

[8]Shepsle (1978) and Smith and Deering (1984) find that perceived constituent interests are the the strongest determinants of committee requests by newly-elected members of the House. Krehbiel (1990, 1991) presents evidence on the relationship between the preferences of committee members and other members of the House, and argues that the ultimate allocation of members to committees does not lead those with high-demand jurisdictions to occupy committee places.

difference between the state vote for the Democratic presidential candidate and the national average vote for that candidate in the last presidential election.[9] A state with a vote outcome that precisely equalled the national vote would be highly competitive, while one with an extreme vote share for either party would be less competitive.

Our second measure is based on House of Representatives vote outcomes. We define competitive districts as those in which one party received less than 60 percent of the votes cast. We further subdivide districts by whether Democrats or Republicans are the majority party. We therefore compute two variables to measure political competition: the fraction of a state's districts with Democratic vote shares between 40 and 49 percent, and the fraction with vote shares between 50 and 60 percent. The correlation between the 50-60 percent variable and our measure of political competition based on presidential vote shares, -.17, is actually quite low, suggesting that these two variables capture distinct aspects of political competition.

3. Political Influences on State Growth Rates

We relate per capita personal income growth in state i in year t ($\Delta \ln y_{it}$) to a set of state and time effects as well as variables for congressional delegation seniority (which we refer to generically as SENIORITY), congressional committee influence (COMMITTEE), and state political competition (COMPETITION). Our basic estimating

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[9]Due to uncertainty over how to classify the Wallace vote in the 1968 election, we omit the years 1969-1972 from all regressions including our political competitiveness variables.

equation is:

$$(3.1) \qquad \Delta \ln y_{it} = \delta_i + \eta_t + \beta^* \ln y_{i,t-1} + \Sigma_j \alpha_j^* \text{SENIORITY}_{jit} + \Sigma_j \gamma_j^* \text{COMMITTEE}_{jit} + \Sigma_j \theta_j^* \text{COMPETITION}_{jit} + \epsilon_{it}.$$

We estimate this model with and without state effects (δ_i), but always include year effects (η_t) to capture aggregate changes over time in national economic growth. This specification assumes that a senior congressman, or a representative on a given committee, can deliver an increment to his district's growth rate in each year.[10]

Our rationale for including state fixed effects is to capture unobserved factors that differ across states but may affect observed economic growth. In many equations we also include the lagged value of state per capita income, following the recent "convergence" literature such as Barro and Sala-i-Martin (1992). This literature models economic growth as a function of initial conditions, such as state education levels and natural resource endowments, which are subsumed in our state fixed effects.

The year-to-year variability of real income growth differs dramatically across states as a result of differences in industrial composition and other factors. For example, the variance of North Dakota's annual growth rate is more than twenty-five times greater than that of New York. Our estimation procedure therefore allows for

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[10]An example can illustrate this. Consider a one-representative state, with its lone representative in the most senior group of Democrats. Then DEM1-20 will equal 1.0, and the effect on state per capita income growth will be α_1. If a state has ten representatives, and one is in the most senior group, his effect on state per capita income growth will be $\alpha_1/10$. The value of DEM1-20 for a state with one such representative would be .10, which still satisfies the relationship $d(\Delta \ln y)/d(\text{DEM1-20}) = \alpha_1$.

heteroscedasticity in ϵ_{it} of the form $V(\epsilon_{it}) = \sigma_i^2$. We estimate this model using a feasible generalized least squares procedure. All of our analysis focuses on the 48 continental states.

3.1 Full Sample Results

We begin our empirical analysis by studying the relationship between economic growth and our nonparametric seniority variables, and then introduce measures of committee membership and state political competition to the estimating equation. Table 3.1 reports estimates of equation (3.1) constraining $\gamma_j = \theta_j = 0$ for all j, but including all of the seniority variables for both the House of Representatives and the Senate. The table presents three specifications. The first excludes the lagged state income term. The second includes this variable, and the third includes this variable as well as state effects that allow average per capita income growth rates to differ across states.

The coefficient estimates in the first column of Table 3.1 confirm the visual evidence of Figure 2.3: states with a higher share of very senior Democratic congressmen grow faster than other states. The difference between the growth rate of a state with only top 20 Democrats in its delegation, and a state with a House delegation that is comprised entirely of Republicans with seniority below 140, is 2.4% per year.[11] Shifting one representative in a delegation of ten from the junior

[11]Republican representatives with seniority below 140 are the "excluded group" in our set of seniority variables for the House.

Republican to the senior Democrat group, slightly more than a one standard deviation change in the "Democrats 1-20" variable, would be correlated with a one quarter of one percentage point increase in the state growth rate. The estimated effect of representation by senior Democrats is attenuated when we include lagged state income in the growth rate specification, as in the second column of Table 3.1, but it remains statistically significant.[12]

One obvious objection to these findings is that they are solely attributable to a "South effect." During our sample period, Southern states were on average represented by more senior delegations in Congress, and these states grew faster than the nation as a whole. Adding state fixed effects to the specification, as in the third column of Table 3.1, clearly rejects this explanation of our findings. By allowing separate intercept terms for each state, we control for the possibility that some states have faster-than-average growth rates during this period. The coefficients on the seniority variables are now identified only from within state, over time variation in state growth and congressional delegation seniority.[9]

Figure 3.1 plots the estimated coefficients on the seniority variables from the model in the third column in Table 3.1, along with their one standard error bands.

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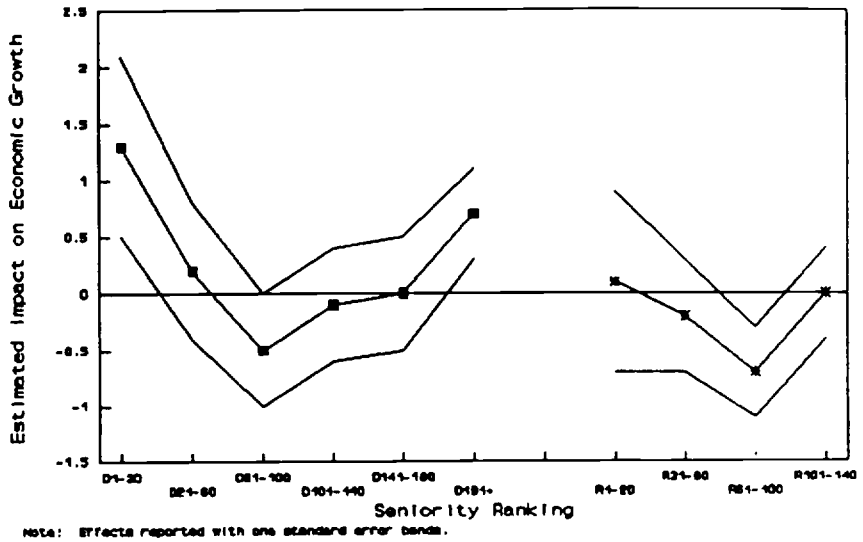
[12]We could not reject the null hypothesis of serial indepedence of the errors in models with lagged state per capita income.

[9]The null hypothesis that the coefficients on the state fixed effects are zero is rejected at standard confidence levels. We have also estimated Model 3 excluding the Southern states. The estimated coefficients on the seniority variables are slightly larger, and differ from zero at higher levels of statistical confidence, than those for the entire sample.

Figure 3.1: Effects of Seniority on Economic Growth, 1953 - 1990



These estimates, and those from the other models, suggest that states represented by very senior Democrats have the highest growth rates. Through the middle ranks of seniority for Democrats, growth declines steadily. The most junior Democrats, however, fare better than some of their more senior colleagues. Since states represented by junior Democrats are likely to be more politically competitive than jurisdictions with more senior Democratic representatives, this pattern provides some support for the role of parties in Congress in distributing economic benefits toward marginal districts. We explore this question further below.

There is no evidence that states with senior, or junior, Republican

representatives grow faster than other states. An F-test for the joint statistical significance of all of the coefficients for Republican representatives does not allow us to reject the null hypothesis that all of these coefficients are zero. Similarly, we cannot reject the hypothesis that all of the coefficients on the Senate seniority variables are jointly zero.

The estimates in Table 3.1 suggest that lagged per capita income is an important predictor of state growth rates. Including lagged income does not affect the estimated pattern or statistical significance of the coefficients on the seniority variables, however. Inclusion of state fixed effects does significantly affect the coefficient on the lagged income term, increasing the apparent rate of convergence.

We have also explored the correlation between growth rates and lagged as well as contemporaneous seniority. We find some evidence that the greatest effect of seniority on growth occurs when a congressman first becomes senior, and that a state that was, but is no longer, represented by a senior delegation may grow slower than the average state. The net effect of a senior delegation, adding together both current and future growth rate effects, is nevertheless similar to that in our reported equations that focus only on contemporaneous seniority.

In light of our finding that Senate seniority in either party, and House Republican seniority, do not have any substantial explanatory power for state growth, we exclude these variables from all subsequent equations that we estimate. Since our results suggest that the most important effects of Democratic House seniority are concentrated among the very senior and very junior representatives, we retain only

these variables when we expand our specification to allow for committee and partisan competition effects. We have, however, estimated our expanded models with a full set of seniority variables; none of the reported coefficients are substantially affected.

To test the hypothesis that membership on key congressional committees affects state growth, we include the COMMITTEE variables as well as the reduced set of SENIORITY variables in regression equations for state per capita income growth. This equation, which is reported in the first column of Table 3.2, provides mixed evidence of committee effects. The null hypothesis that all committee variables have zero coefficients can be rejected at the .10, but not the .05, confidence level. Public Works is the only committee membership that exhibits a strong positive correlation with economic growth. The estimated coefficient, .011, implies that if we compare two otherwise identical states with ten members of the House, one with one member on Public Works, the other with two, the latter state would be predicted to grow 0.1% faster each year. This finding is consistent with Ferejohn's (1974) result that there is some geographical bias in public infrastructure spending toward the districts of Public Works committee members, although it could also be the result of self-selection onto the committee by representatives from districts with high expected growth and hence high infrastructure spending needs.

The equation in the second column of Table 3.2 includes the reduced set of SENIORITY variables as well as the two variables that measure a state's political competitiveness on the basis of its share of single-part House seats. These two variables, particularly the fraction of House seats that were won by a Democrat with

between 50 and 59% of the vote, are correlated with state growth rates. For a state with ten congressional districts, the estimates imply that a switch of one seat from being a safe Democratic or Republican seat to being a marginal Democratic seat is correlated with a 0.06% per year increase in the state's growth rate. Because the fraction of marginal Democratic districts varies substantially across states, with a standard deviation of 0.244, the estimated competitiveness effect can explain substantial differences in growth rates across states. The point estimates suggest a larger positive growth effect in "politically marginal" districts that are controlled by Democrats than in those controlled by Republicans.

The third column of Table 3.2 reports estimates of an equation that includes our alternative measure of state political competitiveness based on the Democratic share of the votes in the last presidential election.[10] This variable also exhibits a statistically significant coefficient in the state growth equation. The estimated coefficient, -0.24, indicates that each five percentage points by which the Democratic candidate's vote share in the state deviates from the national average, roughly a one standard deviation change in this variable, is correlated with a decline of 0.01% per year in the state's growth rate.

Finally, the last column of Table 3.2 shows the effect of including the limited set of SENIORITY variables, the COMMITTEE variables, as well as both sets of COMPETITION variables in a single equation. The estimated coefficients are very

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[10]This variable restricts the effect of deviations from the national average vote for president to be the same regardless of whether a state's vote is skewed toward Democrats or Republicans. We could not reject this assumption.

similar to those in the earlier equations that focus on only subsets of these variables. Including the COMPETITION and COMMITTEE variables has very little effect on the estimated effect of very senior House Democrats. As partisan models of congressional distributive politics predict, these variables do attenuate the estimated effect of low seniority Democratic congressmen on state growth. The coefficient on the DEM181+ variable, which is estimated at .008 (.002) in a model with COMMITTEE but without COMPETITION variables, delines to .005 (.003) when the COMPETITION variables are included. Including both sets of political competitiveness variables weakens, but does not eliminate, the effect of the presidential vote variable. The coefficients on the competition variables defined on the basis of congressional district votes are virtually unaffected by including the presidential vote variable.

One potential difficulty with our focus on per capita income is that it may understate the effect of representatives who generate economic activity in their districts, because such activity may attract immigrants. This could lead to smaller estimated effects on per capita income than total income. To address this potential problem, we estimated, but do not report, the models in Table 3.2 with total rather than per capita income as the dependent variable. The estimated effect of senior Democratic representatives is substantially smaller in this specification, suggesting that these models differ by more than the simple migration effect described above. The coeffients on the Agriculture, Armed Services, and Public Works committee chairs are substantially larger, and statistically significant, in this model. The political competition variables based on House votes are very similar to those in Table 3.2,

while the COMPETITION variable based on presidential votes has a coefficient that is statistically insignificantly different from zero.

3.2 Subsample Results

The regression models reported in Tables 3.1 and 3.2 assume a stable relationship between economic growth and seniority, committee membership, and political competition over a period of nearly four decades. Yet there have been many important changes over that time period that could alter the link between congressional representation and growth. In contrast to the relative balance between the parties early in our sample, the Democratic party has enjoyed comfortable majorities in the House for most of the last two decades. In addition, civil rights, a divisive issue within the Democratic party, became less important in the latter half of our sample. Both of those factors point to an increased concentration of power in the hands of Democrats vis-a-vis Republicans. Also, as Reiselbach (1986) describes, the congressional reforms of the early 1970s reduced the importance of committee chairs, increased the influence of junior members, and shifted power toward members of the Steering and Policy Committee. Finally, the increase in the federal government's impact on the economy during the last four decades has expanded the potential for political factors to affect economic growth.

Table 3.3 tests for the sub-sample stability of the equations described earlier, dividing the sample in 1974. In addition to the political changes highlighted above, this date roughly coincides with the first OPEC oil shock, which slowed the rate of

economic growth throughout the United States. In our sub-sample analysis we allow the coefficients on all of the political variables to differ between the first and second sample periods, but we constrain the coefficient on the lagged income variable, and the state effect coefficients, to be equal in the two periods.

The results in Table 3.3 suggest that states represented by senior Democratic delegations enjoyed the faster-than-average economic growth in both sample periods, but especially in the period since 1974. This result is consistent with increased Democratic control of the House and growth in the scope of government, but surprising in light of the congressional reforms.[11] With respect to committee membership, there are several changes across sub-samples. Membership on the House Agriculture Committee was more strongly correlated with state growth in the early than in the later part of the sample period, and the value of members on the House Public Works and Armed Services Committees was larger for the post-1974 than earlier period. The coefficients on the political competitiveness variables are relatively stable across sample periods.

3.3 The Switch in House Party Control, 1953-4

Since 1954, the Democratic Party has been the majority party in the House of Representatives. Our variables for senior congressmen from the majority party

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[11]One potentially important shift between the first and second parts of our sample is a change in the composition of senior Democratic House members. The share of such members who represent urban areas in the North increased substantially during the sample period, and this could contribute to differences in their estimated growth effects across the two subsamples.

therefore are highly correlated with variables measuring strong Democratic party support. This is a potential problem if there are attributes of Democratic strongholds that also make them high-growth regions. Political events of the early 1950s provide a limited opportunity to investigate this problem. The Democrats were the majority party in the 82nd Congress, elected in 1950, but the Republicans won control of the House in the 1952 election. The Democrats regained control of the House in the 1954 election.

To investigate the effect of this change in party control on the relationship between seniority and economic growth, we created an indicator variable for 1953 and 1954 and added the interaction between this variable and "Democrats 1-20" and "Republicans 1-20" to equations like those in Table 3.1, column three. The interaction term for "Democrats 1-20" is -.051 (.036), while that for "Republicans 1-20" is .037 (.031). On average, states represented by delegations with many senior Republicans experienced much faster growth during the 1953-4 period than during the rest of the sample period, while states with senior Democrats grew quite slowly when the Republicans controlled the House. While the standard error on the estimated coefficient is too large to support a definitive conclusion, the results suggest a link between seniority, partisan control, and economic growth.

4. Quantifying the Links Between Political Factors and Economic Growth

The results in the last section suggest several statistically significant relations between state political variables and economic growth rates. To illustrate the

substantive importance of the various political factors, in this section we consider several "what if" scenarios and compare actual state growth rates to our forecasts of growth rates if all states exhibited average political characteristics. Our calculations are based on the regression model in the fourth column of Table 3.2.

First, we consider the effect of congressional seniority on state economic growth. We set the values of DEM1-20, DEM21-60, and DEM181+ to their sample average values, and then, for each state, compute the difference between the actual and predicted average growth rate. The first column of Table 4.1 presents the actual average state growth rates over the 1953-1990 period, and the second column shows the component of this growth that we attribute to deviations from average congressional seniority.[12]

The effect of congressional seniority on economic growth is estimated to be less than 0.1% per year in all but five states. The states that appear to have benefitted the most from the House seniority system are Mississippi, with an increase in the state growth rate of 0.30% per year relative to an average growth rate of 2.82%, Texas (0.18% per year, relative to a 2.08% average), and Arkansas (0.18% per year, relative to 2.81% average). The two states that our estimates suggest have lost the most as a result of seniority disparities are Vermont and New Hampshire, both of which are predicted to have grown 0.13% per year less as a result of heavily

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[12]Appendix Table A-1 reports the mean values of several of the explanatory variables in the regression equations shown in Table 3.2. Although we present estimates of "political effects" for all states in Table 4.1, for many states, it would not be possible to reject the hypothesis that all of these effects are zero.

Republican representation. For most states, however, the estimated effects of seniority are relatively small.

Our next calculation evaluates the effect of congressional committee assignments on state growth rates. We set the variables corresponding to membership on the five key House committees and for committee chairs and ranking members to their sample averages, and compute the predicted change in state growth rates. The resulting differences in state growth rates are shown in the third column of Table 4.1. There are more large estimated effects for the committee variables than for the seniority variables above. For example, Vermont is estimated to have grown 0.17% per year faster, and Arkansas 0.20% faster, as a result of having members on key House committees.[13] Vermont's lone representative sat on either the Agriculture or Armed Services committee for most of the period. Arkansas has had an average of 9.6 percent of its delegation holding key committee chairmanships, the highest of any state in the nation.

Finally, we consider the effect of political marginality on economic growth. We set the values of both the congressional district marginality variables, and our political competition variable based on presidential election votes, equal to their sample averages. The resulting predicted changes in state growth rates are reported in the

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[13]Two of the three largest effects of committee assignments on economic growth, the -0.28% effect for Rhode Island and the -0.23% effect for North Dakota, are arguably spurious. Our estimates suggest that membership on the House Appropriations Committee has a negative effect on state growth, and both Rhode Island and North Dakota, states with small delegations, had a high fraction of their delegation on this committee during our sample period.

fourth column of Table 4.1. The substantive importance of the political competition variables is much greater than that of the congressional seniority and committee assignment variables. Single-party states are estimated to have substantially lower growth rates than more competitive states. For example, our estimates imply that Alabama would have grown 0.19% per year faster, and Georgia 0.27% and Louisiana 0.16% per year faster, if they exhibited the average degree of inter-party competition. At the other extreme, states that we classify as highly competitive, such as Colorado, Connecticut, or Delaware, are estimated to experience large growth gains (0.15%, 0.21%, and 0.25% per year, respectively).

Even small differences in growth rates can compound to generate large differences in the level of state income by the end of our sample. This can be illustrated with an example. Our estimates imply that Texas would have grown 0.17% per year slower if it had been an average state during our sample period. It received a growth benefit from its House delegation's high seniority and presence on key committees, although its below-average competitiveness reduced its growth rate. Measured in 1990 dollars, per capita income in Texas in 1953 was $5,930; this grew at 2.08% per year, to $12,802, by 1990. If Texas had not received the growth benefits that we attribute to political factors, per capita income in 1990 would have been $780 lower than it actually was. This highlights the importance of compound growth. Some of the large estimated effects of political variables, particularly those associated with the competitiveness variables, translate into what may appear to be implausibly large differences in the level of state per capita income.

5. Does Politics Affect Growth, or Growth Affect Politics?

The foregoing results suggest an intriguing association between state growth rates, House delegation seniority and committee membership, and the degree of political competition in a state. A positive correlation between seniority or membership on a powerful committee and economic growth is consistent with nonpartisan distributive politics models in which more powerful legislators enact policies that benefit their constituents. The correlation between politically competitive states and growth rates is consistent with partisan distributive politics models. Such correlations do not uniquely support these models of congressional decision-making, however. In particular, there are several alternative explanations for our findings that involve a "reverse causality" between economic growth and state political variables.

One possibility is that voters in states that experience more rapid economic growth for any reason are more likely to re-elect their incumbent congressmen, thereby inducing a positive correlation between growth rates and seniority.[14] There is ample evidence at the national level, summarized for example in Fair (1988), that economic growth raises the vote share of the President and his party. There is far less evidence of a link between economic conditions and congressional election outcomes. Peltzman (1990) finds that national economic conditions affect votes for incumbent congressmen, but this effect appears to be mediated largely by party

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[14]This relationship could result from a higher probability of re-election for incumbents who stand for re-election, or a higher probability that incumbents will choose to run for re-election, or both. Fowler, et al. (1980) present evidence on a related issue, the link between committee assignment and re-election prospects.

membership. When the national economy is strong, members of the President's party receive an electoral benefit, and vice versa. Erikson (1990) presents similar results, and surveys the related literature on economic conditions and electoral outcomes. Chubb (1988) finds little relationship between state election outcomes and state economic conditions.

Two factors raise questions about this argument as it applies to members of the House of Representatives. First, the re-election rate in general elections for House incumbents is extremely high: 94.7 percent over the period 1960-90. Only five Democratic congressmen in the top 20 seniority group were defeated during this time period; this corresponds to a re-election success rate of 98.2%. Given these high re-election rates, economic conditions would have to be one of, if not the, primary determinant of congressional elections to induce significant changes in the seniority distribution.

Second, we can test for a link between state economic conditions and the probability that members of the delegation turn over. We estimated regression equations relating the turnover rate in a state's House delegation to the growth rate in per capita state personal income in the election year and the previous year, year effects, and the percentage of Democrats in the state's congressional delegation.[15] We analyze turnover at the state level because data on economic conditions at the district level are not available at the frequency of House elections.

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[15]Republican members of the House have historically experienced higher rates of turnover than their Democratic counterparts. Ansolabehere and Gerber (1993) present summary statistics on turnover and a model of endogenous turnover.

The resulting estimates for the period 1950-1988, N = 960, are shown below:

$$\underset{}{\text{TURNOVER}} = \underset{(0.28)}{-0.58 * \Delta \ln y_{i,t}} - \underset{(0.25)}{0.28 \Delta \ln y_{i,t-1}} - \underset{(0.023)}{0.035 * \text{DEM\%}} \quad R^2 = .026$$

These results show a statistically significant but substantively small link between current as well as lagged economic growth and turnover rates. A state that was average in all respects, except that economic growth had lagged the nation by two percent in both the current and past year, would have a predicted turnover rate of 20.1%, compared with a national average of 18.4%.[16]

To interpret this change in turnover rates, we consider the probability that a newly elected congressman will remain in office for twenty-four years, roughly the tenure required to become one of the twenty most senior Democratic House members. The twenty-four year survival rate for newly elected representatives, assuming average economic conditions in their state, is 8.7%. If state economic growth lagged the nation by two percent in each of those twenty-four years, the turnover model implies that the twenty-four year survival rate would change by approximately two percentage points, to 6.8%.[17] The compound effect of twenty-four years of growth

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[16]These results are consistent with recent evidence on Senate elections. Chressanthis and Shaffer (1993) and Bennett and Wiseman (1991) analyze the effect of state economic performance, as measured by the growth in personal income or the unemployment rate, on the vote share of incumbent Senators, and they find very weak effects.

[17]We estimate the twenty-four year survival rate as the twelve-fold product of one minus the biennial turnover probability implied by the regression models in Table 4.1, column four.

at the national average minus two percent would be a 40% decline in the size of the state's economy as a share of the nation. Since even even this dramatic change in economic performance would have a relatively small effect on long-term re-election rates, we are not persuaded by the "reverse causality" explanation for the correlations described above.

Another possible interpretation of our findings is that states with more senior congressmen are more homogeneous than states with more junior delegations. At the district level, a solid majority for a single party is a prerequisite for continued re-election of the same congressman, and hence for seniority. If homogeneity is good for growth, a spurious correlation between seniority and growth could arise.

There are three reasons to doubt this explanation for our results. First, if homogeneity per se was the source of growth, then the coefficient on senior Republicans should also be significantly positive, yet we find no evidence for this. Second, our estimates that allow for state fixed effects in the rate of economic growth should largely capture factors such as homogeneity. Even after allowing for state effects, however, we find important differences in the growth rates of states when they are represented by senior delegations and when they are not. Finally, this explanation is in direct conflict with our finding that states with extreme values of either Democratic or Republican votes for presidential candidates, or unusually high shares of safe districts, grow more slowly than politically competitive states.

Even if reverse causality does not explain our findings with regard to congressional seniority, it is still possible that it could affect our results on the returns

to political competition. Economic growth may affect the political complexion of a jurisdiction, particularly the degree of competition between political parties. For example, districts and states that have been historic Democratic strongholds may experience an increase in their share of Republican voters if they undergo rapid economic growth. However, if the political marginality variables are simply picking up an increase in Republicans, then there would be no reason for the coefficient on Democrat controlled marginal seats to be greater than that of Republican controlled marginal seats. We have also explored this possibility by examining whether an increase in marginal Democratic seats that results from a decline in safe Democratic seats has differential growth effects from an increase as a result of fewer Republican seats. We found no systematic differences.

6. Seniority, Political Competition, and the Allocation of Federal Spending

Our discussion so far has focused on the outcome of political distribution of government benefits, economic growth, rather than the precise mechanism through which this distribution takes place. Potential mechanisms include the redistribution of federal spending, variation in the allocation of tax burdens, and changes in the structure of regulation or other federal policies that benefit some locations more than others. This section explores the first such mechanism, the hypothesis that the distribution of federal outlays is affected by the variables that are suggested by the partisan and nonpartisan models of congressional distributive politics. This is the question that many previous empirical studies of distributive politics have considered.

Arnold (1987) argues that different categories of federal spending are subject to different degrees of geographic control by politicians. At one extreme, federal payments to individuals and the transfer-related component of intergovernmental grants are determined by benefit formulae and the characteristics of a state's population such as the number of elderly or poor individuals. While legislators from districts that will receive substantial benefits from particular programs may be more likely to support these programs, it is extremely difficult to alter the geographical distribution of spending once the terms of the program have been set. At the other extreme, spending on military wages and some public works projects may be easily re-allocated across districts.

In fiscal year 1990, 50.8% of federal spending was direct payments to individuals.[18] This includes Social Security, Medicare, food stamps, retirement benefits for federal employees, and a variety of other programs. The other components of total federal spending include procurement contracts (17.1%), salaries and wages for federal employees (14.9%), and intergovernmental grants (13.5%). Forty-two percent of the latter category consists of grants for AFDC and Medicaid.

Data on the state-by-state allocation of various components of federal spending are available for different sample periods. For direct payments to individuals, federal wages and salaries, and intergovernmental grants, we have data for the 1958-1990 period. Overall procurement spending data is only available beginning in 1982, so we

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[18]These data are drawn from the Advisory Council on Intergovernmental Relations (1992). Average per capita federal expenditures were $3902 in FY1990.

instead use Department of Defense prime contract awards, which account for approximately 75 percent of overall procurement, and for which data are available since 1959. We also consider total federal outlays, but data for this aggregate are only available for the 1970-1990 period, with data missing in 1971 and 1977.

We estimate spending equations in which the dependent variable is either total federal spending per capita, or spending in a particular category of outlays, and the independent variables are the same as those in the economic growth equations estimated above. To capture differences across districts and states in their fundamental suitability for certain types of federal funds, we include state fixed-effects in our analysis.

Table 6.1 presents estimates of regression equations relating political variables to the level of federal spending, measured in 1990 dollars. The results are mixed. For total federal outlays (column 1), the indicator variables for senior Democratic congressmen enter positively, but the estimated coefficients are not statistically significant.[19] The point estimates for individual spending categories over longer time periods show both positive and negative effects, but the null hypothesis of zero effect is rarely rejected. Similarly, the coefficients on committee membership and committee rank do not exhibit any clear pattern. The variables measuring political competition based on congressional vote percentages do not suggest higher spending in more competitive states, while the analogous variable based on presidential vote share does

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[19]Atlas et al. (1993) present evidence that some political variables, notably a state's degree of over-representation in Congress relative to population, are correlated with the distribution of federal taxes and outlays.

suggest such an effect. For total spending and several spending categories, this effect is statistically significant.

The equations reported in Table 6.1 focus on the contemporaneous relationship between political factors and state economic growth. We also considered the possibility that past political variables could affect current spending. There are often lags between authorizations, appropriations and expenditures. Moreover, if a previous congressman had secured a military base for a district, then current spending could be high, even if that congressman no longer represented the district. When we added lagged political variables to our spending equations, however, we did not find any systematic patterns.[20]

These results are difficult to reconcile with our earlier findings on growth rates for two reasons. First, there are no strong relationships between the political variables that are correlated with growth rates, and the level of per capita federal spending. This raises a question about the source of the link between political factors and economic growth. Second, even when the estimated coefficients in the spending equations are consistent with the growth effects in the last section, the magnitudes of the spending effects do not appear large enough to generate these growth effects. For example, using the estimates for total spending in the first column of Table 6.1,

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[20]We also estimated equations relating changes in spending to various political indicators, again recognizing the possibility that current representatives might be unable to affect the history-based level of spending, but could affect increments to it. The empirical findings from the spending change equations were even less conclusive than those for spending levels; virtually none of the political variables were statistically significant at standard significance levels.

if ten percent of a state's House delegation consists of senior Democrats, rather than Republicans, the state is predicted to receive an extra $12 per capita in federal spending. If each dollar of federal outlays directed to a state generates an additional dollar of private income, then such a delegation shift would result in state income growth of $24 per capita. Since average per capita personal income was about $14,500 in 1990, this implies a spending-related increment to the level of state income of approximately 0.2%. That one-time change in the level of state income is far below the values implied by the coefficients in our growth equations.

This disparity between the estimated spending effects and the estimated growth effects leaves the channel through which political factors affect economic activity unresolved. It is possible that congressmen can influence economic conditions in their districts in many ways besides the direct allocation of federal spending, for example through regulations enacted or avoided, trade policies, or tax rules. Unfortunately, we are unaware of any quantitative measures of the impact of these policies on states or congressional districts, and have therefore been unable to construct empirical tests for these channels of influence.

7. Conclusion

This paper presents empirical evidence on the predictive power of several theories of congressional decision-making on the distribution of economic activity. We test nonpartisan distributive politics models, which focus on the role of influential legislators, measured either by seniority or committee membership, on the benefits

received by their jurisdiction. We also develop tests of partisan distributive politics models that emphasize the role of congressional parties, and find some support for the view that economic rewards are channelled to highly competitive jurisdictions that are currently represented by the majority party in Congress.

One natural extension of this work involves developing more specific tests for the basis of congressional influence. We have not tried, for example, to distinguish between models of committee influence based on information asymmetries and other alternative explanations of the basis of the influence of senior members and those on key committees.

A second direction for extension concerns the link between congressional institutions and the overall level of economic growth. We have focused on the link between congressional representation and the distribution of economic growth, but there may also be important interactions between congressional structure and the likelihood of enacting legislation with favorable effects on overall economic growth.

Finally, we have not been able to trace the source of the growth-seniority relationship to a clearly identifiable action under congressional control. In particular, we find much weaker relationships between spending and seniority than between growth and seniority; this raises the question of whether our findings on the correlation between growth and political factors are the result of correlation with other omitted variables. Searching for such omitted factors, especially omitted correlates of state political competitiveness, is a natural direction for future work.

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Table 3.1: Congressional Seniority & State Economic Growth, 1953-1990

Explanatory Variable (with Standard Deviation)	Model 1	Model 2	Model 3
House			
Democrats 1-20	0.025	0.018	0.013
(0.084)	(0.006)	(0.006)	(0.008)
Democrats 21-60	0.016	0.013	0.002
(0.135)	(0.004)	(0.004)	(0.006)
Democrats 61-100	0.005	0.005	-0.005
(0.134)	(0.004)	(0.004)	(0.005)
Democrats 101-140	0.007	0.007	-0.001
(0.130)	(0.004)	(0.004)	(.005)
Democrats 141-180	0.004	0.004	0.000
(0.150)	(0.004)	(0.004)	(0.005)
Democrats 181+	0.010	0.010	0.007
(0.189)	(0.004)	(0.004)	(0.004)
Republicans 1-20	0.005	0.007	0.001
(0.084)	(0.006)	(0.006)	(0.008)
Republicans 21-60	0.005	0.005	-0.002
(0.158)	(0.004)	(0.004)	(0.005)
Republicans 61-100	0.003	0.003	-0.007
(0.166)	(0.004)	(0.004)	(0.004)
Republicans 101-140	0.005	0.004	0.000
(0.200)	(0.004)	(0.004)	(0.004)
Senate			
Democrats 1-10	0.000	-0.002	-0.002
(0.232)	(0.003)	(0.003)	(0.004)
Democrats 11-20	-0.002	-0.004	-0.005
(0.219)	(0.003)	(0.003)	(0.003)
Democrats 21-30	0.002	-0.000	0.001
(0.212)	(0.003)	(0.003)	(0.003)
Democrats 31+	-0.001	-0.001	-0.002
(0.312)	(0.002)	(0.002)	(0.002)
Republicans 1-10	-0.000	-0.001	-0.002
(0.221)	(0.003)	(0.003)	(0.003)
Republicans 11-20	-0.002	-0.002	-0.001
(0.226)	(0.003)	(0.003)	(0.003)
Republicans 21-30	-0.001	-0.002	-0.000
(0.227)	(0.003)	(0.003)	(0.003)
$\ln y_{t-1}$	-----	0.017	-0.069
		(0.003)	(0.009)
State Effects?	No	No	Yes
F-Test: House Democrats	<.01	<.05	<.05
F-Test: House Republicans	>.65	>.50	>.45
F-Test: Senate	>.95	>.95	>.70
R^2	0.572	0.585	0.576

Notes: Estimates are based on data for 48 states, 1953-1990, N = 1824. All specifications include exhaustive year effects (so no constant term) and are estimated by a feasible GLS procedure described in the text. Standard errors are shown in parentheses. The standard deviation is the average of the annual standard deviations for the seniority variables. F-test values are significance bounds.

Table 3.2: Congressional Seniority, Committees, and State Economic Growth

Explanatory Variable (Standard Deviation)	Model 1	Model 2	Model 3	Model 4
House Seniority				
Democrats 1-20 (0.084)	0.012 (0.007)	0.014 (0.007)	0.015 (0.007)	0.012 (0.008)
Democrats 21-60 (0.135)	0.004 (0.004)	0.003 (0.004)	0.002 (0.005)	0.002 (0.005)
Democrats 181+ (0.189)	0.008 (0.002)	0.007 (0.003)	0.009 (0.003)	0.005 (0.003)
House Committees				
Agriculture (0.161)	0.002 (0.004)	...	...	0.003 (0.004)
Appropriations (0.155)	-0.004 (0.003)	...	...	-0.006 (0.004)
Armed Services (0.129)	0.004 (0.004)	...	...	0.007 (0.005)
Public Works (0.123)	0.011 (0.004)	...	...	0.011 (0.005)
Ways & Means (0.098)	0.005 (0.006)	...	...	0.001 (0.007)
Chairman (0.042)	0.009 (0.012)	...	...	0.013 (0.013)
Ranking Member (0.029)	0.020 (0.016)	...	...	0.018 (0.017)
Political Competitiveness				
House Vote 50-59% Democrat (0.244)	...	0.006 (0.003)	...	0.007 (0.003)
House Vote 40-49% Democrat (0.256)	...	0.004 (0.002)	...	0.003 (0.003)
|PresVote-NatlAvg| (% Democrat) (0.053)	...	...	-0.024 (0.012)	-0.020 (0.012)
$\ln y_{t-1}$	-0.078 (0.009)	-0.080 (0.009)	-0.078 (0.009)	-0.084 (0.009)
F-Test: Seniority	<.01	<.05	<.01	<.20
F-Test: Committees	<.10	...	...	<.10
F-test: Competitiveness	...	<.05	<.05	<.05
F-test: All Political Variables	<.01	<.01	<.01	<.01
R^2	0.610	0.608	0.608	0.614

Notes: Dependent variable is annual percent change in state per capita personal income. Estimates are based on data for 48 states 1953-1990, excluding 1969-1972 (due to Wallace presidential campaign) when the presidential political competitiveness is included in regressions. All specifications include exhaustive year and state effects (so no constant term) and are estimated by a feasible GLS procedure described in the text. Standard errors are shown in parentheses. The standard deviation is the average of the annual standard deviations for the seniority variables. Chair and ranking member variable reflect chairs and ranking members of only the five committees included in the regression. F-test value is the significance bound.

Table 3.3: Congressional Seniority, Committees, and State Economic Growth: Sub-Sample Stability

Explanatory Variable	1953-1973	1974-1990
House Seniority		
Democrats 1-20	0.003	0.022
	(0.011)	(0.010)
Democrats 21-60	0.004	0.001
	(0.006)	(0.008)
Democrats 181+	0.005	0.003
	(0.004)	(0.005)
House Committees		
Agriculture	0.010	0.001
	(0.007)	(0.005)
Appropriations	-0.004	-0.011
	(0.004)	(0.007)
Armed Services	-0.005	0.021
	(0.006)	(0.007)
Public Works	0.005	0.015
	(0.006)	(0.006)
Ways & Means	-0.005	0.009
	(0.010)	(0.009)
Chairman	0.016	0.013
	(0.018)	(0.019)
Ranking Member	0.018	0.009
	(0.027)	(0.024)
Political Competitiveness		
House Vote 50-69% Democrat	0.007	0.009
	(0.003)	(0.005)
House Vote 30-49% Democrat	0.007	-0.003
	(0.003)	(0.004)
|PresVote-NatlAvg| (% Democrat)	-0.016	-0.016
	(0.014)	(0.020)
$\ln y_{t-1}$	-0.094	-0.094
	(0.010)	(0.010)
F-Test: Sub-Sample Stability		
Seniority	...	> .50
Committees	...	< .10
Competitiveness	...	< .25
All Political Variables	...	< .10

Notes: Dependent variable is annual percent change in state per capita personal income. Estimates are based on data for 48 states, excluding 1969-1972 (due to Wallace presidential campaign) when the presidential political competitiveness is included in regressions. Specification includes exhaustive year and state effects (so no constant term) and is estimated by a feasible GLS procedure described in the text. State fixed-effects are constrained to be constant across the two time periods. Standard errors are shown in parentheses. Chair and ranking member variable reflect chairs and ranking members of only the five committees included in the regression. F-test value is the significance bound.

Table 4.1: The Impact of Political Variables on Growth Across States

State	Average Growth	Impact of Seniority	Impact of Committees	Impact of Marginality	Impact of All Politics
Alabama	2.59%	0.01%	0.10%	-0.19%	-0.07%
Arizona	1.81	-0.03	-0.13	-0.00	-0.16
Arkansas	2.81	0.18	0.20	-0.16	0.22
California	1.75	-0.02	0.01	0.01	0.00
Colorado	1.93	-0.06	-0.04	0.15	0.04
Connecticut	2.16	-0.01	-0.11	0.21	0.09
Delaware	1.51	-0.02	-0.10	0.25	0.13
Florida	2.53	0.04	-0.02	-0.07	-0.05
Georgia	2.68	0.07	0.14	-0.27	-0.06
Idaho	1.74	-0.05	0.00	0.03	-0.02
Illinois	1.80	-0.02	0.05	0.03	0.06
Indiana	1.74	-0.02	-0.05	0.15	0.08
Iowa	1.97	-0.02	-0.00	0.10	0.08
Kansas	1.88	-0.09	-0.01	-0.06	-0.16
Kentucky	2.37	0.09	-0.02	0.01	0.08
Louisiana	2.17	0.09	0.07	-0.16	-0.01
Maine	2.38	-0.03	-0.03	0.08	0.02
Maryland	2.25	-0.00	0.06	0.04	0.10
Massachusetts	2.37	0.07	-0.07	-0.14	-0.14
Michigan	1.68	-0.05	-0.07	0.03	-0.09
Minnesota	2.29	-0.08	0.08	0.01	0.01
Mississippi	2.82	0.30	0.09	-0.31	0.08
Missouri	2.00	0.01	0.14	0.09	0.24
Montana	1.42	-0.02	0.04	0.06	0.08
Nebraska	1.94	-0.11	-0.11	-0.10	-0.31
Nevada	1.27	0.01	-0.17	0.04	-0.12
New Hampshire	2.62	-0.13	0.10	-0.01	-0.04
New Jersey	2.27	-0.04	-0.00	0.06	0.02
New Mexico	1.97	-0.01	-0.08	0.19	0.10
New York	2.02	-0.01	-0.01	-0.01	-0.03
North Carolina	2.69	0.07	0.05	0.03	0.16
North Dakota	2.45	-0.06	-0.23	-0.03	-0.32
Ohio	1.60	-0.05	-0.02	0.02	-0.06
Oklahoma	2.14	0.01	0.06	-0.03	0.03
Oregon	1.63	-0.04	-0.04	0.06	-0.03
Pennsylvania	2.00	-0.04	-0.02	0.04	-0.01
Rhode Island	1.98	0.08	-0.28	-0.06	-0.26
South Carolina	2.56	0.08	0.16	-0.14	0.10
South Dakota	2.44	-0.00	0.03	0.10	0.13
Tennessee	2.73	0.00	0.11	-0.09	0.02
Texas	2.08	0.18	0.04	-0.05	0.17
Utah	1.62	-0.03	-0.15	0.03	-0.15
Vermont	2.58	-0.13	0.17	-0.11	-0.06
Virginia	2.64	-0.03	0.05	0.01	0.03
Washington	1.81	-0.06	-0.06	0.10	-0.02
West Virginia	2.09	0.03	0.12	0.02	0.16
Wisconsin	1.85	0.00	0.03	0.00	0.03
Wyoming	1.52	-0.07	-0.08	0.05	-0.10

Notes: Growth rate is the average state growth rate in real per capita personal income over the period 1953-1990. The impact of the political variables is computed by comparing the predicted growth rates given the actual values of the political variables in question to a scenario where all states are assigned the sample average of the variables in question. All computations are based on the coefficient estimates in the last column of Table 3.3.

Table 6.1: The Influence of Political Variables on State-Specific Federal Spending

Explanatory Variable	Total (1970-90)	Transfers (1959-90)	Fed Wages (1958-90)	Grants (1958-90)	DOD Contracts (1959-90)
House Seniority					
Democrats 1-20	92	61	-55	13	-49
	(111)	(29)	(18)	(16)	(49)
Democrats 21-60	89	-29	21	-17	-7
	(87)	(19)	(12)	(11)	(31)
Democrats 181+	65	17	15	3	4
	(43)	(11)	(7)	(7)	(20)
House Committees					
Agriculture	-11	-65	40	16	-62
	(68)	(16)	(10)	(9)	(28)
Appropriations	170	-27	48	6	-2
	(72)	(16)	(10)	(9)	(23)
Armed Services	-49	41	-4	7	46
	(82)	(17)	(12)	(11)	(33)
Public Works	185	8	66	-3	-26
	(71)	(19)	(11)	(10)	(29)
Ways & Means	203	-38	31	51	-139
	(88)	(21)	(15)	(13)	(39)
Chairman	93	77	44	68	-111
	(171)	(50)	(30)	(27)	(85)
Ranking Member	-274	104	10	12	-38
	(206)	(59)	(38)	(33)	(107)
Political Competitiveness					
House Vote 50-59% Democrat	-12	6	5	-10	-12
	(47)	(10)	(7)	(6)	(18)
House Vote 40-49% Democrat	-69	11	11	-11	-25
	(39)	(9)	(6)	(6)	(17)
|PresVote-NatlAvg| (% Democrat)	-772	-299	-28	-90	-14
	(238)	(47)	(28)	(26)	(80)
$\ln y_{i,t-1}$	9	-346	178	-101	290
	(168)	(37)	(23)	(21)	(57)
F-Test: Seniority	>.35	<.01	<.01	<.20	>.75
F-Test: Committees	<.05	<.01	<.01	<.01	<.01
F-test: Competitiveness	<.01	<.01	<.20	<.01	>.50
F-test: All Political Variables	<.01	<.01	<.01	<.01	<.05
R^2	0.885	0.988	0.953	0.910	0.728

Notes: Dependent variable is annual percent change in state per capita personal income. Estimates are based on data for 48 states, excluding 1969-1972 (due to Wallace presidential campaign). All specifications include exhaustive year and state effects (so no constant term) and are estimated by a feasible GLS procedure described in the text. Standard errors are shown in parentheses. Chair and ranking member variable reflect chairs and ranking members of only the five committees included in the regression. F-test value is the significance bound.

Appendix Table A.1: State Averages of Political Variables

State	Democrat 1-20	Democrat 21-60	Democrat 181+	House Vote 50-59% Democrat	House Vote 40 49% Democrat	|PresVote-NatlAvg|
Alabama	0.047	0.189	0.139	0.030	0.098	0.097
Arizona	0.042	0.039	0.133	0.221	0.239	0.074
Arkansas	0.145	0.325	0.175	0.048	0.053	0.072
California	0.030	0.091	0.147	0.136	0.159	0.023
Colorado	0.000	0.092	0.140	0.390	0.178	0.043
Connecticut	0.000	0.026	0.272	0.412	0.246	0.030
Delaware	0.000	0.000	0.263	0.368	0.421	0.019
Florida	0.075	0.153	0.140	0.113	0.078	0.045
Georgia	0.053	0.053	0.284	0.079	0.063	0.146
Idaho	0.000	0.000	0.211	0.237	0.474	0.101
Illinois	0.041	0.097	0.132	0.147	0.159	0.016
Indiana	0.029	0.084	0.157	0.322	0.336	0.042
Iowa	0.044	0.026	0.153	0.219	0.397	0.040
Kansas	0.000	0.000	0.126	0.114	0.346	0.082
Kentucky	0.129	0.155	0.107	0.180	0.111	0.032
Louisiana	0.079	0.211	0.204	0.039	0.033	0.065
Maine	0.000	0.000	0.237	0.289	0.246	0.055
Maryland	0.000	0.107	0.250	0.202	0.166	0.032
Massachusetts	0.100	0.154	0.140	0.093	0.095	0.081
Michigan	0.029	0.062	0.116	0.128	0.233	0.023
Minnesota	0.007	0.046	0.116	0.164	0.265	0.050
Mississippi	0.265	0.247	0.158	0.042	0.074	0.154
Missouri	0.050	0.113	0.150	0.261	0.143	0.024
Montana	0.000	0.000	0.263	0.289	0.289	0.073
Nebraska	0.000	0.000	0.096	0.127	0.351	0.111
Nevada	0.000	0.000	0.316	0.237	0.184	0.049
New Hampshire	0.000	0.000	0.053	0.132	0.368	0.066
New Jersey	0.033	0.083	0.123	0.198	0.207	0.027
New Mexico	0.000	0.079	0.246	0.342	0.237	0.014
New York	0.042	0.070	0.155	0.132	0.170	0.036
North Carolina	0.068	0.111	0.232	0.264	0.137	0.056
North Dakota	0.000	0.000	0.184	0.158	0.237	0.068
Ohio	0.031	0.060	0.100	0.101	0.206	0.015
Oklahoma	0.044	0.158	0.149	0.202	0.096	0.063
Oregon	0.000	0.063	0.199	0.208	0.208	0.033
Pennsylvania	0.025	0.084	0.135	0.166	0.191	0.022
Rhode Island	0.079	0.342	0.132	0.237	0.079	0.088
South Carolina	0.096	0.132	0.175	0.105	0.132	0.093
South Dakota	0.000	0.000	0.289	0.289	0.368	0.062
Tennessee	0.031	0.146	0.175	0.084	0.097	0.052
Texas	0.169	0.133	0.194	0.092	0.052	0.024
Utah	0.000	0.000	0.246	0.316	0.342	0.110
Vermont	0.000	0.000	0.053	0.053	0.211	0.066
Virginia	0.036	0.084	0.116	0.153	0.200	0.036
Washington	0.007	0.042	0.156	0.231	0.229	0.021
West Virginia	0.039	0.121	0.209	0.257	0.072	0.051
Wisconsin	0.070	0.109	0.100	0.138	0.194	0.035
Wyoming	0.000	0.000	0.158	0.263	0.368	0.080