CONSTITUENCIES AND ROLL CALL VOTING: AN ANALYSIS OF THE HOUSE OF REPRESENTATIVES FOR THE 88TH CONGRESS

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ABSTRACT

CONSTITUENCIES AND ROLL CALL VOTING: AN ANALYSIS
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by

Jack Ronald Vanderslik

This study explores the relationships between selected constituency variables and roll call voting patterns of representatives elected from these constituencies. Several normative and empirical reasons suggest that representatives will accommodate themselves to constituency pressures in their voting. This study inquires whether these pressures are discoverable as relationships of economic, social and demographic characteristics to measures of representatives' voting.

This study examines the House of Representatives of the 88th Congress (elected in 1962). The data include roll call voting records of all representatives and twenty-one constituency variables for each constituency. The latter, drawn from 1960 census data, are: (1) percent population change, (2) percent urban, (3) percent Negro, (4) percent foreign stock, (5) median age, (6) percent of elementary enrollment in private schools, (7) percent of population with less than five years schooling, (8) percent of the population with high school, (9) percent of population with college, (10) median education, (11) median family income, (12) percent unemployed, (13) percent owner occupancy, (14) percent of sound housing units with all plumbing, (15) median rooms per

housing unit, (16) median persons per occupied unit, (17) median home value, (18) median rent, (19) percent white collar workers, (20) percent blue collar workers, (21) percent farmers. The roll call voting data are organized, by (Guttman) cumulative scaling technique, into sixteen dimensions of voting. These scales are Foreign policy, Foreign trade, Consumer protection, Conservation, Agricultural policy, Urban improvement, Negro rights, Civil liberties, Aid to education, Orientation to professionalism, Labor versus business, Spending, Space spending, Orientation to [government] debt, Social welfare, and Party loyalty. With certain exceptions, I scaled and scored all members of the House according to their voting on each dimension.

The statistical tools used are mainly correlation and analysis of variance. Rank correlation coefficients are produced for every constituency variable with every roll call voting dimension. To evaluate the correlations I defined weak relationships as those with correlation coefficients lower than $\pm$ .250. "Strong" correlations are those equal to $\pm$ .400 or higher. "Moderate" relationships are those between $\pm$ .250 and .399. I hypothesized a complete description of relationships between the constituency variables and the scale scores of voting, and I reported the findings in similar fashion. The correspondence between the hypothesized and observed relationships is low. Rather than each constituency variable being correlated strongly with one or two dimensions, a few constituency variables are strongly or moderately correlated with several dimensions and the rest of the relationships are weak. The constituency variables most clearly related to policy voting are (2) percent urban, (4) percent foreign stock, (7) percent with low

education, (14) percent owner occupancy, and (21) percent farmers. Surprisingly low relationships resulted from correlations with (9) college education, (11) median income (19) white collar, and (20) blue collar.

Partisanship is much more strongly related to roll call voting than any constituency variable. On fourteen dimensions the correlations with party range from .490 to .821. Half are .700 or higher. Within parties, constituency characteristics show greater relationships to variations in Democratic voting than Republican voting. This is explained by the sharper differences between the southern and nonsouthern wings of the Democratic party compared to the eastern and western divisions of the Republicans.

Democrats from electorally competitive districts vote more liberally than Democrats from less competitive districts. Republicans from competitive districts voted more conservatively than those from less competitive districts. Ambitious representatives voted more liberally than their less ambitious colleagues. Reelected Democrats voted in no systematically different way than those who left office, but reelected Republicans voted more liberally on social policy dimensions.

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Jack Ronald Vanderslik

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CHAPTER I

A THEORETICAL OVERVIEW

Most often students of legislative behavior have examined the parties which organize the activity and compete for control in the legislative arena. Several analysts have examined the importance of legislative parties on roll call voting (e.g., Lowell, 1902; Turner, 1951; Jewell, 1955; Truman, 1959). Legislative bodies have been characterized according to the degree of partisan voting in them, and legislative parties are described in terms of their cohesiveness. The behavior of individual legislators has been compared to the "normal" or "average" behavior of their fellow partisans. When low partisanship occurs variables such as district competitiveness, seniority, ideological commitment, friendship patterns, and group memberships have been suggested as explanations for this finding. In some cases the degree of inter-party conflict in roll calls varies according to the nature of the policies under consideration. For example, welfare issues have led to sharp cleavage between the parties in Congress, but proposals for veterans' benefits have not (Turner, 1951, p. 70).

Other scholars of legislative behavior have studied the nature of legislative constituencies. It is generally acknowledged that a legislator's behavior is partly accounted for by complexion of the constituency from which he comes. However, the relationship ought to be

stated in more precise terms. Under what conditions is there a relationship between constituency characteristics and the voting of the representative from that constituency? The present study focuses on this problem.

The Scope and Rationale for this Study

The setting in which this question will be examined is the House of Representatives. The members and districts are appropriate and convenient to study for several reasons. Much of the business of the House--its hearings, debates, and roll call votes--is a matter of public record. Most representatives participate in the roll call votes. Also most representatives are elected from single member districts. Systematic data are available for each of these districts. Additional advantages will be apparent as this study develops.

My analysis is limited to the 88th Congress which was elected in November, 1962, and held office in 1963 and 1964. This is a short period of time to use as a basis for generalizing about legislative behavior. A longer period would have some obvious advantages. However, there are difficulties implicit in longitudinal studies. If several congressional terms are used, several important relationships, both in and outside the House, are subject to change. There may be alternation of party control in the House. This means change in the leadership of the House as a whole as well as in the committees. Over time the membership changes even when there are not alternations of party control. There are changes in the districts too. This is not limited to the term following a decenial census. There may be turnover in the party controlling the office of the President. These and additional changes make it difficult

to interpret differences between the nature and implications of decisions taken within any substantial period of the history of the House of Representatives. It seems worthwhile, therefore, to proceed with an exploratory study of a single Congress, exploiting the advantages which such a study has while keeping in mind the limitations which it imposes.

The theoretical basis of this study assumes relationships described in the concept of representation. In most processes of governing, men in authority positions have claimed to represent, speak in behalf of, or make decisions in the best interests of those who accept them as authorities. This indicates that lines of responsibility in the relationships of representatives have often been vague. Those claiming to be representatives have often preferred only vague obligations to the constituents who hold the representatives in esteem. These arrangements are what Alfred de Grazia (1951, pp. 13-49) refers to as "virtual representation" and are consonant with the views of Edmund Burke, who emphasized the oneness of the national interest and the oneness of the deliberative body of the nation.

There are two aspects to representation by which A, the representative; and B, the represented; are associated. The first is that A has authority to make decisions binding upon B. B is expected to fulfill the obligations A makes in B's behalf. Virtual representation does not go beyond this aspect of relationship.

However, the second aspect makes A responsible to B. This means that A is subject to certain sanctions by B which B may use if A imposes obligations which are not to B's liking. According to Beard and Lewis (1932), the means for enforcing the second aspect is implied in the

fact that the representative is elected by those for whom he is to act. A's authority is formally defined, and his right to exercise that authority is conditional upon approval by B.

The knowledge that A is responsible to B is not sufficient for predicting how A will carry out that responsibility. Normative theorists have suggested at least three ways in which this responsibility can be carried out. First is the view that the representative will be acting in the best interests of his constituents when he is free to follow the dictates of his reason and conscience. The second view requires representatives to be true to the policies of the party because he was elected in a partisan election. The third view requires that considerations of conscience and party must always be subordinate to the will of the constituents. Each of these views requires some examination, but it should be pointed out that there is no necessary reason why conflict will always exist among these prescriptions. The three objects of responsible behavior may accept the same decisions by the representative; that is, a representative may vote "yes" on a civil rights proposal to the satisfaction of his conscience, his party, and his constituents. Nevertheless the way in which the representative would rank these remains relevant: "If the interests of conscience, party, and constituency are in conflict, which one will the representative follow?" Recent literature provides some insights, but not many firm conclusions about which of these objects representatives regard most highly.

It is difficult to examine the extent to which representatives follow their own inner direction. It is hard to know what criteria the inner directed legislator uses and, without a knowledge of these criteria,

impossible to assess whether the representatives vote according to the directives of their consciences. Normative theorists have suggested a wide range of standards for the representative to regard. They might be eternal verities, such as Socrates' concept of justice, or they may reflect Burke's (originally published in 1790; republished in 1955, p. 265) view that representatives meet together so that the government can act as a trustee for the whole nation. Wahlke, et al. (1962) used the term "trustee" to refer to state legislators who said their style of representation was that of making decisions on the basis of their own convictions and principles. Their interview data revealed that most of the respondents who could be classified (161 out of 241)[1] identified with the trustee style. It was not determined whether or how often these trustees make roll call voting decisions which they perceive to be consistent with their consciences but are contrary to party, constituency, or both. It is probable that the frequency of such conflict is rather low. Usually representatives have learned their political values in the community they represent. With a modicum of competition in the recruitment process, it is unlikely that candidates with views highly unpopular in their districts will win election to office. Thus representatives may perceive themselves as following the dictates of their own consciences, while in fact they are accommodating themselves to views and attitudes that are held by their constituents. Legislators may identify with the trustee role as a matter of lip service to the cult of rugged indivialism. I am skeptical of the inference that representatives frequently

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[1]This seems to be an embarassingly low response level when one realizes that 474 legislators were interviewed. The authors do not account for or speculate on the effects that these missing data may have had on the findings reported.

vote contrary to their perceptions of the interests which are important in their constituencies. It may be that the trustee role is a comfortable identification for representatives who come from constituencies which contain competing interests (See Dye, 1965, p. 182). The representative might see himself as acting on his own, while his choice reflects his internalized conception of how constituency alignments are balanced.

The view that representatives should vote for the party position is an element of the argument for responsible parties (see Schattschneider, 1942, and the Committee of Political Parties of the American Political Science Association, 1950). This argument implies, with Burke, that a national focus is better than a local one, and that disciplined parties can withstand the narrow demands of self interest that come from small single member districts. Turner (1951) reduced the force of Schattschneider's argument by demonstrating that fellow partisans do vote with significant unity in the House of Representatives. Others (for example, Ranney and Kendall, 1956) have advanced the view that the political stability of the nation has been enhanced by the absence of intensely ideological parties. Concerning Turner's findings more will be said later. The fact that there is a strong measure of party unity may indicate that representatives consider that party loyalty is desirable and necessary. It has not been shown, however, that partisan unity is independent of constituency characteristics; much less that party positions are the basis of decision making by representatives in opposition to the interests they perceive in their constituencies.

A commonly held view is that representatives ought to vote as their constituents wish.[2] For some constituents this view constitutes an informal rule of the game. Because the constituency electorate is the final judge of whether the behavior of the representative has been appropriate, this rule can be enforced. Whether electorates do in fact exercise such discrimination is not certain, but clearly the opportunity for it is undeniable. Further comment on voting by constituents will be given later. It has not been shown that constituents approve of attempts by the political parties to sanction representatives who have been irregular in their party support. The legislative parties have some sanctions at their disposal but their effectiveness in determining the decisions of individual representatives is not clear. Occasionally, they may be important considerations, other times they may be of little significance. They are seldom very public and rarely do they cause the defeat of an incumbent.

Elections provide the circumstances in which constituents can formally decide whom they want to represent them. There are 435 congressional seats in the House of Representatives. All citizens

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[2] Cantril (1951, p. 133) reports three surveys which asked citizens how they thought Congressmen should vote.

	The way people feel	Use their own judgment	Don't know, no opinion
November 1938	37.4%	54.1%	8.5%
August 1939	61	39	
April 1940	66	34	
April 1940	63	37	

Similar findings come from Public Opinion Quarterly X (Summer, 1946) pp. 268-269. NORC, April 28, 1946

except for those in Washington, D.C. are constituents of at least one representative and most are constituents in single member districts.[3] It is important to note that each representative must submit to the electoral process frequently. Every two years there is what Key (1964, 5th ed., p. 449) refers to as the "double jeopardy" of contests for nomination and election. The geographic boundaries by which constituencies are legally defined are not frequently changed. The populations within most districts are relatively stable. Because incumbent representatives are eligible for reelection, it is advantageous for them to establish enduring bases of electoral support among their constituents.

The partisan context of congressional elections cannot be ignored. Stokes and Miller (1962) have shown that the vast majority of voters are party identifiers who support their own party consistently, particularly in congressional contests. Some districts are clearly safer than others (Cox, 1962; Wolfinger and Heifetz, 1965). It is necessary to note that there are no congressional elections per se. There are often significant interaction or coattail effects (Moos, 1952; Press, 1958; Meyer, 1962, pp. 52-64; Key, 1964, 5th ed., pp. 556-574) between candidates for the House and those for other national, state, and local

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Congressmen should rely on		Congressmen do rely on	
Country	43%	Country	9%
Constituents	39	Constituents	40
Own judgment	18	Own judgment	51

These are not highly consistent results. Certainly the format in which the questions are asked affect the responses. However, it is clear that a large proportion of people believe constituency preferences ought not be ignored.

[3] A community member may have more than one representative if congressmen are elected at large. For the 88th Congress, elected in 1962, Hawaii and New Mexico elected delegations of two members at large. Connecticut, Maryland, Michigan, Ohio, and Texas elected one representative

offices on the same party ticket. These considerations make it obvious that the contest for office in any particular House district cannot be thought of as an independent event. The issues are shaped by the partisan balance within the district (Ennis, 1962) as well as in the state and nation. The congressional district is an enclave of the state and nation and the salient issues of the campaign are sometimes defined by the party nuclei at these higher levels (Schlesinger, 1965). The party context within which recruitment to congressional office occurs may result in differences between representatives in their style of representing their orientations to ideological issues, their party regularity in roll call voting, their desire for personal voter support, and their age (Snowiss, 1966).

The partisan context of congressional elections is not itself an independent variable. Partisan identification has many correlates, if not causes, among socio-economic and demographic variables. Although there are marked differences between the conceptualizations, methods, and inferences of Lazarsfeld and his colleagues (1944 and 1948; 1954) on one hand and the Survey Research Center teams (1954; 1960) on the other, both show that socio-economic and demographic variables differentiate between both party voters and party identifiers. A central proposition of The People's Choice was the view that "Social characteristics determine

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at large while the other delegation members were from single member districts. Alabama elected eight representatives at large. Its delegation was reduced from nine to eight by reapportionment. Under Alabama's unique 9-8 plan each of the old nine districts individually nominated its incumbent representative in a primary. A statewide Democratic runoff primary was held and the low man was eliminated from the Democratic slate. The eight then ran at large in the general election and all were elected. (CQ Annual Report, XX, 1964, p. 378)

political preferences" (1944 and 1948, pp. 27, 138, 148).[4] This was reasserted in Voting. "Socioeconomic status . . . is directly related to the final vote decision (Chart XX). The higher the socioeconomic status (SES), the more Republican the vote; put crudely, richer people vote Republican more than poorer people" (1954, pp. 55, 56). In The Voter Decides, Campbell, Gurin and Miller relate voting to a list of ten factors:

1. Type of community (size of community in which voters live)
2. Socio-economic groups to which voters belong (social and economic status)
3. Ethnic origins of voters
4. Religious affiliation
5. Age
6. Sex
7. Education
8. Occupation
9. Trade-union affiliation
10. Income

Later Campbell, et al., (1960, especially pp. 156-159) demonstrated clear differences in party identification in their comparison of working class people to members of the middle class.

> Though the contrast in regions is apparent, the class component of American politics is also clearly seen. In the South, where Democratic adherence was for many years an essential feature of regional loyalty, both classes are heavily Democratic although the middle class dilutes its support of the Democratic Party somewhat by a tendency to report itself as Independent. In the North, however, the parties draw quite unevenly from the two classes. The appeal of the Democratic Party to working class people is evident in all three northern regions[Northeast, Midwest, and West]. Although the political significance of class varies from one election to another, class is clearly one of the underlying dimensions of party affiliation in the United States (Campbell, et al., 1960).

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[4]Key and Munger (1959) challenged this theoretical orientation, arguing that partisan attachments represent a crystalization of attitudes arising after the Civil War. Social characteristics may have short term significance--different characteristics (ethnicity, religion, etc.) being salient at different times.

While it is clear that social, economic, and demographic factors are related to turnout and voting patterns in partisan elections, it is not clear whether, or to what extent, these factors impinge upon the behavior of representatives in the legislative process. Conventional wisdom has accepted the view that particular representatives are the captives of special interests. The point is credible because legislators are frequently most conspicuous when they act in behalf of special interests in their districts. This traditionally has been the case in such decisions as those on public works, farm subsidies, use taxes, and civil rights. There is little question about how most deep south representatives will vote on civil rights issues. There is no more doubt how congressmen from southeastern Michigan will vote on the issue of federal excise tax on automobiles. Jones (1961), who studied the House Agriculture Committee, referred to these kinds of local pressures when he used the term "policy constituency." When a representative knows that a particular proposal being considered directly affects important interests in his legal constituency and that these interests are actively and unitedly concerned, "they are ordinarily sufficient to determine his public stand." This point ought not be overstated, however. Even so called captives are not many nor are they captives in a very broad sense. Rarely are districts monolithic. As Redford (1958, p. 129) notes:

> The Congressmen . . . representing a constituency may find that there are many diverse interests within his district, that no one of these has a majority, that there is much overlapping of memberships and many unorganized voters. As a result, he becomes a moderator among group demands and searches for answers for public problems which have broad appeal. . . . [T]here are many districts that are almost as pluralistic as the nation. . . .

The usefulness of the policy constituency concept is that it underscores the specificity of many constituency interests. A congressman has not one, but many publics who have specific expectations about how he should perform and how they would prefer him to perform. Veterans have been interested in public policies conferring benefits upon veterans. Farmers have noticeably alternated their support from one party to the other in relation to the economic stresses they feel as farmers (Campbell, et al., 1960, pp. 425-439). Negroes have pressed for welfare services particularly for themselves as Negroes. Much of the campaign for civil rights has been a drive for Negro improvements. Negro leaders have felt the necessity of seeking specific improvements to maintain the support of rank and file Negroes. The more sophisticated goal of improving Negro status has not always been salient to Negro non-leaders (Wilson, 1960 and 1965, pp. 185-199). Interest group leaders have learned that group members are difficult to arouse in behalf of policies peripheral to the shared attitudes and values on which the group developed (Lane, 1959, p. 192).

The multiplicity of publics to which a representative may attempt to respond is also enlarged by the fact that only rarely does a constituent have a single interest. Individuals hold many beliefs and values; and they respond to a variety of symbols, appeals, and identifications. One individual can participate in several publics which are identified in the mind of a representative with different or even conflicting interests. A businessman-parent may be able to compartmentalize or accommodate the conflicting demands of groups in which he participates. (The PTA wants more and better schools. The Chamber of Commerce opposes the

omnibus education bill.) The representative may think of the two roles as being filled by large numbers of opposed individuals. Truman explained the consequences of overlapping memberships upon groups (1951, especially pp. 157-167), but whether the representative understands the dampening affect of this overlap has not been demonstrated.

To this point I have attempted to establish some grounds upon which hypotheses about the voting behavior of representatives can be based. I have implied the existence of constituency interests, but I have not specified the meaning of that concept. "Interest" has been given many meanings (Krislov reviews several, 1963). Truman says that the shared attitudes upon which interest groups are based <u>are</u> the interests (1951, p. 34). Translated into the language of Allport, whom Truman quotes (1951, p. 35), an interest is a shared "mental and neural <u>state of readiness</u>, organized through experience, exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related." Rokeach's (forthcoming) definition of attitude enlarges the dimensions of Allport's definition. "An attitude is a relatively enduring organization of beliefs around an object or situation predisposing one to respond in some preferential manner." Constituency interests then are shared attitudes about objects and situations. They may or may not be the basis for group activity in making claims upon government of other groups in the society. They are relevant to the representative because they may be the basis for activity and response by significant proportions of the constituency. The preferential response representatives have to worry about is how constituents will vote in the next congressional election. If representatives are concerned about

their own career opportunities, the extent to which beliefs are shared by their constituents about particular objects and situations will be salient to them.

There are shared sets of beliefs about many objects and situations in the congressional constituencies. The relationships of the representative to them remains to be explored. In this discussion I will make the assumption, to be taken up in more detail later, that representatives want to remain in office. Serving this ambition and subject to the double jeopardy of the electoral process, the representative has little certain knowledge about how to stay in office. One reasonable method is to serve the interest of his constituents as consistently as possible. The representative can make the assumption that constituents concern themselves with his record and that his record is salient to their voting behavior. While it is evident that very few voters behave with such rationality (Campbell, et al., 1960; Stokes and Miller, 1962), it is important to note the perceptions of Congressmen on this point. Miller and Stokes (1963) report that of their sample of Congressmen who were opposed for reelection in 1958, "more than four-fifths said the outcome in their districts had been strongly influenced by the electorate's response to their records and personal standing." The fact that representatives may be overestimating the importance of their record is less important than the consequence of this estimate. If the constituency is perceived as a watchful public by the representative, the representative will be conscientious in serving it. This service implies that the representative must estimate the constituency interests as best he can. Sources for information and intuition are varied. Representatives have

direct contact with only a few voters. Otherwise their contacts are through intermediaries including the news media, interest groups, and party organizations. Much of this estimation doubtless is based upon knowledge and experience gained in the district over time (Key, 1961, p. 496). Representatives tend to be long time residents of their constituencies. Their social and political experiences have helped them to feel that they "know the folks at home and what they want."

The roll call behavior of representatives is consistent with the representatives' perceptions of what attitudes are held in their constituencies. Miller and Stokes (1963) report the intercorrelations between constituency's attitude, representative's attitude, representative's perception of constituency's attitude, and representative's roll call behavior on civil rights for a sample of Congressmen elected in 1958. The highest correlation reported is between roll call behavior and the representative's perception of the constituency's attitude (Pearson r = .82). This analysis received some expansion by Cnudde and McCrone (1966) which reaffirmed the central importance of representatives' perceptions of attitudes. Cnudde and McCrone also report that changing the independent variable, constituency attitudes, to "district majority attitudes" does not appreciably alter the relationship between that and the perceived attitudes. That is, the relationship between constituency attitudes and representatives' perceptions of constituency attitudes was .738 (using corrected coefficients reported in Cnudde and McCrone). The relationship between districts' majority attitudes and representatives' perceptions of constituency attitudes was .785. Apparently the perceptual distortion on the part of the representatives is not accounted for

by the argument that he perceives the attitudes of his supporters rather than the constituency as a whole. Unfortunately, the intercorrelations for the other policy dimensions, social welfare and foreign affairs, are not reported. If this suggestive finding is also important for other policy dimensions, understanding and predicting roll call voting behavior by representatives will be simplified by finding out the perceptions of constituency attitudes by representatives. This will certainly be easier than determining constituency attitudes directly. It is interesting that the multiple correlation of representatives' attitudes and the representatives' perceptions of constituents' attitudes yield still higher correlations. It suggests that the representative himself is the best source of information to explain his roll call voting behavior.

Without access to representatives to determine their attitudes and perceptions, explaining and predicting the voting behavior of representatives might be done by estimating the perceptions that representatives have of constituency attitudes. Doubtless Congressmen estimate from a variety of cues. It is not unlikely that they make estimates of the social, economic and demographic aggregations in their constituencies. Knowing their districts they can estimate the importance of the Negroes in their districts as well as what legislation the Negroes are interested in. Impressions about levels of income, education, and urbanism, probably have implications when particular policy proposals come under consideration. In sum, the prominent aspects of the constituency which impress themselves upon representatives may be detectable for the analyst in the census statistics of the districts. The gross measures of constituencies may constitute a reasonable basis for estimating constituency

interests as well as roughly correspond to the representatives' own best estimates of what their constituents want. From an operational point of view it is not necessary to know what constituency interests actually are, but merely to estimate what the representatives' perceptions of them are.

I intend to carry out some of Garceau's (1951) suggestions, namely, correlate roll call voting with demographic characteristics. He suggested that this line of study would explain the flow of communication from the constituency to the legislator. I am not proposing to study the linkage between constituents and representatives. Rather, I will use economic, social, and demographic variables as an estimate of the strength of the interests in them, though I would imagine that linkage probably does exist. I will examine the correlation between several constituency variables and roll call voting on certain policy dimensions. My theory suggests that correlations will be evidence that representatives' perceptions are shaped by constituency interests. I am not trying to specify how these perceptions were formed. But it would seem reasonable that in some instances where there are relatively strong relationships between constituency characteristics and roll call voting that there is also a flow of communication which can be measured. Such inquiry goes beyond the scope of this study.

The extent to which representatives adapt their behavior to the interests in their constituencies may be affected by the office ambitions that these representatives hold. These ambitions may be discrete, static, or progressive (Schlesinger, 1965, pp. 768-769 and 744-796). A representative with discrete ambitions is the one who wants to win an office but does not want a career in it and is unconcerned about reelection.

Of the three types, he can be the most independent of constituency interests. He has no need to shape his behavior to perceived constituency interests, nor even to be concerned with whether his perceptions of their interests are accurate. Constituents can only sanction him by objecting publically to his actions, but they have no chance to "throw the rascal out." The candidate with progressive ambitions is not as free from the constituency. This is the candidate who intends to win at least one office higher or more important than the one in which he finds himself. He anticipates needing future electoral support from a constituency different from, but probably including the present one. At least two strategies might guide his decision-making. He can try to fulfill the demands of the immediate constituency, thereby building a record of worthiness and faithfulness which will impress the members of the anticipated constituency, or he may decide to fulfill the preferences of the anticipated constituency while serving in his present position. He thus demonstrates in advance that he shares the policy preferences of the anticipated constituency. The progressively ambitious representative would not generally be able to risk offending members of his congressional district because it probably would make up a significant segment of the larger constituency. This would be the case for most representatives seeking to become senators, mayors, governors, etc. The possibility of tension between the preferences of the overlapping constituencies would be moderated by the fact that candidate selection processes for the larger constituency would favor those candidates whose smaller constituencies most resemble the larger. The representative with static ambitions is the one who simply wants to retain the office he has. He is probably

most disposed to adjust his behavior to his perceptions of interests of his present constituency. His career objectives are tied to the constituency. While he may be seeking to enlarge the scope of his influence with a sub-committee or committee chairmanship, his salience to the voters is, in his own mind, his record of service to them. A reinforcing implication of static ambitions may be that such representatives more accurately perceive constituency attitudes than the other types. His identification with the district is probably stronger, and his efforts are more narrowly focused than those possessing progressive ambitions. Perhaps he is the kind of representative who conducts his own straw polls on constituency opinion, and advertises in his newsletters the occasions when his votes conform to the results.

Competitiveness may be another variable which intervenes in the relationship of behavior to constituency interests. This variable has received a good deal of attention from Key (1949 and 1956) and his students. Competitiveness is related to party organization and campaign style (Sorauf, 1963; Schlesinger, 1965). Wahlke, et al. (1962, pp. 344 ff.) gathered some information on competitiveness, but did not attempt to relate it to attitudes, perceptions or behavior of state legislators. Huntington (1950) gathered data on voting in the House of Representatives from which he inferred that members coming from closely contested districts were strong liberals or strong conservatives. Truman (1959, pp. 202-227 and passim) found that Democratic representatives in the 81st Congress from marginal districts (55 percent or less of the two party votes in 1948) tended to vote more strongly with the majority leader than did representatives from less competitive ones. However,

Republicans from marginal seats did not demonstrate this indication of party loyalty by voting with the minority leader. Froman (1963, pp. 115-117) argues that representatives from competitive districts vote with their parties more than those from safe districts, but that they are less likely to take extreme stands on matters of public policy. Keefe (Keefe and Ogul, 1964, pp. 288-289) compares the support for "conservative coalition positions" by representatives from marginal switch districts of the 86th and 87th Congresses to show that most switches result in sharp changes from liberal or conservative voting. MacRae (1952) reports quite different findings from Massachusetts legislators. He concluded that his data "do not indicate any tendency for close elections in themselves, apart from other factors, to accompany ideological divergence between the parties; if anything they indicate the opposite." Foote, Lubega and Monsma (1962) compared liberal and conservative voting on selected issues in the Michigan House. They found Republicans voting conservatively and Democrats liberally regardless of whether they came from one party or competitive districts. Testing liberal-conservative voting by whether or not there was primary competition also revealed no particular differences. MacRae's work (1958) on the House of Representatives of the 81st Congress allowed more focus on the relationship of competitiveness to responsiveness to constituency pressure rather than party regularity. Using the same definition of marginal districts as Truman, he reports that "the Republicans in this Congress showed some indication of heightened responsiveness to constituency characteristics when they had narrow election margins, but that the Democrats did not" (p. 286).

The effects of competitiveness are not clear cut. Several explanations can be advanced, but how well they hold up remains to be seen. For one thing, there may be a different response to competitiveness by congressmen than by state legislators. Possibly state legislators see their electoral opportunities as being less related to party regularity or to higher office candidates than congressmen do. The campaign organizations of state legislators may be less dependent on the party than those of congressmen. Their nuclei of support may be made up more from friends and neighbors than partisan regulars. Certainly legislators have shorter careers. More individuals move in and out of the legislative arena. Congressmen may see party as a career avenue more than legislators, so by comparison the results in congressional studies are different than those of state legislators.

Again the key to understanding the effect of competitiveness might be in how the representatives perceive it. Miller and Stokes (in Cnudde and McCrone, 1966) show that in one policy area, at least, both the attitudes and voting behavior of the congressmen are not much closer to those of the district majority than to those of the whole district. But the findings by Keefe (Keefe and Ogul, 1964) may be in precisely those districts where attitude and voting of congressmen will be more associated with supporters and against opponents. These are by definition switch districts. Meanwhile veterans who hold on to their seats in spite of narrow margins may vote to accommodate all constituents and maximize support with a moderate stance.

Review of Related Research

Most analysts of legislative behavior accept the view that constituencies are an important source influence upon representatives. Dahl (1950, and 1964, p. 42), concerned with foreign policy, noted that these influences "may set broad limits within which the congressman must operate. . . ." Social liberals have bemoaned the seniority and organizational ascendency of rurally elected representatives (for example, F. M. Marx, 1950). Certainly if constituency interests (and party interests as well) are not related to the behavior of representatives, the fervor of many participants in the reapportionment issue seems out of place. Proponents of reapportionment have argued that rural and small town populations with conservative values elect more than their share of representatives who vote on policy issues in a way that faithfully represents the preferences of their constituents (Press and Adrian, 1964). Presumably, a "one man, one vote" apportionment would bring about more metropolitan constituencies which would elect representatives reflecting the preferences of constituents with different values.

An early systematic study of the relationship was by Julius Turner (1951). He identified political pressures upon Congress by analyzing the roll call voting behavior of congressmen. He used roll calls for sessions between 1921 and 1950, and looked especially at those in the first session of the 67th Congress (1921), the third session of the 71st Congress (1937), and the second session of the 78th Congress (1944). Although party cohesion was lowest in the House of Representatives when compared with the British House of Commons and the French Chamber of Deputies, Turner found that in nearly 90 percent of the roll calls over

several sessions the differences between the two parties in roll call voting was statistically significant (p. 31). Also the proportion of House members voting with the opposition party more than half the time was less than four percent over several sessions (p. 31). For Turner, the impressiveness of party voting measures led him to conclude that party pressures most clearly explain roll call behavior (see p. 165 and passim). He examined several constituency measures but concluded that constituency factors were of secondary importance. Admittedly, the constituency factors used were very rough tools of analysis. Metropolitan districts were those in which 50 percent of the population lives in a metropolitan area as defined by the United States Census of 1930 or 1940" (p. 74n). All others were defined as rural districts. Unfortunately most of the applications of this tool were done in relation to party. The perhaps unfounded assumption was that the difference by metropolitanism alone might be spurious because party would then be confounded with these differences (p. 74). Later, however, Turner noted that "in 1931 when rural Republicans tended to bolt their party, rural Democrats were being loyal and that perhaps " . . . when insurgency appears in one kind of party in one kind of district, and in the other party in another [opposite] kind of district, we conclude . . . that members from similar kinds of districts (and therefore subject to similar pressures) tended to vote for the same legislation, regardless of party ties" (p.87). Similarly when Turner assessed indices of party loyalty in relation to the percentage of foreign born, "Representatives of foreign districts . . . tended to vote together across party lines, as did representatives of native districts" (p. 110). Further, he notes that

the relevance of foreignness upon roll call voting increased throughout the period studied (p. 103). Turner found that the characteristic of section affected the voting behavior of representatives, including that it, like foreignness and metropolitanism was less significant than party in explaining roll call behavior. But throughout his study Turner looked at constituency factors only as they modified the flow of decision patterns arising from the parties. This was apparently because no particular characteristic of the three used provided a dichotomizing agent which would yield results like party. That is, using Lowell's definition of a "party vote" (90 percent or more of one group or party against 90 percent or more of the other party). Democrats opposed Republicans on a larger proportion of issues than did Representatives from metropolitan compared to rural constituencies, native to foreign or any one section to any other (p. 33).

The conclusions that Turner drew may have been premature. He inferred that party was the independent variable, roll call behavior the dependent variable, and constituency an intervening variable. I want to examine whether the roll call voting is not dependent upon independent constituency variables. This formulation makes party a possible dependent variable too. Unfortunately Turner, as well as others who in the past have wanted to use socio-economic constituency variables, was unable to obtain measures of more than a few constituency variables. Basic source materials such as census data have been gathered according to units which have rarely coincided with the boundaries of representative districts. This is a problem which has partly been remedied since 1960.

Duncan MacRae, Jr. has written several papers (1952, 1954, 1955) and a monograph (1958) which are relevant to this study. The first,

which has been referred to above, was an analysis of deviation from the party majority position on selection roll calls for three sessions of the Massachusetts House of Representatives. Like Turner, MacRae began with party voting and tried to relate constituency factors to deviations from party positions. The roll call issues were chosen to reflect socio-economic class differences. Deviance was analyzed in terms of the percent of owner occupancy in the districts of the deviating legislators, and deviance was related to the closeness of the electoral results in the districts of the deviating legislators. Electoral closeness was established simply with two categories of elections: "sure," where the representatives' margins were 60 percent or more of the two party vote, and "close," where the electing percentage was less than 60 percent. Several interesting findings should be noted.

1. "Republican and Democratic districts tend to be differentiated by percent owner occupancy of dwelling units."

2. "Those representatives who come from districts that are most typical of their parties [in terms of percent owner occupancy] tend to show highest 'party loyalty' on roll calls; those who come from districts atypical of their party tend to cross party lines more often."

3. "Those representatives whose previous election margins were close tend to reflect constituency characteristics in their votes more closely than those with wider margins."

In a provocative article (1954) discussing underlying variables in roll call voting, MacRae used two "liberal" indices for voting in the U. S. House of Representatives, those of the New Republic and the CIO News for the 81st Congress. Correlations between roll call voting by nonsouthern Democrats and the percent rural in their districts were, as expected, negative; most so when only the CIO News index was used. After

a discussion and example of how Guttman scaling might improve analysis MacRae suggested:

> What is not yet clear is how th[e] effect of social grouping is to be separated in roll call analysis from mere coincidence of attitudes, or of constituency pressures. . . . The aspect of attitudes and constituency presures might correspond to location or position of the representative in an 'attitude space,' with each roll call represented as a cut in this space, dividing the set of representatives into two parts. This might be referred to as the positional aspect of the model representing the decision process. (p. 196)

MacRae took up his own suggestion with the study of the dimensions of Congressional voting (1958). An approximation of attitude spaces was achieved through Guttman scale analysis. MacRae constructed separate scales for Republicans and Democrats. He then analyzed the meaning of scale positions of representatives in relation to other factors including geographical region, electoral competitiveness, seniority, state delegations, and constituency characteristics of the districts and the states in which they are located. MacRae's Fair Deal scale separates Democratic Congressmen into eight categories of support for what is sometimes more loosely referred to as a dimension of economic liberalism-conservatism (1958, p. 223). Scale categories are numbered from 0 to 7, and the scaling technique assures not only that categories 0 to 7 are logically opposite extremes, but the members of categories 5 and 6 are close in their attitude positions. Nevertheless, the latter are distinctly different from one another. Unfortunately, scale analysis only provides an ordinal ordering of positions along an attitude dimension and not a set of intervals whose distances are known to be equal. Nonetheless, this distribution of scale positions by particular representatives can be compared to other distributions of measures associated with the

attributes of Congressmen. MacRae posed the question (1958, p. 256):

> What we must investigate, if we are concerned with the connection between representatives and their constituencies, is the degree of association between roll call votes and constituency characteristics, averaged over a number of legislators. If this association is high, we infer that in some way the constituencies have influenced the legislators. We cannot tell directly (though perhaps we can inferentially) whether this influence has occurred through pressure on the legislator or simply through the political selection of representatives who are typical of their districts in the respect studied. But regardless of which type of control has occurred, the result is important. For if the association is high, the representative may be said to represent relatively local interests, and this in itself has significance for the functioning of representative government.

The direction of the inference arises from the nature of the variables tested for association. The formulation cited treats constituency measures as indicators of independent variables and roll call voting behavior as the dependent variable.

MacRae's reported findings also do not strongly support a hypothesis that roll call behavior is related to constituency characteristics. The characteristics of the Congressional districts used are the proportion of farmers and farm laborers among employed males, and the population of professionals and managers. The finding which attracted MacRae's attention was the regional bias in the relationship between employment patterns and roll call voting. Because of his concern with this apparently intervening variable of region no overall comparison of roll call scales is made with the employment measures. For example, the congressmen for 223 constituencies are unambiguously scaled on the Fair Deal scale. Scale positions range from 0 to 7. However, MacRae's test of association is only made for 55 Democratic Congressmen from urban, northern districts not including those in which there was a multiparty

contest. The scale scores of these 55 congressmen were between 4 and 7. The percentages of professional and managerial constituents in the districts of these 55 congressmen were correlated to their scale scores. The coefficient of correlation was -0.13. A similar treatment of 45 urban Republicans yielded a correlation of -0.20 (pp. 262-266).

Several observations are in order. It is apparent from MacRae's findings that there is not much relationship between scale scores on the Fair Deal scale and the percentage of professional and managerial workers in the urban districts examined. The correlation technique raises a problem. MacRae used a Pearson product moment correlation. This requires the assumption that the scale positions (0-7) are equal intervals of measurement. The assumption cannot be met, of course. MacRae himself made a point of this fact in his discussion of the scaling procedure (1958, p. 219). It is also worth mentioning that there are 8 positions on the scale. None of the representatives of these urban districts, whose percentages of professional workers range from 5 to 35 percent, received a scale score below the middle of the scale. The districts are quite homogeneous and so is the voting that their representatives do. Reformulating the problem and using all the districts, I obtain quite different results. I grouped the constituency data for all the districts by the scores of the representatives. In this way the mean percentage of each constituency characteristic for each scale rank (0-7) can be obtained. Ranking the constituency characteristic means from 0 to 7 makes it possible to determine the rank order correlation of the scale scores to the ranks of the group means (Zelditch, 1959, pp. 322-327). The relationship of (1) percent professionals and managers to scale

scores shows more promise than MacRae indicates. The Spearman rank order coefficient is .74. Coefficients for the other employment categories used by MacRae are as follows: (2) clerical and sales workers = .63; (3) craftsmen, foremen, operatives, and laborers, except mine and rural farm labor = .91; (4) farmers, farm managers, and all farm laborers outside census tract areas = -.79.

The scales scores that MacRae obtained only allow comparisons within each party. It seems intuitively likely that there is more variance in the roll call voting behavior of the entire membership than there is in the parties separately. If roll call voting is to be explained, constituency and party differences can best be seen when scale scores for both Democrats and Republicans are comparable in particular issue areas.

MacRae's work is important to the development of this study. Many of the hypotheses of this study come out of his work. I will adapt and expand certain of the steps he has taken.

Thomas A. Flinn (1964) examined purported causal factors in party responsibility by state legislators. Like Turner and MacRae, he begins his analysis for the two parties separately, relating the factors to party position. The factors which he reviews are party organization, constituencies, electoral margin, experience and leadership, and ideology. The discussion is about how these factors contribute to what Flinn describes as the "minimum condition" for party responsibility: a system where there is intra-party cohesion and inter-party conflict in legislative situations. This minimum condition occurs in the Congress and many legislatures, but Flinn notes that to his knowledge county organizations

rarely pressure legislators concerning policy questions. To test whether cohesion and competition are related to constituency characteristics he used large sets of roll calls (216, 113, and 50) from the Ohio legislature for 1949, 1959, and 1963. For the 1949 set he distinguished districts by urbanness (districts containing counties or parts of counties which were classified by the 1950 census as standard metropolitan areas) and party. Four groups of legislators were thus defined--urban Democrats, rural Democrats, urban Republicans and rural Republicans. Using Rice's index of likeness on roll calls with minority vote equal to ten percent or more of the majority he found that there was more cohesion between members of like party than between members of like constituency. For 1959, using 113 roll calls where a majority of Democrats opposed a majority of Republicans, the degree of support by Democrats and opposition by Republicans was consistent in spite of controls for the percent of urban residents in the constituencies.

Correlating for constituency variables (percent in the constituency employed in mining and manufacturing; percent urban; percent rural farm; median family income) to support for the majority of Democrats on 113 party opposition votes (1959), correlations below .3 emerge for each party on each variable. Slightly higher correlations appeared for mining and manufacturing and urbanness on 50 roll calls in the 1963 House.

However, using an analysis of variance technique combining categories with advantageously arranged cutting points, Flinn obtains higher correlation coefficients. For the 1959 data the coefficient for Democratic support and the distinct characteristics is .414, which exceeds

the level Flinn earlier described as "remarkably good."[5] For Republicans it is .353 (the significance level is only .250). Using the 1963 voting and similar constituency classifications analysis of variance yields a correlation of .687 for Democrats and .420 for Republicans.

Testing whether the size of plurality is related to cohesive voting Flinn obtained mixed results. He expected winners from districts with typical constituencies to show higher cohesion with their party than winners from atypical districts. A narrow margin of victory would intensify reluctance to be loyal by party members from atypical districts. The hypotheses did not hold up very well. Republican voting in 1959 was consistent with them but not in 1963. In typical Democratic districts the higher the margin, the higher the party loyalty in both 1959 and 1963.

Flinn presents some fragmentary findings on the relationships of experience, leadership, and ideology to cohesiveness, but they are less impressive than the findings discussed above. He concludes that homogeneous constituencies will probably make possible intra-party cohesiveness and inter-party competition and thus enhance the chances for responsible legislative parties.

His findings encourage further study of constituencies and the relationship of constituency characteristics to roll call voting, but his methods of analysis are weak. The analysis of variance which he employs indicates that variability in districts is related to varying

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[5]Flinn's remark is, "As a matter of fact [correlation] coefficients above .4 are remarkably good in a system as complex as the legislative system." (1964, p. 64).

levels of party cohesion. The constituency data he uses are very crude. There are obvious difficulties in retrieving the needed information, but the impact of constituency on roll call voting might have been more clear if roll call voting were analyzed according to particular policy issues. Concerned with "party responsibility," Flinn simply defined and used party votes, attempting to relate several characteristics to general party support scores. I prefer to hypothesize that certain constituency characteristics are related to particular kinds of issues. Indicators such as "percent urban" may be related to proposals on mass transit, home rule, tax advantages for farmers, etc. Percent blue collar may be related to proposals on unemployment compensation, business activities taxes, etc. It seems to me that it would be useful to test more broadly many possible relationships rather than whether a couple of characteristics are related to a general dimension of party support.

Congressional roll call voting and constituency characteristics also have been studied by Froman (1963). His analysis also focused first on one party and then on the other. In treating Democratic representatives he separates the southern and northern members of the party. He examined the first session of the 87th Congress. Some of his findings and interpretations can be summarized here. Having shown some evidence that the Senate is more liberal on domestic welfare legislation than the House of Representatives, he accounts for it with an analysis of constituency characteristics. The characteristics selected were percent non-white, percent of urban dwellers, and percent owner-occupied dwelling units. Froman chose these variables because they have been

associated with socio-economic liberalism in election studies. Percentages for each district in every state were compared with the state averages, dividing the constituencies into two groups for each measure; those above state averages and those below. In every instance the groups are of unequal size and more are marked by percentages associated with conservatism. Further, averaging the "Larger Federal Role" index scores of each district for the pairs of groups, lower liberalism scores were shown by the groups marked by conservative traits. Froman concluded that roll call voting patterns partly reflect constituency differences.

He supported this hypothesis further by looking at the roll call voting by legislative parties. Froman found northern Democrats much higher on indices of Kennedy domestic support, Kennedy foreign support and support for a larger federal role than northern Republicans. The averages for northern Democratic districts on constituency variables were more associated with liberalism than those for Northern Republicans. Further, holding party constant, a test using two groups for each party--those above compared to those below the median on each of four constituency measures--show correlations between the constituency measures and the liberalism scores. Froman summarizes his findings this way:

> First, northern Democrats have more liberal voting records than do Republicans. Second, Democrats tend to come from districts with higher proportions of characteristics which are generally associated with liberalism than do Republicans. Third, these constituency differences are associated with liberal voting records independent of party (1963, p. 93).

As Froman himself noted, his measures and data are gross. His findings lack precision. But they do give promise that a more careful comparison of constituency data and roll call voting behavior might yield

more definite results.

Several objections have been made to Froman's treatment and analysis of the data. As MacRae (1964) noted, Froman repeatedly threw away valuable information by converting finely measured data into dichotomies and trichotomies. Statistical tests of associations are only occasionally used and in those instances the associations are made between only a few different categories of Congressional districts. He, like MacRae, examines the relationship of constituency information to the voting by members of the parties separately. I do not want to make this distinction, but I will examine further some of the hypotheses he purported to have tested. I think more rigor can be introduced by using more constituency data and by relating these data to roll call voting dimensions which have been specified by scaling techniques. The scores Froman used are based on aggregations of roll call votes specified by the Congressional Quarterly. It is doubtful, for example, that the items used to determine support scores for "larger federal role" can be shown to demonstrate dimensionality.

Leroy Rieselbach (1964), who has concerned himself with foreign aid legislation since the beginning of World War II, has carried out tests of relationships quite similar to those I will carry out but in only one issue area--foreign relations. He scaled representatives' voting in each of five Congresses (the 76th, 77th, 80th, 83rd, and 85th) trichotomizing them into isolationists, moderates, and internationalists. Then he determined the correlations of ruralism, ethnicity, educational level, and socio-economic status in the districts to the support by the representative for foreign aid. The coefficients for each year vary and are

generally low. But in the last Congress, the 85th, ruralism was negatively correlated with support, -.45; socio-economic status was positively correlated, .27; ethnicity (based only on percent of Germans and Irish), .19; educational level (percent with some college), .16.

A point asserted by Rieselbach, which is suggested or implicitly assumed in some of the literature already mentioned, is that "the importance of district attitudes is inversely associated with the significance of political party as a determinant of the Congressional vote" (p. 587). He uses a longitudinal approach to examine this question, but he has limited himself to one policy dimension. Different findings may emerge using additional policy dimensions. On some policies there may be clear party differentiation which is accompanied by individual voting which correlates strongly with district characteristics.

Constituency characteristics and party may be mutually reinforcing factors which explain Congressional voting. Specifying the policy areas and testing these possibilities remains to be done.

Data and Tools of Analysis

There are basically two sets of data for this study. One is the roll call voting record of the 88th Congress, the other is data about the 435 constituencies from which the representatives were elected. The usefulness of roll call data has been argued in several places (examples include Turner, 1951, pp. 13-20; Truman, 1959, pp. 12-13; Crane, 1960; Greenstein and Jackson, 1963). But it should be noted that the reason it has utility to the researcher is because of its public character and potential consequences for representatives. Gross (1953, p. 380)

provides a tidy description:

> Even when the outcome is known by everyone, every member knows that what he does will be closely followed by his campaign opponents, his supporters, his rivals, and the many groups that seek his voting allegiance. The bills he introduces, his committee activities, the speeches he makes, the investigations he takes part in, the patronage he obtains, the motions he himself offers--all these have their place. In many cases, they represent a far bigger, though less tangible, impact on government than anything he can achieve by floor votes. But neither separately nor cumulatively can they displace his voting record as the central point of attention on the part of the major contestants in the legislative struggle.

This description is important because it emphasizes the decision-making of the individual representatives. A bill passes or fails according to the decision of a majority of participants. Support in excess of a majority does not materially affect passage or implementation. Nevertheless, because each representative's position on each bill has importance as a public position, the representative must be prepared to defend that position before various other actors and clienteles even though his particular decision may not have changed the collective decision on the bill. This consideration means that each roll call is important and that ones on which the outcome was close are not, by that fact alone, more important than those on which the decision was carried by a large margin.

The second set of data is information on all the constituencies. It is taken from the 1960 census. The Congressional District Data Book (U. S. Bureau of the Census, 1963) makes it possible for me to compare all Congressional districts on many characteristics rather than only a few.[6] I propose to use 21 specific measures of constituency characteristics (see Table I-1). Several are economic measures--median income,

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[6]Turner reports the difficulties he had with districts which constituted only part of a county (1951, p. 102). MacRae had similar problems (1958, pp. 334-335).

TABLE I-1--Item and measures for Congressional district populations variables

	Item	Source
1.	% Population change, 1950-1960	1--32
2.	% Urban of the total population	1--36
3.	% Negro of the total population	1--41
4.	% Foreign stock of the total population	1--44
5.	Median Age	1--75
6.	% Of persons enrolled in private elementary school	1--121
7.	% Of persons 25 or more, completed less than 5 years of school	1--126
8.	% Of persons 25 or more, completed 4 years of high school or more	1--127
9.	% Of persons 25 or more, completed 4 years of college or more	1--128
10.	Persons 25 or more, median years of school completed	1--129
11.	Median income	1--138
12.	% Total civilian labor force unemployed (April, 1960)	1--144
13.	% Housing units owner-occupied	1--193
14.	% Sound housing units with all plumbing facilities	1--203
15.	Median rooms per housing unit	1--216
16.	Median persons per occupied unit	1--230
17.	Median value, owner-occupied units--in hundreds of dollars	1--247
18.	Median rent, renter occupied units	1--254
19.	% "White Collar" workers	2--a
20.	% "Blue Collar" workers	2--b
21.	% Farm Workers	2--c

TABLE 1-1.--Item and measures for Congressional district populations variables--Continued

Sources:

1. The principle source of data is: U. S. Bureau of the Census, Congressional District Data Book (Districts of the 88th Congress). --A Statistical Abstract Supplement. U. S. Government Printing Office, Washington, D. C., 1963. The three digit number corresponds to the item references number of the Congressional District Data Book, and source notes, definitions, and explanations of the items are on pp. xv-xxvii.

2. CQ Census Analysis: Congressional Districts of the United States (August 21, 1964). A publication of Congressional Quarterly Service, Washington, D. C. pp. 1818-1828.

a. "Blue collar" workers, according to the CQ definition, include all craftsmen, foremen, operatives, service workers, private household workers, and laborers (except farm laborers).
b. "White collar" workers include all professional, technical, clerical and sales workers and all managers, officials and proprietors.
c. Farm workers include all farmers, farm managers, farm foremen, and farm laborers plus farm employed truck drivers, mechanics, and bookkeepers, persons engaged in crop dusting and landscape gardeners.

The CQ analysis of employment is a recalculation of data from the Congressional District Data Book. It is noteworthy that CQ reports higher percentages on white collar than Census (item 187). This is because Census bases the percent on the "Total employed" (156), some of which are not included in the breakdown in items 171-196. CQ uses only those included in 171-186, totaling these data and using the total as a base for calculating blue collar, white collar, and farm workers' percentages. For each district the percentages reported by CQ in the three categories of workers add to 100.0. But the reported numbers of workers in the three categories do not add up to a total equal to the reported "Total Employed Work Force."

median rent, and median home value. Probably highly correlated with these are percent "white collar" workers, and percent of persons with a college education. Each item will yield a somewhat different ordering of constituencies. Similarly there are several education measures--percent of persons who have completed less than 5 years of school, percent with 4 years of high school, percent with 4 or more years of college, and the median number of years of education for each district.

One item reports the percent of persons enrolled in private elementary schools. I am not certain what the item measures. While probably not important for assessing the level of education in the district, it may correlate with economic measures or it may indicate strong religious affiliation. The urban-rural dichotomy can be estimated with the measures percent urban and percent farm workers. Others are probably more independent--percent of population change, percent Negro, percent foreign stock, and median age. Percent unemployed (April, 1960) may be a basis for distinguishing between districts with similar percentages of "blue collar" workers. Three indicators are primarily curiosity pieces--percent sound units with all plumbing facilities, median rooms per housing unit, and median persons per housing unit. Probably they are economic indicators.

Methods of analysis will be described more carefully as they are applied, but for the moment a brief description is in order. Guttman scaling allows the analyst to specify with some confidence the general evaluative dimensions upon which respondents answer to propositions offering a policy choice. I want to specify several such dimensions in the voting of the 88th Congress. It is reasonable to expect that several can be identified. Belknap (1958) found four major scales for the Senate of the 80th Congress. MacRae (1958) reported eleven in the House, scaling within each of the two parties. Gray (1965) reports ten in the Senate for the 85th and 86th Congresses. A major advantage of this technique is that specific policy areas can be separated from one another and each can be compared to constituency indices. The pluralistic character of constituencies has been noted above. There are many implications of

pluralism in democratic theory. People with political interests make demands, receive deference, apply their resources, etc. most in relation to policies which are cognitively close to the situations and objects around which their beliefs are organized. It is clumsy to try to assess the "constituency influence" of farmers by relating the percent of farmers in districts to the support of representatives to their parties. Rather, the proportion of farmers can be expected to be related, if anything, to the behavior of representatives on farm policy. This is not to say that some characteristics may not be related to many policy areas, but that others ought not be dismissed as irrelevant unless they have been examined in relation to specific policy areas.

The hypotheses about the relationship of specific constituency variables to policy dimensions cannot be given until the dimensions are specified. Given scale scores for each representative on several dimensions and measures for each of the constituencies, I will determine the strength of relationships between them. Technically this will be a matter of correlation and analysis of variance. The guiding hypothesis of the study is that representatives take their constituencies into account in their roll call voting and therefore that the constituency characteristics and roll call voting patterns will correlate. The predictive power of constituency characteristics may be enhanced further when there are controls for political factors such as electoral competitiveness in the districts and the ambitions of the representatives. It will be interesting to make a post hoc examination of how the party affiliation of representatives fits with the data on constituencies and roll call voting.

Two questions will guide me:

1. To what extent are the district populations of Democrats and Republicans distinguishable by constituency characteristics?

2. To what extend do Democrats and Republicans take opposing positions on issue dimensions?

CHAPTER II

ROLL CALL VOTING ANALYSIS: THEORY AND PROCEDURES

A meaningful analysis of congressional voting requires the examination of many roll call votes. Even Berman's (1962) case study of the Civil Rights Act of 1960 treats several roll calls. A single roll call is subject to the vagaries of the moment, in addition to many possible pressures in and outside the House. For example, though there are some patterns of absenteeism in the House (the Tuesday through Thursday club), much of it is randomly distributed. A particular sub-committee may be too deeply involved in its business to break away for a roll call vote. Some members may be away from the Capitol on House business. A few may be ill or indisposed. Therefore any one roll call vote may be a poor indicator of participation patterns for particular representatives or groupings of them. Similarly a given roll call cannot adequately demonstrate range of policy areas with which the House is concerned. To speak adequately about representation and congressional decision-making, many decisions should be examined.

The theoretical considerations presented in the preceding chapter indicated that the appropriate kind of analysis of voting would be that which treated different policy areas independently. Indicators of a constituency interest should be compared to the roll call voting pattern in the policy area that is the object of the interest. The next step in research

is to specify some of the policy areas dealt with in the House of the 88th Congress.

Categorization of roll call voting must be approached intuitively. The content of the bills and the floor discussion concerning them can be examined and the bills sorted into as many categories as the analyst perceives to be relevant for his analysis. Using such categories analysts often construct indices of support or opposition by individual representatives to a particular kind of policy. For example, the analyst may isolate ten roll calls which seem to him to deal with one legislative issue such as labor unions. He may describe representatives by the percent of support they have given to labor unions on the ten votes. One vote favorable to unions would be 10 percent support, eight favorable votes would be 80 percent support, etc. Non-voting presents a problem, but the analyst can decide whether to count only actual support votes divided by opportunities to support, whether to count "declared" support even if the representative did not actually vote, or whether failures to vote affect the computation of support scores. In any case the category of roll calls implies that some universe of content or sample of such a universe of content has been defined and that the support or opposition scores derived describe in some useful way the behavior of representatives in relation to that content. This is the kind of index used by the Congressional Quarterly for scores on party unity, presidential support, support for a larger federal role, etc.[1]

There are several difficulties with such a measure. It is important to know how the roll calls for the index are chosen. If they are

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[1] See, for example, Congressional Quarterly Weekly Report, XXII, No. 44 (October 30, 1964), p. 2588.

chosen intuitively, different analysts may choose different roll calls to assess support for labor unions. This consideration does not invalidate the findings, but it should caution the person who might want to make inferences from indices prepared by any particular analyst.

Such an index provides no test of the internal consistency of the items in it. This is similar to the above which implies choosing items to consider for an index. Intuitive choosing can usefully narrow the search for items which provide a measure for union support, but all items may not indicate support in the same way. A roll call vote divides participants into two groups: those who support a motion and those who oppose. If two or more motions are similar, and if we can assume that the participants want to support a relatively consistent and fixed substantive position, then the roll call records for each of the motions (items) should correlate positively with one another. If they do not correlate, they are probably measuring different kinds of support, not the same kind. The correlation test bolsters the intuitive test that the items of the scale measure the same thing.

Besides including inappropriate items, like labor union support scores by two representatives may not mean the same thing. Knowing that representatives A and B have registered 20 percent support for unions does not tell us on which items each has registered support. Each voted in support on one-fifth of the proposals, but all of the items endorsed by A may have been opposed by B, and vice versa. This characteristic handicaps analysis.

Guttman scaling provides means for overcoming some of these difficulties. Originally developed to determine whether a series of

interview questions tapped an underlying attitude, the scale dimensions revealed by this technique have sometimes been treated as attitudes (Schubert, 1959, p. 273; 1965, pp. 27, 191 ff. See also the criticisms and reformulation by Spaeth and Peterson, 1967). This confusion has its roots in the early presentation of the theory and application of scale analysis by Louis Guttman (Stouffer, et al., 1950, pp. 3-90). Stouffer notes that "Guttman's model deals only with the manifest relationship among attitude items and defines an attitude directly as the observed responses to those items" (pp. 6-7). Guttman suggests that a definition might be derived if one assumes that an attitude is a "delimited totality of behavior with respect to something" (p. 51). For Guttman this delimited totality implies that there is a universe of behavior attributes which can be sampled by means of questionnaire items. The questionnaire responses allow the analyst to determine whether there is a rank order of attributes--a scale; and if there is, the rank of the individual respondents on the dimension the scale represents. Scales are relative to time and to populations, allowing the inference that an attitude is not a persisting organization of beliefs.

I prefer to treat Guttman scaling as a technique for assessing the dimensionality in decisional responses of representatives. In this way the unnecessary freight implied in the conflicting definitions and understandings of the concept attitude does not weight down the proposed study. Spaeth and Peterson argue that:

> . . . we cannot assume that the rank order on voting behavior reveals the rank order on an underlying attitude.
>
> A cumulative pattern may be considered a necessary but not a sufficient criterion for the identification of an attitude. That is, a single underlying attitude implies a cumulative pattern, but a cumulative pattern does not imply a single underlying attitude.

> If we are told that there is a cumulative pattern of behavior, we do not know whether a single attitude or a set of systematically related attitudes generated the pattern. If the latter is the case, one explains nothing by referring to the scale derived from votes as an attitude (p. 14, prepublication draft).

This is consistent with Torgerson's (1958, pp. 298-345) inquiry into the usefulness of Guttman scaling.

> The primary problem will be to determine whether the set of items and the set of individuals together "form a scale." Can we order the subjects and/or the items along a continuum in such a way that the responses of subjects to items can be accounted for by this order? Can we consider the responses to the items to be dependent on a single (though perhaps complex) attribute? Can the responses to the items be considered as indicating a relationship, with respect to a single attribute, between the "position" of the subject and that of the item categories? Can the alternative response categories within an item be ordered? If so, we shall say that the items form a scale for this group of subjects, or that the attribute to which all of the items refer is a scalable attribute (pp. 301-302).

The meaning of the attribute whose dimensionality is being tested is specified by the analyst and is operationalized in the items he uses. In Guttman's description the items used are a sample from a universe of content.[2] However, this is a hypothetical universe. Guttman's (Stouffer, et al., 1950, p. 81) "universe of all possible questions of the same content" cannot be constructed or tested. The theoretical difficulties of this idea have been noted by Torgerson (1958, pp. 332-333 and passim). It remains for the analyst to devise or select the questions which he believes will tap a particular attribute in the respondents. That is, the analyst assumes the existence of the attribute and that respondents can be ordered with respect to the attribute on one continuum. Several

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[2]Guttman uses the term "universe of attributes." I have avoided the word attribute because I will use it as Torgerson (1958) does in the portion already cited. In Torgerson's usage "univese of content" and "universe of items" are used interchangeably and his use of the term item "corresponds closely" to Guttman's term attribute (Torgerson 1958, p. 331).

fixed response items will allow the analyst to estimate the respondents' positions on the continuum. Items may have multiple response categories or may be dichotomous. Assuming that the respondents are distributed along the attribute continuum, the more broadly the responses are distributed, the more discrimination and information the analyst can obtain from the scale.

The existence of the hypothesized scale, developed from an assumed underlying attribute, can be tested. If all the items do inquire reliably about the same attribute, and if all the respondents correctly perceive their own relationship to the attribute and can identify their relationship to it on the items, then the analyst should have a perfect scale. Perfect scales are rarely reported.[3] It is more common to report a response pattern which approximates a perfect scale closely enough to be treated as if it were perfect. Several criteria have been suggested for evaluating whether the data obtained sufficiently resemble the perfect scale which is hypothesized (Torgerson, 1958, pp. 322-324). The main one is the Coefficient of Reproducibility. $CR = 1 - \frac{i}{n}$ i refers to the total number of non-scale responses and n is the total number of responses. A CR lower than .90 means that the data do not support the inference of a single underlying attribute dimension. Torgerson supplements this criterion with several others. Items with

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[3]Schubert (1965, p. 99) records that early in his application of scale analysis he made a "lucky hit," finding that a subsample of eight "right to council" decisions by the Supreme Court for the period 1940-1947 scaled without a single inconsistent vote. "The reason it was lucky," he says, "is because the observation of this rare empirical event encouraged me to look further into the structuring of judicial attitudes; in dozens of cumulative scales of the voting behavior of Supreme Court justices and of other judges, which I have constructed since that time, I have yet to encounter another perfect scale."

extreme marginals, i.e., those on which more than 80 percent of respondents give a like response, should not be used in determining the CR. Scales of dichotomous items should include 10 items or more. No large proportion of the respondents should have the same pattern of inconsistent responses. Each item of the scale should have a CR of at least .85. Each item category should have more consistent than inconsistent responses. These are convenient criteria, but not necessary ones. I will specify the extent to which I have followed them in the scales of legislative voting.

The advantage of the Guttman scaling technique is that it yields a ranking with a known percentage of non-scale responses. That is, with knowledge of each respondent's rank on a scale, the entire response pattern can be reproduced with a known proportion of errors (1 — CR). Further, there is a built-in criterion for rejecting items which return responses that are inconsistent with the larger pattern. The analyst uses a number of items to tap the hypothesized underlying attribute. The marginal total of yeas and nays determines the rank of the items in the array. But if many respondents do not have transitive response patterns and if the non-scale responses occur mostly on a particular item, that item should be removed from the scale. The scaling procedure prevents the analyst from including inappropriate items, items which are not part of the universe of content for the attribute under examination. Because scales yield ranks of respondents on attributes, these ranks can be compared to other variables, taking advantage of all the properties associated with ordinal level measurement (Siegel, 1956, pp. 21-30).

Scaling Roll Call Voting in the 88th Congress

To hypothesize dimensions of voting in the 88th Congress, I reviewed all the roll call votes of both sessions. The basic sources of information were Volumes XIX and XX of the Congressional Quarterly Almanac (1964 and 1965) and the CQ Weekly Reports for the same period. 119 roll call votes were reported for the House during the first session and in the second session 113 were added to the record. I examined these votes with a previous knowledge of dimensions defined by earlier analyses of House voting--Farris (1958), MacRae (1958 and 1965), and Rieselbach (1964 and 1966). I roughly defined eleven policy areas which might yield dimensions:

A. Foreign policy
B. Consumer protection and conservation
C. Agricultural policy
D. Urban improvement
E. Negro rights
F. Civil liberties
G. Education improvement
H. Orientation to professionalism
I. Economic policy
J. Social welfare
K. Party loyalty

Several residual categories were named. Some items were expected to be unique and some ambiguous (or multidimensional). I expected some votes to be in response to particular institutional actors; for example, the President and the Senate. Some issues might pit the government against business and labor. In some cases the House might divide with the leadership of both parties opposed to dissidents of one or both parties.

The first sorting using the above categories made several things clear (see Appendix A). Few roll calls seemed to fall into the residual categories other than "unique" and "ambiguous." Seven suggest the

leadership versus a few dissidents, but on only one item do the dissidents constitute nearly 10 percent of the participants. It would be impossible to assess the validity of a scale based on such items because any CR derived would obviously capitalize on the low proportion of opposition votes. Twenty-two items were dismissed as ambiguous for one reason or another. A couple of items had a substantive content which would have fit in one category (e.g. education policy), but debate records indicated other attributes were involved such as Negro rights. "Unique" items included, for example, policies which apparently included a regional response or which were dealt with in a single roll call for the session. Of 232 roll calls, 45 were not included in the eleven preliminary categories.

The categories were defined more narrowly and several subdivisions were established. Foreign policy (A-1) items were separated from foreign trade (A-2) questions. Both suggest a liberal versus conservative orientation. Foreign policy (A-1) is mostly a foreign aid dimension. It includes policy disputes dealing with technical aid and grants versus military spending; bilateral aid without "strings attached" versus conditional aid; aid through international agencies as opposed to bilateral aid; disarmament proposals versus proposals for military security. The content of the Foreign trade (A-2) attribute would be low tariff versus high tariff proposals; controls to benefit trading partners versus controls to benefit U.S. producers; encouraging payments in soft currencies rather than hard currencies.

Consumer protection and Conservation implies a common anti-business bias, but can be separated into two sets of contents. Consumer

protection (B-1) refers to a dimension of support or opposition for measures related to pure food and drugs, standardized labeling and packaging of products, controls on loaning procedures and advertising, and protection for users public utilities. Conservation refers to proposals for protection of wildlife, open lands, waterways, and other natural resources as well as the enlargement of parks and recreation programs. Conservation policies can be anti-business to the extent that they prevent the private exploitation of certain resources by making them part of the public domain.

I defined two kinds of agricultural policy items. C-1 was viewed as a farmer versus nonfarmer dimension. It would include issues involving price support levels, government assistance for cooperatives, REA, farm research and education, credit and loans, tax advantages, subsidized exports of farm products, etc. Protection of the "family farm" would fit here as well. The second kind of policy content (C-2) would reflect a liberal versus conservative orientation to farm policy proposals, especially by those with farm interests; liberals preferring increased government involvement in production planning, marketing and pricing commodities, and encouragement for unionization of farm workers. I would expect conservatives to oppose controls on production and marketing of commodities as well as labor legislation affecting farm workers.

Urban improvement (D) category contrasts sharply with the pro-farmer agriculture (C-1) category. It includes proposals for federal aid to solve problems which are essentially urban; such as policies for clean air, mass transportation and urban development. Instrumental proposals

for organizational changes such as cabinet status for agencies concerned with urban problems would also fit in this category.

Negro rights (E) can be quite narrowly defined. Omnibus civil rights bills dealing with voter registration, voting, employment and accommodations for all citizens obviously fit here. So too does legislation regarding the Civil Rights Commission and other agencies involved in the administration and enforcement of policies liberalizing opportunities for Negroes.

Civil liberties (F) is a more complex universe. It presents a confrontation of liberal and conservative values and priorities. Proponents of liberal values prefer individual liberty to governmental authority, newly derived statements of values to traditional ones, individual choice to the imposition of conventional morality, secular standards rather than those of the Judeo-Christian religious tradition, freedom of association rather than anti-communism. Conservative orientations are a basis for concern about system maintenance, whereas liberal values anticipate social improvements through innovation. As system maintainers, conservatives prefer an integrated and insulated society. They probably are more nationalistic than liberals. In the recent past, including the term under analysis, communism has been particularly threatening to conservatives precisely because it claims to be a revolutionary doctrine. The response of liberals to the real or imagined threat of communism has not been different in kind as much as it has been different in degree. Liberals do not perceive communism to be as threatening to the system as conservatives, thus they have not been inclined to anti-communistic responses with a nationalistic fervor. This

description suggests some correspondence to aspects of the foreign policy category.

Education improvement (G) refers to policies for enlargement of educational facilities and for extension of educational opportunities at all levels. This includes grants and loans to individuals as well as developmental projects and existing educational institutions.

Orientation to professionalism (H) refers to proposals which would enhance the professionalization of services for the public. Items of such a dimension may include proposals to achieve scientific management of governmental administration and services. To some extent they may reflect the principles of reformism and progressivism which came into vogue in municipal government after the turn of the century.[4] This would suggest items concerned with the protection and enlargement of civil service, more staff experts for congressional committees, emphasis on qualifications of public employees and efforts to improve their status and pay. It might be reasonable to expect that support for professionalism would be clearly independent of partisan identifications of the representatives than some of the other policy areas. In the tradition of the reform movement such issues may enjoy the status of being "above" partisan politics. Part of or parallel to the promotion of professionalism is the promotion of growth and development. Growth is equated with betterment. The entire nation must grow or die, and growth is enhanced by professionalization (compare with Williams and Adrian, 1963, pp. 21-41 and passim).

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[4]Charles R. Adrian reviews the development, assumptions and consequences of the reform movement (1961, pp. 79-85 and passim). John Porter East (1965) reviews the assumptions and value premises of the movement especially in the efforts of Richard S. Childs, the major proponent of council-manager municipal government.

Economic policy constitutes a very broad category. There is the difficulty that most policy proposals, whether they deal with Negro rights, education, agriculture or some other subject, they also have implications for spending. Any item including a proposal to spend is subject to conflict over whether to spend more or less. But often this consideration is buried or preceded by a more dramatic conflict. The conflict concerns how the government should spend, because the spending affects two congeries of interest--labor and business. If there is a labor versus business dimension in congressional voting, certain aspects of the following characteristics can be expected. (This is not to say that all labor interest groups or business interest group as would agree on the implications or even the premises of each, but that they suggest the range of conflict.) Unions have wanted government to intercede in their behalf in conflicts with management; management desires government to restrain unions. More broadly, labor has pressed government to intervene in the business cycle while business has claimed to prefer an essentially free market. Labor wants full employment, through government spending, if necessary. Business, tending to view labor as a commodity, has preferred moderate unemployment. Labor has been tolerant of deficit spending by government and is not concerned by creeping inflation. Business has urged balanced budgets, at least over the terms of economic cycles, and wants monetary stability. Labor argues the merits of increased wages, including legislated minimum wage levels, to achieve economic growth, but business prefers wage levels resulting from relatively free market forces. In the labor view inheritance taxes and progressive income taxes are means for obtaining a just and equitable distribution

of wealth. For business and businessmen such taxes are confiscatory and threaten the sources of needed risk capital. In general, labor is sympathetic to increased governmental spending and business prefers spending restraint.

The social welfare (J) proposals may yield dimensional patterns of response. On one end of the dimension is social welfare and security; on the other is individual welfare and security. The value question is whether the needy members of the society are to be supported by the society collectively through the authoritative decisions of government, or whether the responsibility is a matter of choice by private groups and individuals. It is apparent that government is involved in providing welfare, so the policy questions become ones of whether or not to broaden this involvement. This may take the form of new benefits for those already defined as needy, or enlarging the definition of what constitutes a needy person. I will look for proposals affecting aid to the poor, social security, medical aid, health insurance, slum clearance, unemployment benefits, vocational training, mental retardation, etc.

The final category of votes are those which are matters of party loyalty (K). This is a difficult category to characterize. The parties do not crassly propose and vote policies which debilitate one party to the advantage of the other. The substantive content of proposals rarely has as its object the position of the parties in the society at large. There is, of course the biennial vote for Speaker of the House. This is the only regular House decision having direct consequences on the parties and it is usually regarded as ritual observance rather than a considered response. Most studies of party voting simply use items

which fit an operational definition based upon voting outcome. The definition is in terms of the percentage of one party's members opposing a percentage of the other party. Lowell's (1901) criterion for a party vote was one with 90 percent of one party opposing 90 percent of the other. The Congressional Quarterly, Jewell (1962), and others have used all votes in which a majority of each party opposes the other. I have tried to categorize in terms of the issue content of the bills and the points which generated debate in hearings and on the floor. Occasionally disputes clearly identify alignments demonstrating party affiliation rather than commitment to the content of the policy proposal. Frequently these alignments are revealed in roll calls on procedural questions which govern how or when a policy proposal will be taken up. Another cue for discovering which procedural motions get a party response is the identity of the person moving the question. Often it is the party floor leader who moves, or opposes moving, a procedural question which is delaying, embarrassing, tactically advantageous, protesting, enlightening, entertaining, or several of the above. As Roland Young (1958, p. 160) has pointed out, there is an element of partisanship in every vote, but the significance of this element varies. I have chosen the roll calls that definitely seem to indicate, both by the substance of the debate and by the record of the vote, that the response was a partisan one. I have no new technique for identifying hitherto unrecognized party votes. Rather, I have taken apparent party divisions which show some splintering by both Republicans and Democrats to get an idea about which members tend to lean in which direction when the appeals for party unity seem to be present. The party loyalty category really is a semi-residual

category. That is, I expected some party votes, but looked first at the substance of the issue before the debate or the vote on it. If I were to err in the placement of items, I would rather that the party loyalty category be too narrowly defined than that it be too broadly defined.

Finally, the unanimous items were not useful for scaling because they allow no discrimination. They are not listed with the preliminary categories of votes. These categories are in Appendix A.

The scaling process was carried out on a CDC 3600 computer using the BMD 05S program for Guttman scaling.[5] This program can treat as many as twenty-five items and a large number of respondents (the number of respondents which can be treated depends upon the number items used). In the House of the 88th Congress 443 individuals were eligible to vote during the two year term. The main usefulness of the scaling program for processing roll call votes is that it records the responses of each representative on the designated items, roughly ordering the items and the respondents in terms of their support for the hypothesized dimension. This includes reflecting the responses to negatively stated motions; that is, the voted response may be "yes," but it may constitute opposition to the "liberal" position. For example, roll call 13,1964 is among the Foreign policy items (A-1). The motion is to recommit an authorization for the United States' contribution to the International Development Association. The yes vote indicates a "conservative" response to foreign policy.

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[5]W. J. Dixon (ed.) BMD: Biomedical Computer Programs (Los Angeles: Health Services Computing Facility, Department of Preventive Medicine and Public Health, School of Medicine, University of California, Los Angeles. January 1, 1964; Revised September 1, 1965.) pp. 379-389.

Unfortunately the BMD scaling program is not fully adequate for producing valid scale scores and correct error totals on the data being analyzed here. The problem is in the nature of legislative voting data. The BMD scaling program orders the items according to the increasing frequency of affirmative (or reflected negative) votes. Because the incidence of absenteeism varies from roll call to roll call, the items can be more appropriately ordered according to the increasing proportion of affirmative votes. The Negro rights (E) provide an example. Roll call 33, 1963, received 275 votes in support of Negro rights. The scale program places this item before (to the left of) RC (Roll Call) 72, 1963, with 285 votes and RC 96, 1963, with 288 votes. Examination of the vote pattern reveals many apparently inconsistent votes. However, if the items are ordered by the proportion principle, a different pattern emerges. RC 96, 1963, with the most pro-Negro rights votes also was opposed by the most votes. RC 96, 1963, got 288 pro-votes out of 419, or 68.74 percent.[6] RC 72, 1963, got 285 of 375 votes, or 76.00 percent pro-votes, and RC 33, 1963, got 275 of 327 or 84.10 percent pro-votes. The order of these three items had to be reversed. Because the BMD scaling program derives the scale scores and error counts from an inappropriate order, the coefficients of reproducibility calculated by the computer are also incorrect.

The use of proportions indicates an assumption that was made concerning absences. I assumed that the proportion of yes votes determined

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[6]The numbers and percentages reported here do not use the actual votes alone. This is explained in the text following and footnote 7. Further, these are the "net" figures which contain a correction for representatives who did not participate on enough roll calls to be assigned a scale score.

item position regardless of which individuals failed to participate (with one exception which will be noted later). Absences were treated as occurring randomly, not systematically; it was assumed that those who did not vote would have divided in the same proportions as those who did vote. In fact, there may be systematic absenteeism. Perhaps leaders call issues to a vote when opponents are absent. If this is true the numbers of inconsistencies in my scales will be higher than they might be.

Before presenting my scales, a word on the roll call data is in order. The voting record is taken from the Congressional Quarterly Weekly Reports for 1963 and 1964.[7] I included actual votes, live pairs, and declarations made to the CQ poll. This gave me information on absentees which would otherwise have been lost. Of course, it is necessary to assume that the declared position is consistent with the way the representative would have voted had he been present. Someone might object that this is a risky assumption and that representatives avoid painful decisions by not voting. If this is true, I do not think they would immediately reveal preferences which do go on the public record. On the other hand, I chose not to use the data recorded in the CQ Annual Report. Here declared positions are recorded well after the roll call is past. In the interim representatives who have not voted and

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[7]These data were supplied on punched IBM cards by the Inter--University Consortium for Political Research, Ann Arbor, Michigan. The punched code was as follows:

1. Yea
2. Nay
3. Paired Yea
4. Paired Nay
5. Announced Yea
6. Announced Nay
7. General pair or absent
0. Not seated in Congress at the time of roll call or Speaker of the House

have not revealed their positions at the time of the vote can assess the question with the benefit of hindsight, choosing the response which looks good on the record. I wanted to choose a prudent research strategy. I chose the Weekly Report record as providing the optimum amount of reliable information.

Torgerson's criteria for acceptable Guttman scales have been discussed above. However, these criteria are largely conventional and should not be applied without some consideration of what they are for. In this research I want to investigate not only whether particular dimensions of voting behavior can be inferred and validated by scale analysis; but further, I want to use these scales for measuring individual behavior. For my purposes this study is not one which is designed to identify all the dimensions of behavior evidenced by voting in the 88th Congress. Neither will great effort be expended in using scaling to determine whether certain, possibly ambiguous, proposals get a better fit in one scale than another. Assessing dimensionality is not, in this study, an end in itself; rather, each scale allows ranking the members of Congress on a scalable attribute. As pointed out earlier, the roll call voting of individual congressmen is what I seek to explain. I do not seek to explain the dimensions of voting. Roll call voting is the dependent variable in the constituency-representative relationship under study. The scale rankings are the data for that study. For my

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The work deck that I used was a computer recoding of the above deck. As paired for scaling.

1. Yea, Paired Yea, Announced Yea
2. Nay, Paired Nay, Announced Nay
0. General pair, absent, not seated, or Speaker

purposes the dimensions used should be as strong as possible. The primary tool for assessing that strength is the Coefficient of Reproducibility, which was discussed earlier. It is clear from the derivation however, that overall reproducibility for the scale is, as Torgerson (1958, p. 319) notes, "simply the average of the individual item reproducibilities." To insure more strongly that the roll calls of each scale lie on a single dimension, and that the content of the scale can easily be inferred, I have decided to use a more stringent standard of item inclusion than the one suggested by Torgerson and others. No items will be included in a scale if it includes nonscale responses exceeding ten percent of the total responses; that is, an item reproducibility of .9 or better, rather than the conventional .85.

To prevent capitalizing on items with extreme marginal values to obtain a scale of CR of over .9, I will compute the CR using only the item marginals with a minority response of 20 percent or more. I will also report Menzel's Coefficient of Scalability (1953) which is not inflated by extreme item marginals because it uses the sum of the smaller marginal totals as the divisor for the sum of the nonscale responses. That is, if a scale item has 410 responses and only 30 are negative, then the 30 is used in the divisor.

$$CS = 1 - \frac{i}{\sum_{1 \rightarrow N} M_s}$$

i is the total of all the nonscale responses in the scale, M_s is the smaller item marginal total, and N is the number of items in the scale. The appropriate level of acceptance for CS, as suggested by Menzel (1953), is "somewhere between .60 and .65." The criterion that error

patterns within a scale should be "random" has not been clearly specified. Torgerson (1958, p. 324) says: "Practically, this means that no large number of subjects should be found who all have the same nonscale pattern of responses. If this does occur, it is evidence that more than one variable is involved." I will not eliminate items by this criteria because I have raised the minimum item reproducibility to .9. By definition no more than 10 percent of the respondents could then have the same nonscale pattern of response. However, I shall be alert to this kind of pattern and point it out minor manifestations if they occur within the inconsistency limits already mentioned.

This scaling procedure involved submitting the selected items for computer analysis and examining the scalability of the items in terms of the criteria. Two problems are implicit in the procedure. One is dealing with absences. I used the votes cast by 443 members. Some died or resigned within the term. Those chosen as replacements voted on some proportion of the roll calls. Then there is the usual absenteeism by the members. Participation ranged from a low by Representative Charles A. Buckley (D NY-23), who voted on 29 percent of the roll calls, to a high of 100 percent participation by several members. Speaker McCormack (D Mass-9) voted on none of the measures. I decided to remove from each scale those individuals who participated on less than half the items in the scale. Many of the absences have no consequence in establishing a scale score. This is true as long as the absences do not intervene between the cutting points of the scale. An example makes this clearer. Clarence D. Cannon (D Mo-9) died during the term of the 88th Congress. But he participated on enough items to be scored on several

scales. On the Foreign policy scale (A-1) his voting pattern looked like this (7 indicates affirmative votes, 1 indicates negative votes, and 0 means nonparticipation):

0 1 1 1 0 0 1 ‖ 7 0 0 7 0 7 0 7[8]

There were 15 items and their order was defined by the proportion of yeas in the total responses to each item. In spite of seven nonparticipations, the vote pattern indicates the point on the dimension where opposition ends and support begins. Cannon's support score (8) is determined by counting from the right to the left. He voted affirmatively for the 8th item, and opposed the 9th item. The cutting point in Cannon's support is between these two items. It is assumed that if he were present for items 2,4,6, and 7 he would have supported them. Similarly he would have opposed items 10, 11, and 15. The matter is not resolved as neatly when absences intervene on the cutting point. Representative Milliken (R Pa-7) presents a case in point, again on the Foreign policy scale (A-1):

1 1 1 1 1 1 0 1 1 1 0 1 7 7

He affirmed items one and two. He opposed item four and all the other items on which he participated. There is no evidence about how he wanted

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[8]As pointed out previously in the text, scale analysis allows ordinal level measurement, not interval level measurement. The pattern of zeros, ones, and sevens given above reproduces the appearance of the computer printout. This pattern may leave the false impression that the items are at equal intervals and that therefore the difference between scale scores of 5 and 3 is equal to that between scores of 8 and 6.

The following is more appropriate. Assuming for a moment a dimension of behavior on which the location of items (#26, 34, 14, etc.) in relation to one another is perfectly known, and the vote responses to the items by a set of representatives (A, B, C, etc.) is also known, the meaning of scale scores can be explained more clearly.

to vote on the third item. I arbitrarily assigned him a score of 2.5.[9]

The second problem is more disturbing. It involves inconsistencies which occur at the cutting point. Consider Representative Flynt's (D Ga-4) voting on Foreign policy (A-1):

0 1 1 ‖ 7 7 7 1 1 1 7 7 7 1 7 7

In establishing cutting points the analyst makes the decision which results in the fewest inconsistencies. For example, one would not assign Flynt a score of 2, simply because he opposed item 3. All subsequent affirmative votes would then be considered nonscale responses and there would be six of them. Clearly, the response to item 3 is an inconsistency. The real difficulty is whether to cut between items 6 and 7 or

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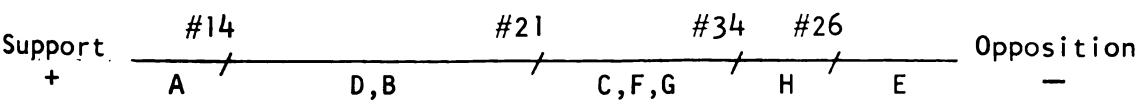

E voted in support of none of the items. He voted against #26 and the others or he could have been absent on #14 or #21. He is assigned a scale score of 0. H supported item #26 but opposed all the items to the left of #26, which included more liberal proposals. H is assigned a score of 1. C, F, and G endorsed two items, #26 and #34, but not the others. Each is scored 2. Similarly D and B are 3's and A receives a 4.

Only the items and the responses to them provide markers in terms of which the respondents' ideal points can be estimated. C, F, and G get the same score, which simply indicates that their ideal response points are somewhere between where items #21 and #34 cut the dimension. It is theoretically likely that C, F, and G are not precisely alike in the support they would give to "all possible" proposals which might fall on this dimension. The data only warrant saying that they would support items falling into the right of item #34 and oppose those left of #21 if they responded in a consistent fashion.

H is "more liberal" than E but how much more liberal remains unknown. C, F, and G are more liberal than E too. How much more liberal is not known, but the difference is greater than that between H and E. Scale analysis allows an imprecise but valid ordinal level of measurement. (Compare this discussion to MacRae, 1958, p. 219 ff).

[9]This procedure is arbitrary but not unreasonable. It is consistent with Schubert's treatment of nonparticipations by justices of the Supreme Court. See his explanation in the Judicial Mind (1965, pp. 77, 79).

between items 12 and 13. Either cut will result in four inconsistencies but there is a considerable difference in two scores--6 compared to 12. Intuitively it might seem reasonable to simply assign a score of 9. But in terms of scaling theory this is inappropriate. It would leave the respondent with seven inconsistencies. The choice must be made. To make it the following procedure was followed. All respondents who could be scored without occurrence of the nonscale response ambiguity were scored. The median scale score was determined for the group. Then the respondents who could not be scored because of ambiguous nonscale responses were assigned the scores more (or most) like the median for unambiguous respondents. The median score for respondents unambiguously scaled on Foreign policy (A-1) was 12. Flynt was assigned a 12 and the responses to items 3, 7, 8, and 9 were counted as inconsistent votes. This example raises the question of how large a discrepancy between possible scale scores can justifiably be determined by this method. The literature is not clear on this point. I assigned a score if the number of scale ranks between the alternatives (12-6=6) did not exceed half the possible scale positions (in this case, 8). This criterion is not particularly stringent.[10] However, the example shown above is from a relatively large scale. Others will be discussed below which have only a few items. The rule of thumb I used maximizes the placement of respondents.

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[10]Compare to MacRae (1958, Appendix A, p. 321, 322). When absences occurred at cutting points no scale score was assigned if possible scores "spanned more than half the possible scale types." But with "errors" no score was assigned "when more than one error response occurred." However, many of his items were contrived from more than one roll call.

Assigning scale scores requires two passes through the list of respondents. In the first pass those which are not ambiguous because of nonscale responses are scored. Most of the respondents can be scored in this pass and most of the non-scale responses in the overall scale pattern can be identified. After such a pass I total the nonscale responses for each item. Although additional nonscale responses are identified in the second pass, none are removed. Therefore occasionally it is apparent after only one pass that one or more items contain nonscale responses exceeding 10 percent of the entire response pattern for the item. The entire procedure of assigning scores is unnecessary. The obviously inappropriate items are removed and the remaining set can be analyzed anew. On the other hand it may not become apparent that an inappropriate item has been included until the totaling of nonscale responses after the second pass. After appropriate exclusions the set is analyzed again.

Scaling Results

The dimensions under examination and the items initially identified as elements of these dimensions have already been presented. However, in the steps taken toward establishing the existence of dimensions, some of the items were discarded and others put into different universes of items. As previously noted, it is easier to describe the central thrust of a dimension than it is to specify which items will scale together before examining the response patterns in detail. Even then it is well to note MacRae's cautioning remark: "[T]he appearance of expected [scalar] response patterns does not guarantee perfect unidimensionality. It is more reasonable to infer, if these patterns are

found, that we have taken an important step toward measuring a single dimension. . . ." (1958, p. 221). Some readers may find it useful if I briefly describe how each scale was developed, the items which were dropped, and the meaning of the dimensions that are the products of the analysis. These descriptions are taken in the order in which the categories were previously described.

The Foreign policy scale contains 15 of the 20 items originally hypothesized. While it may seem that the elimination of one-fourth of the original items is a discouragingly high proportion, I do not think this is true for this scale. Four of the items were eliminated, not because more than 10 percent of the responses on each were of a non-scale kind, but because one of the two response categories (yea/nay) of the items contained more inconsistent than consistent responses. This can occur, of course, only with items having extreme marginals; items with a percentage imbalance more extreme than 10 to 90 or 90 to 10. Three of the items eliminated were those having only a single dissentor (1964: 11, 78, and 92). These single dissents were, in each case, inconsistent with the dissentors' own votes on the other items in the scale. Each had affirmed other more liberal items, but objected to one of these items. A fourth item (1963: 10) had only 32 dissentors but more than half (18) of the dissents were inconsistent with the rest of their item responses. The remaining item (1964: 60) which did not scale was very close to the item reproducibility criterion (.9). There were 40 inconsistencies out of 399 responses. The fifteen remaining items form an acceptable scale.[11] (See Appendix B for the specific content

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[11]There is great similarity between this scale and Leroy N. Rieselbach's (1966) foreign aid scale. Reiselbach used eight of the

of the items.) The Foreign policy dimension is the basis for ranking the support in the House for increasing the United States' involvement in economic and social modernization of foreign countries. The tightness of the scale is evident from the coefficients of reproducibility (CR = .950) and scalability (CS = .880).

The Foreign trade scale (A-2) is only a three item scale. On two of the items passage was in serious question, but on the other item the opposition amounted to less than three percent of the participants. Two-thirds of the inconsistent responses occurred on one of the three items. The scale scores for individual representatives are of dubious reliability in spite of the fact that the reproducibility indices are very high (CR = .985; CS = .958).

The consumer protection scale (B-1) is the only other three item scale treated. Four Consumer protection items were hypothesized. One (1963: 86), a proposal to establish a District of Columbia Alcoholic Beverage Control Board as an independent agency, received responses different from the pattern established in the other three items. This might be a response to the proposal as a liquor bill, or it may be an expression of hostility toward independent agencies controlling significant aspects of urban Washington affairs. The remaining items scale tightly but two of the votes are on the same bill, one allowing an open rule for debate, the other a vote to recommit. The low proportion of nonscale responses

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same items; all those dealing with authorization and appropriation of foreign aid funds (1963: 61, 62, 100, 112 and 1964: 51, 52, 61, 62). However, he treated disarmament, as posed in a roll call supplying money to operate the Arms Control and Disarmament Agency (1963: 95), as a different issue. I find that this item scales acceptably with the aid authorization and appropriation votes in spite of the fact that its content is somewhat different from the authorization and appropriation of foreign aid funds.

suggests that scalability will not be a problem if in other congresses more items for this dimension come to the floor for decision. The reproducibility indices are high (CR = .993; CS = .949).

Seven items were identified as conservation votes. Two (1964: 68, 73) were discarded during the scaling procedure. Both had extreme marginals one with only a single dissonant vote and the other with but eight. The remaining items revealed a well structured voting pattern. The content of these five items in the Conservation scale (B-2) are clearly concerned with conservation and the preservation of outdoor recreation space. The reproducibility of the scale is high (CR = .972; CS = .919).

Even before reviewing the issues voted on in the House of the 88th Congress I anticipated two dimensions of Agricultural policy: one pitting farmers against nonfarmers, the other being a liberal versus conservative Farm policy dimension. On the latter both farmers and nonfarmers would be divided among themselves as liberals and conservatives. The evidence did not warrant this assumption. I thought I sensed the farmer versus nonfarmer cleavage on one appropriation item (1963: 4), but the remaining items seemed to be of a liberal versus conservative kind. Nine items were examined together first. Three (1963: 31, 84; 1964: 93) dealing with Mexican farm labor were obviously different from the remaining items. To the six remaining items I added the appropriation item (1963: 4) and constructed a single seven item scale. This scale and the individual scale scores must be interpreted with caution. It is flawed by the nature of Agricultural policy debate (compare with Jones, 1961, for example). In theory it might be expected that the

liberals would urge the extension of federal subsidies and price supports, controls, and allotments in all farm production. However, there are crop and regional considerations which enter into the voting of the representatives. The cotton, peanuts, and rice interests are sometimes in conflict with wheat, feed grains, and livestock interests. These cleavages are evident within the agricultural policy scale (C) which I have constructed. Because these data deserve further analysis I allowed one inappropriate item to remain in the scale. A cotton subsidy authorization bill (1963: 99) was kept in the scale in spite of the fact that the item reproducibility was below the conventional level (CR = .893 instead of .9 or more). The repreducibility of the scale, including the cotton subsidy item, is high enough to be accepted (CR = .943; CS = .862).

The Urban improvement dimension (D) is perhaps a harbinger of increasing activity and conflict in Congress. Eleven items were hypothesized for this dimension and two (1963: 101; 1964: 102) were removed before construction of the final scale. The first of these items was an authorization of funds for mass transit in the District of Columbia and this item clearly does not scale with the other items in the set. The second item is peripheral to the content of the scale. It established a twenty-five member national council on the arts in the executive office of the President. Because the arts seem to me to be a particularly urban expression, I originally placed the item in this category. The scale also includes three votes on one particular bill concerning the expansion of federal funds for public library services in urban areas. One of these items, the vote on final passage, was positioned in the scale adjacent to the arts council item. The cutting points logically

necessitated by this item order also brought out apparent inconsistencies in the library services item. Considering only the inconsistency pattern, the library vote could have been removed; however, because two amendments to the library services bill patterned appropriately and this bill seemed squarely in the dimension according to content, I decided that the inconsistencies were simply artifacts of an inappropriate placement of the arts council item. Removing the latter a solid nine item scale of Urban improvements resulted (CR = .958; CS = .894).

One item (1964: 64) was removed from the hypothesized universe of content for the Negro rights scale (E). This politically potent dimension did not include many items, but the historic Civil Rights Act of 1964 was twice brought to a vote in the House of Representatives. That bill originated in the House and was passed February 10, 1964. It was necessary for the House to vote on it again July 2, 1964, accepting Senate amendments. That timing affected the original selection of items for the scale. The non-scale item (1964: 64) was an authorization for a House committee to investigate campaign expenditures in the 1964 election. Some southern representatives feared that this committee might involve itself in the Civil Rights question because the Civil Rights Act would increase Negro voting in the south. This fear was doubtless inspired partly by the fact that the House committee resolution was also voted on July 2, 1964. It is clear, however, that many opponents of the House investigation committee were not opposed to Negro rights, and that many southern opponents of Negro rights favored the existance of the committee. The five item scale on Negro rights is extraordinarily tight. Very few inconsistent responses were made by the representatives on this

scale. Of all the scales constructed, the Negro rights scale has the highest indices of reproducibility (CR = .992; CS = .970).

Thirteen of the eighteen items originally classed as Civil liberties items were included in the final Civil liberties scale and one other item was added to this group for a total of fourteen items. As I conceptualized this dimension I was looking for issues in which individual liberties, in a broad sense, were at stake. In the examination of issues dealt with in the House, it appeared to me that the opposite pole of this dimension is the enhancement of collective solidarity, or nationalism. The content of the items is superficially diverse, including items such as the House Un-American Activities authorization, a proposal to deny jurisdiction over state legislative apportionment to federal courts, and authorization for the President to proclaim Winston Churchill an honorary citizen of the United States (Appendix B gives the content of the items). Two of the eighteen items were eliminated on the first analysis pass because they obviously did not fit with the others. One (1963: 8) involved the issue of research and development of the RS-70 bomber and the other (1963: 39) concerned suspension of the equal time provision for all political candidates in the 1964 Presidential campaign. After complete scale analysis it was apparent that three items (1963: 6, 29, 105) with extreme marginal totals included inconsistent votes on more than half of the responses of the smaller category.

The Civil liberties dimension is not heavily freighted with issues raising the specter of communism. Three concern external communism. The roll calls (1963: 111; 1964: 43 and 105) struck at whether

communist countries should be allowed to receive farm surpluses or U.S. commodities which were in any way subsidized by the federal government. Two (1963: 5, 22) tangentially dealt with the internal threat of communism: the first raised the question of whether the Secretary of Defense ought to be able to fire security risks without appeal; the second was the vote on the HUAC authorization. For other terms of Congress issues related to the threat of communism might be a basis for distinct dimensions which would be more narrowly defined than the present Civil liberties dimension.

One exceptional point should be noted about this scale and the order of items in it before reporting the coefficients of reproducibility and scalability. Scale items were conventionally ordered according to the proportion of votes in favor of civil liberties, enlarged foreign involvement, Negro rights, etc. As explained above, proportions were used rather than absolute numbers because of the variable of absenteeism. The number of absentees was assumed to have no effect on the proportions of representatives voting pro or con. However, in this scale such was not the case. Two items with similar proportions of pro votes (1963: 111 with 44.02 percent favoring the civil liberties position and 1964: 101 with 44.53 percent) introduced more inconsistencies to the scale when analyzed in the usual order than they did when the order was reversed. Therefore I reversed the order, reducing inconsistencies, and assigned scale scores according to this reversal. For some reason not apparent to me, fewer opponents of the more libertarian position were absent on 1963: 111 (concerning commodity credits to communist countries) than were absent on 1964: 101 (proposal to deny jurisdiction over state legislative apportionment to federal courts). The reproducibility of the scale is

clearly acceptable (CR = .952; CS = .850).

Only six items were assigned to the education category (G). The proposals generally offer the opportunity to enlarge, extend, or improve education and educational opportunities through government assistance. The only item excluded from the hypothesized universe of content was the vote on the adoption of a conference report for a bill previously passed by the House (1963: 112). Slightly more than half of the twenty-three votes cast against accepting the report were inconsistent with voting on other scale items. The scale was reconstructed with five items and it demonstrates acceptable reproducibility (CR = .949; CS = .816) although there are minor patterns in the inconsistencies which may be worth some further examination at a later time.

The category of roll call votes which demonstrated the least structure was that hypothesized as Orientation to professionalism (H). Initially the category contained fifteen items, but in the process of winnowing out items containing apparent inconsistencies more items were discarded than were used. Having argued the utility of using voting scores based upon a unidimensional variable, it is appropriate to have discarded items containing sizeable proportions of inconsistent responses. Nonetheless, it should be noted that scale analysis is not a technique for defining the universe of content. Guttman (Stouffer, et al., 1950, p. 85) has pointed this out saying:

> Scale analysis as such gives no judgment on content; it presumes that the universe of content is already defined, and merely test whether or not the area is representable by a single variable. It might serve as an auxiliary argument with respect to content in the special case where there is controversy over but one or two items of a large sample of items in which the remaining items are scaleable. . . . Sheer scalability is not sufficient; an item may happen to scale with an area, and yet not have the content defining the area--it may be a correlate rather than part of the definition.

If an underlying attitude or set of systematically related attitudes account for cumulative patterns of voting behavior, the apparent inconsistencies in this hypothesized scale suggest the representatives' attitudes toward the role of government in promoting professionalization in governmental activities are less distinct or less salient than a good many others. The scale first constructed with fifteen items qualified only as a quasi scale (CR = .896; CS = .689). Four items with the most nonscale responses were removed (1963: 46; 1964: 19, 20, 21), yielding a somewhat tighter scale (CR =.914; CS = .732), but one in which there were some noticeable nonscale response patterns. Three more items (1964: 10, 22, 67) in which nonscale responses made up more than ten percent of the responses were removed. This eight item scale was much stronger (CR = .942; CS = .814), but two of the items with extreme marginals had half or more nonscale responses in the answer category with fewer responses (1963: 70; 1964: 17). Thus the scale scores of individual behavior are of questionable reliability because of the process used in constructing the final six item scale. The reproducibility is acceptable after this process of elimination (CR = .944; CS = .825), and the content of the items still evidence a concern for professionalism.

The results with the hypothesized Labor versus business dimension (1-1) were also somewhat disappointing. Before reviewing the bills which came to roll call votes I anticipated that there would be several items that would sharply divide supporters of business and supporters of Labor on a single dimension. That these are polar ends to a single dimension is supported not only by conventional opinions of journalists, but by political research as well. Turner (1951, pp. 58-64), for example, noted that the opponents on these issues were consistent opponents and that in

large part Republicans and Democrats were distinguishable on this dimension.

The voting structure, or lack of it, in this content area is partly accounted for by substance of the items which were voted in the 88th Congress. There were few direct conflicts or "gut" issues which set labor opposite business interests. The often threatened more to repeal section 13B of the Taft-Hartley Act would be such an issue, but this proposal did not come to the floor during the period under review. Instead there were more oblique conflicts or conflicts in which more dimensions than one were involved. Two bills on Mexican farm labor (1963: 31, 84) previously tried in the agriculture and social welfare scales, did not fit here. A vote on the extension of federal inspection and safety requirements of the Federal Coal Mine Safety Act to small operators did not scale--possibly implying that there is a different response to proposals affecting small businesses. The hypothesized content, fifteen items, failed to scale acceptably. One other item (1964: 77), besides the three just mentioned, was removed. It was an item affecting the proportion of funds, spent for naval ship maintainance, which would be spent in private shipyards rather than government ones. Besides being somewhat peripheral to the hypothesized dimension, the situation of the vote may have affected the issue. The motion called for the House to recede from its disagreement with a Senate amendment. Expectably, representatives whose districts included government shipyards opposed the move.

Repeating the scaling procedure with eleven items, two more did not meet the minimum item reproducibility criterion. The tenth annual one-year extension of temporary excise and corporation income taxes (1963: 37) did not fit the pattern of the other items. Several Republicans and

a few southern Democrats, who favored the labor position on other items, opposed the extension of the temporary taxes. On the other hand a number of anti-labor Republicans went along on the tax extension (which, incidently, had the support of Wilbur Mills, Chairman, and Howard Baker, second ranking Republican, of the House Ways and Means Committee). The other excluded item (1964: 6) came to a vote in a complicated floor maneuver. It involved the hypothesized dimension in that the basic proposal was an amendment to the Davis-Bacon Act of 1931 requiring that construction wages on federal projects be at the "prevailing rate" for an area, preventing depressed wages through the importation of cheap labor by contractors. The Secretary of Labor would be required to include fringe benefits (medical payments, health plans, etc.) when defining the prevailing rate. The actual vote was procedural. Opponents of the amendment wanted to include a provision for judicial review of the Secretary's rate determinations. To get this change considered on the floor, the rule governing floor consideration of the bill had to be enlarged. Supporters of the original amendment voted in favor of "ordering the previous question on the rule governing floor consideration of the bill." A number of Republicans, who opposed other items, supported this motion; and a number of southern Democrats who favored other pro--labor items, appear to have favored the judicial review clause. Re--analysis of the nine items remaining showed that on final passage of the Davis-Bacon Act amendment (1964: 7), more than half of the minority opposing the bill was voting in a nonscale fashion. Most of these apparent nonscale responses came from southern Democrats. This item was also removed and the scale results were obtained with only eight items.

The scaleable items remaining from the hypothesized Labor versus business dimension are mostly tax items. I viewed them as Labor versus business items because proponents of tax reduction (especially on what became the Revenue Act of 1964; this bill came up in the House in four scaleable roll calls--(1963: 67, 68, 69; 1964: 12) argued the desireability of taxation changes in terms of increased employment. One public works vote was for the avowed purpose of increasing employment (1963: 12). One item broadened job protection for the transit workers of companies getting federal aid (1964: 57), another affected job retraining (1963: 36). The remaining item was a pro-business proposal which was supposed to eliminate certain excise taxes to the advantage of some business interests (1964: 55). The scale developed from these eight items shows apparent dimensionality, although there is a hint at patterned inconsistencies by some Republicans who opposed a closed rule on the Revenue Act but voted for adoption of a conference report on the Act four and a half months later. It is with some reservation, therefore, that I will treat this scale as a Labor versus business dimension (CR = .961; CS = .888).

It seems that the 88th Congress escaped, whether fortuitously or by design, the polarizing issues which might be expected to pit labor interests against those of business. It is not apparent why this should be the case. Of the fifteen items originally hypothesized, the pro--labor side narrowly lost on only three. Of the eight scaleable items, the pro-labor position lost but once. Whether or not more distinctively pro-labor propositions might have been passed cannot be determined from these data. An imposing proportion of the House members never opposed

the labor side. However, bolder proposals may, I suppose, have alienated some marginal labor supporters. On the other hand it may be that labor has more support on the floor than it does in the sub-committees, committees, and cloakrooms. I raise these side questions for more detailed inquiry; the data I have do not shed further light on the point.

The spending scale comes out of items originally grouped together simply as economic policy items. The 55 items of the economic policy category were re-examined and broken down into smaller groups of items, one of which is the spending category. While many policy proposals involve to some extent the question of whether to spend more or less, that consideration seems dominant in the issues treated here. Twenty-four items were used in the first analysis run. Four were eliminated because more than 10 percent of the responses were inconsistent with the other items (1963: 13, 44; 1964: 90, 108). Further examination showed that each of four items with extreme marginal totals had more inconsistent than consistent responses in one of its answer categories (1963: 48; 1964: 45, 54, 103). Two others, upon re-examination, were taken out of the spending category to be scaled with the space spending (1-3) items. The spending scale (1-2) consists mostly of authorizations and appropriations for government departments and to the extent that there was controversy in committees or on the floor of the House the debate was over how much should be spent, rather than the content of the programs--welfare, education, etc. The reproducibility of the scale is acceptable (CR = .941; CS = .842).

The Space spending scale (1-3) is smaller than the spending scale. Six of the larger set of economic policy items dealt particularly with

spending by the National Aeronautics and Space Administration spending. Opponents of NASA's spending seem to have objected more to its objectives than its spending. These opponents sniped particularly at the objective of having a man on the moon by 1970 and preferred that more emphasis be given to developing military sophistication in space research. The six hypothesized items scale acceptably (CR = .983; CS = .946).

Substantial voting structure is evident concerning the orientation of the 88th Congress toward the national debt (I-4). Four times the issue came to the floor, accompanied by recommittal motions three times, and twice there were votes on consideration under a closed rule. In all there were nine items. No debt extension proposals failed, but most of the votes were close. One vote on a closed rule (1963: 56) identifies the most extreme opponents to increased national debt. The reproducibility of the scale is quite high (CR = .979; CS = .952).

The Social welfare scale (J) consists of fifteen items. Seventeen items were first hypothesized for the scale. One (1964: 69) was dropped on the first pass because of a large number of inconsistencies. Three others (1963: 31, 84; 1964: 93) which deal with migrant farm labor, but which do not scale with Agriculture policy, were added for analysis. Two (1963: 31, 84) were dropped after the first pass because of nonscale responses. After the second pass two items (1963: 55; 1964: 93) which have extreme marginals were dropped because less than half the responses in the smaller categories are consistent. The remaining items deal with welfare measures including mental retardation, vocational work study programs, increased social security benefits, and

housing. It might be noted that about one-third of the nonscale responses in the scale are on two items. One (1963: 50) is substantially marginal to the universe of content. The vote was actually procedural, but it was a rule to waive points of order against a rider to a foreign service building authorization allowing small claims against the United States by Filipinos for war damages. My decision to include it in the social welfare universe hinged on the consideration that small claims were being encouraged and settlements were to be made with individuals. The other was a fairly closely contested administration bill (1964: 30, food stamp bill authorizing $400 million over four years) on which there were seventeen nonscale yes votes. Fifteen of these seventeen were cast by Democrats. That is, their general pattern of voting would lead one to expect that on this item these fifteen Democrats would oppose the bill. These nonscale responses may be a clue to party or pressure group efforts. The reproducibility of the whole scale is acceptable (CR = .956; CS = .873).

Lastly, party loyalty dimension consists of all fourteen of the items hypothesized for the scale. Of the items six are decisions on substantive proposals, six are procedural votes moved by one party to delay, obstruct, or embarrass the opposition, and two are organizational votes (for details, see Appendix B). Further examination of the voting pattern will be made in a later chapter. For the present it should be pointed out that support for the items range from a higher proportion on the right to a lower proportion on the left. This makes the scale a dimension of support for the Democratic party--those with the lowest scores are the most loyal Republicans, those with the highest scores are

the most loyal Democrats, and those with intermediate scores are switchers. As is evident from Table II-1 below, this scale shows the most polarization of voting; 65 percent of the representatives are loyal to their parties on all of the votes constituting this scale. The firm structure of the scale is evidenced by the reproducibility indices (CR = .981; CS = .953).

Hypothesized Relationships between Constituency Characteristics and Scale Scores

The results of the scale analysis are useful in several ways but the first use I have for them is to see whether they are related to constituency characteristics. The scales provide an ordinal measure of the voting behavior of the representatives on several dimensions. The general hypothesis of this study is that representatives take their constituencies into account in their roll call voting and that particular constituency aspects are salient to different policy dimensions. Some of these salient aspects may be indicated or approximated by available demographic and socio-economic variables. Therefore, although the causal links may be tenuous, certain associations should be apparent between the constituency variables and the scale scores of roll call voting. The analysis technique I will use is correlation, which is simply a coefficient of relationship. Direction of cause cannot be inferred from this coefficient, of course. I will hypothesize the direction from the theory already presented, inferring support for the hypotheses if the associations I find are strong.

Before hypothesizing and assessing the strength of the relationships between the independent and major dependent variables, some

TABLE II-1--The scalability and distribution characteristics of the sixteen roll call voting scale scores

Scale dimensions	A	B	C	D	E	F
	Number of items in the scale (K)	Number of scale items with marginal frequencies between 30 and 70 percent	% of Reps in the extreme left scale category	% of Reps in the extreme right scale category	Σ of %'s in C and D	Ideal % of Reps per scale score 100/2K+1
Civil liberties (F)	14	5	2.8	2.6	5.4	3.4
Spending (I-2)	14	6	2.1	.7	2.8	3.4
Urban improvement (D)	9	7	22.9	20.3	43.2	5.3
Conservation (B-2)	5	2	11.3	6.1	17.4	9.1
Foreign policy (A-1)	15	13	35.8	15.0	50.8	3.2
Social welfare (J)	15	7	43.6	.7	44.3	3.2
Party loyalty (K)	14	13	39.2	26.0	65.2	3.4
Labor vs. business (I-1)	8	6	41.8	9.2	51.0	5.9
Agricultural policy (C)	7	5	9.5	33.0	59.6	6.7
Consumer protection (B-1)	3	2	38.1	10.8	42.5	14.3
Negro rights (E)	5	3	45.4	14.2	48.9	9.1
Orientation to debt (I-4)	9	8	48.8	15.0	63.8	5.3
Space spending (I-3)	6	3	49.5	11.9	61.4	7.7
Orientation to professionalism (H)	6	5	50.2	6.0	56.2	7.7
Aid to education (G)	5	2	50.9	6.1	57.0	9.1
Foreign trade (A-2)	3	2	44.8	1.0	45.8	14.3

TABLE II-1--The scalability and distribution characteristics of the sixteen roll call voting scale scores
Continued

Scale dimensions	G	H	I	J	K
	Coeffi-cient of Repro-ducibility	Coeffi-cient of scalability	Standard deviation (S) of the distribu-tion of REPS in the scale categories	Number of Reps scored in each scale (N)	Standard error of the mean distribu-tion of Reps ($S_m=S/\sqrt{N}$
Civil liberties (F)	.952	.850	22.77	425	1.10
Spending (I-2)	.941	.842	23.66	423	1.15
Urban improvement (D)	.958	.894	27.43	419	1.34
Conservation (B-2)	.972	.919	26.37	380	1.35
Foreign policy (A-1)	.950	.880	28.80	427	1.39
Social welfare (J)	.956	.873	33.90	424	1.65
Party loyalty (K)	.981	.953	35.94	431	1.73
Labor vs. business (I-1)	.961	.888	41.45	426	2.01
Agriculture (C)	.943	.862	43.98	388	2.23
Consumer protection (B-1	.993	.949	42.37	350	2.26[a]
Negro rights (E)	.992	.970	46.70	425	2.26[a]
Orientation to debt (I-4)	.979	.952	48.91	426	2.37
Space spending (I-3)	.983	.946	52.65	422	2.56
Orientation to professionlism (H)	.944	.825	53.84	418	2.63
Aid to education (G)	.949	.816	55.61	393	2.81
Foreign trade (A-2)	.985	.958	65.07	384	3.32

[a]Order determined by calculating to four decimal places.

remarks will be directed to the structure in the independent variables themselves. Appendix C presents a table the simple product-moment correlations between each pair of constituency variables. The summary of relationships, which specifies the correlations of $\pm$ .65 or more, suggests quite clearly the structure that is present in the constituency data. Some of these associations were anticipated in Chapter I, but some are in marked contrast to the expected values. There are two related but distinct sets of four variables each. These are the economic and education sets. Besides the expected strong associations between Median income (11), Median home value (17), and Median rent (18) it is evident that the percent of sound housing units with all plumbing facilities (14) measures pretty much the same underlying economic variable. The education variables, the percent of persons with less than five years of school (7), the percent of persons with four years of high school or more (8), the percent of persons with four years of college or more (9), and the median years of school completed (10), all substantially correlate with one another with the single exception that the percent with low education (7) does not show a strong negative correlation with the college variable (9). Expectably, there are firm associations between these sets of items, but generally at a lower strength than the associations within the sets. This supports what should have been intuitively clear already; that when the relationships between the independent variables of either set and the dependent variables of roll call voting behavior are examined, economic variables should be controlled on education, and educational variables should be controlled on economic ones. An employment variable which seems to mediate between these two sets is

percent of White collar workers (19). It is most highly associated with college education (9), but it is strongly associated with all the economic items and the percent urban of the total population (2) as well. The latter, percent urban (2), which I will refer to as a "demographic" variable along with percent of population change (1), percent Negro of the total population (3), percent Foreign stock of the total population (4), and Median age (5), is substantially associated with all the economic variables and is negatively related to the percent of Farm workers (21) in addition to its relation to percent White collar.

There is some mildly surprising information in these correlations. For example, the percent of housing units owner-occupied (13) does not correlate very strongly, compared to the other items, with economic, education, demographic, or employment variables. It correlates above the .65 level only with Median rooms per housing unit (15) and these two items form a mutual pair (i.e., of the 21 items examined, the highest correlate of each is the other). This contrasts with MacRae's (1952) interpretation of the variable in Massachusetts using 1950 census data. He interpreted it as a rural-urban variable. More recently, Froman (1963, p. 91 ff.) treated it as a measure of socio-economic status. The finding here is consistent with that of Frost (1959), whose rank correlations of Home ownership with Urbanism, Median family income, percent of population with four or more years of college, and percent of population with professional and technical occupations shown no strong relationships (the highest is .52 with percent urban of the population) and with those of Hadden and Borgatta (1965), who examined 1960 census data for all (644) cities in the United States with populations over 25,000.

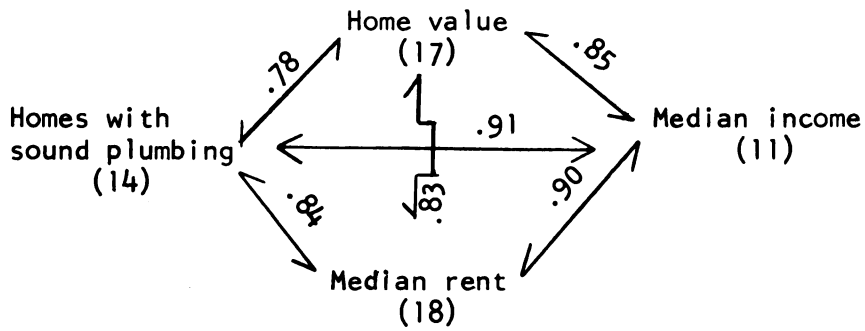
Compared with 65 variables, using the "all cities" data, the percent of owner occupied units correlated above the ± .65 level only with "percent housing units in one unit structures." (Rooms per unit was not included among their variables.) Hadden and Borgatta factor analyzed their data, producing 13 factors which they felt they could label. The Owner occupancy item appears in five of these factors but its loading never exceeds .45 using the "all cities" data. That highest loading is on the "population density" factor. It is fairly clear then that the Owner occupancy variable is not a very clear indicator of any of the better understood sociological variables such as SES, Education, Urbanism, etc.

It is interesting to note that percent Blue collar (20) is not highly correlated with any of the other variables. The variables most strongly associated with it are education variables. It correlates negatively with College education (9, with r = -.55) and High school education (i, with r = -.52). The percent of the total Labor force unemployed (12) is not strongly related with other variables either. Its highest correlate is percent Blue collar (20, with r = .43). The highest correlate of the percentage of Negroes (3) is .61 and that is with the low Education variable (7). The noticeable characteristic of the correlations between percent Negro and the other variables is that the signs are predominatly negative. On the other hand, percent Foreign stock (4) correlates with two economic variables at the .65 level or higher. But its highest correlate, interestingly, is the percent of persons enrolled in Private elementary schools (6, with r = .71). This is a mutual pair of variables. I think this tends to support the suggestion made in Chapter I that the Private school enrollment variable

is roughly indicating strong religious affiliation from both Roman Catholic and Protestant supporters, many of whom are Foreign stock.

Perhaps it is less surprising that population increase (1) does not highly correlate with any of the other variables. The percent of Farm labor (21) correlates negatively with Urbanism (2, with r = -.75), and the economic variables of Median income (11, with r = -.68) and sound Housing with all plumbing (14, with r = -.66). Median age (5) correlates strongly with the median number of persons per housing unit (16, with r = -.72).

It is useful to know the intercorrelations of these variables so that the analysis of the dependent variables may be done with some parsimony. The economic variables form a tight cluster, each associated with the others of the cluster more strongly than with any of the other seventeen variables.



Because this is true and because these economic variables are strongly related with other variables it will be desirable to control for economic variables while examining relations between other independent variables and roll call voting behavior. These controls will be easier to introduce if they are carried out with a single variable than with each of the four taken one at a time. Therefore, to select the variable

which best represents the underlying economic dimension I have calculated mean correlation for each variable on the other three variables. The variable with the highest mean is the best estimate of the underlying dimension.

Table II-2--Intercorrelations of the economic variables

	Median income (11)	Homes with sound plumbing (14)	Home value (17)	Median rent (18)
(11)	*	.90888	.85438	.90400
(14)	.90888	*	.78108	.84319
(17)	.85438	.78108	*	.82956
(18)	.90400	.84319	.82956	*
	2.66726/3	2.53315/3	2.46502/3	2.5675/3
Means	.88909	.84438	.82167	.85892

Median income is the best estimate; therefore, when controlling for economic effects on relationships, I will simply control on median income.

A similar procedure with the Education variables is inapproriate. While the percent of the population with High school education (8) and Median education (1) are the most highly correlated mutual pair of variables among all the variables examined, Low education (7) and College education (9) correlate more highly with other variables than they do with variables of the education category. This means that no single variable of the category characterizes the information well enough to serve as a control for the category. Wherever it seems useful to control for education it will be necessary to control individually on each of the variables.

The measurement of the dependent variables--scales of roll call voting--should also be inspected before hypothesizing relationships. To this point I have not tried to say which scales yield the best measures of voting in the respective dimensions. Only the reproducibilities have been noted. The literature is not particularly helpful here. Guttman (Stouffer, et al., 1950, p. 79) has suggested that with dichotomous items "It is probably desirable that at least ten items be used, with perhaps a lesser number being satisfactory if the marginal frequencies of several items are in the range of 30 percent to 70 percent." This consideration bears on the scalability of the dimension in question. However, it leaves unanswered the question about which of the scales with less than ten items ought to be considered seriously. Eleven of the scales have fewer than 10 items; of the eleven, fewer than half the items are in the 30--70 percent range on only the Conservation scale (B-2) and the Aid to education scale (G). It is worth mentioning, however, that in the scales presented here an unusually large number of respondents have been scaled. Nearly 6600 scale scores were specified, averaging well over 400 per scale. With the lowest CR = .941 (Spending, I-2) and the lowest CS = .816 (Aid to education, G) the scalability of the dimensions is remarkably well demonstrated.

Distinguishing among the scales can probably be done better with an assessment of their discrimination than by simply considering the number of items in each. An example illustrates the point. An ideal scale for scoring 400 respondents might include 9 items. Although it is not possible to know by scaling alone the distance between the items, it might look like this:

Items	9	8	7	6	5	4	3	2	1
Respondents in category	40	40	40	40	40	40	40	40	40

More important is the question, how many respondents fall into the scale categories. There are ten categories (0, 1, . . . , 9). If the item distribution and the respondent distribution were ideal, there would be 40 respondents, or 10 percent of the total, in each scale category. Unfortunately the distributions in the actual scales do not resemble this ideal very closely. What is immediately apparent about the distributions is that they tend to be restricted at one end of the dimension or the other. Usually, it is at the left end. As I have set up the scales this means that a large proportion of the representatives supported the most extreme item on the scale and that there is no way of distinguishing which respondents might have supported an even more extreme item. Table II-1 shows the degree of curtailment for each scale.

The degree of curtailment is disturbing particularly because it can be expected to produce depressed correlation coefficients (McNemar, 1962, p. 144-5). Certain corrections can be applied to improve correlations based upon parametric measurement, but none have been developed for non-parametric ones.

Table II-1 also reports ideal category percents (F) and standard deviations for the observed scale score distributions (I). The representatives were ideally distributed across the scale categories of the Foreign policy (A-1) scale, for example, there would be 3.4% in each of the 31 categories and the standard deviation (S) would be 0. However, as columns C, D, and E indicate, certain categories include far more than the ideal share. This accounts for much of the variation indicated

for each scale in column I. There is a further explanation for this great variation. It will be remembered that where absences intervene on the cutting points of the scales half scores are used. In general only a small proportion of the representatives received half scores. There are, therefore, more whole than half scores. Yet the existence of these half scores necessitates treating the data as if the number of scale categories is 2 K + 1, with K equal to the number of items in the scale. I have reported the standard deviation simply because it provides the reader with some feel of how distributions of scale scores in each scale compares with that of the others. It is obvious that where variation is high, most of the scale scores are falling into only a few of the scale categories. Comparing the Orientation to debt (I-4) scale to the Urban improvement (D) scale, the standard deviations indicate that the distribution is more uneven in the former than in the latter. The Consumer protection (B-1) scale with only three items shows much less variance than the six item Space spending (I-3) and Orientation to professionalism (H) scales. The final coefficient reported (column K) is the standard error of the mean ($S_m = \frac{S}{\sqrt{N}}$, with N = the number of respondents; McNemar, 1962, pp. 73-79). Conventionally, this statistic is used to make inferences about a population mean from the mean and distribution of a sample, similar to standard deviations which ordinarily are used to explain population distributions from samples. Here the purpose is simply to point out the degree of regularity in the distribution and the stability of the mean. Each of the relevant characteristics of the scale score distributions has weight in this statistic: the unevenness of the distribution, the number of items and the number

of respondents. It is noticeable, for example, that most of the scales with a small number of items (and usually a smaller number of respondents) have a high standard error--notice Foreign trade (A-1) Aid to education (G), Orientation to professionalism (H), etc. However, the Orientation to debt (I-4) scale has nine items and still has a substantial standard error term. On the other hand the Conservation (B-2) scale, with five items, has one of the lowest standard error terms of the sixteen reported. These measures give a much fuller picture of the scales than merely considering the number of items and how many of the items have marginal frequencies between 30 and 70 percent.

At this point it seems inappropriate to make a decision about which scales ought not be given full consideration because of the proportion of respondents in one or both of the extreme scale categories, the size of the standard deviation or the size of the standard error. Compared to one another, however, it is apparent that some have much better distribution characteristics and will probably yield larger coefficients of correlation and shared variance than can be expected of the others.

The hypothesized relationships between the independent variables and the scale scores of congressional voting should be discussed briefly at least. In general I am hypothesizing relationships of scales with variables because I think that these variables are indicators of preferences, expectations and/or interests which representatives will take into account when they make their roll call voting decisions. The evidence of relationship will be rank order correlation coefficients. I will hypothesize strong, moderate, and weak relationships--the latter

indicating I expect no meaningful relationship. Tentatively, I will define strong to mean $r_s = \pm .400$ or more; moderate, $r_s = \pm .250$ to $\pm .399$; weak, $r_s = +.249$ to $-.249$. Statistical significance is not particularly helpful with these correlations because the number of observations being correlated is very high. In later parts of the study significance levels may become relevant as correlations within subgroups of the House membership are examined. However, with 400 observations correlations much smaller than $\pm .250$ are significant beyond the .001 level.

I expect that support for Civil liberties (F) will be strongly associated with indicator of substantial education (8, 9, 10) and with the percent Urban (2). The relationship will be negative with low education (7) as well as with Median age (5), Blue collar (2) and Farmers (21). The relationship will be moderately positive with White collar (19), the economic variables (11, 14, 17, 18), Population change (1), and Foreign stock (4). I expect a moderate negative relationship with Private school enrollment (6). Weak relationships will occur with Unemployment (12), Owner occupancy (13), Rooms per unit (15) and Persons per occupied unit (16). I also expect the relationship with the percent of Negroes (3) will be weak, but this might not be the case if data on the south and southern representatives were excluded.

The expected relationships for all the scales need not be described here. Table II-3 summarizes them. I have hedged somewhat on predicting relationships of the four scales which yielded the least discrimination. The only variables mentioned are those expected to be at least moderately related to the scales.

TABLE II-3--Hypothesized relationships between 21 independent constituency variables and 16 roll call voting variables[a]

Dependent variables scale scores on	Correlations hypothesized between the independent variables (1-21) and the scale scores of roll call voting		
	Strong	Moderate	Weak
Civil liberties (F)	2, 5, 7, 8, 9, 10, 20, 21	1, 4, 6, 11, 14, 17, 18, 19	3, 12, 13, 15, 16
Spending (1-2)	2, 4, 11, 14, 17, 18, 21	1, 3, 5, 6, 7, 9, 12, 13, 19, 20	8, 10, 15, 16
Urban improvement (D)	2, 4, 9, 19, 21	1, 3, 5, 7, 8, 10, 11, 12, 14, 17, 18, 20	6, 13, 15, 16
Conservation (B-2)	1, 4, 8, 9, 10, 21	5, 11, 13, 14, 16, 17, 18, 19	2, 3, 6, 7, 12, 15, 20
Foreign policy (A-1)	5, 8, 9, 10, 19, 21	2, 4, 6, 7, 11, 12, 14, 17, 18	1, 3, 13, 15, 16, 20
Social welfare (J)	2, 3, 4, 5, 7, 8, 9, 10, 12, 21	1, 6, 11, 13, 14, 17, 18, 19, 20	15, 16
Party loyalty (K)	2, 3, 4, 11, 12, 14, 17, 18, 19, 20	1, 5, 6, 7, 9, 13	8, 10, 15, 16, 21
Labor vs. business (1-1)	7, 11, 12, 14, 17, 18, 20, 21	2, 4, 5, 6, 9, 13, 19	1, 3, 8, 10, 15, 16
Consumer protection (B-1)	2, 4, 7, 21	3, 5, 8, 9, 10, 11, 12, 13, 14, 17, 18, 20	1, 6, 15, 16, 19

TABLE II-3--Hypothesized relationships between 21 independent constituency variables and 16 roll call voting variables[a]. Continued

Dependent variables scale scores on	Correlations hypothesized between the independent variables (1-21) and the scale scores of roll call voting		
	Strong	Moderate	Weak
Negro rights (E)	5, 21	1, 2, 4, 6, 7, 8, 9, 10, 11, 12, 13, 14, 17, 18	3, 15, 16, 19, 20
Agricultural policy (C)	11, 14, 17, 18, 21	1, 3, 4, 6, 8, 9, 10, 16	2, 5, 7, 12, 13, 15, 19, 20
Orientation to debt (1-4)	5, 6, 7, 9, 12, 21	1, 2, 4, 8, 10, 11, 13, 14, 16, 17, 18, 19, 20	3, 15
	MODERATE		
Space spending (1-3)	1, 2, 5, 9, 21		
Orientation to professionalism (H)	1, 2, 5, 9, 11, 18, 19, 21		
Aid to education (G)	2, 8, 9, 10, 14, 17, 18, 19		
Foreign trade (A-2)	5, 9, 10, 12		

[a]The italicized variable numbers indicate that negative coefficients are expected. Because a low correlation indicates no relationship, and sign becomes nearly meaningless, none of the variables hypothesized as weakly related is italicized.

The hypothesized correlations are not very high, particularly when compared with the values noted among the independent variables. But as noted before, the decision-making which underlies the dependent variables is very complex. The level of measurement used on

these dependent variables is only ordinal, thus the correlation technique must be rank correlation. The correlations will be attenuated by the fact that many of the respondents have tied ranks. Finally, the distributions among the scale score ranks are often uneven, a matter which will be explained more fully in a later chapter. These measurement problems make it even more difficult to predict how strong associations will be between the independent variables and the dependent variables measured in the minor scales.

Introducing controls to these relationships should make some clarification possible. Education, particularly College education (9) probably intervenes upon the relationship of economic variables with the policy scales. Controlled for percent of college educated, the higher the median income the more negative the relationships will be between it and the roll call voting scales. In some policy areas I expect economic variables and education variables to correlate with scale scores with opposite signs. To use the spending scale as an example, I hypothesized that income will correlate negatively and College education will correlate positively. If this is true, then in spite of the fact that the correlation coefficients may be quite close to zero, the application of statistical controls will sharply affect the coefficient. That is, because the Pearson product moment correlation between Median income and College education correlate is .66, partialling out the effect of college education on the relationship between income and the Spending scale will dramatically increase the coefficient of correlation between income and Spending.

It is difficult to predict how the percent of Negroes in the population (3) is related to the scales of voting. That percentage

has different if not opposite meaning in the south than it does in the urban areas of the north. In several scale relationships I have hypothesized weak relationships because I expect that the regional meanings cancel one another out. Controlling for region will sharpen the understanding of how this variable is related to scales of voting.

CHAPTER III

THE RELATIONSHIPS BETWEEN CONSTITUENCY CHARACTERISTICS AND ROLL CALL VOTING

Recently, it has become fashionable to study public policy outcomes comparatively and account for the differences in outcome by differences in economic development. These comparisons have been made at different levels; for example, Cutright (1965) has compared the social security policies of 76 nations, Dawson and Robinson (1963 and 1965) examined welfare policies in the American states, and Williams, Herman, Liebman and Dye (1965) have studied urban services of small municipalities in the Greater Philadelphia area. In these and similar studies the authors have interpreted their findings to mean that "economic development" variables explain the level of services provided through public policies better than do political variables. In general, the conclusions have been that the more developed a system is economically, the higher the level of services provided through the public policies of the system.

The central question of this study, whether constituency characteristics explain roll call voting, seems to be similar to that posed in the studies cited above. However, there are distinct differences that ought to be noted. The units of analysis are quite different. Dawson and Robinson, for example, are dealing with states and states are systems unto themselves, as Herbert Jacob (Jacob and Vines, 1965, p. 8ff.)

has pointed out. This implies a number of characteristics (see, for example, Easton, 1965a and 1965b; Mitchell, 1962) which are not associated with congressional districts or their representatives. A congressional district provides very little sense of community to those who are legal members of it. It even lacks a name. Ordinarily, it is the unit of organization for only the election of a representative and the campaign organizations with that purpose rarely number more than four at one time. At the time of the primary elections, for example, there may be two contesting nuclear organizations in each party (Schlesinger, 1966, pp. 125-127). If any of these nuclei is to persist over a very long time, it will probably be the winning one, and even that organization is seldom substantial. In a state system, the authorities make binding decisions which materially affect its members. These authorities are responsible to those over whom they have authority. The representative does not clearly resemble state government. State authorities are several, while the representative is only one man. More important the representative does not make binding decisions upon his constituents as state authorities do. The representative has a voice in the decision-making which binds members to a much larger community, his constituents included. He is responsible to a small part of the larger community as he shares in the authority over the larger community. To explain national policy outcomes in the manner of the research cited, the focus would be on national resources. This is not the procedure used here.

It is unlikely that measures of economic development in constituencies will have the explanatory power for congressional voting that they seem to have in explaining system outcomes. The resources of the

district are not redistributed within the district by the decisions of the representative; rather, he shares in deciding what part of the system resources will be used, and what segments of the society will be benefited in the distribution of these resources. To the extent that his constituents are differentially affected by these decisions, his voice in the decision may speak for the attitudes and interests of the differentially affected members of his congressional district. The importance of his voice in the decision which results may be of little consequence as the representative relates to his constituents. What is probably more important to him is that his voice is heard by constituents than that it be heeded in decision-making. Roll call voting is one mode of expression by which the congressman speaks for his district. The vote, or even an index of voting, is not very comparable to a policy output ranking. It may more closely be compared to an individual raw score that a researcher might obtain as he seeks to determine the average IQ for a large high school. The roll call vote is only one step, albeit an important one, toward the implementation of a policy output.

From the findings of Dawson and Robinson and others, it seems that the availability of system resources sets important boundaries--upward and downward limits--within which the level of outputs will fit. What is not clear from their findings is which decision-makers take into account these boundaries or whether the boundaries simply impose themselves like some invisible hand as the decision-making process is carried on and the various combatants seek to work their will upon the decisions. I do not expect to find relationships between constituency resources and the voting of congressmen which are as strong as those discovered between system resources and policy outputs. Constituency

resources are less consequential in the sense of presenting limits to a representative. Perhaps he looks at the differential effects of policies and how these relate to constituency interests and attitudes. To the extent that these attitudes and interests are associated with constituency characteristics I will be able to detect statistical associations between constituency data and roll call voting.

A second area where findings may be different from Dawson and Robinson concerns the importance of political variables. Dawson and Robinson, along with Thomas Dye (1966, pp. 238-259 and passim), have found that differences in policy outputs are not as related to party control, competitiveness, voting participation, apportionment, and other political variables of the system as they are to socio-economic variables. I have designed my research to examine relationships of constituency data with roll call voting with and without separate consideration of the two parties. The effects of party, competition, seniority, ambitions and other political variables will be considered, too. The variation by party will be taken up more thoroughly in the next chapter.

Correlations between Independent and Dependent Variables

In a statistical sense, the analysis presented here is an elementary one. The correlation coefficient describes the extent to which a pair of variables vary with one another. As I have explained above and in chapters one and two, I did not expect the coefficients between the constituency characteristics and the voting scores to be very large. By Flinn's (1964) rule of thumb, a coefficient of .4 or higher should

be taken as a substantial relationship between an independent variable and a measuring of voting. This is to say that explaining roughly 16 percent of the variance in voting is a substantial chore for the legislative analyst.

The relationships between the constituency variables and the roll call voting variables are presented in Table III-1. The matrix presents Spearman rho rank correlations. For Kendall's tau correlations, see Appendix D. Of course tau, by mathematical necessity, is a lower coefficient than rho. The two measures are more similar at zero and near zero correlations, but at higher levels tau is only two-thirds the magnitude of rho.(see McNemar, 1962, pp. 203-205; Siegel, 1956, pp. 202-229). However, an advantage with tau, which will be capitalized upon later, is that it can be generalized to a partial correlation coefficient.

These rank correlations are an appropriate alternative to the parametric measure, Pearson product-moment, which requires equal interval measurement and scores from a bivariate normal population. It is, however, difficult to compare the rank correlations to the product moment ones. It is known that the "efficiency" of the rank correlation is about 91 percent. This means that to reject the hypothesis of no relationship (the assumptions for proper use of the product moment correlation having been met) between A and B, with a hundred cases rank correlation will reveal the correlation at the same significance level as the product moment will with 91 cases. However, there is no known algebraic function relating rank correlations to product-moment correlations. For my own information, I have compared the rho correlations

TABLE III-1.--Rho correlations[a] between 21 independent constituency variables[b] and 16 roll call variables

	1 % Population change	2 % Urban	3 % Negro	4 % Foreign Stock	5 Median Age	6 % With private elementary education	7 % With low education
Civil liberties (F)	166	390	124	327	202	276	167
Spending (I-2)	229	191	269	072	063	028	428
Urban improvement (D)	180	353	137	318	200	223	264
Conservation (B-2)	179	257	081	213	105	125	217
Foreign policy (A-1)	131	410	125	344	234	270	186
Social welfare (J)	168	296	136	243	192	212	270
Party loyalty (K)	208	236	282	095	085	062	410
Labor vs. business (I-1)	219	220	233	111	117	070	385
Agricultural policy (C)	328	057	353	101	103	122	531
Consumer protection (B-1)	023	376	145	346	174	221	172
Negro rights (E)	028	434	360	643	430	586	388
Orientation to debt (I-4)	179	217	283	059	037	040	398
Space spending (I-3)	126	273	317	098	073	018	415
Orientation to professionalism (H)	099	351	151	310	204	259	231
Aid to education (G)	109	342	043	367	285	307	004
Foreign trade (A-2)	175	051	276	134	084	137	400

TABLE III-1.--Rho correlations[a] between 21 independent constituency variables[b] and 16 roll call variables--Continued

	8 % with high school education	9 % With college education	10 Median education	11 Median income	12 % Unemployed	13 % Owner Occupied dwelling units	14 % Sound Units with all plumbing
Civil liberties (F)	077	040	035	173	247	325	176
Spending (I-2)	289	160	258	105	261	373	080
Urban improvement (D)	164	095	125	113	310	317	133
Conservation (B-2)	103	059	084	022	276	301	036
Foreign policy (A-1)	080	004	037	182	218	294	205
Social welfare (J)	165	092	137	064	267	296	085
Party loyalty (K)	286	172	248	079	270	351	035
Labor vs. business (I-1)	271	181	238	074	317	317	037
Agricultural policy (C)	423	309	406	279	249	462	255
Consumer protection (B-1)	023	064	025	186	196	227	225
Negro rights (E)	297	132	330	546	071	091	492
Orientation to debt (I-4)	290	165	256	085	258	341	043
Space spending (I-3)	236	091	191	040	220	345	011
Orientation to professionalism (H)	105	033	072	144	193	310	163
Aid to education (G)	033	016	068	221	219	099	224
Foreign trade (A-2)	281	157	264	184	231	268	165

TABLE III-1.--Rho correlations[a] between 21 independent constituency variables[b] and 16 roll call variables--Continued

	15 Median rooms per dwelling unit	16 Median persons per dwelling unit	17 Median home value	18 Median rent	19 % White collar workers	20 % Blue collar workers	21 % Farmers
Civil liberties (F)	212	128	206	151	149	155	389
Spending (I-2)	339	051	056	129	038	202	206
Urban improvement (D)	224	068	137	066	101	216	381
Conservation (B-2)	296	139	059	016	066	114	220
Foreign policy (A-1)	180	103	219	146	187	163	421
Social welfare (J)	214	086	105	028	088	181	332
Party loyalty (K)	358	083	013	099	019	195	232
Labor vs. business (I-1)	302	065	030	097	029	233	243
Agricultural policy (C)	413	009	209	263	221	167	034
Consumer protection (B-1)	228	062	255	156	181	143	351
Negro rights (E)	228	156	469	478	346	063	468
Orientation to debt (I-4)	290	024	030	105	018	202	229
Space spending (I-3)	325	049	004	097	034	234	269
Orientation to professionalism (H)	147	051	178	097	142	183	391
Aid to education (G)	023	159	177	157	197	122	360
Foreign trade (A-2)	361	041	171	257	109	125	027

[a]Italicized correlation coefficients are negative

[b]See Table I-1 for more precise descriptions of constituency variables.

of the constituency variables with one another to the product-moment correlations (the latter are in Appendix C). The variance between pairs of correlations I have observed tends to be between .020 and .110. Signs are different only where the relationships are very slight. There seems to be no pattern suggesting that one or the other type of correlation will be consistently higher than the other.

Table III-2 reports the correlation data for comparison with the relationships hypothesized in Chapter 2. It is apparent that the findings are much weaker than the hypothesized relationships. In Chapter 2, 79 relationships were hypothesized to be above .4. Only 20 rho correlations are above that level. Another 84 are between .250 and .399, while the great bulk of the correlations are below .250. Not only are the correlations low, they are substantially different from those hypothesized. The proportion of correctly hypothesized relationships is abysmally low. The strengths of 278 correlations were hypothesized. Only 60 (21.6%) were correctly estimated.[1] The results conformed somewhat more closely to the predicted directions of the relationships. 219 were hypothesized to be moderately or strongly related in a positive or negative direction. 131 (59.85%) are correlated in the hypothesized direction.[2] In defense of these poor batting percentages, I would note

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[1] I doubt that the observed proportion of correctly hypothesized values is different from what might be expected by chance alone. It is difficult to support this assertion, however, because there is no way to determine the proportion of hypothesized values which should be assigned to the categories Strong, Moderate, and Weak. For each of the first twelve scales there are two degrees of freedom. On the last five, there is one degree of freedom.

[2] If the probability of predicting the direction of the relationship is .5, a proportion equal to or greater than 131/219 would be predicted by chance alone in fewer than two of a thousand attempts.

TABLE III-2.--Observed relationships between 21 independent constituency variables and 16 roll call voting variables[a]

Dependent Variables scale scores on:	Rho Correlations Observed between the Independent variables (1-21) and the scale scores of roll call voting		
	Strong N of $R_s \geq \pm .400$	Moderate N of $R_s \geq \pm .250 < \pm .400$	Weak N of $R_s < \pm .250$
Civil liberties (F)		2, 4, 6, 13, 21	1, 3, 5, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17, 18, 19, 20
Spending (I-2)	7	3, 8, 10, 12, 13, 15	1, 2, 4, 5, 6, 9, 11, 14, 16, 17, 18, 19, 20, 21
Urban improvement (D)		2, 4, 7, 12, 13, 21	1, 3, 5, 6, 8, 9, 10, 11, 14, 15, 16, 17, 18, 19, 20
Conservation (B-2)		2, 12, 13, 15	1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 14, 16, 17, 18, 19, 20, 21
Foreign policy (A-1)	2, 21	4, 6, 13	1, 3, 5, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17, 18, 19, 20
Social welfare (J)		2, 7, 13, 13, 21	1, 3, 4, 5, 6, 8, 9, 10, 11, 14, 15, 16, 17, 18, 19, 20
Party loyalty (K)	7	3, 8, 12, 13, 15	1, 2, 4, 5, 6, 9, 10, 11, 14, 16, 17, 18, 19, 20, 21
Labor vs. business		7, 8, 12, 13, 15	1, 2, 3, 4, 5, 6, 9, 10, 11, 14, 16, 17, 18, 19, 20, 21
Agricultural policy	7, 8, 10, 13, 15	1, 3, 9, 11, 14, 18	2, 4, 5, 6, 12, 16, 17, 19, 20, 21

TABLE III-2.--Observed relationships between 21 independent constituency variables and 16 roll call voting variables[a]--Continued

Dependent Variables scale scores on:	Rho Correlations Observed between the Independent variables (1-21) and the scale scores of roll call voting		
	Strong N of $R_s \geq \pm .400$	Moderate N of $R_s \geq \pm .250 < \pm .400$	Weak N of $R_s < \pm .250$
Consumer protection (B-1)		2, 4, 17, 21	1, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 15, 16, 18, 19, 20
Negro rights (E)	2, 4, 5, 6, 11, 14, 17, 18, 21	3, 7, 8, 10, 19	1, 9, 12, 13, 15, 16, 20
Orientation to debt (I-4)		3, 7, 8, 10, 12, 13, 15	1, 2, 4, 5, 6, 9, 11, 14, 16, 17, 18, 19, 20, 21
Space spending (I-3)	7	2, 3, 13, 15, 21	1, 4, 5, 6, 8, 9, 10, 11, 12, 14, 16, 17, 18, 19, 20
Orientation to professionalism (H)		2, 4, 6, 13, 21	1, 3, 5, 7, 8, 9, 10, 11, 12 14, 15, 16, 17, 18, 19, 20
Aid to education (G)		2, 4, 5, 6, 21	1, 3, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20
Foreign trade (A-2)	7	3, 8, 10, 13, 15, 18	1, 2, 4, 5, 6, 9, 11, 12, 14, 16, 17, 19, 20, 21

[a]The italicized variable numbers indicate that negative correlations have been found. Because signs were not hypothesized for variables in the weak category, no indication of sign is given here. For the complete information see Table II-3.

that there is little literature to guide hypothesis formulation in these areas. Social characteristics have been related to partisan voting, but much less carefully to issue orientations. The hypotheses have only served to lead into a relatively unexplored area of study. The findings below will be compared to research which was reviewed in Chapter I.

It should be kept in mind that the voting scales generally reflect an orientation toward innovation, progress, change, enlarged government activity, and (broadly understood) liberalism. This is not to argue that each dimension of behavior lies on the same plane of a factor space with every other dimension,[3] nor does it mean that the scales completely and precisely measure the extent to which the demands arising out of a distinct ideology of social liberalism have been met by the 88th Congress. However, I think most analysts would agree that several of the dimensions treated here are aspects of social and economic liberalism. The score values were assigned such that opposition to or non-support for the items of the dimensions would reflect low scores; the greater the support, the higher the scores. High scores on dimensions like Social welfare (J), Foreign policy (A-1), and Civil liberties (F) can certainly be regarded as central to the liberal ideology. Some of the others are more peripheral. If it is assumed for a moment that all the scales measure liberalism and conservatism to some extent, it is worth looking at the relationships of all the independent variables to these scale scores. The signs of all the correlations are shown in Table III-1. In Table III-3, the first column shows how many of the 16 correlations of each

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[3]The relationships of the dimensions to one another is discussed briefly later in the dissertation. A more sophisticated analysis of this question goes beyond the scope of this study.

TABLE III-3.--Direction and strength of the correlations between 21 independent variables and 16 roll call voting dimensions

Independent Variables	N of Negative Correlations	Strength of Correlations		
		Strong N of $R_s \geq \pm .400$	Moderate N of $R_s \geq \pm .250 < \pm .400$	Weak N of $R_s < \pm .250$
1. % Population change	14	0	1	15
2. % Urban	0	2	8	6
3. % Negro	2	0	7	9
4. % Foreign stock	2	1	6	9
5. Median age	2	1	1	14
6. % With private elementary education	2	1	4	11
7. % With low education	1	5	5	6
8. % With high school education	14	1	6	9
9. % With college education	12	0	1	15
10. Median education	13	1	4	11
11. Median income	7	1	1	14
12. % Unemployed	0	0	7	9
13. % Owner occupied dwelling units	15	1	12	3
14. % Sound units with all plumbing	6	1	1	14
15. Median rooms per dwelling unit	15	1	7	8
16. Median persons per dwelling unit	16	0	0	16
17. Median home value	6	1	1	14
18. Median rent	7	1	2	13
19. % White collar workers	6	0	1	15
20. % Blue collar workers	0	0	0	16
21. % Farmers	16	1	7	7
Totals	156	20	82	234

independent variable with the scale scores negative. Eight of the twenty-one variables are negatively related to scale dimensions in 12 (75%) or more of the observations. Three (percent of the population with high school education, percent with college education, and median education) are measures of education. The others are percent of population change, percent of owner occupancy, median rooms per dwelling unit, median individuals per dwelling unit, and percent farmers. This suggests that the higher the coefficients for these variables, the lower the scores on the roll call voting dimensions.

The remaining columns of Table III-3 indicate the extent to which the independent variables are associated with voting scale scores. Most of the variables are only weakly related to the scales of roll call voting. As the last column indicates, 16 of the independent variables are weakly related to scales of voting in nine or more of the correlations. The five variables which discriminate on half or more of the scales are percent urban, percent with less than five years of school, percent of owner occupancy, median rooms per dwelling unit, and percent farmer. It is the percent of the population with less than five years of school which most often strongly relates to the voting dimensions. The percent of owner occupancy is correlated at .250 or higher with more dimensions than any other variable.

A striking aspect of Table III-3 is the fact that the economic and education variables are not very strongly related to the voting dimensions. The economic measures were shown in chapter two as a tight cluster of variables, each of which measures about the same thing. The data here are consistent with that finding. They simply show no

substantial monotonic relationship to what are hypothesized as the dependent variables.[4] This is in strong contrast to findings about the relationship between individual income and electoral voting and findings about median income within and policy outputs of municipal, state, and national political systems.

The findings with educational variables are more disparate but noteworthy. I expected that the percent with college education would relate strongly to a number of voting dimensions. All but one correlation are weak and twelve are negative. This means that there are small monotonic relationships between the proportion of college educated and roll call voting scales, but the larger the proportion of college educated the lower the support for liberal legislative proposals. The relationships for the percent with high school education and median education are similar. However, as noted above, the percent with less than five years of school is the variable which correlates strongly with more scales than any of the other independent variables. Further, the higher the proportion of the population in the constituencies with less than five years of school, the higher the support for liberal legislation in general. Only one relationship shows a negative sign, and that is with the voting on Negro rights.

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[4]Hays (1963, p. 642) insists that neither Spearman's rho nor Kendall's tau

> is closely connected with the classical theory of linear regression . . . if the numerical values analyzed are ranks, the correlation between the ranks may tell relatively little about the degree of linear relationship between the underlying variables. especially the square of a correlation - like index on ranks is not to be interpreted in the usual way as a proportion of variance accounted for in the underlying variable.
>
> Instead, it is somewhat better to think of both the Spearman and the Kendall indices only as showing 'concordance' or 'agreement,'

Other variables only weakly associated with roll call voting are percent population change, median age, median number of persons per dwelling unit, percent of white collar workers, and the percent of blue collar workers. I did not expect much relationship between median persons per dwelling unit and roll call voting. This variable probably identifies districts dominated by families with school age children. It is associated with no scales above .250, and all coefficients are negative. Age has been associated with conservatism (Campbell, et. al. 1960, pp. 210-211), but this is not reflected in the relationships of voting on policy issues with median age. Only weakly associated with most voting dimensions, the correlations are nevertheless predominantly positive. The two strongest are with Aid to education (G) .285, and Negro rights (E), .430; hardly the dimensions one would expect to produce positive correlations if it is assumed that the characteristics

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> the tendency of two ranks to be similar. As descriptive statistics, both indices serve this purpose very well. . . .
>
> Still another interpretation can be put on the use of these rank-order measures of association. Even though the Spearman and the Kendall statistics cannot ordinarily be thought of as showing the extent of linear relation between the variables underlying the ranks, they can be considered as indices of the general 'monotonicity' of the underlying relation. A function (Y=f(x)) is said to be monotone-increasing if an increase in the value of x in the domain of the function always is accompanied by an increase in the corresponding value of Y. A monotone-decreasing function has the opposite property. . . .
> (Emphasis in the original)

The difficulty implied in this description is that with parametric statistics one can try for both linear and quadratic solutions to describe the relationship of X and Y. Nonparametric correlations are not really linear, but worse, they allow no way to examine whether a regular curved line might describe the relationship between the ranks of X and Y better than a straight one. Later, I will present contingency tables which explain this difficulty more thoroughly.

are causally related to the roll call voting behavior. Older members of the society have the least to gain from expenditures for education, and ordinarily have the least flexible attitudes about policy considerations and Negro rights. I did not expect the weakness of the relationships between the employment classifications and roll call voting. While the objective classification, percent blue collar, does not match subjective class (Campbell, et. al., 1960, pp. 340-350), I expected a marked tendency for this variable to correlate with support for liberal legislation, particularly on economic policy dimensions. The correlations are all positive, but very low. The most economically relevant scales are Spending (I-2), Labor vs. business (I-1), Orientation to debt (I-4), and Space spending (I-3). The correlations with the percent of blue collar workers are between .202 and .234. Only one of the twelve remaining scales correlates that highly with the percent of blue collar workers, Urban improvement (D) with $r_s = .216$. The correlations with other social policy dimensions of Civil liberties (F), Social welfare (J), Consumer protection (B-1), Aid to education (G), and Negro rights (E) are lower: .155, .181, .143, .122, and .063. The correlations with percent white collar are as low as for percent blue collar, but the individual relationships are different. The range of the correlations on economic scales is .034 to -.038; none are significantly different from zero. Correlations on social policy dimensions are all of small magnitude except Negro rights (E). The relationship is moderately high; $r_s = .346$. Concerning the white collar variable, it should be recalled from chapter two that it is highly related to several other independent variables, especially the percent with college education, which are not

strongly related to most of the roll call voting scales. The percent of population change is weakly related to all but one policy dimension. In fourteen instances, the small relationships are negative. The strongest association is -.328 with Agricultural policy (C).

Liberal beliefs, movements, and policies have often been born in or credited to urban life. A measure of urbanism is the percent urban, which, unfortunately, includes within it the percent of the population living in incorporated places of 2,500 population or more. Its opposite, the rural population, is approximated by the percent of farm workers. These two variables are related to the roll call voting scales in almost identical fashion, except that the signs of the relationship are opposite. Percent urban is positively related to every scale; percent farmers is negatively related in every instance. The numerical differences between absolute values of the correlations of the two variables are between .001 and .040, a very narrow range. Both indicators of urbanism consistently correlate higher with social policy dimensions than they do with the economic policy dimensions. A dimension to which neither variable relates significantly is the Agricultural policy scale (C).

The percentage of owner occupied dwelling units has been related to political behavior in several studies. As noted in chapter one, MacRae used it to discriminate between both urban and rural and Democratic and Republican legislative districts in Massachusetts. Also, it correlated with an index of anti-party voting. Froman used home ownership as a measure of socio-economic status. This variable does not relate very strongly with the other independent variables used in this study.

However, it correlates with more the dimension of roll call voting at .250 or higher than any of the other independent variables. All but one of the correlations is negative. Owner occupancy tends to be more strongly related to economic policy voting than it is with domestic social legislation. Its highest correlate among the independent variables is median rooms per dwelling unit. The latter correlates with the voting dimension in a fashion quite parallel with percent owner occupancy, but usually the relationships are of lower strength.

The variables percent Negro, percent Foreign stock, percent with private elementary education, and the percent unemployed have several moderate correlates but for each more than half the correlations are weak. A congressional district with a high proportion of Negroes in the population is likely to be either a Southern rural district or a Northern urban district. In terms of social legislation these two kinds of districts often will be represented in opposing ways. As the CQ Census Analysis (1964, p. 1834) shows, of the ninety districts which rank highest on percent of Negroes, sixty-one are Southern.[5] By CQ's categorization 51 of these are rural, 31 are urban, 1 is suburban, and 7 are mixed. It is not surprising, therefore, that the correlations of this variable on social policy dimensions are lower than those on economic dimensions--with one exception; it is negatively correlated with Negro rights (E); $r_s = -.360$. The percent of foreign stock and the

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[5]As cited, CQ reports 64 Southern districts. However, my definitions of regions will be consistent with those which the Survey Research Center uses in coding representatives. South means Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Texas, and Virginia. CQ adds to these states Kentucky, Tennessee, and Oklahoma. In my consideration, these are Border States along with Maryland and West Virginia.

percent with private elementary education tend to pattern together. In general the correlates of the latter are a little lower than the former. The signs of the correlations are the same, positive on all policy dimensions except Foreign trade (A-2) and Agricultural policy (C). The correlations on social policy dimensions are not consistently strong, but those on economic policy dimensions are not even significantly different from zero (P = .001).

Unemployment figures are difficult to interpret especially because unemployment patterns can shift substantially over time. The data for the percent unemployed refers to the percent unemployed in April, 1960. These data do not perfectly describe the situation during the term of the 88th Congress. For example, there was higher overall unemployment in April of 1962 (5.4 percent) than in April, 1960 (5.1 percent). However, there was more unemployment in the durable goods industries such as the auto industry in 1960 than in the 1962-1964 period. This variable at least detects the hard core unemployment patterns. The correlations for percent unemployed are similar to, but generally stronger than those for the percent of blue collar workers. All the associations are positive, all but one are significant and the correlations with economic policy dimensions are stronger than those with social policy dimensions.

Explaining the Policy Dimensions

The most conspicuous policy dimensions in the data of Tables III-1, III-2, and III-3, are Negro rights (E) and Agricultural policy (C). I hypothesized very few strong correlates for the Negro rights

dimension, but more than half the independent variables were correlated with this dimension above .400. I underestimated the strength of the relationships between the economic indicators, and Negro rights voting. The four economic variables (median income, percent sound units with all plumbing facilities, median home value, and median rent) are all positively correlated at close to the .500 level. I expected moderate correlations with the educational variables and the expectations was nearly met, with the exception of the percent with college education, which I was surprised to find did not correlate at a level significantly different from zero. The employment variables (percent unemployed, percent of white collar workers, percent of blue collar workers, and percent of farmers) show a mixed pattern. Percent white collar is moderately associated with support for Negro rights and percent farmers is strongly and negatively associated with support for Negro rights. Percent unemployed and percent blue collar are not significantly different from zero. I expected a moderately positive relationship between percent unemployed and Negro rights because much of the unemployment of urban populations is among Negroes. I thought the variable might detect northern districts with substantial Negro populations whose representatives would favor civil rights legislation, but the correlation does not support this hypothesis. Possibly it detects such districts, but in some there may be substantial hostility toward Negroes in such districts, which is translated into opposition for Negro rights in congressional voting. Support from districts where the proportion of white collar workers is high and economic well being is more secure may reflect lower manifest rivalry and hostility between Negroes and whites.

The percent of farmers probably reflects both cultural isolation and the high proportion of farmers in southern congressional districts. Certainly, the negative relationship between the percent of Negroes and the voting on Negro rights reflects the concentration of Negroes in the South. The high positive correlations between this scale and percent foreign stock, median age, and the percent with private elementary school education have been mentioned before. The percent of the population with a private elementary school education does not correlate strongly with the economic and education variables. As I suggested in chapter two, it is my hunch that this variable taps strong church ties, particularly among Roman Catholics. Its strongest correlate among the independent variables is percent foreign stock. The correlation of percent foreign stock and Negro rights (E) is the highest of any in the entire matrix. I did not expect this because I anticipated hostility between foreign stock whose urban environments have been threatened by invading Negroes. It would be pleasant to believe that these correlations indicate the successful socialization to racial tolerance has been achieved through the parochial schools of our country. It is more likely, however, that the opposition to Negro rights is concentrated in the South where the proportion of foreign stock is very low. The relationship does tend to support Grimes' (1964 p. ix and passim) contention that, "the path to equality has led through the large urban centers, where diversity of religion and race has been historically brought about by immigration and migration." The establishment of rights has not substantially occurred as men rationally comprehended the innate equality of human brothers, but, rather, as political power has been diffused

among different groupings of men. Thus the relationship with percent urban is .434. On the other hand, the relationship between the percent of owner occupancy and voting on Negro rights is not significantly different from zero.

Voting on Agricultural policy (C) is not related to the urban-rural variables, percent urban and percent farmers, at levels significantly different from zero. This finding raises more questions than it answers. It means that there is no regular relationship in which farm areas are represented by supporters and urban areas are represented by opponents of the proposals of the agriculture dimension, nor is the reverse true. Nevertheless, it seems unlikely that there are no patterns of voting on this dimension which are related to the urban and farm constituencies. Several possible statistical controls may classify voting on this dimension. There may be distinct regional and party considerations which affect voting on this dimension more than on some others. Another problem more difficult to get at, given the aggregate data of this analysis, is that the policy interests of farmers are diverse. Farmer interest groups are in strong conflict with one another (Monsen and Cannon, 1965, pp. 96-132). Crop specialization and commodity support legislation has narrowed the farm policy the concerns of farmers such that they may well be less interested in the whole dimension of farm policy than they are about particular elements of it. Thus, representatives may have a more dimensional view of farm policy than wheat farmers, for example.[6]

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[6]As noted in chapter two, the Agricultural policy dimension (C) contains error patterns which make the inclusion of a couple items rather tentative. 38 respondents were not assigned scores because on the items used, their responses were inconsistent to the point that they had to be treated as ambiguous.

The strongest correlate of support for Agricultural policy (C) is percent owner occupancy. The relationship is negative: the higher the percentage of owner occupancy in the districts, the lower the roll call voting support by representatives of the districts; $r_s = -.462$. This finding can be coupled with the moderate negative relationships found with three of the economic variables, which I hypothesized would be strong. The findings indicate here, as before, that the home ownership variable is certainly distinct from the other economic variables, but it is regularly associated with conservative roll call voting. It is not apparent why the higher the educational achievement in districts, the lower the support for agricultural policy is; yet each of the educational variables returns this finding. Economic variables are negatively related to support for agricultural policy, but only in a weak to moderate fashion. The negative relationship for percent population change is understandable as opposition to agricultural support programs from growing urban and suburban areas.

Voting on foreign policy has been studied by a number of analysts. MacRae (1958) discovered little relationship between constituency characteristics and his foreign policy dimension. Reiselbach (1964) reported that his longitudinal analysis (76th, 77th, 80th, 83rd, and 85th Congresses) demonstrated a decline in party voting on foreign aid and that "the decline in the importance of party as a determinant of the congressional vote was accompanied by an increase in the importance of districts characteristics." He used four district variables; ruralism -- "percent of the male working force employed in farm occupations," ethnicity -- "the proportion of the population of German and

Irish ancestry," educational level -- "the percent of the district population who attended college at some time." [italics in original], and socio-economic status -- "the percent of employed males engaged in managerial, technical, and professional occupations." None of these variables correlates more than weakly (under .25) for the 76th and 77th Congresses. For the 80th, there is a .25 correlation with ethnicity. Ruralism is strongly correlated with foreign aid scale scores for the 83rd and 85th Congresses with correlations of -.43 and -.45. Socio-economic status correlations are moderate: .26 and .27. Ethnicity correlates weakly with .21 and .19, and educational level is slightly lower with .15 and .16.

My findings for the 88th Congress are similar to Reiselbach's for the 83rd and 85th Congresses. The percent of farmers is strongly correlated with Foreign policy (A-1); $r_s = -.421$. Percent foreign stock is a different variable than Reiselbach's ethnicity. It includes all first and second generation immigrants. The relationship is moderate in strength; $r_s = .344$. Three education variables (percent of the population with high school education, percent with college education, and median education) are not significantly different from zero. The percent of the population with less than five years of school is weakly related to Foreign policy voting, $r_s = .186$. It appears to me that this is a mildly opposite finding from that of Reiselbach. I say this because of the sign of the correlation. In my findings, percent of the population with college education and median education have the same sign accompanying the coefficients of correlation on 16 policy dimensions. In 14 cases, this sign is opposite that of the percent of the population

with less than five years of school with the same dimensions. Reiselbach's variable is defined more like the percent with college education than the percent with little education. From his positive sign with the 83rd and 85th Congresses, I would expect a negative correlation in my findings between the dimension and the low education variable. The opposite finding is evident. Reiselbach's SES variable is an employment definition which is not directly comparable to the variables I have used. My white collar variable is more general. The correlation between it and the dimension is .187, which is smaller, but in the same direction as Reiselbach's correlations for the 83rd and 85th Congresses. Similarly the four economic variables, median income, the percent of sound units with all plumbing, median home value, and median rent, are positively but weakly related to the dimension.

Along with percent foreign stock, the private elementary education variable is moderately related to Foreign policy voting. Similarly, the strong negative relationships with percent farmers is paired by a strong positive relationship with percent urban. One other variable, which is moderately related with a negative sign, is percent owner occupancy. The general conclusion which may be drawn is that voting on Foreign policy is not strongly associated with variation in district characteristics.

It would be repetitious to review the relationships of the independent variables with each roll call voting dimension. Several of the dimensions received attention above. Little note has been taken concerning Conservation (B-2) and Orientation to professionalism (H). I expected educational achievement to be positively related and economic

well-being to be negatively related to conservation. Because the value of conservation has received great stress in the schools, I expected that median age would negatively correlate with support for conservation. I expected farmers to be threatened by conservation and that in farm districts there would be opposition to conservation. None of these hypotheses are substantiated. Percent urban and percent unemployed are moderately positively related and percent owner occupancy and median rooms per unit are moderately negatively related.

Orientation to professionalism (H) measures support for proposals to professionalize and upgrade governmental services. As noted in chapter two, this dimension only emerged after sorting among a number of roll call votes. There was less substantial structure in the roll call voting on bills in this category than on the other policy dimension bills. Also, the discrimination among the members of the House achieved with this dimension was poorer than with most others. Therefore, the low correlations with this dimension are less surprising than those with some of the other dimensions. The correlations of two variables met the hypotheses: percent urban and percent farmers relate moderately with support for professionalism. r_s for percent urban is .351; for percent farmers it is -.391. The moderate positive relationships with percent foreign stock and percent with a private elementary education, and the moderate negative relationship with percent owner occupancy, were not hypothesized. The pattern of correlations is very similar to those occurring on the Civil liberties dimension (F) and the Foreign policy dimension. (A-1).

Voting on the Foreign trade dimension (A-2) is associated with education variables; positively with percent of the population with less than five years of school and negatively with the percent with high school education and with median education. Also, there is a positive relationship with percent Negro, and negative relationships with owner occupancy, median rooms per dwelling unit, and median rent. The pattern of correlation for this dimension is somewhat comparable to those with Agricultural policy (C) and three of the economic policy dimensions, Spending (I-2), Space spending (I-3) and Orientation to debt (I-4).

Finally, Party loyalty (K) deserves some attention. High scores on this scale were for loyalty to the democratic majority and low scores were indications of Republican loyalty. The only correlate exceeding .4 is that of the percent with low education, $r_s = .410$. Percent Negro and percent unemployed correlate moderately positively while moderately negative coefficients appear with high school education, owner occupancy and median rooms per dwelling unit. All other coefficients are smaller than $\pm$ .250. It seems noteworthy that the relationships between this scale and the economic variables are in no case significantly different from zero. Much has been made of the way that family income discriminates among citizens in terms of their electoral voting; but median income of the districts and the other economic variables are not monotonically related to the party regularity of the representatives of the districts. Similarly, party loyalty is not significantly related to the proportion of foreign stock. The relationship between percent blue collar workers and the dimension is only .195; percent urban approaches a "moderate" relationship with a correlation of .236.

Summarizing the findings to this point is rather easy because the findings consistently support the view that the constituency variables, at least those used here, are only modestly related to roll call voting on the major dimensions of legislative voting in the 88th Congress. Of course, the rank correlations used only test for monotonic relationships. With ordinal measurement it is not appropriate to use a second order (quadratic) solution to define the correlation. It is plausible that the relationship between constituency median income and support for certain policy dimensions may parallel Wilson and Banfield's (1964) findings on public expenditures referenda. They found that middle income voters often vote against proposals which are supported by both low income and high income voters. Such a relationship may be clearly demonstrated, but it is not amenable to rank correlation analysis. It remains to be seen also whether the application of statistical controls will yield stronger correlation coefficients.

Given the generally weak relationships, it is interesting to note most of the independent variables relate differently to economic policy dimensions than they do to social policy dimensions (Appendix D presents the data). Sixteen variables relate significantly differently ($P = .01$) to these two types of variables. More strongly positively related to the social dimensions are percent urban, percent foreign stock, median age, percent with private elementary education, median income, percent of sound homes with all plumbing, median home value, median rent, and percent white collar workers. More strongly negative relationships are with median persons per dwelling unit and the percent of farmers. Those significantly more related to economic dimensions include one which is positive (percent with less than five years of

school), and four which are negative (percent with high school education, median education, percent owner occupance, and median rooms per dwelling unit). Economic policy dimensions are clearly more associated with education and home ownership than with social, economic, or work related variables. The latter are more related to social policy dimensions.

Statistical Controls and Limitations

Unfortunately the processes for effective statistical controls are very difficult to apply on these data. The explanation is simply that the correlations reported are rank correlations and producing ranks with as many as 435 observations is an onerous task. The difficulties are multiplied by the fact that there are missing data for some representatives, usually because of absences. One task which electronic computers do not handle very efficiently is ranking large arrays for each variable. It requires inordinate amounts of computer time to produce these correlations. It is on this basis that I will forego a complete analysis by partialling out the effects of a number of variables. Controls were made on two variables and this at least allows some grounds for anticipating what further controls might reveal.

Partial correlation is an important technique when one is interpreting relationships among several variables. While it cannot resolve all the difficulties of specifying cause and effect, it is helpful for analysis because it yields a single coefficient of the degree of relationship between two variables, controlling for a third one. Unfortunately, in the present study the partials are of somewhat questionable validity, and therefore must not be overinterpreted. Partial correlations

can be produced with rank measurements using tau correlations. However, there is no known way to determine the significance level for an observed tau because no sampling distribution has been determined. Further, Blalock (1960, p. 336) cautions that if rankings include ties, partials cannot actually be defined. There are a great many ties among the representatives' scale scores. These considerations make it necessary to report directions and trends implied in the comparison of the taus and the tau partials rather than specifying the exact coefficients and placing them according to the cutting points previously defined for "strong," "moderate," and "weak."

Tau partial correlations were produced, controlling first on percent urban and then on percent foreign (see Siegel, 1956, pp. 223-229). Each computation generates an entire new matrix. Because of the limitations mentioned it is unnecessary to reproduce each of these matrices, but I will review the evidence they provide. The rationale for producing these partials is that the independent variables are themselves interrelated. This was noted in chapter one (see Appendix C). Because percent urban is one of the variables most strongly related to the scales of voting and because it is correlated with several of the other independent variables, controlling its effects is helpful to understanding the pattern of relationships. The point is clear from looking at the relationships of the economic variables with the voting dimensions. In the original matrix (Table III-1) median income was positively related to more than half the scales, a finding contrary to the hypotheses of chapter two. Controlling on percent urban, the relationships are all negative with the exceptions of Negro rights and aid to education. Further, the relationships with economic policy

dimensions are more strongly negative than those with Foreign policy and the social legislation dimensions. Similar findings occur with the other economic variables. Percent white collar and percent blue collar workers are likewise reduced to very small correlations.

Foreign stock is less related to other independent variables than percent urban (see Appendix C). Its closest correlates are private elementary education and the economic variables, especially median home value. As expected, the independent effects of private elementary education are small. The coefficients for median home value are more strongly negative.

The general effect of these controls is to show that individually the variables associated with liberal voting are related with even less strength than was previously indicated, with one exception. Low education is more strongly and more positively related to the dimensions with the controls applied than it was previously. As before, the relationships are stronger with economic policy dimensions than social policy dimensions. The variables which previously were negative are even more so when controls are imposed. This is particularly noticeable with the education variables. The correlation coefficients are not large, but they are regularly negative. These findings are the opposite of my hypotheses. I expected education to go with more liberal voting generally. Controls on median income might reveal some change of direction, but it is unlikely that substantial positive correlations would occur. Finally, percent owner occupancy remains a robust variable. It is pretty much unaffected by the controls, and is moderately negatively related to the dimensions of voting.

The Negro rights dimension should have brief attention. Voting on this dimension was generally most correlated to constituency

characteristics. Percent foreign stock was its highest correlate, but many other variables were strongly correlated to it as well. Controlling on percent urban shows some reductions in the correlations, even on the correlation between percent foreign stock and the Negro rights dimension. But controlling on Foreign stock makes more noticeable changes than controlling on percent urban; in almost every case correlations with foreign stock controlled are closer to zero than when percent urban is controlled. Although the relationships are reduced, the next strongest variables are private elementary education and median income. (Both remain above .2). Though the relationship is not very robust, private elementary education is positively related to Negro rights. This is contrary to the hypothesis of chapter two, but it bears on what has been said earlier about this variable. If I have correctly interpreted this variable, it mainly indicates the proportion of church related schools and school children. It comes closer than any of the variables to indicating strong church relationships. The correlation shows that there is a small but direct relationship between constituencies with high proportions of people with strong religious affiliation and support for Negro rights by representatives of such districts. Similarly median income survives these controls, correlating in the hypothesized direction.

Next to Negro rights, Agricultural policy was the dimension with the most strong correlates before controls were applied. The partial correlations do not shed any light here because neither percent urban nor percent foreign stock was more than weakly related to the dimension. There is, therefore, no effect to partial out. These variables do not account for the relationships which were found. Concerning Foreign policy (A-1), its highest correlates were percent urban, percent foreign

stock and percent farmers. Controlling on percent urban and foreign stock does not bring out otherwise undetected relationships.

Earlier I took note of the small relationships between economic variables and dimensions of voting. I suggested that the relationships might be regular but not necessarily monotonic. This point is demonstrated in the data of Table III-4. It shows a breakdown of scale score categories and the mean of the median incomes for the districts of each category. Along with each breakdown is the rho correlation from Table III-1. Only five scale variables are used to demonstrate that there may be regularities in the data not evident in the correlation coefficient. The categories are large and the data are only intended to be suggestive. I should point out, however, I did not "force" the evidence by constructing convenient categories. The groupings reflect the irregularity of the scale score distributions. I might have reported the means for every scale score category, but the unevenness of the scale score distributions brings about great variance in the means. By definition the scales only rank, and therefore one cannot establish comparable distances for each scale. Therefore I tried to make the N's for the categories roughly similar. Each scale is broken into four categories. One of the four, usually at one end of the scale or the other, contains a disproportionate share of the distribution. The remainder are divided by three and related to the actual scale score distributions and categories are collapsed as conveniently as possible.

The order of presenting the variables in Table III-4 is the size of the rho correlation. Income is most related to Negro rights and the breakdown shows why. There is a regular monotone-increasing (direct) relationship between income and liberal voting. The remaining

Table III-4.--Demonstrating nonmonotonic relationships between median family income and roll call voting variables

Scale Score Categories	N for the Category	Mean of median income for districts in the Category
r_s of median income with voting on Negro rights (E) = .546 (N = 425)		
0.0 - 0.5	69	$3961
1.0 - 3.5	64	4919
4.0 - 4.5	130	5863
5.0	162	6123
r_s of median income with voting on Agricultural policy (C) = .279 (N = 388)		
0.0 - 0.5	57	$6621
1.0 - 2.5	73	5906
3.0 - 6.5	82	4929
7.0	176	5265
r_s of median income with voting on Civil liberties (F) = .173 (N = 425)		
0.0 - 2.0	185	$5637
2.5 - 5.0	86	4253
5.5 - 9.0	84	5919
9.5 - 14.0	70	6166
r_s of median income with voting on Urban improvements (D) = .113 (N = 419)		
0.0 - 1.5	101	$5541
2.0 - 6.0	110	5447
6.5 - 8.5	112	5148
6.0	96	5925
r_s of median income with voting on Conservation (B-2) = .022 (N = 380)		
0.0 - 1.5	75	$5666
2.0 - 3.5	112	5412
4.0	104	5293
4.5 - 5.0	89	5766

nonmonotonic relationships would look like J curves if it were possible to define intervals for the policy dimension measurements. Often the relationships are quite regular except for the information in one of the overloaded categories of the distribution. Civil liberties voting is positively related to district income if one can ignore the first scale category (most of the cluster members have a score of two). Urban improvements are negatively related to income except for the most liberal scorers in the last category. The same is true on Conservation. As a matter of interpretation it is interesting that support for civil liberties issues is lowest from middle income districts (median income nationwide is $5660; Congressional District Data Book, 1963, p. 2), next lowest from low income districts, but substantially higher support comes from representatives from the upper income districts. Similarly representatives from medium income districts oppose Urban improvement and Conservation proposals, low income districts are the source of moderate support, and the fullest support comes from the highest income group of districts.

It is likely, of course, that some of the other low relationships between independent variables and voting dimensions are regular but nonmonotonic. There is no conveinent way to get at this question without producing a bale of contingency tables to examine the point. The exercise is especially worth-while in this case because of the modest relationships between the economic variables and the voting dimensions and because economic well being is often assumed to be a basic variable in many aspects of political decision-making.

Further correlational manipulations to reveal more clearly the structure of relationships in the data collide with the hard rock of

measurement assumptions. Because scale scores are ranks, not intervals, partial correlations holding several variables constant at one time simply cannot be used. Similarly multiple regression, multiple correlation, and curve fitting with polynomial solutions are inappropriate. At present I think a better approach may be made through factor analysis. This method mathematically specifies what underlying variables exist in a matrix of associations. As far as I can tell there are no strictures which make it necessary to use product-moment correlations, which assume interval level measurement. Guilford (1954, p. 527) notes that when the distributions for variables being correlated are badly skewed they can be dichotomized and correlated with a tetrachloric r and then factor analyzed. Schubert (1967) factor analyzed rho and tau matrices of rank data. I earlier dismissed this approach to the research problem because I wanted to keep the elements of analysis as distinct as possible. That is, I did not want to relate voting to factors extracted from a matrix of variables. Because of the exploratory nature of the analysis, I chose to make the analysis relating each voting variable to each constituency variable.

Summary

Of the constituency variables used in this study those most strongly and meaningfully related to the dimensions of voting are percent urban, percent with less than five years of school, percent of owner occupancy, and the percent of farmers. Somewhat less strongly related are percent Negro, percent foreign stock and percent unemployed. Those which I expected to find related to the voting scales but which generally seem to be only weakly correlated to them are percent

population change, median income, the remaining education variables, especially percent with college education, the economic variables, especially median income, as well as percent white collar workers and percent blue collar workers. Having controlled on percent urban and percent foreign stock these inferences are based on quite solid evidence. The first findings for low education and owner occupancy, for example, are not washed out when the controls are applied. Also, the correlation between foreign stock and Negro rights (E) remains strong even when percent urban is controlled. However, median income, when percent foreign stock is controlled, returns even weaker relationships than before, but they are negative as originally hypothesized. This suggests that the constituencies which are strongholds for conservative voting representatives are native stock, medium income, home owning districts rather than simply high income districts. The evidence that medium income districts are more conservative was at least demonstrated by looking at median income by categories of voting support on Civil liberties (F), Urban improvement (D), and Conservation (B-2).

It is not surprising that percent Negro is negatively related to Negro rights (E), given the cultural considerations of the South, but it is somewhat surprising that percent farmers and percent urban are not related to Agricultural policy (C). However, this finding certainly is consistent with the obvious differences between rival farm groups concerning whether government controls ought to be extended further into planning and managing commodity production and prices. The strong positive correlation with the percent of low education and strong negative ones with percent owner occupancy, percent with high school education,

and median education along with moderate negative correlations with three of the economic variables suggests that there is a small farmer versus big farmer division with the small farmer districts being liberal.

Support for liberal positions on Foreign policy (A-1) comes from districts with high proportions of percent urban and percent foreign and opposition comes from districts with high indices of farmers and owner occupancy. This is one of the dimensions which at first appears to be related weakly but positively with economic variables, but these relationships disappear when percent foreign stock is held constant and even turns negative when controlled on percent urban. Orientation to professionalism (H) is quite similar. I expected its correlates to be percent white collar and economic variables. These correlations were much weaker than those with percent urban and percent foreign stock, and they disappear when controls are applied. Party loyalty (K), where high scale scores mean pro Democrat and low scores mean pro Republican has only one strong correlate and that is percent with less than five years of school. The strongest negative correlates are owner occupancy and median rooms per unit. These are not affected by controls on percent urban and percent foreign stock. The surprises with this scale are that there are so few strong correlates and so many weak ones. Finally, social policy dimensions in general have more moderate to strong correlations than do economic policy dimensions. The major correlates of economic policy are percent with low education, which is positive, and percent owner occupancy which is negative. The generally mild relationships of the economic variables with policy voting have to be understood in terms of their nonmonotonicity. I have demonstrated that there are

clear and regular relationships which simply are not revealed in a correlation coefficient.

I have stayed close to the data, presenting findings rather than interpretations. There are several reasons for this caution. First, the correlations are generally very weak. The proportion of shared variation explained when correlations are around .3 is very small (not precisely 9 percent as would be the case with a product moment correlation, but this will serve as an approximation for my purposes; see footnote [4]). With a large sample one easily obtains correlations which are statistically significant; i.e., they support the rejection of a null-hypothesis. But saying a relationship is "different from zero" is quite different from concluding that "congressional voting on foreign policy is explained by the proportion of foreign stock in the constituencies of the congressmen." Secondly, I cannot control for the possibility of curvilinear relationships. The correlation coefficient makes no distinction between regular and irregular nonmonotonic relationships. Third, there is an insidious potential for drawing spurious interpretations of these correlations. There is no need to be victimized by ecological fallacies. For example, the correlation of $r_s = .434$ between percent urban and Negro rights voting ought not be taken to mean X many urbanites desire increased civil and political rights for Negroes. It says nothing about the values of the members of the constituencies. It does not actually say anything about the source of a representative's preference to vote in favor of extending certain rights to Negroes. But it does locate a pattern in the voting on civil rights. The higher the urbanism in constituencies, the greater the tendency for roll call voting

support of such issues by the representatives of the constituencies. If the pattern has been predicted out of a general theoretical statement of expected behavior by representatives, the discovery of the relationship in actual behavior lends credibility to both the theoretical foundation and particular interpretation of the finding. Most of the findings of this chapter are marginal in that they do not meet or exceed the mild standards I have set to define "meaningful" relationships. Some do, but many do not. Some fit the hypotheses, but most fail to do so. In short the findings appear to be too weak to give urgency to the theory, but not weak enough to dismiss the theory altogether.

Finally, there are stronger findings in the data which have not yet been presented. A variable which has not been discussed thus far is that of party identification. The party of the representatives scaled was also correlated to the dimensions of voting. Only two dimensions, Negro rights (E) and Aid to education (G) have correlates among the constituency variables which are higher than those of party with each of the dimensions (See Table III-5). Compared with the correlations presented previously, the relationships of party to the dimensions of voting are overwhelming. No variable previously dealt with is related to voting as strongly. This fact puts the relationships between the independent constituency variables and the voting scores in quite a different light. Because party so clearly dominates the explanation of voting, the analysis of constituency characteristics must be put within the partisan context. The partisan context is the subject of chapter four.

Table III-5.--Rho correlations between Representatives' party[a] and 16 roll call voting variables

Civil liberties (F)	*604*
Spending (I-2)	*783*
Urban improvement (D)	*694*
Conservation (B-2)	*608*
Foreign policy (A-1)	*620*
Social welfare (J)	*618*
Party loyalty (K)	*812*
Labor vs. business (I-1)	*775*
Agricultural policy (C)	*818*
Consumer protection (B-1)	*490*
Negro rights (E)	107
Orientation to debt (I-4)	*814*
Space spending (I-3)	*821*
Orientation to professionalism (H)	*580*
Aid to education (G)	*317*
Foreign trade (A-2)	*700*

[a]Scale scores and variable designations have generally been consistent with conventional designations of liberal and conservative. Here, however, Democrat was coded 1 and Republican, 2. Thus the signs of all but one correlation are negative (italicized).

CHAPTER IV

PARTY VOTING IN CONGRESS AND THE RELATIONSHIPS WITH CONSTITUENCY CHARACTERISTICS

Although political parties have no constitutional standing in the American political system it is obvious that they are basic to functioning of the political system. In our representative democracy they have the task of organizing the competition for elected office holders. Unquestionably parties carry out this function. They are organized to win elections (see Schattschneider, 1942, pp. 35ff.) and they are organizations which serve as vehicles for ambitious candidates (Schlesinger, 1965). But parties are more than organizations in the political system. They are symbolic objects to which system members have affective orientations (Campbell, et al. 1960 pp. 120ff.). And these orientations have been found to be very stable. These orientations are divided, with varying degrees of inequality, between just two national parties in almost every one of the 435 congressional districts. Because the partisan orientations of the voters are stable and because perceptual images of congressional candidates ordinarily are not as well developed as those for presidential candidates, party identifications of voters are better predictors for congressional elections than for presidential elections (Press, 1958; Campbell, et al. 1960, p. 7).

These partisan identifications are not randomly distributed. On the contrary, these are distinct regularities relating certain individuals

to one party or the other, and there are regularities in the strength of these identifications. While it is not possible to establish beyond question that these regularities are caused by social, economic, and cultural variables, there are associations between these variables and party identification. Voting studies have regularly shown that the two parties disproportionately draw their support from different strata of the society; and, while the degree of "status polarization" is itself a variable affecting electoral behavior, even when status polarization is declining the slower changing party identifications tend to reflect previous higher polarization (Campbell, et al. 1960, pp. 333-380). Because the parties draw disproportionately from the different strata of society it should be easy to show that the districts of the two parties are different in social, economic, and cultural characteristics. Evidence on this point will be provided later in the chapter.

The representative is responsible to his constituency, but he particularly owes his seat to the partisan majority which elected him. That majority being disproportionately drawn from particular social strata, it can be expected that as he participates in the collective decisions of Congress he will use the opportunities he gets to obtain benefits for that partisan majority. The findings in the third chapter indicate that district characteristics correlate only modestly with voting scores. Perhaps what is needed to explain voting is the measures of the characteristics of the voting majority. Such would probably produce higher correlations. Of course, for a number of reasons these would not be perfect predictors either. The representative doubtless has some intuitive grasp of what characterizes the voting majority, but

he does not have systematic measures of it. Some segments of the voting majority may be changeable about their preferences. The partisan majority is certainly not in manifest agreement upon all the policy dimensions a representative must vote upon (Miller and Stokes, 1963), and latent agreement cannot be assumed. The opinions of the majority may be more homogeneous than those of the district on some issues, but it is not likely for this to be the case on all. Similarly the majority may be more homogeneous when measured on certain characteristics, but not all. Such heterogeneity can obscure the view and understanding of the most district oriented partisan representative.

Another set of partisan orientations certainly affect the voting of representatives. I refer to the roles the representatives play in the congressional arena. The House of Representatives is organized by the two parties. The legislative party is an identification and a reference group. Matthews (1960, p. 123) makes this point about the United States Senate:

> The division of the senators into two political parties is, therefore, a very significant feature of the chamber. Party 'discipline' may be weak, but party 'identification' is strong. Party affiliation . . . is a major influence on the senators' voting behavior. The parties provide the chamber with its members, have considerable influence on its procedure, and allocate members to fill its different positions. In the process, the parties help determine the distribution of power within the Senate.

As a reference group the party, often through its leadership, provides cues and justifications for a representative's voting behavior. The rewards and sanctions, though not always obvious, are meted out by leaders in both the legislative and executive branches to members of their own party. Truman (1959) has argued that with the growth in the importance

of the Presidency there has been a corresponding, if less dramatic, growth in the influence of the party leadership. He notes:

> . . . a triangular system of interdependence within a partisan contest: A Presidency enjoying an enhanced prestige and responsibility for initiative, but needing in the short run an effective intermediary leadership in the Congress in order to maintain the prestige of the White House occupant; a Floor Leadership based primarily upon influence among the rank and file but normally requiring the leverage supplied by close contact with the President in order to maximize that influence; a rank and file of Senators and Representatives whose political fortunes are in varying degrees dependent upon those of the President but requiring an intermediate leadership capable both of representing their views in presidential councils and of performing as an authoritative source of presidential preferences and intentions.

Truman concluded from his study of the Eighty-first Congress that there was more fluidity in the voting structure of the minority party, but that it tended to act in response to the Democratic majority and the Democratic President. Mayhew (1966) explains this by showing that the dominant Democratic party has managed to attract voting support from some Republicans by making "inclusive" compromises on policy proposals which fit the interests of these Republicans' constituencies. Other studies have shown that friendship groups and secondary groups tend to be more intra-party than inter-party (Monsma, 1965).

It is safe to conclude that there are substantial reasons to expect that the parties will differ from one another in different degrees on a number of roll call voting dimensions, but the difference need not necessarily be substantial on all of them. The differences will be shown below. Unfortunately the analysis which follows cannot distinguish partisan voting which is a product of the characteristics of the district and district majority from that which is produced by forces within the legislative arena. It is easier to portray the analytical distinctions than it is to empirically evidence the differences.

Findings

It is not difficult to establish that the members of the two parties vote differently on the voting dimensions. An appropriate test is analysis of variance. Given a distribution of scores by a set of respondents, and two or more subgroups from the set which can be compared, the test evaluates whether there are meaningful differences in the scores of the subsets. Ordinarily the test is a tool of inferential statistics such that findings with samples can be generalized to populations with a known risk of reporting significant differences which have arisen by chance alone. Dealing here with the population of representatives to the 88th Congress statistical significance may be thought by some to be meaningless; however, to others it will buttress the explanation of "meaningful" differences. In a statistical sense I want to test the hypothesis of no difference within the set of representatives which can be divided into Republican and Democratic subgroups. Because the scores are actually ranks and the subgroups are unmatched and of unequal size, the best test is the Kruskal-Wallis one-way analysis of variance. "Significant" differences would mean that the two independent subsets (samples) of representatives are sufficiently different from one another that one could conclude each has been drawn from different populations and that the voting within each subgroup is more homogeneous that the voting over the entire set of representatives.

The data reported in Table IV-1 are the observed Kruskal-Wallis H coefficients. The Kruskal-Wallis H is distributed approximately as chi square. Testing two groups there is only one degree of freedom. For one degree of freedom the chi square curve begins infinitely high along

Table IV-1.--The degree of differentiation between Republicans and Democrats on the 16 dimensions of roll call voting (Kruskal-Wallis H coefficients)[a]

Negro rights (E)	4.64	No Difference	0-10
Aid to education (G)	40.79	Slight Difference	11-90
Consumer protection (B-1)	85.75		
Conservation (B-2)	142.66	Moderate Difference	91-170
Orientation to professionalism (H)	142.91		
Civil liberties (F)	157.28		
Social welfare (J)	164.19		
Foreign policy (A-1)	166.50		
Foreign trade (A-2)	191.40	Substantial Difference	171-250
Urban improvement (D)	204.32		
Labor vs. business (I-1)	258.76	Strong Difference	251-330
Spending (I-2)	262.03		
Agricultural policy (C)	263.09		
Orientation to debt (I-4)	286.29		
Space spending (I-3)	288.52		
Party loyalty (K)	338.87	Absolute Difference	330 +

[a]For a review of the assumptions of the Kruskal-Wallis oneway analysis of variance, see Siegel (1956, pp. 184-194).

the Y axis and drops very rapidly. It loops out along the X axis at a value of 2. The area under the curve is unity, and only 5 percent of that area is beyond a value of 3.841; that is, for one degree of freedom the .05 significance level is reached with an H coefficient of 3.841. The .001 level is at 10.827. This means that the right hand line is asymptotic to the X axis running in a very nearly straight line to infinity.[1]

I have elaborated this point because it explains the relevance of the large H coefficients reported in Table IV-1. The coefficients given are extremely high. They are noteworthy for reasons that go beyond the meaning of statistical significance. Because the chi square line is essentially straight beyond the .001 significance level, for all practical purposes it can be thought of as an interval scale for measuring the degree of difference between the two parties on the dimensions of roll call voting. How large the H coefficient can be is a hypothetical question which need not be answered for present purposes. As would be expected the greatest difference is on the party loyalty scale. As previously noted in Table II-2, nearly two-thirds of the representatives were in the most extreme left (Democratic) or right (Republican) categories. Only a handful of representatives had scores between five and ten in this 14 item scale. No Republican had a higher scale score than any Democrat. This polarized configuration results in an H coefficient of 338.87. In contrast, the difference between the parties on the Negro rights scale is small enough that rejecting the hypothesis of no difference would be made with more than a three percent chance of

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[1]This description of the chi square curve summarizes McNemar's description. See McNemar (1962, pp. 214-216).

making a Type I error. There is a difference between the parties, but not a very meaningful one on the Negro rights dimension. Table IV-1 presents the scales in the order of party difference.

There are no statistical conventions that I know of to help interpret these scores. I consider it generally strong evidence of the distinctive voting by the two parties. Without data from other Congresses it is impossible to say whether the degree of party polarity on any particular roll call dimension is unusual or not. Other analyses of party voting do not suggest that party differences were generally different for the 88th Congress.[2] There is no theoretical justification for the nominal groupings suggested in Table IV-1 for the rankings of party differences on the sixteen scales. The second through the fifth categories are eighty units each. The only justification for this categorization is that it conveniently groups similar coefficients together. The rank order of the degree of party differences on the dimensions is based on a reliable statistical technique. This presentation updates Turner's (1951, pp. 70-71) description of the issues on which parties differ, but treating only one Congress, I have not attempted to describe whether the observed cleavages have been consistent or not.

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[2]The Congression Quarterly reports party unity year by year and congress by congress. For the House of Representatives CQ coefficients of party unity are:

	Dems	Repubs		Dems	Repubs
84th Congress	71%	70%	86th Congress	72%	73%
85th Congress	68%	66%	87th Congress	71%	72%

	Dems	Repubs
88th Congress	71%	72%
89th Congress	67%	69%

See the Annual Reports for 1956, 1959, 1960, 1962, 1965, and the Weekly Report for December 9, 1966.

Turner's summary is as follows:

1.	Sharp cleavage, consistent	Tariff Government action Social and Labor Farm
2.	Moderate cleavage, consistent	Government regulation Negro Immigration
3.	Sharp cleavage, inconsistent	Patronage Control of House Bureaucracy Public Works, specific
4.	Moderate cleavage, inconsistent . . .	States' rights Executive and Congress Public Works, general Armament Foreign Affairs Business claims
5.	Little apparent cleavage	Veterans and claims Women's rights District of Columbia Civil Service Prohibition

There are parallels in the findings on the 88th Congress. Party conflict on agricultural policy is sharp in both rankings. Party loyalty compares with control of House. Current party cleavage may have eased on social welfare, if not labor policy. My foreign trade dimension, comparable to Tariff, is not the issue it once was. Cleavage on Foreign policy remains moderate. There are parallels between the content and extent of party cleavage on Civil liberties and States' Rights. There is some similarity between the issues of the Space spending dimension and Turner's category, Armaments (but the direction is reversed; pro Space spending would be anti-Armaments). Party cleavage is relatively stronger in the 88th Congress. The Conservation dimension includes roll calls similar to items Turner considered public works; if this is a fair

comparison it seems that party conflict has eased somewhat. Debt items do not occur in Turner's categories. Spending is not considered separately. In the 88th Congress Negro rights legislation was supported with greater unity by Republicans than by Democrats. Turner found the same thing, except that there is less cleavage between the parties in the 88th Congress than there was in the period covered by Turner.

In the 88th Congress party cleavage is noticeably stronger on the dimensions of economic policies than it is on social policy dimensions. Particularly striking is the fact that the social welfare dimension is in the middle of the party difference ranking. For Turner social and labor legislation could be treated together. I am not trying to fault his interpretations because he joined these items; rather, accepting his judgment, the findings for the 88th Congress indicate a substantial change in partisan conflict. It indicates that there is increasing partisan agreement over social legislation and supports the notion that there is a basic bipartisan "acceptance of the social service state" (see Adrian and Press, 1965, pp. 188-193 and passim). The coefficients of party difference range from 258.76 to 288.52 for the economic policy dimensions. For social policy dimensions the range of the coefficients is broader, but the cleavage is much less sharp; 4.64 to 204.32.

Other aspects of performance by the parties are evident in Table IV-2. The median scale scores indicate the direction of support by each party on each dimension. Medians are admittedly only crude indicators of central tendency in each party on each scale, but they are appropriate for scale rankings. Except for the Negro rights dimension, the medians

Table IV-2.--The distribution characteristics of the scale scores on sixteen roll call voting dimensions: by party

	Median Scale Score	% in Extreme Left Scale Category	% in Extreme Right Scale Category	Standard Deviation of the Distribution
Democrats				
Civil liberties (F)	7.0	4.8	.8	9.7
Spending (I-2)	13.0	3.6	0.0	22.2
Urban improvement (D)	8.5	37.7	3.2	24.3
Conservation (B-2)	4.0	16.7	0.0	26.2
Foreign policy (A-1)	15.0	60.6	3.2	26.7
Social welfare (J)	15.0	69.8	0.4	30.4
Party loyalty (K)	14.0	66.5	0.0	31.0
Labor vs. business (I-1)	8.0	70.5	2.0	41.2
Agricultural policy (C)	7.0	79.3	1.8	43.3
Consumer protection (B-1)	2.0	16.0	16.5	25.1
Negro rights (E)	4.0	41.3	17.9	29.2
Orientation to debt (I-4)	9.0	82.5	4.4	45.8
Space spending (I-3)	6.0	82.9	0.4	53.6
Orientation to professionalism (H)	6.0	76.5	4.1	48.5
Aid to education (G)	5.0	66.1	1.8	41.0
Foreign trade (A-2)	3.0	70.1	0.0	52.0
Republicans				
Civil liberties (F)	2.0	0.0	5.1	20.2
Spending (I-2)	7.0	0.0	1.7	10.3
Urban improvement (D)	1.2[a]	1.7	44.8	17.7
Conservation (B-2)	2.0	3.3	15.0	10.8
Foreign policy (A-1)	2.5	0.6	31.8	11.2
Social welfare (J)	8.0	6.8	1.1	11.7
Party loyalty (K)	0.0	0.0	63.3	20.9
Labor vs. business (I-1)	2.0	0.6	19.4	14.7
Agricultural policy (C)	2.0	0.0	30.7	16.5
Consumer protection (B-1)	0.0	1.3	53.2	28.2
Negro rights (E)	4.0	33.5	0.6	21.4
Orientation to debt (I-4)	1.0	0.6	30.3	20.3
Space spending (I-3)	2.0	2.8	27.8	12.3
Orientation to professionalism (H)	2.0	13.7	8.6	13.7
Aid to education (G)	4.0	31.4	11.6	16.7
Foreign trade (A-2)	1.0	9.4	2.5	39.9

[a]Median derived by extrapolation.

for Democrats are higher than those for Republicans on every scale. More interesting are the standard deviation coefficients.[3] This coefficient indicates the regularity of the distribution over the scale points. Unlike the standard error of the mean, this coefficient is not disturbed by the number of respondents scaled. It measures the extent to which representatives' scale scores are spread along the policy dimensions. A low coefficient results from an even distribution of the respondents over the scale of items. The higher the coefficient, the more concentrated (usually at or near the median) are the scores of the parties' representatives. In general the data confirm the findings of Truman (1959, pp. 145-192) and MacRae (1965) concerning the fluidity of Republican voting in the House. Truman's techniques of analysis were quite different than those employed here, but, looking among Republicans for blocs of members who voted together with regularity, he found much more fluidity and fractionation among Republicans than among Democrats. MacRae, using scale analysis for the 79th through the 88th Congresses concluded that "the diversity of division we observed for the Republicans in the 81st Congress is a more general characteristic for that congressional party" (1965, p. 922). My analysis comparing the standard deviations of the distributions for each party on each scale indicates that Republicans are spread more evenly over the scale points of the dimensions than are Democrats. This generalization holds for all but two scales, Civil liberties and Consumer protection. The scale analysis technique indicates that Republican representatives are not concentrated on one or a few scale points, as Democrats tend to be. Doing an agreement

[3]The standard deviations for the parties' scale score distributions may also be compared to those for the House as a whole; see Table II-2.

analysis as Truman did, would result in only small blocs of Republicans with high agreement scores. The advantage of the scale analysis is that it identifies the policy dimensions where agreement is or is not present. Republican voting shows more agreement about Civil liberties' issues than Democratic voting does. The differences in the variability of the scale scores of the two parties on Consumer protection are modest. On all other scales Democratic voting is more concentrated around one or a few scale scores than Republican voting is. This is seen most clearly in voting on Space spending, but it is also strong on Aid to education, Orientation to debt, Labor vs. business, Agricultural policy, and Orientation to professionalism.

It is easier to establish the fact that the two parties respond differently to the issues on the various dimensions than it is to demonstrate that these differences are accounted for by differences in constituency characteristics. Having presented very few robust relationships in chapter three, it seems well to consider whether the independent variables are associated with scale scores of roll call voting within the two parties separately. However, before making that analysis Table IV-3 presents some summary information about the 257 Democratic and 178 Republican districts of the 88th Congress. It points up the differences between the parties in terms of the constituency characteristics used in the study. The data simply confirm general notions about the constituency differences of the parties. There are statistically significant differences between the means of the parties on fifteen of the twenty-one variables. Republican districts have higher averages than Democratic districts on population change, high school

Table IV-3.--Comparison of constituency characteristics by parties: 257 Democratic districts and 178 Republican districts of the 88th Congress

Independent Variables	Democrats		Republicans		Differences Between Means	
	Mean	Standard Deviation	Mean	Standard Deviation	F Statistic	Significance Level of F[a]
% Population change	18.58	36.66	29.63	34.25	10.09	.00
% Urban	68.79	26.60	66.05	21.85	1.29	.26
% Negro	15.40	15.26	3.66	4.41	99.20	.00
% Foreign stock	17.89	16.18	20.14	11.48	2.55	.11
Median age	29.34	3.93	29.98	3.13	3.28	.08
% With private elementary education	13.93	12.55	16.11	10.02	3.72	.06
% With low education	11.24	6.26	5.25	2.87	141.81	.00
% With high school education	36.78	8.88	45.11	8.13	98.98	.00
% With college education	6.57	2.35	8.48	3.74	42.57	.00
Median education	9.99	1.25	11.04	1.02	86.28	.00
Median income	5151.84	1299.08	6011.47	1237.60	47.86	.00
% Unemployed	5.66	1.85	4.79	1.59	25.77	.00
% Owner occupied dwelling units	58.04	16.08	68.59	9.00	62.92	.00
% Sound units with all plumbing	68.69	15.19	76.09	11.65	30.04	.00
Median rooms per dwelling unit	4.69	.50	5.12	.46	84.74	.00
Median persons per dwelling unit	2.95	.36	2.98	.29	.68	.41
Median home value	109.25	37.08	125.20	40.36	18.10	.00
Median rent	64.71	15.58	73.96	13.91	40.36	.00
% White collar workers	41.01	8.45	44.65	9.19	18.16	.00
% Blue collar workers	51.15	7.78	47.21	7.76	26.94	.00
% Farmers	7.76	8.51	8.06	8.44	.13	.71

[a]The reported .00 means the significance level is smaller than .005

education, college education, median education, median income, owner occupancy, proportion of sound homes with all plumbing facilities, median rooms per unit, median persons per unit, median home value and median rent. Democratic district averages are higher on percent Negro, percent with low education, unemployment, and blue collar. The reported F statistic shows which mean differences are the greatest. The most substantial differences are on percent with low education and percent Negro. The standard deviations provide a basis for comparing the homogeneity within each party on each characteristic. Looking at percent Negro, for example, not only is it true that the average proportion of Negroes in Democratic districts is higher than in Republican districts, it is also true that there is greater variation in the proportion of Negroes from district to district. Republican districts are more homogeneous in terms of the proportions of Negroes in each. In fact, Republican constituencies are more homogeneous than Democratic ones on every characteristic except percent with college education and percent white collar.

The data of Table IV-3 generally support Froman's (1963, pp. 90-97) contention that the parties have different kinds of constituencies and that these differences are associated with liberal and conservative voting. That is, chapter three showed that percentages of urban, Negro, foreign stock, low education, and unemployment were directly related to liberal voting on several dimensions. Democratic districts are significantly higher in their proportions of Negro, poorly educated, and unemployed. High school education, owner occupancy, median rooms per unit and percent farmers are negatively related to liberal voting.

Republican averages are significantly higher on all except percent farmers. However, the lack of interparty constituency differences on percent urban, percent foreign stock and percent farmers makes it necessary to be more cautious than Froman is when he implies that the differences in the means for each party on a few factors which are "usually associated with liberalism" explain the differences in voting by Republicans and Democrats. More troublesome still is the fact that the economic variables do not show strong monotonic relationships with the voting dimensions, but the parties are significantly different on each one.

To look more closely at the relationships it is worth while to do a correlation analysis within each party separately. The procedure is the same as was applied using 435 districts. The 257 Democratic districts were ranked on twenty-one constituency variables and correlated to the roll call voting scale scores by 257 Democratic representatives. 178 Republican districts and representatives were analyzed the same way. If the parties respond differently to the roll call voting dimensions, then the relationships of constituency variables may be quite different within each of the two parties; that is, the proportion of high income families may be more relevant to Republican representatives than to Democratic ones, and the median income for Republican districts may co-vary with Republican scale scores to a greater extent than for all 435 districts and members.

There are distinct differences between the correlations within each of the parties and those for all 435 districts. The complete correlation tables are in Appendix F. Tables IV-4 and IV-5 summarize the

Table IV-4.--Strength of observed relationships between 21 independent constituency variables and 16 roll call voting variables. Each party is correlated separately[a]

Dependent Variables	Rho correlations observed between independent variables (1-21) and the scale scores of roll call voting--each party separately			
	Democrats		Republicans	
	Strong	Moderate	Strong	Moderate
Civil liberties (F)	2,4,5,6,7, 10,11,14,17 18,19,21	3,8,16		
Spending (1-2)		2,4,5,11, 21		
Urban improvement (D)	2,3,4,6,7, 11,14,17, 18,19,21	5,8,10, 12	4	5,6,21
Conservation (B-2)	2,4,6,11, 14,18,21	3,5,7,10, 17,19		
Foreign policy (A-1)	2,4,5,6,7, 11,14,17, 18,19,21	3,8,10,16	4	2,6,9,11,14, 17,18,19, 21
Social welfare (J)	4,6,11	2,3,5,7, 14,17,18, 19,21		4,6
Party loyalty (K)	2,3,4,5,6, 7,11,14,17, 18,19,21	8,10,12, 16		6
Labor vs. business (1-1)		2,3,4,5,6, 7,11,12,14 17,18,21		4,5,21

Table IV-4.--Strength of observed relationships between 21 independent constituency variables and 16 roll call voting variables. Each party is correlated separately[a]--Continued

Dependent Variables	Rho correlations observed between independent variables (1-21) and the scale scores of roll call voting--each party separately			
	Democrats		Republicans	
	Strong	Moderate	Strong	Moderate
Agricultural policy			2,11, 14,21	1,6,8,9,10, 17,18,19
Consumer protection (B-1)	2,4,11,14, 17,18	3,5,6,7,8, 10,19,21		1,2,4,11, 14,17,18, 19,21
Negro rights (E)	2,3,4,5,6, 7,10,11,14, 17,18,19,21	8,16		5,6,11,15
Orientation to debt (1-4)	4,6,11	2,3,5,7, 10,14,17, 18,19,21		
Space spending (1-3)	11	2,4,5,6,7, 14,17,18, 19, 21	2,21	4,8,9,10, 11,14,17, 19
Orientation to professionalism (H)	4,6,11,14 18,21	2,7,17,19	4	2,5,6,11, 14,17,19,21
Aid to education (G)	4,5,6,7, 11,14	2,3,10,12 16,17,18, 19,21		4,21

[a]The italicized variable numbers indicate that negative correlations have occurred. Variables not reported are understood to be only weakly related to the dimension in question.

Table IV-5.--Direction and strength of the correlations between 21 independent variables and 16 roll call voting dimensions. Each party is correlated separately

Democrats

Independent Variables	N of Negative Rho Correlations	Strong	Moderate	Weak
		N of R_S $\geq \pm .400$	N of R_S $\geq \pm .250$ $\leq \pm .400$	N of R_S $< \pm .250$
% Population change	11	0	0	16
% Urban	0	7	7	2
% Negro	16	3	8	5
% Foreign stock	1	12	2	2
Median age	2	5	7	4
% With private elementary education	1	11	3	2
% With low education	16	6	7	3
% With high school education	0	0	6	10
% With college education	1	0	0	16
Median education	0	2	8	6
Median income	0	12	2	2
% Unemployed	0	0	4	12
% Owner occupied dwelling units	13	0	0	16
% Sound units with all plumbing	1	9	4	3
Median rooms per dwelling unit	6	0	0	16
Median persons per dwelling unit	15	0	5	11
Median home value	1	6	7	3
Median rent	1	8	5	3
% White collar workers	0	5	7	4
% Blue collar workers	2	0	0	16
% Farmers	15	7	7	2
Totals	102	93	89	154

Table IV-5.--Direction and strength of the correlations between 21 independent variables and 16 roll call voting dimensions. Each party is correlated separately
Continued

Republicans

Independent Variables	N of Negative Rho Correlations	Strong	Moderate	Weak
		N of R_s $\geq \pm .400$	N of R_s $\geq \pm .250$ $\leq \pm .400$	N of R_s $< \pm .250$
% Population change	9	0	2	14
% Urban	3	2	3	11
% Negro	6	0	0	16
% Foreign stock	2	3	5	8
Median age	2	0	4	12
% With private elementary education	3	0	7	9
% With low education	3	0	0	16
% With high school education	2	0	2	14
% With college education	2	0	3	13
Median education	2	0	2	14
Median income	2	1	5	10
% Unemployed	7	0	0	16
% Owner occupied dwelling units	10	0	0	16
% Sound units with all plumbing	2	1	4	11
Median rooms per dwelling unit	4	0	1	15
Median persons per dwelling unit	4	0	0	16
Median home value	2	0	5	11
Median rent	4	0	3	13
% White collar workers	2	0	5	11
% Blue collar workers	7	0	0	16
% Farmers	13	2	6	8
Totals	91	9	57	270

findings and can be compared to Tables III-2 and III-3 for all districts. One difference involves the signs of the correlations between the education variables and the roll call voting dimensions. In the hypotheses of chapter two I expected in general that the higher the education variables, the more liberal congressional voting would be. The relationships reported in chapter three are generally moderate to weak, but the direction of relationships were opposite to that hypothesized. Examined within parties, however, it is generally true that the higher the education variables for the districts, the more liberal the voting of the representatives from those districts. The correlations remain low, however, and this statement is more relevant to Democrats and Democratically controlled districts than it is for Republican ones. Another striking sign change occurs with the correlations between the proportion of Negroes and the policy dimensions. Unseparated by party the correlations with the proportion of Negroes were modest but mostly positive. Among Democratic districts and Democratic representatives all the correlations are negative. Among Republicans there are a few more negative relationships but the correlation coefficients are all below $\pm$ .250. The explanation here is simple. Southern Democrats, with the highest proportions of Negroes, vote more conservatively than their northern and western colleagues--a finding consistent with those reported by journalists and academics alike. However, the contrast in findings between all districts and Democratic districts hints that Republicans vote more conservatively than southern Democrats. This suggestion will be explored further below.

There are striking differences between the two parties which are evident in Tables IV-4 and IV-5. Weak correlations remain most numerous,

but the moderate and strong relationships together outnumber the weak ones among Democrats. In fact, the findings among Democrats compare more favorably to the values hypothesized in chapter two than the findings of chapter three for all members. For Republicans, however, constituency variables are only mildly related to roll call voting. For Democrats economic variables are among the strongest correlates on the fourteen scales where relationships are $\geq \pm .250$. In every case the associations are positive; the higher the economic well-being in Democratic districts, the more liberal the roll call voting by the representatives tends to be. Among Republicans the pattern is much less distinct. There is more support among Republican Congressmen from economically higher ranking districts on Foreign policy (A-1), Consumer protection (B-1), and Space spending (I-3). The tendency is weak, but similar on Negro rights (E). The pattern among Democrats is much clearer on social policy dimensions than it is on economic policy dimensions. Given the correlations among Republicans and Republican districts and all representatives with all districts, the correlation coefficients found among Democrats and Democratic district characteristics are very large. Median income relates to Civil liberties, $r_s = .671$; to Urban improvement, $r_s = .626$; to Social welfare, $R_s = .404$; to Negro rights, $r_s = .669$; to Consumer protection, $r_s = .455$; and to Aid to education, $r_s = .417$.

The education variables are not much more strongly related to the voting dimensions among Democrats than they are for all districts and members. The associations among Republican and Republican district characteristics are weaker still with one exception. I hypothesized strong relationships between education variables and voting and I was

particularly interested in the proportion of college educated and roll call voting. The relationships with this variable have been minute to the point of insignificance. It does appear above the .250 level three times when Republicans are taken separately; it is positively related with Space spending and Foreign policy, and negatively with Agricultural policy. Percent college does not discriminate among Democrats. Low education works the other way around. It is moderately to strongly negatively related to all the social policy dimensions, as well as Conservation, Foreign policy, Party loyalty, Labor vs. business, Orientation to debt, Space spending, and Orientation to professionalism. This variable does not discriminate among Republicans in roll call voting.

The variable most consistently and strongly related to liberal voting among Democrats is the proportion of Foreign stock in the districts. The highest correlation of constituency characteristics and voting reported in chapter three was between Foreign stock and Negro rights (r_s = .643). Among Democrats alone that correlation is r_s = .767, again the highest of all the correlations between characteristics of Democratic districts and the dimensions of voting. Of the fourteen dimensions on which there are correlates higher than ± .250, the highest correlation is with the percent Foreign stock for nine scales. Four other scales relate more strongly to the percent with private elementary education which, as was previously noted, is the independent variable most similar to Foreign stock. This variable also relates more strongly to the dimensions of social policy than it does to economic policy dimensions. Percent Foreign stock is not as consistently the high correlate of voting dimensions for Republican districts and representatives. It

is the most highly correlated variable on six of the eleven dimensions which have relationships higher than ± .250. The highest correlation in the matrix for Republicans only is between Foreign stock and Orientation to professionalism (r_s = .521). The tendency to relate more strongly to social than economic variables is not statistically significant among Republicans.[4]

Percent urban and percent farmers continue to covary with policy dimensions but not as closely within the parties as over the 435 districts and representatives. The divergence is greater among Republicans than Democrats. For Democrats the relationships between these variables and the scale scores for each dimension are generally stronger than when 435 districts and representatives are treated. Percent urban correlates with liberal voting especially on social policy dimensions, but also strongly on Conservation, Foreign policy and Party loyalty. Percent farmers includes a strong negative relationship with Orientation to professionalism. Among Republicans, however, percent urban correlates less strongly than it does using all districts. This tends to be the case with percent farmers, except in a couple of spots. There is a strong negative relationship between farmers and Space spending. This probably identifies the opposition of representatives from rural areas who prefer space expenditures for defense rather than lunar research. Among Republican districts the proportion of farmers is strongly positively correlated with liberal voting on Agricultural policy (C). At first glance it seems incongruous that the correlations

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[4]The statistical test is the Mann-Whitney U Test used as it was in chapter three and presented in Appendix E. For Democrats the difference is significant at the .01 level of significance.

overall and among Democrats should be negative for this relationship while the coefficient for Republicans is strongly positive, while at the same time the parties are strongly different in that Democrats support Agricultural policy to a greater extent than Republicans. The explanation is in the distribution of scale scores. Democratic support is concentrated at the extreme liberal end of the Agricultural policy dimension. This support comes not only from districts with sizeable farm populations, but from highly urban districts as well. Republicans are more evenly distributed over the dimension, but are concentrated on the right. The correlation reflects the slightly more liberal voting by representatives of the midwestern farm districts, which nevertheless remains considerably to the right of the votes by the Democrats.

Median age within a district is not a very powerful correlate of roll call voting, but it relates more strongly among Democratic districts and Democratic voting than it does among Republican or overall. I think the explanation here is more in the nature of this constituency characteristic than the voting behavior. Among Democrats median age covaries with urbanism, and thus with liberal voting. Among Republicans this covariance is much lower, probably because in Republican districts the small towns are havens for the elderly. Nevertheless, contrary to the original hypotheses, there is not a direct relationship between age and conservative voting, not even when considered among Republican districts only.

Home ownership has long been thought to be an important political variable. As mentioned previously MacRae (1952), Froman (1964), and Wilson and Banfield (1964) found it to be related to policy decisions

both in representative voting and referenda. It is not highly correlated with other independent variables such as median family income, percent with college education or percent white collar, but chapter three showed that it was consistently negative as it is correlated with voting on the policy dimensions and most of these relationships were of moderate strength. Separation by party makes a notable change. Within the parties this variable only weakly discriminates policy voting. No such transformation occurs with any other variable. The meaning is simply that percent owner occupancy is related to which party controls the districts; the higher the home ownership, the more likely the district is to be Republican.[5] Looking back to the all districts correlations of chapter three (Table III-1), it can be seen that higher negative correlations are with the policy dimensions which evidence the strongest party cleavage (Table IV-1). This is confirmed by a rho correlation of the two sets of ranks: $r_s = .839$. The finding here is different than MacRae's (1952). Roll call voting within the parties does not vary with the extent of home ownership. In neither party is there a relationship between owner occupancy and any of the sixteen dimensions of voting which is significantly different from zero ($P = .001$).

Percent white collar is generally more strongly related to the policy dimensions within the two parties separately than when the overall relationships are taken. Overall white collar correlated weakly with fifteen of sixteen dimensions. The correlations for each party separately are moderately or strongly positive on four dimensions:

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[5]The mean home ownership for 178 Republican districts is 58.04 percent (standard deviation = 9.00); for 257 Democratic districts it is 68.59 (standard deviation = 16.08). For all 435 districts the mean is 62.36 percent (standard deviation = 14.58).

Consumer protection, Orientation to professionalism, Foreign policy, and Space spending. Why the correlations go up in both parties on these dimensions, I cannot explain. Among Republicans there is covariance between the correlations of percent college and percent white collar, but not among Democrats. However, among Democrats percent white collar also correlates more strongly with Civil liberties, Urban improvement, Social welfare, Party loyalty, Negro rights, Orientation to debt, and Aid to education. Among Democrats white collar generally correlates with more liberal voting. The only dimension on which the Republican correlation is substantially stronger is on Agricultural policy. Percent white collar is negatively related to Agricultural policy for Republicans: $r_s = -.393$. For Democrats the correlation with Agricultural policy is not significantly different from zero.

The median number of persons per occupied unit, has not received much attention. I noted in chapter two that because it is negatively associated with median age, it probably gives evidence of young families. It is somewhat related to home ownership (see Appendix C). Overall this variable is only weakly related to policy dimensions. Among Republicans it does not discriminate according to voting, but it does pattern with Democratic voting. There are modest negative relationships with Civil liberties, Foreign policy, Party loyalty, Negro rights, and Aid to education. I can offer only a very tentative explanation for this pattern. I do not think these relationships are simply covariates of the associations of these dimensions with other variables. Five other variables in the matrix of Democratic correlations are mostly negative. None regularly covaries with median persons

per unit. I think this variable detects Democratic districts where there is a prominance of young families, probably of modest income, who are or who look forward to becoming home owners. They probably fit the "marginal homeowner" description. If such a pattern is perceived in the representational process, it could support a sense of moderation for liberal voting.

Several variables simply do not correlate with the voting patterns in any substantial way. Population change, median rooms per dwelling unit, and percent blue collar do not correlate with voting overall or within the parties separately. Percent unemployed does somewhat within the Democratic districts, but this variable is more strongly related to districts and roll call voting overall than among Democrats only.

I have left percent Negro as the final variable for consideration. Among Republican districts and representatives, none of the correlations are significantly different from zero ($P = .001$), but for Democrats all but two (Agricultural policy and Foreign trade) are. All these significant relationships are negative. The reason is obvious, of course. Percent Negro generally shows the tendency of southern Democratic representatives to vote in a less liberal fashion than their northern counterparts. This is the evidence of the correlations, and these merely give support to conventional wisdom. What is more interesting is that these correlations suggest an order of deviation by the southern representatives from the northern majority of the party. The greatest deviation is on the Negro rights dimension (E) and the least is on Agricultural policy (C). I will examine the extent of cleavage

between the southern and nonsouthern representatives in chapter five.

Looking once more at Tables IV-4 and IV-5, it is apparent that the roll call voting behavior of Democratic representatives is more strongly associated with constituency differences within the party than is the case for the Republicans. This is not explained away simply by the fact that there is more homogeneity among Republican districts than Democratic ones. This homogeneity is of some effect, of course. The low mean and standard deviation on percent Negro (see Table IV-3) is probably the major reason why this variable is not monotonically related to voting on any of the policy dimensions. Similarly small variation may account for the modest correlations which occur with median age, percent with poor education, percent with college education, median education, unemployment, median rooms per dwelling unit, and median persons per dwelling unit. There are a few variables which, in spite of considerable variability, do not relate to scale scores of voting in either party, such as percent population change, owner occupancy, and blue collar workers. Even making these exclusions from a comparison of the two parties, ten variables remain which invite comparison. There are 160 correlations (10 X 16). In the Republican matrix 106 are weak, 45 moderate and only 9 which are strong. For Democrats 33 are weak, 50 moderate, and 77 are strong. Examined variable by variable, the Republican matrix has more weak correlates and fewer strong correlates in every case.

If the constituency influence theory does causally relate to roll call voting, then the data of this chapter indicate that the impact is made more strongly upon Democratic representatives than upon

Republicans. This tentative conclusion should be accompanied by some hedging, of course. It only holds given the data of the analysis. Other conclusions might emerge with a different selection of constituency variables. The patterns are by no means deep and irreversible. Nevertheless, they are consistent. On almost every dimension of behavior the pattern of relationships is stronger between Democratic voting and the characteristics of Democratic districts than Republican voting is with the characteristics of those districts. Narrowing attention to a few variables, as suggested in the last paragraph, the variables most related to voting become apparent. Percent foreign stock dominates the covarying pair, foreign stock and percent with private elementary education. Median family income is representative of the economic variables. Percent urban and percent farmers are very similar for Democrats, but measure somewhat different things for Republicans. Percent white collar and percent with high school education remain, the latter has the most comparable measurement properties when looking at the two parties. Looking at the strengths of the correlations, Foreign stock ranks highest within each party. Ranking the correlations of these six variables has been done in Table IV-6. Rankings are not made on dimensions which have only weak correlations with all six of these variables. (The correlations themselves are reported in Appendix F.) Table IV-6 suggests a couple of things. One is the stability of the relationships among the Democrats. The order of strength for the relationships of the independent variables with the dimensions is very consistent where there are correlations of at least moderate size. Foreign stock is most related to the scales of voting.

Table IV-6.--Ranks of the Rho correlations for six independent variables over the 16 dimensions of roll call voting

Dependent Variables	Democrats					
	% Urban	% Foreign stock	% with high school education	Median income	% White collar workers	% Farmers
Civil liberties (F)[a]	3	1	6	2	5	4
Spending (I-2)[a]	3	1	6	4	5	2
Urban improvement (D)	4	1	6	2	5	3
Conservation (B-2)[a]	4	1	6	2	5	3
Foreign policy (A-1)	4	1	6	2	5	3
Social welfare (J)	4	1	6	2	5	3
Party loyalty (K)[a]	3	1	6	2	5	4
Labor vs. business (I-1)	3	1	6	2	5	4
Agricultural policy (C)	0	0	0	0	0	0
Consumer protection (B-1)	3	1	4	2	6	5
Negro rights (E)	4	1	6	2	5	3
Orientation to debt (I-4)[a]	4	1	6	2	5	3
Space spending (I-3)	3	2	6	1	5	4
Orientation to professionalism (H)	4	2	6	1	5	3
Aid to education (G)	3	1	6	2	5	4
Foreign trade (A-2)[a]	0	0	0	0	0	0
Σ ranks	49	16	82	28	71	41
Median ranks	3.5	1	6	2	5	3

Table IV-6.--Ranks of the Rho correlations for six independent variables over the 16 dimensions of roll call voting--Continued

Dependent Variables	Republicans					
	% Urban	% Foreign stock	% With high school education	Median income	% White collar workers	% Farmers
Civil liberties (F)[a]	0	0	0	0	0	0
Spending (I-2)[a]	0	0	0	0	0	0
Urban improvement (D)	3	1	6	4	5	2
Conservation (B-2)[a]	0	0	0	0	0	0
Foreign policy (A-1)	5	1	6	2	3	4
Social welfare (J)	4	1	6	5	3	2
Party loyalty (K)[a]	0	0	0	0	0	0
Labor vs. business (I-1)	4	1	6	5	3	2
Agricultural policy (C)	3	6	5	2	4	1
Consumer protection (B-1)	4	1	6	3	5	2
Negro rights (E)	5	3	6	1	4	2
Orientation to debt (I-4)[a]	0	0	0	0	0	0
Space spending (I-3)	2	4	6	5	3	1
Orientation to professionalism (H)	5	1	6	3	4	2
Aid to education (G)	5	1	6	4	3	2
Foreign trade (A-2)[a]	0	0	0	0	0	0
Σ ranks	40	20	59	34	37	20
Median ranks	4	1	6	3.5	3.4	2

[a]If in either party none of the six independent variables correlated with a dimension $r_s \geq \pm .250$, ranks were not calculated.

The higher the proportion of foreign stock, the more liberal the voting. Income is next. Percent urban and percent farmers covary closely anyway so their similar ranks are not surprising; of course, percent urban is directly related to liberal voting and farmers is negatively related to liberal voting. White collar and high school education trail behind.

This similarity of ranks says something about the scales dimensions too. The correlations between the scale scores is quite high. Perhaps there is an underlying dimension for which these are simply variations. The criteria of scale analysis may be too demanding a set of criteria to establish the content of this dimension, but much of the voting, particularly among Democrats, may fit a simpler left-right conception.[6]

The pattern is much less clear for Republicans. For one thing, of course, the correlations are smaller. Percent farmers is noticeably more related to the dimensions of behavior among Republicans than among Democrats. Surprisingly, percent foreign stock, though the relationships are less strong than for Democrats, is the variable which ranks highest on more dimensions than any other. It is directly related with scale scores, indicating that there is a tendency for more liberal voting by

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[6]During the scaling process I attempted to scale 18 roll call votes which were used in the Congressional Quarterly as "Larger Federal Role" items. They did not produce an acceptable scale. CR = .882 and CS = .706. According to the item criteria I used, several items would have had to be excluded if one wanted to develop a scale with acceptable reproducibility. I do not doubt that several of the items in the scale would go together in such a fashion as to produce acceptable coefficients of reproducibility and scalability. However, if CQ's item selection is to be used to test whether "Larger Federal Role" is a dimension by the criteria of Guttman scaling, those standards were not met in the 88th Congress.

Elementary linkage analysis (McQuitty, 1957) is a technique for isolating types "in which every member of a type is more like some other member of that type (with respect to the data analyzed) than he is like

Republican representatives from districts with larger proportions of first and second generation foreign stock. It is interesting that percent foreign stock and percent farmers should be the clearest correlates of voting. This seems to confirm the conventional view that native, small town folk are basis for social and economic conservatism. It is unfortunate that percent urban is such a blunt measure, not distinguishing small town urbanism from moderate and large city urbanism.

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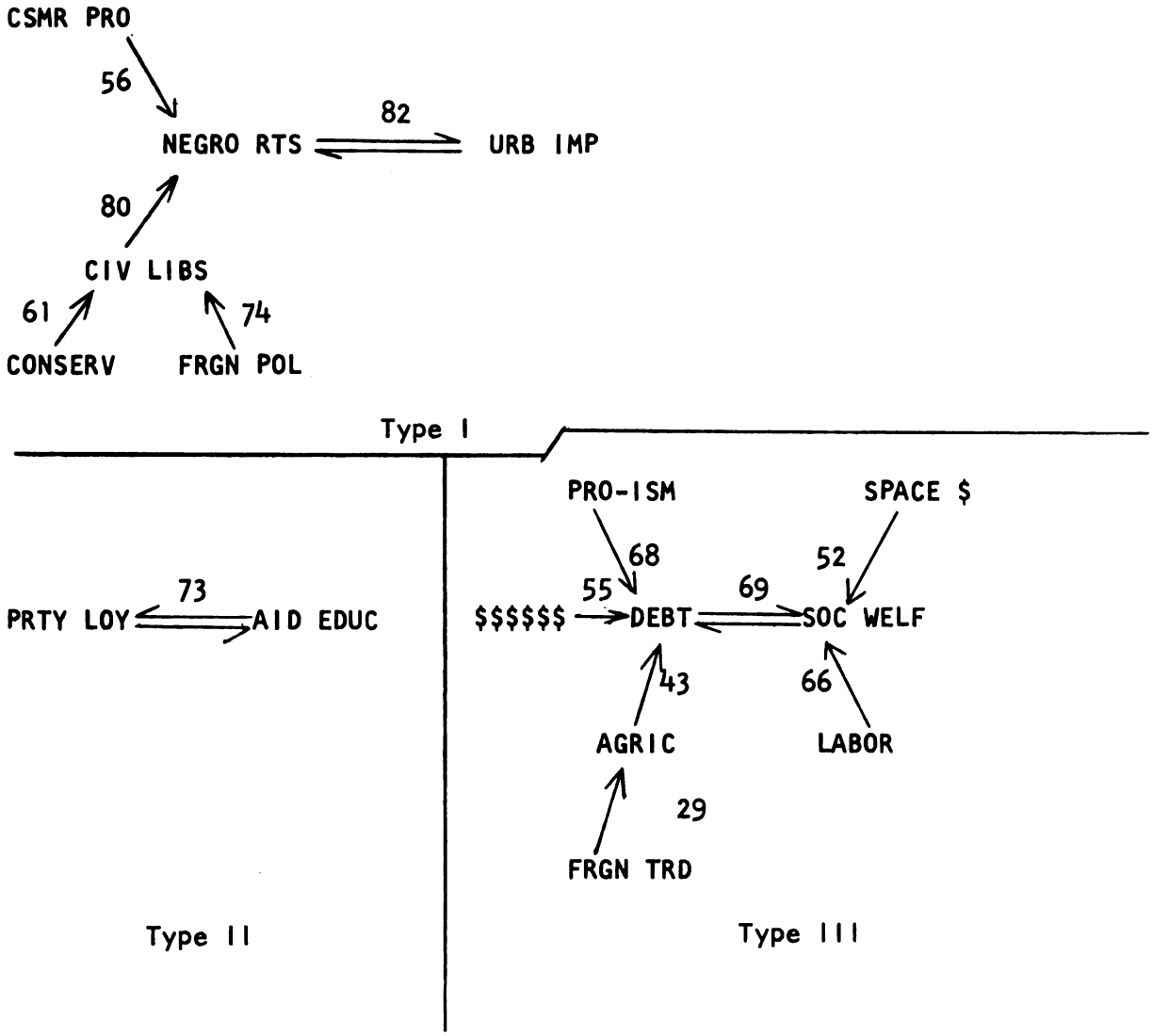
any member of any other type." I applied this technique to a matrix of correlations of the scale scores. The intercorrelations are generally higher among Democrats than among Republicans or among all representatives. However, using 257 Democrats 3 types emerged.



The variation in the rankings gives more evidence that voting patterns are more complex among Republicans than Democrats. Median family income relates moderately to liberal voting on Negro rights, but its relationships with other social and economic dimensions are much more modest. All the relationships among these six characteristics of districts and roll call voting are weak on six dimensions. This is not because of invariant voting and high agreement among Republicans. To the contrary, as Table IV-2 has previously demonstrated, the lower standard deviation coefficients on the Republican side indicate that Republican scale scores are spread more evenly along the dimensions than is the case for Democrats. The mean for this standard deviation is the mean frequency for each scale type on a given scale. Republicans more closely approximate these means than do Democrats. Democrats tend to be unevenly distributed, often bunched together on the extreme left end of the scale dimension. This bunching is evidenced by the higher standard deviation coefficients. Despite this bunching effect among Democrats compared to the more even distributions for Republicans, the voting variation is regularly correlated with constituency characteristics. Among Republicans this is not true even where, in terms of

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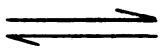
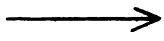


A reciprocal pair of variables; each is the other's highest correlate in the matrix.



The variable at the tail of the arrow has as its highest correlate the one at the head, but the one at the head is higher with some other.

In the original matrix all correlations were to 4 places; here they are rounded to two. The decimal point has been dropped.

This technique demonstrates the existance of at least three types among sixteen dimensions.

measurement criteria, the scale discrimination has been very good--on dimensions including Civil liberties, Spending, and Conservation.

Summary

The studies cited in the beginning of this chapter which show that system outputs are more strongly related to social and economic traits of the systems than to the levels of partisan conflict within them ought not be interpreted to mean that intra-system party conflict is irrelevant to the well-being of system members. The important results of party conflict is "who gets what"--who is to receive benefits of public policies and who will pay for these benefits. In chapter one I hypothesized that "who gets what" could be explained in large part without reference to parties and that party identifications simply overlay and conceal constituency differences which account for differences in the policy voting of representatives. Even the modest levels of correlation which I hypothesized would occur in the findings were too demanding. The expected relationships simply did not materialize.

This chapter has centered on the partisan conflict of roll call voting in the House of Representatives. It shows that cleavage is generally substantial, but that there is a good deal of variation in the extent of party cleavage among the sixteen dimensions under examination. The sharpest differences between the parties are in the way they vote on agricultural and economic policy dimensions (ignoring Party loyalty, which includes several procedural items). Conflict is moderate to slight on social policy dimensions. Foreign policy conflict is moderate; broad bipartisan unity cannot be taken for granted. On the dimension most associated with drama and public concern, Negro rights,

the parties as such were not in conflict.

The Republicans were generally less cohesive in their voting than Democrats. The major exception to this generalization being that Democrats show greater variation on Civil liberties voting. This finding should be taken with some caution, however. It will be recalled from chapter two that the scale scores tend to be skewed to the left on most of the scales. Part of the unity of the liberal voting is, I think, and artifact of the function of the committee system. Very often the difficulty for social and economic liberals is getting a proposal to the floor for a vote (see, for example, Fenno, 1962; Robinson, 1964). What Fenno refers to as the negative verb actions ("cut," "carve," "slice," "prune," "whittle," "squeeze," "wring," "trim," "lop off," "chop," "slash," "pare," "shave," and "whack") have already taken place by the time a bill comes to a record vote. The liberals then, generally unable to get the whole loaf, vote in a unified way with their fellow partisans to accept the half loaf. Discriminating the degrees of liberal voting with scale analysis requires more liberal proposals getting to the floor to be voted up or down. Testing this notion goes beyond the scope of this inquiry, but I think it can be done by looking at voting on bills reported out by committees containing disproportionate numbers of liberal members. It is likely for example that unity among U. S. Senate liberals of the 88th Congress is lower on foreign policy votes than on finance bills because of the differences in the character of the proposals which emerged from Fulbright's committee compared to those from Senator Byrd's. It may be that the variation on Civil liberties for the House in the 88th Congress roll call votes reflects upon the character of the membership of Representative

Celler's Judiciary Committee and the relatively more liberal proposals which were reported to the floor (in spite of delays in Judge Smith's Rules Committee).

The constituencies of Republican controlled districts are substantially different from those of Democrats. It is difficult to directly attach these differences to differences in voting by the two parties. Variations in voting within the parties can be associated with variations in constituency characteristics. There is generally higher covariation in constituency characteristics and voting among Democrats than among Republicans. For Democrats several variables relate directly with liberal voting on most of the dimensions of voting behavior: percent urban, percent foreign stock, percent private elementary education, percent with less than five years of school, median income, percent sound homes with all plumbing, median home value, and median rent. Percent farmers is negatively related. Two variables consistently rank highest on these dimensions. They are median income and foreign stock, and not surprisingly, these two independent variables are highly related to one another ($r_s = .775$).

The variation in Republican voting is generally much less correlated to the constituency variables used in this study. Not only are the correlations lower, the ranks of the correlations of the independent variables with the voting dimensions vary more than among Democrats. Percent foreign stock is the variable usually most related to liberal voting by Republicans, but the relationships are much weaker than among Democrats. Median family income and the other economic indicators are substantially less related to variation in Republican

voting than they are to variations in Democratic voting. The other variable which has high ranking correlations with Republican voting is percent farmers. The signs of these correlations are nearly all negative except on the Agricultural policy dimension. This correlation, the second highest in the whole Republican matrix, is a positive .479. These findings coincide closely with Mayhew's (1966, p. 40 and passim), who says, "Over the sixteen-year period (1947-1962), the more farmers a Republican Congressman represented the more disposed he was to desert his party on farm votes. Heresy flourished in the heavily agricultural districts of the Corn Belt as well as in the poorer dairy districts and in the wheat areas of the plains."

The surprising finding to me is the fact that the variation in Republican voting on several dimensions is associated with none of the variables under examination. The data simply do not reveal regular monotonic relationships on what are very substantial dimensions of cleavage between the parties--especially Party loyalty, Orientation to debt, Spending, and Civil liberties.

What remains for this study is the examination of a number of political variables. If party is very relevant to roll call voting other aspects of the partisan situation, region, competitiveness, ambition for higher office, and reelection may be related to roll call voting. These variables are examined in chapter five.

CHAPTER V

INTRA-PARTY PATTERNS IN ROLL CALL VOTING

Some aspects of the constituency are difficult to render into hard and intersubjectively meaningful indices. In chapter one I noted that many citizens hold the view that congressmen ought to vote "the way people feel." Certainly many congressmen take pains to act in what they feel are the best interests of those in their home districts (see Dexter, 1957; Wahlke et al. 1962). Wahlke et al. treated role orientations of legislators as an important variable in legislative behavior. Similarly the orientation of constituents toward representation are probably different in different constituencies. Certainly their policy preferences are different. Doubtless some have positive preferences--new programs of government ought to be enacted; others seek to prevent initiation and change. There may be variables more basic than character and extent of policy demands. Constituency attentiveness may be an important variable. How interested, concerned, and informed are the constituents? It is known, of course, that generally attention and information are at very low levels (Stokes and Miller, 1962), but how important is this as a variable, both over time, and across the constituencies of the Congress? Citizen sense of efficacy is another variable which may affect the representational process. It affects electoral turnout, but does it structure the expectations that constituents have of their

representatives? What are the expectations of constituents? Do they want to be consulted by their representatives? Do they expect their representatives to estimate and act in their interests in a prescribed manner, or do they prefer representation of a "public-regardingness" view? These and many other questions need to be asked of constituents and asked of their representatives. Representatives' perceptions of constituent opinions have proved to be significant variables in the process of representation (see Miller and Stokes, 1963). The point of these questions is to emphasize that it is doubtless important that more be known about the nature and effect of political culture upon politics generally and representation in particular.

Region

There is a good deal of intuitive analysis based upon cultural interpretation. David Potter (1954, p. 67) argues that the ". . . state of relative abundance, of material plenty, has been a basic condition of American life and that it has had a pervasive, if undefined, influence upon the American people." Yet not all parts of the system share identically in this abundance. Particular subsets of the society are relatively deprived. The great urban ghettoes of this country have always contained the potential for politician initiative. Different ethnic groups have "seen the opportunities, and took 'em," to paraphrase Boss Plunkitt's words, or failed to take them, as the case may be (see, for example, Cornwell, 1964). Charges of "bossism" have more consequence in some communities than in others (Riedel, 1964). The cultural and political implications of race are different in different parts of this country. Indeed, the values and expectations upon which the

political processes of the south have been built cannot be understood without an understanding of the cultural and political meaning of race (Key, 1949).

Testing the implications of political cultural variables upon patterns of representation in the 88th Congress goes far beyond the scope of this study. Nevertheless, the study provides some potentially valuable data for such more complex inquiries. I have produced measures of individual performance by representatives on a number of dimensions of roll call voting. Several, if not all, of these dimensions can be expected to have continued existance and importance in future congresses. It is well, therefore, to provide some elementary description of roll call voting predilections. Because such voting is so strongly grounded in the partisan context, the distinctions to be made are within the respective parties.

Instead of precise analytical distinctions in political culture, I will simply make regional comparisons. The most apparent and broadly advertised intra-party cleavage in Congress is that between southern and northern Democrats. While a regional definition based upon the boundaries of a cluster of states seems to be a crude way of marking off a deviating political subculture, there are both justifications and precedents which rationalize what happens to be a convenient delineation. There is no need to thoroughly recount the events which established and perpetuate the unique political orientations and partisan attachments in the South (for a concise summary, see Goldman, 1966, pp. 133-136). Suffice it to say that economic rivalry, war, reconstruction, and racism resulted in quite a different "natural order" of things among southern

Democrats than exists among their nonsouthern fellow partisans. It is true that the solidarity of the southern states has changed in the recent period, particularly in presidential elections. Probably, however, the best evidence of the remaining southern solidarity appears in the patterns of congressional representation.

Different scholars define the South in different ways. Key (1949) studied the eleven states which formed the Confederacy. Congressional Quarterly adds the states of Kentucky and Tennessee to this group. My own usage is based upon the definition of the Survey Research Center. Ten states are named as Southern: Alabama, Arkansas, Florida, Georgia, Lousiana, Mississippi, North Carolina, South Carolina, Texas, and Virginia. These ten states contained 97 congressional districts. For the 88th Congress only eight had Republican representatives (Florida 11 and 12; North Carolina 8 and 9; Texas 5 and 16; and Virginia 6 and 10). Thus, for purposes of this analysis there were 89 southern Democratic districts. The remaining 168 nonsouthern Democratic districts are used for comparison.

The intra-party differences in roll call voting are manifest in Table V-1. The method of analysis is the same as that used previously to show the differences between the parties in roll call voting and can be compared to Table IV-1 of the preceding chapter. H coefficients greater than 10.837 indicate statistically significant differences ($P = .001$) between the two groups. The dimensions are presented in the order of increasing differences between these two regional wings of the Democratic party. The data confirm the expectation that there are differences between the southern and nonsouthern groups of democratic representatives.

Table V-1.--The degree of differentiation between southern and nonsouthern Democrats on 16 dimensions of roll call voting (Kruskal-Wallis H Coefficients)

Foreign trade	.50
Agricultural policy	13.05
Consumer protection	35.10
Space spending	35.31
Spending	40.67
Orientation to professionalism	55.22
Labor vs business	63.10
Orientation to debt	63.80
Conservation	70.68
Aid to education	86.71
Social welfare	87.04
Foreign policy	100.67
Party loyalty	108.56
Civil liberties	125.11
Urban improvement	125.60
Negro rights	168.65

As one would hypothesize, the sharpest internal cleavage between South and nonsouth is on the Negro rights dimension. Support for Negro rights is very much higher among nonsouthern representatives than among southern ones. No southern representative received the highest possible score on this scale and only one nonsouthern Democrat (Everett, Tennessee 8) received the lowest possible score, opposing the Negro rights proposal which received the highest proportion of support (84.1% of those who participated; 1963:33. See chapter two and Appendix B) of all Negro rights proposals which came to a roll call vote in the House. Meanwhile 104 nonsouthern Democrats (over 41% of those scaled) received the highest possible scale score, and 44 southern Democrats (almost 18% of all the Democrats scaled) received the lowest scale score.

Table V-1 also shows that the intra-party conflict among Democrats is not limited to Negro rights alone. There are statistically significant differences between the southern and nonsouthern wings of the party on every scale dimension except foreign trade. On every dimension

it can be shown that the rankings of support by nonsouthern Democrats are higher than those of southern Democrats.[1] Interestingly, the evidence of the rankings is that there is much more intra-party conflict on the dimensions of social policy than there is on the economic policy dimensions. Although the cleavage is not inconsiderable, voting on the economic policy dimensions does not arouse the southern opposition that Civil liberties, Urban improvement and even Conservation roll calls do. In spite of the fact that organized labor has suffered many setbacks in the South (see, for example, Barbash, 1958, pp. 42-44), the southern representatives do not oppose the bread and butter issues of the Labor versus business dimension with the intensity that they oppose social policies often endorsed by organized labor unions. Similarly, conflict on spending items is mild compared to that on social policies, Party loyalty and Foreign policy. The latter two dimensions receive considerable southern opposition. Agricultural policy, on the other hand, gets almost as much liberal support from the southern delegations as from any other region. However, among the few Democratic opponents of liberal agricultural policies are several southerners, particularly from Florida, who opposed all the items of the Agricultural policy dimension.

The constituency data of Table V-2 are very interesting. The correlations between the constituency characteristics of Democratic districts and the voting by Democratic representatives are largely

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[1]To produce the Kruskal-Wallis H coefficients the scale scores are ranked from one to N, with N equal to the number of representatives scored on the scale. The sums of the ranks for each group is produced. The computer program used (Morris, 1966) reports the rank sums and the number of observations for each group. The average rank for the group can easily be determined indicating which group, as such, had the higher average ranking and scale scores.

Table V2.--Comparison of constituency characteristics within Democratic districts by regions 89 southern districts and 168 nonsouthern districts of the 88th Congress

Independent Variables	Nonsouthern Democrats		Southern Democrats		Difference Between Means	
	Mean	Standard Deviation	Mean	Standard Deviation	F Statistic	Significance Level of F[a]
% Population change	18.65	41.13	18.45	26.44	.00	.92
% Urban	77.07	25.60	53.16	20.90	57.35	.00
% Negro	10.57	14.40	24.50	12.54	59.42	.00
% Foreign stock	24.72	15.50	4.99	6.95	130.17	.00
Median age	30.72	3.55	26.72	3.23	78.54	.00
% With private elementary education	18.83	12.50	4.65	5.36	104.25	.00
% With low education	8.46	4.16	16.47	6.22	151.12	.00
% With high school education	38.73	9.27	33.11	6.76	25.60	.00
% With college education	6.67	2.57	6.39	1.86	.84	.36
Median education	10.35	1.17	9.31	1.10	47.80	.00
Median income	5722.74	1114.55	4074.19	869.06	147.20	.00
% Unemployed	6.02	2.08	4.99	1.00	19.33	.00
% Owner occupied dwelling units	56.31	19.12	61.31	6.50	5.73	.02
% Sound units with all plumbing	74.28	13.59	58.13	12.20	88.11	.00
Median rooms per dwelling unit	4.71	.59	4.64	.24	1.33	.25
Median persons per dwelling unit	2.87	.37	3.09	.29	23.67	.00
Median home value	121.89	37.42	85.38	21.47	72.08	.00
Median rent	70.96	14.12	52.92	10.61	111.70	.00
% White collar workers	43.19	8.31	36.89	7.11	36.83	.00
% Blue collar workers	51.50	7.98	50.47	7.40	1.01	.32
% Farmers	5.31	7.59	12.37	8.26	47.25	.00

[a]The reported .00 indicates that the significance level is less than .005.

explained by the data summarized here. It will be recalled from chapter four that among Democrats the independent variables most directly related to roll call voting variables were percent urban, percent foreign stock, percent with private elementary education, median family income, percent sound homes with all plumbing, median home value, and median rent. Poor education and percent farmers were strongly negatively related to the voting dimensions. The means for these variables for southern districts are all significantly different than those for the nonsouthern districts. These differences consistently go with the signs of the correlations; that is, the variables directly related to liberal voting have higher means for the nonsouthern districts than for the Southern ones. The inversely related variables, percent with poor education and percent farmers, have higher means for the southern districts. Variation in constituency characteristics of Democrats is largely accounted for by the less urbanized character of the southern states. In fact if Table V-2 is compared to Table IV-3 where the two parties are compared in terms of the 21 constituency variables, it can be noted that on thirteen of the twenty-one variables the F statistics of mean difference are larger in the south-nonsouth comparison than for the Republican-Democrat comparison. Much of the variation, then among Democratic districts is accounted for by the southern districts.

These conclusions fit with the data of Table V-1. The variation from party unity on the dimensions of voting are also accounted for by the southern representatives. That is, the dimensions which have strong correlates among the constituency variables are those which divide southern and nonsouthern representatives. Referring back to Appendix F

for Democrats, I took the highest correlation of each dimension. I ranked the dimensions from low (absolute value) to high and correlated the ranks to those in Table V-1. $r_s = .856$. This simply means that most of the variation in Democratic voting is variation by southern Democrats from their nonsouthern colleagues; similarly the independent variables which correlate most strongly with the dimensions of voting are those which distinguish southern and nonsouthern districts. The apparent constituency relevance to the voting of Democratic representatives is summarized by differences between southern and nonsouthern voting and constituency characteristics.

There is no subset of Republican districts which is bound together in a fashion like the southern Democrats. The midwestern and plains states have been known as the heartland of Republican electoral strength, but even there Democrats have made strong inroads in the period since the Depression. Actually Maine and Vermont have been most faithful to the Republicans in the Presidential elections between 1932 and the present (see Jones, 1965), but they are of small importance in the House with only three representatives. Possibly Republican representatives can be separated more meaningfully on the basis of one or more continuous variables. One could divide the 178 Republicans according to whether they are high or low on a particular characteristic such as percent urban, percent Negro, percent foreign stock, percent farmers, etc. There is the general feeling that small town, native, white American Republicanism is a type to be contrasted with a somewhat more heterogeneous, cosmopolitan, and sophisticated Republicanism. In short, the major difference is between liberal and conservative Republicans. Among the constituency

characteristics used, there really is no satisfactory variable for making the distinctions described. Percent urban is too broad because the census definition is so inclusive. Percent farmers is a narrow occupational variable which is not necessarily indicative of small town values. Percent foreign stock may pick up too many things to be useful, especially among Republican districts. It does not distinguish between foreign stock which was readily assimilated into the fabric of the communities and those which were not. For example, of the thirty "most Canadian Districts" of the 88th Congress, fifteen were Republican (CQ Census Analysis: Congressional Districts of the United States, 1964, p. 1865). The ease with which these individuals have entered the community is greatly different than has been the case with the Irish, southern Europeans or Puerto Ricans. The low variation associated with percent Negro, noted in chapter four, discourages use of this variable.

If the midwest has been the center of gravity for the Republican party, its heaviest counterpoise has been the east. Probably most effective in the presidential nucleus, the "Eastern Establishment" has stood for different brand of Republicanism than the remainder of the Republicans have. The professional managers of finance and industry, located particularly in the eastern cities, have preferred the Republican party over the Democratic party as it has opposed the demands of labor and social liberals. However, they have adopted a much more pragmatic view of the role of government in the national economy. Preferring a stable economic growth rate, they have been less agitated by governmental spending and unbalanced budgets (see Monsen and Cannon, 1965, pp. 24-63). Meanwhile, hopeful Republican candidates in these states confront a

political opportunity structure which are mightily affected by the dominating votes of urban and suburban residents.

A convenient division of Republican districts results from a combination of the New England and Mid-Atlantic states. By this definition the east includes Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont, Delaware, New Jersey, New York, and Pennsylvania. Actually, the inclusion of Delaware and Rhode Island is of no consequence because the three districts they contain were all Democratic in the 88th Congress. Republicans held almost half of the eastern constituencies with 54 out of 109. These 54 are less than a third of all the Republican seats in the 88th Congress (Republican total; 178).

While it may be argued that congressional voting is not the most obvious place to look for cleavage in the Republican party, this tendency has been noted in the literature. Truman (1959, p. 179) noted that among House Republicans "there was an evident connection between geographic region and position in the [roll call voting agreement score] structure. With a few exceptions the men who belonged to the blocs on the left [liberal] side . . . were from the east and those in the blocs on the right [conservative] were from the middle west. The cleavage on these votes thus resembled that among the Senate Republicans." The analysis here will make the comparison more systematic although it means including a number of outstate, small town, native white constituencies in Pennsylvania and New York, and rural New England districts.

Table V-3 establishes the degree of intra-party cleavage among Republicans. The regional differences are not nearly as great as among the Democrats, but most of the differences are considerable. Differences

Table V-3.--The degree of differentiation between eastern and noneastern Republicans on 16 dimensions of roll call voting (Kruskal-Wallis H coefficients)

Conservation	.36[a]
Foreign trade	.99[a]
Agricultural policy	2.52[a]
Party loyalty	4.52
Consumer protection	7.68
Civil liberties	7.77
Spending	12.33
Orientation to debt	15.29
Negro rights	17.05
Aid to education	22.79
Space spending	30.19
Social welfare	31.18
Foreign policy	32.81
Labor vs business	45.45
Orientation to professionalism	46.85
Urban improvements	57.76

[a]coefficients of difference where eastern Republicans have lower scale score ranks than noneastern Republicans.

greater than 10.837 are significant at the .001 level. Because the distribution of H coefficients is not as broad as among Democrats there is less apparent structure in the distribution and the order of the items is quite different than that for the Democrats (This is evidenced by the low correlation between the two rank orders: $r_s = .338$, $P > .05$. The correlation is not significant.) There is not as distinct a difference in the cleavage among Republicans by social policy dimensions compared to economic policy dimensions. There is a good deal more unity among Republicans than among Democrats on Negro rights, Party loyalty, Civil liberties, and Spending. The cleavage among Republicans is nearly as great as among Democrats only on Foreign trade (where differences are not significant within either party), Agricultural policy, Space spending, and Orientation to professionalism. There is not the tendency in this

distribution for economic policy coefficients to be clustered at one end while social policy coefficients are clustered at the other.

The differences between eastern and noneastern Republican representatives are accounted for by more liberal voting on the part of the eastern Republicans (see footnote 1, supra) on all dimensions except Conservation, Foreign trade, and Agricultural policy. They clearly suggest that it is in the east that Republicans tend to converge upon the policy positions of the Democratic party. This is reasonable, given the competitive position of the two parties in party identifications (see Campbell, et al., 1960, Table 7-4 on p. 158) in the east and the advantageous access to the national opportunity structure available especially in Massachusetts and New York (Schlesinger, 1966, pp. 27-33). Similarly there are differences between the constituency characteristics of the eastern and noneastern Republican districts on precisely those variables which relate to the dimensions of voting. The difference on percent urban is not great but the differences on percent foreign stock and percent farmers are very sharp. The differences on economic variables are all significant too and given the earlier discussion of how scale scores are distributed in relation to income, the higher income levels of the east are a basis for more liberal voting. Comparing the F statistics in Table V-4 to Table IV-3, where Republicans and Democrats were contrasted, it can be seen that most of the intra-party differences for Republicans are smaller than those between the parties. This was not the case for Democrats. The greater overall homogeneity of Republican districts is underscored by this fact.

Table V-4.--Comparison of constituency characteristics within Republican districts by regions 54 eastern districts and 124 noneastern districts of the 88th Congress

Independent Variables	Eastern Republicans		Noneastern Republicans		Difference Between Means	
	Mean	Standard Deviation	Mean	Standard Deviation	F Statistic	Significance Level of F[a]
% Population change	27.93	35.62	30.38	33.75	.19	.67
% Urban	71.80	20.60	63.54	21.98	5.50	.02
% Negro	3.34	3.68	3.80	4.70	.41	.53
% Foreign stock	28.90	11.40	16.32	9.22	60.37	.00
Median age	31.84	2.74	29.17	2.94	32.27	.00
% With private elementary education	21.21	10.22	13.88	9.12	22.55	.00
% With low education	5.19	1.43	5.28	3.32	.04	.83
% With high school education	44.45	6.41	45.40	8.78	.50	.49
% With college education	9.17	3.95	8.17	3.62	2.70	.10
Median education	11.09	.84	11.02	1.09	.17	.68
Median income	6470.26	1122.58	5811.67	1236.30	11.27	.00
% Unemployed	4.83	1.78	4.78	1.51	.04	.83
% Owner occupied dwelling units	67.14	12.44	69.22	6.96	2.01	.15
% Sound units with all plumbing	80.21	9.92	74.30	11.94	10.17	.00
Median rooms per dwelling unit	5.39	.53	5.00	.37	31.27	.00
Median persons per dwelling unit	3.04	.30	2.95	.27	4.63	.04
Median home value	139.26	44.23	119.08	37.10	9.88	.00
Median rent	76.22	13.82	72.97	13.89	2.07	.15
% White collar workers	47.11	8.81	43.58	9.18	5.72	.02
% Blue collar workers	49.47	6.95	46.22	7.92	6.82	.01
% Farmer	3.4	2.98	10.08	9.22	27.01	.00

[a]The reported .00 indicates that the significance level is less than .005.

The regional analysis fills out the findings presented in chapters three and four. It locates the major sources of variation in voting within each party and shows the differences in the constituency characteristics of the regions. The constituency differences which occur fit with the voting differences. The links established in chapters three and four between percent urban, percent foreign stock, percent with low education, median family income, and percent farmers show up as the variables of the parties. But the differences in the constituency variables are much less distinct than the differences in roll call voting, and the differences in voting within the parties, certainly of noteworthy proportions, do not reach the proportions of the conflict between the parties on most dimensions. For example there is relatively high internal disagreement within each party on the urban improvement dimension, yet the conflict between the parties is a good deal sharper than the conflict within each. This, it seems to me, is very impressive evidence about the importance of the legislative parties in structuring the voting in the House of Representatives.

Competitiveness

There has been a good deal of lamentation among political theorists about the lack of electoral competitiveness in the primaries and general elections of congressmen. The argument is simple enough. If Ford keeps General Motors improving its automobiles, competitive parties ought to result in better representation. Competitive corporations do not necessarily mean that every community contains competitive franchises. Competitive corporations do not mean local sales representatives are competitively aggressive. Corporate competition does not assure competitive

models or units. Similarly nationally competitive parties are not competitive in all, not even the majority of electoral units, whether these units be states, cities, legislative districts, counties, etc. The more difficult task is that of evaluating representation--different theorists would tout different standards of evaluation. Some argue that a competitive situation would assure conscientious service by representatives. It is the Madisonian argument of The Federalist, No. 51 that, "Ambition must be made to counteract ambition," and "that the private interest of every individual may be a sentinel over the public rights." Thus a competitive electoral situation makes the candidates serve their own interest--win elections--by serving and promising to serve in a way pleasing to constituents. Others may argue that a competitive system is needed, but that, particularly in the legislative halls, not all parts ought to be competitive lest a landslide election altogether remove a minority party from office. Another argument is that with widespread competition and turnover of office holders there will be instability, great repetition of effort from term to term, and generally a less competent legislative branch.

There are many more value implications which need not be reviewed here. There is the more practical question whether competitiveness seems related to variations in the behavior of political authorities. In chapter one I reviewed several pieces of research relating to this question and concluded that because the findings are not consistent, the question remains an open one. I have a situation in which the question can be examined. Competition for House seats is a variable, and several indices can be used. Having measured voting, the question can

be reduced to considering whether there is any difference between the voting of representatives from competitive districts and those from less competitive ones. My measurement of competition is based upon expert judgment rather than more objective criteria. It is CQ's (Congressional Quarterly Weekly Report, November 2, 1962, pp. 2092-2095) competitiveness rating which was rendered into a nine point scale. CQ categorizes competition from as follows:

1. Safe Republican
2. Leaning to safe Republican
3. Leaning Republican
4. Doubtful to leaning Republican
5. Doubtful
6. Doubtful to leaning Democratic
7. Leaning to safe Democratic
9. Safe Democratic

I simply coded each district by the accompanying numbers. The rationale for selecting this rating includes a couple of considerations. First, although the rating is subjective it is authoritative. In chapter one I argued the importance of the perceived importance of constituency variables. The same considerations apply here. If competition is to affect behavior, it must be perceived. I could, for example, have constructed an objective index based upon the relationship between the winners' votes and their nearest rivals' votes, concluding, for example, that a difference of three percent between the winners' and losers' vote is more competitive than a seven percent difference. Schlesinger, (1955), has argued that turnover is an appropriate basis for an index of competition. Both of these kinds of criteria are relevant, yet both imply problems. The latter approach requires looking at several elections, and the length of the period used materially affects the evaluation. Reapportionment makes it difficult to use for all districts.

The percentage approach involves an equal interval measurement which may not correspond to the way the contest was perceived by those involved in it. Several elections resulting in the same margin of victory may have been differently understood by the participants. In one district there may be a narrow but stable margin by one party over the other. In another district patterns may be more shifting. Simply in percentage terms there may be no difference in competitiveness, but I would expect that in the latter district both competitors would be running a scared campaign; in the former that would be less likely. An advantage of the CQ index is its authoritativeness. Its evaluations are often known by the participants to the contests. They are reported in the news media. I feel quite certain that any candidate whose position is no better than "leaning" one way or another is worried about the outcome and, if he wins, cannot help but be concerned about what might happen two years later.

I constructed three indices. The first, electoral competitiveness, has been described. The second concerns the other part of the double jeopardy of a candidate, namely, the primary. This is more subjective still because CQ does not comparatively rate these contests. However, the CQ Weekly Reports describe the outlook shortly before the primaries. I examined these reports for all the eventual winners. There are three kinds of contests: (1) the winner met little or no opposition; (2) the winner met serious opposition, but was clearly favored to win; (3) the outcome was in doubt. The district was coded according to the eventual winner's primary contest:

1. Republican - little or no contest
2. Republican - serious opposition, but favored
3. Republican - contest in doubt
7. Democratic - contest in doubt
8. Democratic - serious opposition, but favored
9. Democratic - little or no contest

Every district has a primary competitiveness score. The gap between the parties relates to the third index, the combined competitiveness score. Election is usually the greater hurdle. However, assuming the value of competition, it is better that primary competition occur than that there has been none at all. It remains, nevertheless, a poor substitute for electoral competition (Turner, 1953; Key, 1956). Thus to get a combined index one must establish a rank relationship between the definitions of electoral competition and primary competition. The ranking used here is arbitrary, of course, but because incumbency is such a strong advantage in primaries and because the data for evaluating competitiveness in these contests are less systemmatic than that for elections, I prefer a cautious classification of primary competitiveness for combination with electoral competitiveness. Therefore a "doubtful" primary is given the same rating as a "leaning" election contest. The combination competition score for a district is taken as the election or primary score which is closer to 5. A couple of examples make the point clearer. Representative Tuten (D, Ga-8) had a safe seat in the 1962 election. However, his primary opposition was strong and the outcome was in question. His primary competitiveness score is 7, his electoral competitiveness score is 9, and his combined competitiveness score, because the primary test was more serious than the election, is 7. (see CQ Weekly Reports, pp. 1465, 1545, 1546). Representative White (D,

Idaho 1) had no primary opposition, but his election contest was doubtful to leaning Democratic. His combined competitiveness score is 6, the same as his electoral competiveness score.

The statistical technique is analysis of variance as before. Two groups are formed for each index of competition--more competitive and less competitive. Among the Democrats 63 of the 257 representatives (24.5%) won office in districts where the electoral competitiveness ranged from (3) leaning Republican to (7) leaning Democratic. The remaining 194 won in (8) leaning to safe, or (9) safe Democratic seats. For primary competiveness 38 of the winners (14.8%) came from districts where the primary was (7) in doubt. The analysis using the combined competitiveness scores compares the members who faced no sharp opposition in either primary or election with those whose primary was in doubt or whose seat was no safer than "leaning Democratic" in the election. 86 members (33.5%) fit in the latter category.

Table V-5 presents the Kruskal-Wallis H coefficients of difference between the voting ranks of the groups on each dimension for each index of competition. Overall the differences appear to be meager. This is especially true in comparison with the differences between the parties and between the regional wings of the parties. It should be kept in mind, however, that at conventional levels of significance relatively small H coefficients give evidence that groups are statistically different from one another. At the conventional .05 level of significance an H coefficient equal to or greater than 3.841 is significant. The more demanding .01 level requires an H equal to or greater than 6.635 (with one degree of freedom).

Table V-5.--The degree of differentiation between Democratic Representatives from more and less competitive districts on 16 dimensions of roll call voting (Kruskal-Wallis H coefficients)

Dimensions of Roll Call Voting[a]	Electoral Competitiveness	Primary Competitiveness	Combined Competitiveness
Negro rights	22.89	3.42[b]	8.52
Aid to education	7.06	6.94[b]	.16
Consumer protection	6.29	.03	3.65
Conservation	2.73	2.41[b]	.19
Orientation to professionalism	2.15	6.52[b]	.15[b]
Civil liberties	11.23	1.31[b]	4.45
Social welfare	4.63	3.12[b]	.42
Foreign policy	11.23	2.15[b]	3.34
Foreign trade	1.31[b]	.14	.13[b]
Urban improvement	18.71	1.52[b]	8.06
Labor vs business	5.56	1.21[b]	1.72
Spending	.08	1.73[b]	.01[b]
Agricultural policy	.00[b]	.84[b]	.12[b]
Orientation to debt	3.14	2.08[b]	.23
Space spending	4.63	1.96[b]	1.49
Party loyalty	10.75	3.57[b]	2.09

[a]The dimensions are ordered according to the degree of interparty differentiation established in Table IV-1.

[b]Coefficients of difference where representatives from more competitive situations have lower scale score ranks than their fellow partisans.

The general impression from the data is that electoral competition is the most meaningful of the three measures of competition. Representatives from competitive primaries vote significantly differently ($P = .05$) only on the Orientation to professionalism dimension and the Aid to education dimension. Using the combined competitiveness index significant differences occur on the Urban improvement, Civil liberties, and Negro rights dimensions. Electoral competitiveness reveals more and sharper differences, especially on Urban improvements and Negro rights.

More important is the direction of the differences between the groups. The differences in voting by representatives from more and less competitive districts are accounted for by the generally higher scale scores by representatives from competitive districts. Except for the Agriculture and Foreign trade dimensions, where differences were insignificant, Democrats from competitive districts vote more liberally than representatives from safer seats. This is not the case for Representatives who survived doubtful primaries. The differences, though smaller, were in the opposite direction, except of Consumer protection and Foreign trade. Representatives from comeptitive primaries (half from the South) are different from the rest by the fact that they have lower scores on the dimensions of voting. Most Democrats with doubtful primaries were much safer in the election than the primary. This is particularly true among the southern representatives who make up half the members surviving doubtful primaries. The findings using combined competitiveness are, understandably, muted by the counter trends of the two kinds of competition. Election competitiveness dominates this division, so on most dimensions the representatives from the more competitive districts tend to have higher scale scores than those from less competitive districts. (On four dimensions where differences are tiny competitiveness goes with lower scores: Orientation to professionalism, Agriculture, Spending, and Foreign trade.)

Among Republicans there is a larger proportion of electorally competitive seats than among Democrats. 52 of 178 Republicans (29.2%) won office in contests that ranged from (3) leaning Republican to (7) leaning Democratic. The remainder were from safer districts. Only 15

districts (8.4%) had doubtful primaries in 1962. The combined competitiveness index reveals 59 districts (33.1%) were represented by congressmen who survived a doubtful primary or won in an election contest which was no safer than "leaning Republican."

Table V-6 shows that competitiveness is much less related to variation in Republican roll call voting than it seems to be for Democrats. There are no statistically significant differences between representatives from electorally more competitive and less competitive districts on any of the dimensions. Two, Orientation to professionalism and Aid to education, provoke significantly different responses from representatives from doubtful primaries. None of the differences are significant using the combined competitiveness index. In contrast to the Democrats, there are no distinctive directional contrasts in the differences by primary as compared to electoral, competition. For all three indices the representatives from more competitive districts generally have lower scale scores on the voting dimensions than those from safer seats. The exceptions are Agricultural policy, Spending, Conservation and Space spending, and on all but the latter the slightly higher scores are almost immaterial.

The findings, stronger among Democrats than among Republicans, tend to confirm findings by Huntington (1950) that members from competitive districts show more marked liberalism and conservatism than do partisans of safer districts. What is noticeable in these data is that the differences according to electoral competitiveness tend to be greater on the social policy and foreign policy dimensions where the interparty roll call voting cleavage is relatively lower. I think this simply

Table V-6.--The degree of differentiation between Republican Representatives from more and less competitive districts on 16 dimensions of roll call voting (Kruskal-Wallis H coefficients)

Dimensions of Roll Call Voting[a]	Electoral Competitiveness	Primary Competitiveness	Combined Competitiveness
Negro rights	1.82	.18	2.33
Aid to education	.30	3.21	.26
Consumer protection	1.42	.00[b]	1.16
Conservation	.38[b]	1.05[b]	1.13[b]
Orientation to professionalism	2.92	2.76	2.87
Civil liberties	3.15	.56	2.29
Social welfare	1.54	.53	1.03
Foreign policy	1.26	.32	.60
Foreign trade	1.12	.18[b]	.63
Urban improvement	.27	1.16	.15
Labor vs business	.00	2.68	.03
Spending	.32[b]	.41	.33[b]
Agricultural policy	.13[b]	.05	.44[b]
Orientation to debt	1.21	.80	1.09
Space spending	2.22[b]	.01	2.63[b]
Party loyalty	1.31	.02[b]	.83

[a]The dimensions are ordered according to the degree of inter-party differentiation established in Table IV-1.

[b]Coefficients of difference where representatives from more competitive situations have higher scale score ranks than their fellow partisans.

indicates that on economic and Agricultural policy dimensions where the two parties have tautly drawn partisan lines, there is not a great deal of variation among the members which is systematically related to competitiveness. The dimensions which do not as sharply divide the legislative parties include variation which, for Democrats in competitive districts, stimulates more liberal voting and, for Republicans in competitive districts, stimulates more conservative voting than among their respective fellow partisans from less competitive districts. Representatives from

competitive districts apparently attribute more relevance to inter-party differences than those from less competitive districts. This even shows in their "purer" positions on the party loyalty dimension. They extend and exacerbate the interparty conflict to dimensions of social policy in a way that representatives from less competitive districts do not.

Ambition

In chapter one I raised the question of whether the political ambitions of representatives might differentially affect their roll call voting behavior. Schlesinger (1965 and 1966) has developed most of the notions to be examined here. Ambition is relevant to policy voting because:

> If anyone is going to search for solutions, it is the man whose career depends on finding solutions. The politician with static ambitions is far more likely to be driven by immediate pressures, whether it be the pressure of opinion, party, or special interest groups. Only the man with progressive ambitions is driven to explore current policies in the light of future consequences, for his future career is at stake. In his calculations, todays opinions can be discounted, tomorrow's put at a premium. For this reason the man with progressive ambitions is more likely to seek to lead and direct opinion, not necessarily from any idealistic sense of what is right, but from his own need to secure opinion for his future goals (Schlesinger, 1966, p. 209).

A careful examination of differences between those with progressive ambitions and those without them is difficult for a number of reasons. Specifying who has progressive ambitions is hazardous. Ambition certainly is a psychological syndrome. I have merely identified as progressively ambitious those members of the 88th congress who have run for

higher office between 1963 and the beginning of 1967.[2] Only twenty-one are treated; ten Democrats and eleven Republicans. Most of them sought higher electoral office, usually a U. S. Senate seat, and most were defeated. It is worth noting that there are two sorts of progressives among these twenty-one. Those with low seniority who hold a precarious position in a competitive district and have everything to gain by taking a chance on winning higher office; for example, Bolton of Ohio and McIntire of Maine. Similar are those whose seats were being apportioned out from under them as was the case for Staebler of Michigan and Sickles of Maryland. Others relinquished safe seats, sometimes with substantial seniority, to contest for higher office; Duncan of Oregon and Bray from Indiana provide examples. The smallness of the number of representatives from the 88th Congress who revealed progressive ambitions is consistent with Schlesinger's (1966, p. 209) characterization of Congress, and particularly the House, as an institution which fosters static ambitions and responds to contemporary opinion. The question remains whether those who try to move on to other offices evidence a willingness to guide opinion rather than merely reflect it in their roll call voting.

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[2]Among the representatives scaled, 10 Democrats and 11 Repbulicans sought higher office and were classified as progressively ambitious. The Democrats are:

Bass (Tennessee-6) Ran for U. S. Senate in 1964
Duncan (Oregon-4) Ran for U. S. Senate in 1966
Gill (Hawaii-AL) Ran for U. S. Senate in 1964
Harris (Arkansas-4) Accepted a federal judgeship in 1966
Harding (Idaho-2) Ran for U. S. Senate in 1966
Hemphill (South Carolina-5) Accepted a federal judgeship in 1966
Montoya (New Mexico-AL) Ran for U. S. Senate in 1964
Roosevelt (California-26) Ran for Mayor of Los Angeles in 1965
Sickles (Maryland-AL) Ran for Governor in 1966
Staebler (Michigan-AL) Ran for Governor in 1964

The differences in voting behavior are hypothesized from what Schlesinger (1966, p. 137-139) has described as "third order organizational tensions."[3] Seeking higher office in broader and more varied constituencies, ordinarily they may be expected to respond to their anticipated electoral strength in the broader constituencies. Therefore progressives might be expected to vote in a more liberal fashion than their statically ambitious colleagues. Democrats need to be responsive to the urban majorities and their demands for progressive social and economic policies. Ambitious Republicans similarly would be expected to be more liberal than their party generally because of their need to

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Two other Democrats, Shelley (California-5) and Thornberry (Texas-10), took higher offices. However, their replacements were scaled on more dimensions, so the voting records of Shelley and Thornberry are not part of the data treated. Progressively ambitious Republicans are:

Avery (Kansas-2) Ran for Governor in 1964
Bolton (Ohio-11) Ran for Congressman at large in 1964
Bray (Indiana-7) Ran for Gubernatorial nomination in 1964
Bruce (Indiana-11) Ran for U. S. Senate nomination in 1964
Ellsworth (Kansas-3) Ran for U. S. Senate nomination in 1966
Griffin (Michigan-9) Appointed to U. S. Senate in 1966
Hoffman (Illinois-14) Ran for Illinois Secretary of State in 1964
Lindsay (New York-17) Ran for Mayor of New York in 1965
Lloyd (Utah-2) Ran for U. S. Senate nomination in 1964
McIntire (Maine-2) Ran for U. S. Senate in 1964
Taft (Ohio-AL) Ran for U. S. Senate in 1964
William E. Miller (New York-40), the Republican candidate for Vice President in 1964, is not included here because he had previously gone on record as retiring from the House at the end of the 88th Congress. He is treated as having discrete ambitions.

[3] I have not tried to identify those with ambitions for legislative leadership positions. These bring about what Schlesinger (1966, pp. 135-137) describes as "second order organizational tensions." I do not think this interferes with the analysis of this paper. Such progressives may be expected to be less liberal than those who seek higher office outside the House. Legislative leaders tend, as MacRae (1958, pp. 289-296) and Truman (1959, pp. 193-236) have reported, to be in the middle of their parties in terms of the liberal-conservative distributions of their parties' roll call voting.

converge on the proposals of the opposition party, which is likely to be stronger in the larger constituency than the smaller one. Republicans, likely to be the minority party in most large constituencies, can win partly by not arousing the antagonism of low income, less educated, working class, Democratic identifying voters. Convergence by being more liberal than the typical sitting Republican representatives may be the way to higher office for Republicans.

The data reveal only small differences between the progressively ambitious representatives and the remainder of the representatives. Each party is examined separately and the Kruskal-Wallis H coefficients are presented in Table V-7. Progressively ambitious Democrats are significantly ($P = .05$) different only on Labor versus business dimension and progressively ambitious Republicans are significantly different only on Civil liberties. Nevertheless there are suggestive trends in the data. Averaging the ranks for each group among the Democrats shows that, although the differences are slight, the progressively ambitious group has higher ranks on every dimension. Voting is, as the theory suggests, a trifle more liberal. Among Republicans the findings similarly lend some credence to the hypotheses. The progressives have higher ranks on all the dimensions except Orientation to debt, Labor versus business, Urban improvement, Spending, Party loyalty, and Agriculture. This is consistent with what might be expected. Progressively ambitious Republicans show a more liberal roll call voting pattern on most of the social policy dimensions, Orientation to professionalism, and Foreign policy. They demonstrate their partisan orthodoxy with lower average ranks on economic policy dimensions and Party loyalty. The only

dimensions on which progressives stray from this description is Urban improvement. I would expect more liberal response on this dimension by the progressively ambitious. Instead their ranks are lower.

Table V-7.--The impact of progressive ambitions on roll call voting (Kruskal-Wallis H coefficients for each party separately)

Dimensions of Roll Call Voting[a]	Democrats	Republicans
Negro rights	.38	1.57
Aid to education	.64	.00
Consumer protection	.42	1.78
Conservation	.08	.05
Orientation to professionalism	.20	1.58
Civil liberties	2.45	3.92
Social welfare	2.37	.79
Foreign policy	1.09	2.47
Foreign trade	2.96	.02
Urban improvement	1.29	1.18[b]
Labor vs business	4.17	1.38[b]
Spending	.17	.64[b]
Agriculture	.44	.00[b]
Orientation to debt	2.18	2.07[b]
Space spending	.49	.66
Party loyalty	.28	.52[b]

[a]The dimensions are ordered according to the degree of inter-party differentiation established in Table IV-1.

[b]Coefficients of difference where representatives with progressive ambitions have lower scale score ranks than their fellow partisans.

Reelection

Basic to the whole notion of a responsive and responsible governing regime are the arrangements making the members of the electorate the judges of their rulers. The votes of the people determine who will be retained in office and who will be denied from holding office. Assuming each congressional constituency is peopled by an informed and interested

electorate, it might be hypothesized that those representatives who win reelection are better, more responsive congressmen than those who fail to be reelected.

In most constituencies the assumptions are not met; the electorate is frequently not interested and generally is uninformed about the issues and how the representative votes in the electorate's behalf (Miller and Stokes, 1963). Second, it is difficult to specify what constitutes "better, more responsive" behavior for a congressman. The basic datum for predicting congressional district election outcomes is the division of party identifiers in each district. Then there are candidate and issue orientations involving both congressional candidates and the other candidates for governor, senator, or president who lead the ticket in the same general elections. In sum, the fact of election or defeat may be far removed from any estimation of how the congressman has or will represent his constituency.

The data and techniques of analysis which have been used previously can be applied here to shed some light upon the meaning of reelection. In simplest terms the question is, do reelected representatives vote any differently than those who are not reelected. Given the finding that the major variable affecting voting is party, the question is best examined within each party separately. Given measures of voting behavior during the 88th Congress, the representatives of each party were divided into two groups; those who won reelection in 1964 and those who did not. It is true that the latter group is diverse. It includes those who did not contest along with primary and election losers. Also the reelection test for veterans of the 88th Congress came in the context of the Johnson landslide.

Among the Democrats, 223 of the 257 members of the 88th Congress (86.8%) were reelected. Only five were defeated in the 1964 election, eight were eliminated in primaries, and twenty-one did not contest for office. There were no statistically significant differences between those who were reelected and those who were not in their voting on the sixteen policy dimensions. As Table V-8 shows, the Kruskal-Wallis H coefficients ranged from .02 on Conservation to 3.47 on Spending. Looking at the voting patterns there is no regular tendency toward liberal or conservative voting by the reelected representatives. On the average they voted more liberally on nine dimensions, but the differences are very slight and there are no regular patterns among either the social policy dimensions or the economic dimensions. There are no apparent ways in which as a group those Democrats who were reelected distinguished themselves from those who were not reelected in terms of role call voting behavior. This is not to say that roll call voting patterns are irrelevant to the reelection of individual representatives; rather, the variation in roll call voting that does occur does not systematically vary with patterns of reelection. Part of the explanation of course is that the South is somewhat overrepresented in the loss of incumbents because primary turnover in the South was higher than the party's election losses to Republicans in the 1964 national elections.

The findings among Republicans are more substantial. Their congressional ranks were thinned considerably in the 1964 elections. Only two-thirds (120 out of 178) of the 88th Congress Republicans returned to office for the 89th Congress. There were 19 who did not contest, including several of the progressively ambitious Republicans; a proportion

Table V-8.--Comparison of reelected and nonreelected representatives on 16 dimensions of roll call voting (Kruskal-Wallis H coefficients for each party separately)

Dimensions of Roll Call Voting[a]	Democrats	Republicans
Negro rights	3.44[b]	3.84
Aid to education	3.38[b]	2.05
Consumer protection	.03	1.01
Conservation	.02	4.07
Orientation to professionalism	.24	1.85
Civil liberties	1.72[b]	3.39
Social welfare	.62[b]	7.05
Foreign policy	.11[b]	9.04
Foreign trade	1.09	9.22
Urban improvement	1.58[b]	.23
Labor vs business	.02	.00
Spending	3.47	.67
Agriculture	.75	.03[b]
Orientation to debt	.02[b]	.36
Space spending	.14[b]	.33
Party loyalty	2.40[b]	.46

[a]The dimensions are ordered according to the degree of inter-party differentiation established in Table IV-1.

[b]Coefficients of difference where reelected representatives have lower scale score ranks than their fellow partisans.

similar to that for Democrats that year (10.7% compared to 8.2% for the Democrats). No Republican incumbents lost primary contests. But 39 were defeated in the November elections. The defeats were rather evenly distributed across the regions; 22.2 percent of the eastern Republicans were defeated, 20.5 percent in the north central states,[4] and 23.9 percent of the Republican incumbents in the rest of the country.

[4]The Survey Research Center designation is used here, combining the east north central states of Illinois, Indiana, Michigan, Ohio, and Wisconsin with the west north central states of Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota and South Dakota.

Table V-8 shows that those who were reelected had voted significantly differently (P = .05) than their colleagues on five policy dimensions: Negro rights, Conservation, Social welfare, Foreign policy, and Foreign trade. The differences are slightest, however, on the dimensions where interparty cleavage is most sharp. With the exception of voting on Agricultural policy, reelected Republicans had somewhat more liberal voting records than their colleagues who did not return to the House in 1965. This is perhaps an ironic finding given the policy predilections of Senator Goldwater's most ardent supporters. This set of tendencies, slight as they are, support the notion that the minority party needs to converge upon the policy positions of the majority party in order to survive electoral competition.

Summary

The findings of this chapter give further confirmation to the inference that the legislative parties dominate the roll call voting patterns in the House of Representatives. The well advertised South--nonsouth split in the Democratic party is strongly evidenced in the roll call voting data, but party identifications do more than merely paper over internal cleavages. On only two dimensions is there more conflict within the Democratic party than there is between the two parties. The first, of course, is Negro rights and the other is Aid to education. Among Republicans there is one such dimension, again Negro rights, but the internal division among eastern and noneastern Republicans is of mild proportions even of this dimension.

Other political variables point up only small distinctions in roll call voting. The data do not indicate that representatives from

competitive districts tend to converge on the policy positions of the opposition party, rather they seem to impose a more partisan coloration to those policy areas where the parties as such are not squarely opposed. Ambition relates to a somewhat different configuration. Ambitious Democrats take a generally more liberal stance than others of their party. Ambitious Republicans tend to be more liberal on Foreign policy and social policy dimensions in general--they converge on the majority party's positions at least slightly; but this is not true on the most partisanly related dimensions. Where partisan considerations override, ambitious Republicans preserve their partisan standing by voting even more conservatively than their less ambitious colleagues. Similarly Republican convergence is seen in the voting behavior of the reelected representatives when they are contrasted with those who did not return to the House after the 1964 election. The fact of reelection seems to have less significance among the Democrats.

The best evidence of convergent behavior in either of the parties or politically distinguishable parts thereof is in the voting of eastern Republicans. Divergent voting behavior occurs with distinct competitiveness. Yet in a competitive region where the constituency characteristics most associated with liberal voting are concentrated and party organizational tensions are encouraging, there is evidence of convergent behavior even in the voting of the congressmen. The Democratic South, on the other hand, has not converged on the minority party so much as it has failed to shed its traditional Democratic coloration which has been maintained to assure the superiority of the white society. As Key (1949, especially pp. 665-675) has pointed out the backbone of Southern political power has been the black belt counties, whose political roots go

back to pre-Civil War Whiggism. Key's description of the South and its congressional solidarity made in the late 1940's fits the behavior of the 1960's.

> In presidential voting at moments of strain the roots of southern solidarity are defined by the split in the popular vote. In the South's representation in Congress, however, no such split occurs, at least on the race issue. The solidarity of the southern spokesmen in congress reflects in part the success of the black belts in converting the entire South to their will and in part a regional aversion to external interference on any question. Yet it is only on the race question that the South presents a solid front in Congress. In the Senate to a relatively greater extent than in the House the factional differences within the Democratic party of each southern state are projected into the voting on nonracial matters. In the House, however, it appears that one of the serious consequences of the one-party system is a much higher solidarity on all kinds of questions than in the Senate. Yet in both House and Senate it is the race issue that evokes the highest degree of southern solidarity. This phenomenon contributes additional support to the proposition that the Negro gives the South its peculiar political characteristics.(Key, 1949, p. 667).

The price of this solidarity has been very high. In part it has been paid by able southern political leaders who have been denied fulfillment of their progressive ambitions at the presidential level. One of the reasons for the strain noted by Key concerning southern solidarity in presidential elections is the fact that there are not presidential hopefuls among the southern political leaders who would want and need to bind state and local party organizations to the party's presidential nucleus. Schlesinger (1965, p. 769) points out that one would think a governor of New York peculiar if he does act not like a candidate for the presidency, but one would consider a governor of Mississippi a fool if he does. The absence of these organizational strands is of incalculable impact, but is certainly of substantial effect in preventing real unity in the organization of the presidential nucleus of the Democratic party.

CHAPTER VI

SUMMARY AND CONCLUSIONS

In this study I have attempted to explain roll call voting patterns of congressmen in the House of Representatives of the 88th Congress in terms of (a) the social, economic and demographic characteristics of their districts and, (b) the potentially intervening political considerations. These efforts remain to be summarized, criticized, and put into the context of suggested future research.

The findings in chapters three, four, and five are based upon the measurements of voting presented in chapter two. While there are some unfortunate aspects of this measurement, discussed below, the structure in the roll call voting evidenced by the scale analyses is surprisingly strong. Guttman scaling is a relatively demanding technique for establishing dimensionality. I imposed even more rigorous criteria than are conventionally used before including items in the scales. The resulting scales have been shown to be strongly unidimensional by several standards and criteria (refer to Table II-2). The sixteen dimensions constructed include 138 items, more than half (59.5%) of the roll calls published in the Congressional Quarterly for the 88th Congress. In elementary terms, each scale provides a technique measuring representatives' responses to the question, how far should government activity extend into each specific policy area; what should the

spending level be, how far ought Negro rights be extended, how generous ought assistance to foreign countries be, what should conservation policy protect, etc. Several of the policy dimensions take on a recognizable liberal-conservative distribution, but while some are strongly intercorrelated, each is unique and contributes a somewhat different assessment of the broader liberal-conservative designation.

Summary of Findings

The scaling process was carried out in such a manner that every representative could be placed on each of the policy dimensions. This contrasts with the design of other studies which have separately measured the voting of Republicans and Democrats. Implicit in this design was an attempt to demonstrate that party voting is really only a manifestation of constituency influence. Second, whether party voting could be explained by constituency data or not, the voting measurement would be such that the extent of party cleavage on each of the voting dimensions could be demonstrated.

These aspects of the design were very well fitted for the analysis. Twenty-one independent variables for each constituency were correlated to the voting of each representative on the sixteen dimensions of voting. I used rank correlations because the scale scores are simply rankings, and not equal interval measurements. On the authority of Flinn's (1964) remark that correlation "coefficients above .4 are remarkably good in a system as complex as the legislative system," I defined relationships above that value as "strong," those between $\pm$ .400 and $\pm$ .250 as "moderate," and those less than $\pm$ .250 as weak. I hypothesized a complete description of relationships between the independent

variables and the scale scores of voting, and I reported the complete description of findings for comparison to the hypothesized relationships. The correspondence between hypothesized relationships and those observed was very low.

Though not as hypothesized, there are noteworthy relationships between constituency variables and some dimensions of roll call voting. Several constituency variables relate in a consistent direction with the roll call voting scores; that is to say, are positively or negatively related to liberal voting. Those especially positively related were low education, percent urban, percent Negro, percent foreign stock, and percent unemployed. Negatively related variables are especially the percent of population change, percent with high school education, percent of owner occupied units, and percent farmers. Several variables which I expected to be important correlates of voting dimensions were weakly and irregularly related to the dimensions of roll call voting. These included the percent with college education, the economic variables (median family income, percent of sound homes with all plumbing, median home value, and median rent), and the percent of white collar employment. Statistical controls to hold constant the effects of percent urban and percent foreign stock reveal that the economic variables are mostly negatively related to liberal voting. Further analysis of median income showed that there are nonmonotonic patterns between it and some of the dimensions; that is, low income districts are represented by liberal voting representatives, but representatives from high income districts do not vote as conservatively as those from medium income districts.

The highest correlation coefficients occurring in the matrix of relationships were with the Negro rights voting dimension and its

highest positive correlate was percent foreign stock. However all variables except percent Negro, percent with low education, median number of individuals per dwelling unit, and percent farmers are positively related to liberal voting on Negro rights. This dimension is also the one on which there is the least party conflict. Actually the distribution of scale scores on this dimension indicates strong support by northern Democrats generally, moderate support by Republicans tending to be strong among eastern representatives, and almost no support by southern representatives whether Democrats or Republicans.

For purposes of comparison I grouped together six dimensions of social policy (Civil liberties, Urban improvement, Social welfare, Consumer protection, Negro rights and Aid to education) and four dimensions of economic policy (Spending, Labor vs. business, Orientation to debt, and Space spending). In general, correlations with social policy dimensions are stronger than those with the economic policy dimensions. Surprisingly this is true for each of the economic variables; median income, percent of homes with sound plumbing, median home value, and median rent. Included among the variables more strongly related to economic policies than social policies are three education variables (low education, percent with high school education, and median education) along with percent of owner occupied units and median rooms per unit.

Voting on agricultural policy is not related to an urban-rural division of constituencies. Foreign policy voting is most positively related to percent urban and percent foreign stock, and most negatively with percent farmers. Party loyalty voting is most related to the percent of the population with a low education. For the rest of the

dimensions of voting the correlations tended to be moderate to weak, consistently lower than I had expected.

Given the modest level of the correlations between the constituency variables and voting behavior, I looked at the correlations between party and voting. Except on the Negro rights and Aid to education dimensions, which aroused the least party cleavage, the correlation of party to voting was higher than any of the relationships between constituency variables and voting scale scores. On these fourteen dimensions the correlations range from .490 to .821. Half of these are .700 or higher. The dominating effect of party is too obvious to avoid. Therefore the rest of the analysis deals for the most part with differences between the two parties and the relationships of constituency variables to intraparty variation and cleavage in voting.

The two parties are divided most sharply on the economic policy dimensions and, of course, party loyalty, but the divisions on every dimension other than Negro rights are statistically significant. There are statistically significant differences between the constituencies of the two parties on most of the independent variables, but the keenest differences are on measures of education, percent Negro, and percent of owner occupancy.

There are more regular and stronger correlations of constituency characteristics with roll call voting scores among Democrats than among Republicans. The strongest correlates continue to be percent urban, percent of foreign stock, and percent farmers. Percent owner occupancy, which correlated with several dimensions before separation by party, tends to explain little of the within-party variation. The economic

variables show stronger relationships with voting among Democrats than among Republicans, and for the most part the relationships are positive; that is, the higher the median income in Democratic districts, the higher the support for Civil liberties, Urban improvement, Party loyalty, etc.

The data in chapter five suggest that the stronger relationships between constituency variables and voting within the Democratic party are substantially explained by the intra-party cleavage between the southern and nonsouthern members of the party. The constituency variables most highly related to liberal voting such as low education, all the economic variables, percent foreign stock, percent farmers, as well as percent Negroes are those which show significant differences between southern and nonsouthern districts. There are, of course, substantial differences in the voting of the southern and nonsouthern wings of the party, but the conflict tends to be highest on social policy dimensions, Foreign policy, and Party loyalty. Conflict on the economic policy dimension is a good deal lower, and it is lowest of all on Agricultural policy and Foreign trade. The generally lower variance in roll call voting among Republicans is accompanied by less clearly defined regional wings in the party. There are noteworthy and statistically significant differences between the eastern and noneastern members of the House, but they are not nearly as sharp as those among the Democrats. In general eastern Republicans vote more liberally than their noneastern colleagues and the differences are greatest on Urban improvement, Orientation to professionalism, and Labor vs. business. The direction and character of these voting patterns by eastern Republicans support the notion that in

a competitive situation with access to the national opportunity structure available, members of the minority party tend to converge upon the policy positions of the majority party. There are constituency differences that support the intra-party voting cleavage, especially on percent of farmers and percent of foreign stock, but again there are not the sharp differences in constituency characteristics between the regional wings of the Republican party that exist in the regional wings of the Democratic party.

Examining the relationship of district competitiveness to voting in the House, I found confirmation for Huntington's (1950) findings that Democrats from competitive districts are more liberal in their voting than their fellow partisans from less competitive districts, while Republicans from competitive districts are more conservative than other Republicans. The differences are clearer among Democrats than Republicans. Primary competitiveness is less related to voting differences than electoral competitiveness, and combining indices of each does not shed further light upon the differences.

I hypothesized more liberal voting for congressmen with ambitions for higher political office. The differences were slight but generally in conformity with the expectations. Ambitious Democrats, members of the 88th Congress who have since run for higher office, voted more liberally on every dimension. On the dimension which most sharply divides the two parties, ambitious Republicans tend to vote somewhat more conservatively than their less ambitious colleagues, but on the rest they vote more liberally. This tendency toward liberal voting by ambitious members of both parties is most manifest on Foreign policy and the social policy dimensions.

Finally I examined whether reelected representatives had voted any differently than those who did not return to office in the following Congress. I expected no systematic differences, and none were evident among the Democrats. However, among Republicans there was a marked tendency for reelected members to vote more liberally than those who left offices, particularly on social policy dimensions (with the exception of Urban improvement), Foreign policy and Foreign trade. Republican congressmen who survived the Goldwater defeat had shown more convergent roll call voting patterns than those who had been defeated or had not intended to stand for reelection.

If there is one aspect of the findings which ought to be underscored, it is great regularity which partisanship imposes upon roll call voting. I think that scholars past and present underestimate the extent of this regularity. They refer to weak resources that party leaders have for influencing members' voting and the strong constituency ties. (Dahl, 1967, p. 131; Froman and Ripley, 1965). I think that they are overly impressed with the absence of formal organizational trappings of the legislative parties. However, none of the constituency characteristics examined here comes close to correlating with the scores on the scales of voting as strongly as party does. The deepest regional cleavages of each party, substantial as they are, are more ambiguous than the divisions between the parties. Only on a couple of policy dimensions, particularly Negro rights, does this generalization fail to hold. Concerning the original focus of this study, constituency characteristics, it should be said that interparty voting differences are accompanied by constituency differences and this is also true for regional cleavages.

But these constituency differences are not as sharp nor are they clearly linked with the patterns of policy voting as partisanship is. Why this is the case, goes beyond the scope of this analysis, but I think the findings presented here point out that this aspect of representation should receive more study. It must be studied at the recruitment level to know the relevance of the local party organizations to the representatives' career opportunities. It must be studied at the legislative level not only in the activities of formal leaders and committee chairmen, but also in the perceptions and activities of those cast in follower roles. These are substantial research tasks, but I think my findings indicate they will be fruitful. Because of the nature of this study I can only conclude that party is at least a catalyst, if not the cause, which brings out much of the unity observed in roll call voting.

Apologies and Caveats

Often the writer of a research report can be the best critic of his research. It is true, of course, that he may be as blind to certain other approaches to the problem of the study at the conclusion as he was when he first considered it, but his closeness to the data, the reporting, and interpreting ordinarily cannot be approximated by those who review that research. He knows at which points he was skeptical of his measuring tools, what assumptions he dared not reexamine, where the data gave only the thinnest support to his inferences, and when he was most uncomfortable in the writing process. It is well therefore that a post hoc review be made of this study.

The notion that constituency pressure affects the behavior of representatives is, as Flinn (1964) remarks, "a tough weed." It is much

more frequently discussed than tested. There have been serious attempts to test the theory (see chapter one) but the conclusions of these studies, similar to my own, tend to be murky, self-conscious, and tentative. Froman (1963 and 1964) is probably the most confident about his inferences, but others, such as Flinn (1964) and MacRae (1964), who have pursued the same problem, are his sternest critics.

I think that the major difficulty is the great gulf between what I measured as the independent variables and the behavior variables which I wanted to explain. The constituency influence theory has sound theoretical underpinnings. There are compelling normative and empirical reasons for studying the relationships between constituency and representative. But in the operationalization stage the scholar confronts the overwhelming task of measuring relevant aspects of the constituency. If one has focused on an entire legislative body, this entails studying somewhere in the neighborhood of 25 to 450 constituencies depending upon which legislative body has been chosen. Rarely is there any conveniently available data on all the constituencies of the legislature chosen. Thus, when such data become available, their relevance is more easily assumed than evaluated. Further, the constituency theory has not been elaborated in a way that it can be tested with such data. Aggregate constituency data are simply enumerations of certain kinds of characteristics as they exist at time X. One must assume a set of implications about being Negro, unemployed, poor, white collar, etc; assume further how these implications are accentuated as these characteristics take proportion in a constituency; and suppose that they are understood in a fairly consistent manner as inputs by all the representatives in the

legislative body. The data for the independent variables are in many cases "central tendencies"--median income, median education, median age. Perhaps the degree of variance around the central tendency is in some cases more important than the median. These data impose a feeling for linear relationships, yet it is likely that thresholds are important. The percentage of blue collar workers is practically unrelated to the dimensions of voting, but at some point the proportion may become salient, yet undetected, in the correlations. Then there is the multiple branched assumption that constituency interests, more or less identifiable in the characteristics measured, make themselves felt and/or are anticipated and heeded by representatives. Thus I look ruefully back at the hypothesized relationships of each constituency variable with each dimension (see Table II-3) and the unanticipated findings reported in Table III-2, but they are not really shocking. The predictions may have been wrong but the fact that they were wrong does not disconfirm the theory because the theory did not specify the hypothesized relationships. For example, my specific expectations concerning the relationships of college education to policy voting were wrong, but this is because I misinterpreted the implications of college education, not because constituents do not affect the behavior of their representatives. It is exactly for this reason that this study can only have standing in the literature as another "exploratory study."

Other difficulties in the study involve the measurement of roll call voting. I have referred to them several times already. First is the inability to finely distinguish between the members of the House on several dimensions. Obviously with many members and only a few scale points there will be tie scores. But the ties in the scales I have

presented are inordinately at one end or the other of the distributions. On Foreign policy almost 36 percent of the representatives have a score of fifteen. On Negro rights over 38 percent have the highest score of five. Labor versus business similarly has almost 42 percent tied at the highest score of eight. On Consumer protection nearly 33 percent have zero, the lowest score. These measurement considerations have an unfortunate impact upon the basic tool of analysis-rank correlation. The necessary correction for ties in the ranks distorts the indices of relationship. While the tie correction reduces the correlation coefficient from what it would be before correction, one still cannot be sure whether or not the corrected values are valid measures of the relationship. The political implications of the great number of ties at the extremes of the scales is itself an interesting point. My interpretation is that in the 88th Congress it was unusual for an extreme proposal, particularly an extremely liberal proposal, to come to the floor for a record vote. Such proposals either did not emerge on to the floor, or were defeated by voice votes and thus do not appear in the roll call voting record. As I argued previously, it is more likely that they are killed in the committees. If this is true, I suspect that a scale analysis of the 89th Congress would result in even more skewed scale distributions. The reinforcement of liberal elements of the House following the 1964 elections probably is more evident in floor voting than in the committees.

Another aspect of the measurement difficulties is in the assumptions of Guttman scaling. I have belabored the point that it produces ordinal rather than interval level measurement. This has allowed use

of only nonparametric techniques of statistical analysis. It may well be that this is an unnecessarily cautious approach. Some practitioners argue, but not in published sources, that with a large number of respondents structure will appear in a matrix of product-moment correlations which would not be at substantial variance from that in a matrix of rho or tau correlations. The former are much easier to derive and use.[1] However, this necessitates making the equal interval assumption about the scale scores.

Future Research

Population characteristics may well be too superficial a set of data to use as the key for opening up the relationships between constituencies and representatives. Much more must be learned about the representatives on the one hand and constituencies on the other. Explaining why a representative behaves as he does requires a good deal more data from representatives themselves--what are their perceptions about themselves, their identification with their party, their constituencies, their careers, the issues of the day, the consequences of their behavior, etc. Investigating these and further questions is very difficult because it is often psychologically and politically threatening to those in office. Access to congressmen for depth interviewing is increasingly limited. Unfortunately there are fewer advantages than disadvantages for the congressman who is open and responsive to scholarly inquiries. I suspect that political scientists are going to have

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[1]The computer center has, with some anguish, allowed me to expend roughly twenty-three hours of CDC 3600 time doing the rho, tau, and partial correlations reported here. The product-moment correlations could have been produced in a matter of minutes.

to be more respectful of these primary sources of data in order that they do not become interview hardened and the access available does not dry up completely. There are suggestions of these problems even among state legislators, especially those near research oriented universities.

Perhaps more can be done to study constituencies. The powerful imprint of party on congressional voting suggests that there ought to be more study of legislative parties and local party ties of representatives. The representative's lines of communication, doubtless latent much of the time, may be laid bare by knowing what elites have access to him and how these elites participate in the recruitment process. Snowiss (1966) suggests some considerations which may be worth pursuing on a much more broadly comparative scale. I think a good many political distinctions may relate strongly to the representational patterns only partly evident in roll call voting analysis reported here.

There is another approach to the data I have which probably should be used. That is factor analysis. Because I wanted to be able to detect and distinguish relationships between particular independent variables and particular dimensions I chose the methods which have been employed. The patterns in both constituency data and the roll call voting dimensions indicate strong intercorrelation. Factor analysis is probably a better technique for assembling the related elements of the data. Like the correlations, these results may locate patterns for further research into elites, groups, and interest articulation.

I have no idea how often scholars feel a sense of disappointment about the evidence they muster in behalf of the theories they examine. I expected clear contours in the relationships between the independent

variables and the scales of voting which would render obvious the foci for future research. These expectations were not met in the findings presented here. I suppose this is one of the best rationalizations one can make for the exploratory study. It reveals which lines of approach hold promise and which do not. I have discovered a good deal about patterns of voting in the House of Representatives, but I have not been able to explain those patterns in terms of aggregate district characteristics. I believe that more will be revealed about voting patterns as political analysts map the lines of communication, organization, and influence in the constituencies.

APPENDICES

APPENDIX A

The roll calls in each category are identified by the year in which they were voted and the number assigned them by the Congressional Quarterly. The underscored items are those which were reflected in the scaling process.

A-1 Foreign policy (20 items)

1963: 10, 21, 61, 62, 95, 100, 112

1964: 11, 13, 15, 40, 51, 52, 60, 61, 62, 78, 86, 92, 110

A-2 Foreign trade (4 items)

1963: 90

1964: 96, 105, 106

B-1 Consumer protection (4 items)

1963: 86

1964: 14, 46, 47

B-2 Conservation (7 items)

1963: 18, 92

1964: 68, 73, 74, 75, 109

C-1 Agricultural policy: farmers versus nonfarmers (1 item)

1963: 4

1964:

C-2 Agricultural policy: liberal versus conservative (9 items)

1963: 16, 17, 31, 34, 84, 98, 99

1964: 44, 93

D Urban improvement (11 items)

1963: 32, 40, 47, 101, 104

1964: 3, 4, 5, 58, 59, 102

E Negro rights (6 items)

1963: 33, 72, 96

1964: 9, 63, 64

F Civil liberties (18 items)

1963: 5, 6, 7, 8, 22, 23, 29, 39, 42, 43, 59, 105, 111

1964: 43, 66, 84, 100, 101

G Aid to education (6 items)

1963: 53, 60, 85

1964: 111, 112, 113

H Orientation to professionalism (15 items)

1963: 14, 15, 46, 70, 80

1964: 10, 17, 18, 19, 20, 21, 22, 53, 67, 72

I Economic policy [a classification follows] (55 items)

1963: 9, 11, 12, 13, 24, 27, 28, 35, 36, 37, 41, 44, 45, 48, 49, 52, 56, 57, 58, 63, 64, 67, 68, 69, 73, 74, 75, 76, 77, 79, 83, 87, 88, 89, 93, 102

1964: 6, 7, 12, 26, 27, 34, 35, 45, 54, 55, 56, 57, 77, 87, 90, 94, 103, 107, 108

J Social welfare (17 items)

1963: 50, 55, 65, 78, 108, 109, 115

1964: 29, 30, 69, 70, 71, 79, 80, 82, 89, 99

K Party loyalty (14 items)

1963: 1, 103, 106, 118, 119

1964: 8, 16, 28, 32, 33, 81, 88, 91, 97

L Congress versus the executive (1 item)

1963: 110

M House versus Senate (1 item)

1963: 20

N House leaders versus dissidents (7 items)

1963: 81, 91

1964: 36, 39, 49, 50, 85

O Unique (7 items)

1963: 26, 30, 51, 82, 97

1964: 23, 98

P Ambiguous or multidimensional (22 items)

1963: 2, 3, 19, 25, 38, 54, 71, 94, 107, 113, 114, 116, 117

1964: 1, 2, 24, 31, 38, 41, 42, 95, 104

Unanimous votes (7 items)

1963: 66

1964: 25, 37, 48, 65, 76, 83

Reclassification of economic policy items

I-1 Labor versus business (15 items)

1963: 12, 31, 36, 37, 67, 68, 69, 84

1964: 6, 7, 12, 55, 57, 77, 94

I-2 Spending (24 items)

1963: 9, 11, 13, 24, 35, 44, 45, 48, 49, 63, 73, 74, 75, 77, 93, 102

1964: 34, 35, 45, 54, 90, 103, 107, 108

I-3 Space spending: lunar landing versus military objectives (4 items)

1963: 52, 64

1964: 26, 87

I-4 Orientation to debt: liberal versus conservative (9 items)

1963: 27, 28, 56, 57, 58, 87, 88, 89

1964: 56

Five items have been excluded from the general economic policy category (55 items). Three would have scaled acceptably, but each had only one dissentor and thus would have contributed practically no discriminatory power to the scales. On two items (1963: 41, 83) Curtis (R Missouri 2) alone opposed more spending. On one labor versus business vote (1963: 79) only Secrest (D Ohio 15) took a pro-labor position. The other two items were spending items (1963: 76; 1964: 27) with excessive absenteeism (44.44 and 38.37 percent respectively). Two items (1963: 31, 84) concerning Mexican farm labor were added to the labor items.

APPENDIX B

Content of the items included in each scale. Roll call numbers are from CQ. The items are ordered as they have been ordered in the scales; the most liberal item is listed first. On the scale the most liberal item is always on the extreme left of the scale. The marginal totals reported (% affirmative) are those used in this study, as defined in chapter two.

A-1 Foreign policy (15 items) CR = .950; CS = .880
1964: 110 45.48% affirmative

H Res 892. A rule for consideration of H J Res 1183, continuing appropriations for fiscal 1965 until October 10 for those agencies whose regular fiscal 1965 appropriation bill had not been enacted. Rejected 159-193.

1963:61 (Reflected) 45.93% affirmative

HR 7885. Foreign Assistance Act of 1963. Amend foreign aid law and authorize appropriations of $4,087,075,000 for foreign aid in fiscal 1964. Adair (R Ind.) motion to recommit the bill to the Foreign Affairs Committee with instructions to make the following cuts in authorizations: Alliance for Progress from $600 million to $450 million; military assistance from $1.225 billion to $1 billion; the development loan fund from $1.5 billion to $900 million--a cut of only $160 million because Administration asked appropriation of only $1.060 billion of standing authorization; contingency fund from $200 million to $150 million. Motion agreed to 222-188.

1963:21 (Reflected) 47.45% affirmative

HR 5517. Supplemental Appropriations for fiscal 1963. Lipscomb (R Calif.) motion to recommit the conference report with instructions that House conferees disagree to a Senate amendment providing $65,000 as a U. S. contribution to the International Peace Corps Secretariat. Agreed to 207-190.

1964:13 (Reflected) 47.65% affirmative

HR 9022. Authorize $312 million as the U. S. contribution to an increase in the financial resources of the International Development Association. Talcott (R Calif.) motion to recommit the bill to the Banking and Currency Committee, Agreed to 208-189.

1964:61 (Reflected) 50.96% affirmative

HR 11812. Rhodes (R Ariz.) motion to recommit the bill to the Appropriations Committee with instructions to reduce economic aid funds by $247.8 million as recommended by Rep. Passman (D La.), chairman of the Foreign operations Sub-committee. Rejected 198-208.

1964:51 (Reflected) 52.29% affirmative

HR 11380. The Foreign Assistance Act of 1964. Adair (R Ind.) motion to recommit the bill with instructions to reduce the fiscal 1965 authorization for development loans by $750,000,000 and the President's contingency fund by $50,000,000. Rejected 193-211.

1963:100 53.53% affirmative

HR 7885. Foreign Assistance Act of 1963, authorizing appropriations of $3,602,075,000 for foreign aid in fiscal 1964 and adding a number of legislative restrictions on the program. Adoption of the conference report. Adopted 195-164.

1963:62 54.35% affirmative

HR 7885. Authorize appropriations of $3,502,075,000 for foreign aid in fiscal 1964. Passage of the bill. Passed 224-186.

1964-52 56.59% affirmative

HR 11380. Passage of the bill authorizing $2.041 billion in new foreign aid appropriations for fiscal 1965. Passed 230-175.

1964: 62 56.73% affirmative

HR 11812. Passage of the bill appropriating $3,316,572,400 for foreign assistance and $422,677,000 for related programs. Passed 231-174.

1963: 112 63.73% affirmative

HR 9499. Passage of the Foreign Aid Appropriation for fiscal 1964, appropriating $2,801,700,000 for foreign aid, $295,580,000 for other international programs, $2,838,275 for the House of Representatives and $13 million for claims against the U. S., as amended. Passed 250 to 135.

1964: 40 (Reflected) 64.13% affirmative

S 2214. Authorize $312 million as the U. S. contribution to an increase in the financial resources of the International Development Association. Clawson (R Calif.) motion to recommit (kill) the bill. Rejected 132-247.

1963: 95 64.71% affirmative

S 777. Authorize a two-year, $20 million appropriation for the Arms Control and Disarmament Agency. Passed 251-134.

1964: 86 71.02% affirmative

S 1627. Enable the U. S. to pay its share of fiscal 1964 operating expenses of the International Commission for Supervision and Control in Laos. Passed 268-89.

1964: 15 (Reflected) 76.77% affirmative

S 2455. Authorize $115 million for Peace Corps operations in fiscal 1965. Gross (R Iowa) motion to recommit the bill to the Foreign Affairs Committee with instructions to reduce the authorization to $95,963,971--the total appropriated in fiscal 1964. Rejected 90-309.

A-2 Foreign trade (3 items) CR = .985; CS = .958
1964: 96 48.69% affirmative

HR 8864. Enable the United States to implement enforcement of the International Coffee Agreement of 1962. Mills (D Ark.) motion to adopt the conference report. Rejected 183-194.

1963: 90 54.57% affirmative

HR 8864. Authorize the President to limit coffee imports and require certificates of origin from exporting countries in accordance with the International Coffee Agreement of 1962, which was ratified by the Senate May 21, 1963. Passed 181-145.

1964:106 97.50% affirmative

HR 12298. Passage of the bill extending PL 480 for three years, through Dec. 31, 1967, and authorizing the commitment of up to $4 billion for Title I over the three years, plus the use of unused previous authorizations, and $450 million annually for Title II, plus unused previous authorizations. Passed 349-6.

B-1 Consumer protection (3 items) Cr = .993; CS = .949
1964: 14 (Reflected) 13.45% affirmative

HR 8316. Amend the Communications Act of 1934 to prohibit the Federal Communications Commission from setting standards governing the length or frequency of radio and television commercials. Passed 317-43.

1964: 47 (Reflected) 42.18% affirmative

HR 5130. McDade (R Pa.) motion to recommit (kill) the bill, which raised the maximum insurance on depositors' accounts in banks and savings and loan associations but did not contain Administration provisions tightening regulations affecting savings and loan associations. Recommittal agreed to 197-142.

1964: 46 64.81% affirmative

HR 5130. Raise the federal insurance on a depositor's account in banks or savings and loan associations to $20,000. Open rule (H Res 724) for debate on HR 5130 agreed to 218-115.

B-2 Conservation (5 items) CR = .972; CS = .919
1963: 18 (Reflected) 14.56% affirmative

HR 1762. Give statutory authority to the Interior Department's Bureau of Outdoor Recreation. Griffin (R Mich.) amendment to require the Secretary of Interior to report annually to Congress full details of land or other donations to the Government under the bill. Agreed to 292-50.

1964: 74 53.41% affirmative

HR 1096. Authorize the Secretary of the Interior to cooperate with the state of Wisconsin in designating and administering an Ice Age National Scientific Reserve. Aspinall (D Colo.) motion to pass the bill under suspension of the rules (two-thirds majority vote required). Rejected 164-154.

1964: 109 59.57% affirmative

HR 1096. Authorize the Secretary of the Interior to cooperate with the state of Wisconsin in designating and administering an Ice Age National Reserve. Passed 180-118.

1964: 75 78.66% affirmative

HR 3672. Authorize $47 million for construction of the Savory-Pot Hook, Bostwick Park and Fruitland Mesa irrigation projects as part of the Colorado River Storage Project. Aspinall (D. Colo.) motion to pass the bill under suspension of the rules (two-thirds majority required). Passed 250-67.

1963: 92 90.97% affirmative

HR 8135. Authorize up to $1.1 million to establish and administer public recreational facilities at the Sanford Reservoir area of the Canadian River reclamation project in northwest Texas near Amarillo. (The $98 million Canadian River project, authorized in 1950, is scheduled for completion in 1967.) Passed under suspension of the rules 283-30

C Agricultural policy (7 items) CR = .943; CS = .862
1963: 16 (Reflected) 50.84% affirmative

HR 4997. Authorize a voluntary feed grains acreage diversion program for 1964-65 similar to those in effect for 1961-63. Harvey (R Ind.) motion to recommit the bill to the Agriculture Committee. Rejected 196-205.

1963: 17 51.18% affirmative

HR 4997. Passage of the bill, authorizing a voluntary feed grains acreage diversion program for 1964-65. Passed 208-195.

1963: 99 54.18% affirmative

HR 6196. Passage of the bill. Passed 216-182.

1963: 98 (Reflected) 55.61% affirmative

HR 6196. Authorize the Government to pay a cotton subsidy in kind to domestic textile mills or cotton handlers in order to eliminate the competitive inequity between raw cotton prices on the world market and those on the domestic market; establish new price support levels for cotton; authorize a research program into cotton production costs; and establish an optional "export market acreage allotment" for cotton farmers. Hoeven (R Iowa) motion to recommit the bill to the Committee on Agriculture (in effect, kill it). Rejected 179-224.

1963: 4 61.65% affirmative

H J Res 284. Make supplemental appropriation of $508,172,000 for the Department of Agriculture in fiscal 1963. Passed 254-154.

1963: 34 77.20% affirmative

HR 6754. Appropriate $5,979,457,000 to the Department of Agriculture for fiscal 1964. Passed 288-79.

1964: 44 82.35% affirmative

HR 11202. Passage of the Agriculture Appropriation Bill for fiscal 1965. Passed 311-64.

D Urban improvement (9 items) CR = .958; CS = .894
1963: 40 30.83% affirmative

HR 6177. Increase from $32 million-$45 million in fiscal 1964 and thereafter the ceiling on authorizations for federal payments to the District of Columbia. Cohelan (D Calif.) motion to recommit the bill to the District of Columbia Committee with instructions that it be reported with a $53 million authorization. Rejected 99-237.

1963: 32 (Reflected) 43.75% affirmative

HR 3496. Extend for two years, until June 1, 1965, the Reorganization Act of 1949. Brown (R Ohio) amendment to prohibit the President from creating a new executive department by reorganization plan. Agreed to 226-175.

1964: 3 (Reflected) 50.66% affirmative

S 2265. Amend the 1956 Library Services Act to extend federal aid for library services to urban (as well as rural) areas, increase to $25 million in fiscal 1964 for grants to the states for construction of public libraries. Frelinghuysen (R N.J.) amendment to delete construction aid and aid to services in urban areas, and double the existing population and authorization limits on aid to rural areas. Rejected 179-183.

1964: 4 (Reflected) 51.98% affirmative

S 2265. Martin (R Neb.) motion to recommit the bill to the Education and Labor Committee with instructions to deleted provisions for library construction aid. Rejected 174-188.

1964: 59 52.49% affirmative

HR 3881. Urban Mass Transportation Act of 1964. Passage of the bill authorizing federal matching grants to states and localities totaling $375 million over three years as the "first installment" of a program to improve urban mass transportation service. Passed, 212-189.

1964: 58 (Reflected) 52.85% affirmative

HR 3881. Oliver P. Bolton (R Ohio) motion to recommit the bill to the House Banking and Currency Committee with instructions to defer action until the House and Senate Banking and Currency Committees had studied the results of current federal mass transportation demonstration programs and the status of metropolitan transportation planning being carried out pursuant to a requirement of the 1962 Highway Act. Motion rejected 190-214.

1964: 5 69.76% affirmative

S 2265. Passage of the bill. Passed 254-107.

1963: 104 71.20% affirmative

HR 6518. The Clean Air Act, to initiate and strengthen programs for the prevention and abatement of air pollution. Adoption of conference report. Adopted 273-109.

1963: 47 72.78% affirmative

HR 6518. The Clean Air Act, to initiate and strengthen programs for the prevention and abatement of air pollution. Passed 273-102.

E Negro rights (5 items) CR = .992; CS = .970
1963: 96 (Reflected) 44.76% affirmative

HR 9124. Revise the junior and senior Reserve Officers' Training Corps programs of the Army, Air Force and Navy. Hebert

(D La.) motion to pass the bill under suspension of the rules (two-thirds majority vote required). Rejected 177-154.

1964: 9 68.74% affirmative

HR 7152. Civil Rights Act of 1964. Passage of the bill to enforce the right to vote; prevent discrimination in access to public accommodations and public facilities; expedite public school desegregation; extend the life of the Civil Rights Commission for four years and broaden its powers; prevent discrimination in administration of federally assisted programs; prevent discrimination based on race, color, religion, sex or national origin in employment and labor union membership; direct Census studies of registration and voting based on race, color and national origin; establish a Community Relations Service to mediate racial disputes; and permit the Attorney General to instigate or intervene in certain civil rights cases. Passed 290-130.

1964: 63 68.90% affirmative

HR 7152. Civil Rights Act of 1964. Adoption of a resolution (H Res 789) providing for House approval of the bill as amended by the Senate, thus clearing it for the President to sign into law. Resolution adopted 289-126.

1963: 72 76.00% affirmative

HR 3369. Private bill for the relief of Mrs. Elizabeth G. Mason to which an amendment extending the life of the Civil Rights Commission for one year had been added by the Senate. Considered under suspension of the rules (two-thirds affirmative vote required). Passed 265-80.

1963: 33 (Reflected) 84.10% affirmative

Roosevelt (D Calif.)--Williams (D Miss.) motion to adjourn the House. The purpose of the motion was to stop Reps. Lindsay (R N.Y.), MacGregor (R Minn.) and other Republicans from discussing civil rights legislation under previously approved special orders for House speeches. Rejected 53-276.

F Civil liberties (14 items) CR = .952; CS = .850
1963: 5 (Reflected) 4.98% affirmative

H Res 249. Authorize House Un-American Activities Committee to spend $360,000 in calendar year 1963, provided no investigations duplicate those being conducted by other House committees. Adopted 386-20.

1964: 66 (Reflected) 5.29% affirmative

HR 319. Permit a person who received mail which he considered "morally offensive" to request the Postmaster General to prevent the sender from mailing more unsolicited material to him or his children (considered under suspension-of-the-rules procedure, which requires a two-thirds majority for passage). Passed 326-19.

1963: 43 11.38% affirmative

HR 4897. Repeal the geographic limitation on the operation of the Sedition Act of 1917. Lindsay (R N.Y.) motion to recommit (kill) the bill. Rejected 40-339.

1963: 22 (Reflected) 11.46% affirmative

HR 950. Amend the Internal Security Act of 1950 to provide a legislative basis for personnel security procedures of the National Security Agency, an intelligence arm of the Defense Department. Passed 340-40.

1963: 23 (Reflected) 15.81 affirmative

HR 4274. Permit principals and teachers in D. C. public schools to use "reasonable force" in disciplining students. (The bill would nullify a D. C. Board of Education rule prohibiting use of corporal punishment. The bill was supported by the D. C. Superintendent of Schools, opposed by a majority of the Board of Education.) Passed 278-53.

1964: 84 (Reflected) 20.84% affirmative

HR 5990. Require organizations seeking funds for charitable purposes in the District of Columbia to satisfy the D. C. Commissioners that their solicitation would promote the public health or welfare and would not offend public morals. Passed 301-81.

1963: 59 36.29% affirmative

HR 7525. Amend crime laws affecting the District of Columbia to increase investigative powers of the police, nullify the Mallory and Durham rules of evidence, and provide minimum and mandatory penalties for certain crimes. Mathias (R Md.) motion to recommit (kill) the bill. Rejected 114-222.

1964: 100 (Reflected) 38.24% affirmative

HR 11926. Open rule (H Res 845) for debate on HR 11926 concerning state legislative reapportionment (See RC 101). Resolution adopted 242-148.

1964: 101 (Reflected) 44.53% affirmative

HR 11926. Deny the Supreme Court and lower federal courts jurisdiction over matters dealing with state legislative reapportionment. Passed 218-175.

1963: 111 (Reflected) 44.02% affirmative*

HR 9499. Foreign Aid appropriation bill for fiscal 1964, appropriating $2,801,700,000 for foreign aid, $295,580,000 for other international programs, $2,838,275 for the House of Representatives and $13 million for claims against the U. S. (grand total: $3,113,100,370). Jensen (R Iowa) motion to recommit the bill and insert an amendment designed to bar the Export-Import Bank from guaranteeing credits to Communist countries or their nationals for the purchase of U. S. commodities. Agreed to 218-169.

1964: 105 (Reflected) 48.84% affirmative

HR 12298. Agriculture Trade Development and Assistance Act of 1954 (PL 480). Findley (R Ill.) motion to recommit the bill with instruction to add an amendment prohibiting sale of surplus U. S. farm goods under Title I of PL 480 to nations controlled or dominated by a Communist government or--as under existing law--by "the world Communist movement." (The amendment was aimed at Poland and Yugoslavia.) Accepted 183-175.

1964: 43 (Reflected) 50.00% affirmative

HR 11202. Bow (R Ohio) motion to recommit the bill with instructions to amend it to prohibit the use of funds for export payments or export subsidies on agricultural products shipped to Communist nations. Rejected 186-187.

1963: 42 79.34% affirmative

HR 3179. Appoint judges to the U.S. Court of Military

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*1963: 111 in the Civil Liberties scale was the only item in the study which was not positioned by percent affirmative votes. See chapter II.

Appeals for life tenure instead of 15-year terms. Passed 314-82.

1963: 7 94.68% affirmative

HR 4374. Authorize the President to proclaim Sir Winston S. Churchill an honorary citizen of the United States. Passed 378-21.

G Aid to education (5 items) CR = .949; CS = .816
1964: 111 (Reflected) 67.71% affirmative

S 3060. Amend and extend for three years, until June 30, 1963, the National Defense Education Act and amend and extend for one year, until June 30, 1966, federal aid to "impacted" school areas. Goodell (R N.Y.) motion to recommit the conference report (H Rept 1916) with instructions to delete provisions extending NDEA programs to include aid for the subjects of history, geography, civics and English, and to include a two-year extension of impacted areas laws. Rejected 107-237.

1964: 113 69.88% affirmative

HR 12633. Provide $1,117,196,068 in supplemental fiscal 1965 appropriations for new or expanded programs authorized in 1964, including activities under the Economic Opportunity Act, the Civil Rights Act and the National Defense Education Act. Mahon (D Texas) motion that the House amend the conference bill to permit District of Columbia participation in the program of aid to schools in federally impacted areas through use of previously appropriated funds. Motion agreed to 211-78.

1963: 60 70.35% affirmative

HR 6143. Provide a five-year program of federal grants and loans for construction or improvement of higher education academic facilities and authorize $1,195,000,000 for three years. Passed 287-113.

1963: 85 71.47% affirmative

HR 6143. Conference report on the 1963 Higher Education Facilities Act, providing a five-year program of federal grants and loans for construction or improvement of public and private higher education academic facilities and authorizing $1,195,000,000 over the first three years. Agreed to 258-92.

1963: 53 88.79% affirmative

S 1652. Amend the National Cultural Center Act to extend the fund-raising period for three years, through Sept. 2, 1966, and to increase the number of trustees from 15 to 30. Passed under suspension of the rules (two-thirds vote needed for approval) 293-33.

H Orientation to professionalism (6 items) CR = .944; CS = .825
1963: 14 (Reflected) 57.76% affirmative

HR 12. Health Professions Educational Assistance Act of 1963. Devine (R Ohio) motion to recommit the bill to the Interstate and Foreign Commerce Committee with instructions to report it back after deleting provisions for loans for medical, dental and osteopathic students. Rejected 171-239.

1964: 53 59.95% affirmative

HR 11049. Raise the salaries of approximately 1.7 million federal career employees and of federal executives, judges and Members of Congress. Passed 243-157.

1964: 18 62.87% affirmative

HR 8986. Raise the salaries of approximately 1.7 million federal career employees and of federal executives, judges and Members of Congress. Adoption of an open rule (H Res 650) for debate on the bill. Adopted 251-147.

1964: 72 65.24% affirmative

H Res 803. Resolution disagreeing to Senate amendments and calling for a conference on a bill (HR 11049) to raise the salaries of approximately 1.7 million federal career employees and of federal executives, judges and Members of Congress. Resolution adopted 245-131.

1963: 15 69.66% affirmative

HR 12. Passage of the bill, authorizing a three-year program of matching grants for construction and rehabilitation of teaching facilities for medical, dental and related professional schools and providing a six-year loan program for students of medicine, dentistry and osteopathy. Passed 288-122.

1963: 80 88.15% affirmative

HR 5945. Establish a United States-Puerto Rico Commission on the Status of Puerto Rico. Passed 320-44.

I-1 Labor versus business (8 items) CR = .961; CS = .888
1963: 36 49.52% affirmative

HR 4996. Area Redevelopment Act Amendments of 1963. Rejected 204-209.

1964: 55 (Reflected) 52.83% affirmative

HR 11376. Extend for one year, through June 30, 1965, $1.9 billion in Korean War excise tax rates. Byrnes (R Wis.) motion to recommit the bill to the Ways and Means Committee with instructions to eliminate, over two years, certain World War II retailers' excise taxes. Rejected 185-207.

1963: 68 (Reflected) 53.04% affirmative

HR 8363. Byrnes (R Wis.) motion to recommit the bill to the Ways and Means Committee with instruction to amend it to prevent the tax reductions from taking effect unless President Kennedy specified that administrative budget spending for fiscal 1964 was not expected to exceed $97 billion and for fiscal 1965 was not expected to exceed $98 billion. Rejected 199-226.

1963: 12 55.02% affirmative

HR 5517. Supplemental Appropriations for fiscal 1963. Boland (D Mass.) amendment to add $450 million for the 1962 accelerated public works program. Accepted 228-184.

1964: 57 57.92% affirmative

HR 3881. Urban Mass Transportation Act of 1964, authorizing $375 million over three years to initiate a program of federal matching grants to states and localities to build and improve mass transportation systems. Rains (D Ala.) amendment broadening the job protection afforded under the federal aid by (1) guaranteeing the preservation of all employee rights (such as vacation time, pension rights, etc.) whether or not acquired through collective bargaining, (2) guaranteeing that employees of a private mass transit company acquired under the bill would become employees of the new company, maintaining all their old rights, and (3) extending

the guarantees against worsening of position afforded railroad workers affected by mergers or acquisitions under the Interstate Commerce Act (Section 5 (2) (f)) to all transit workers. Accepted 234-170.

1963: 69 63.70% affirmative

HR 8363. Passage of the bill, lowering personal and corporate income taxes and making other changes in the Internal Revenue Code of 1954. Passed 271-155.

1964: 12 79.51% affirmative

HR 8363. Conference report on the Revenue Act of 1964, reducing personal and corporate income tax liabilities by $11.5 billion over a two-year period, lowering personal income tax rates from a range of 20 to 91 percent to a range of 14 to 70 percent, lowering personal income tax liabilities by an average 19.4 percent, reducing the corporate income tax rate from 52 to 48 percent in a manner giving special benefit to small business and making other structural changes in the Internal Revenue Code of 1954. Accepted 326-83.

1963: 67 84.72% affirmative

H Res 527. A closed rule preventing floor amendments and allowing one motion to recommit a bill (HR 8363), the Revenue Act of 1963. Adopted 324-67

I-2 Spending (14 items) CR = .941 CS = .842
1963: 49 (Reflected) 2.83% affirmative

HR 3872. Extend for five years, through June 30, 1968, the life of the Export-Import Bank of Washington and increase its lending authority. Patman (D Texas) motion insisting that House conferees disagree to a Senate amendment continuing "backdoor financing" for the agency. Agreed to 379-11.

1964: 34 (Reflected) 42.52 affirmative

HR 10723. Legislative appropriations bill for fiscal 1965, appropriating $173,626,640 to the House of Representatives and related offices. Lipscomb (R Calif.) motion to recommit the bill to the Appropriations Committee with instructions to report it back with an amendment, limiting expenditure by Congressional committees or the Capitol Architect to activities that are a matter of public record. Agreed to 188-131.

1964: 107 47.09% affirmative

S 2220. Authorize forgiveness of up to 50 percent of student loans plus accrued interest made under the 1963 Health Professions Educational Assistance Act (PL 88-129), for physicians, dentists, and osteopaths subsequently practicing in an area in which there was a certified shortage of health personnel. Rejected 140-161.

1963: 77 50.27% affirmative

HR 6237. Authorize appropriation of $500,000 annually for five years to help public and private groups compile and publish documentary source materials significant to the history of the United States. Passed 158-154.

1963: 9 (Reflected) 62.69% affirmative

HR 2440. Curtis (R Mo.) motion to recommit the bill with instructions to reduce authorizations for all items except Air Force research and development and Navy ship and torpedo procurement by 5 percent--a cut of $636,385,250. Rejected 149-258.

1963: 24 63.59% affirmative

HR 5517. Supplemental Appropriation bill for fiscal 1963. Thomas (D Texas) motion to adopt the conference report. Agreed to 241-130.

1963: 35 67.76% affirmative

HR 6868. Legislative Appropriation bill for fiscal 1964, appropriating $140,038,919. Passed 271-122.

1963: 45 86.58% affirmative

HR 5279. Adoption of conference report appropriating $958,456,500 for the Interior Department and related agencies in fiscal 1964. Agreed to 332-50.

1963: 75 89.47% affirmative

HR 8747. Independent Offices Appropriation bill for fiscal 1964, providing $13,102,718,700 for 23 executive agencies and independent offices. Passed 302-32.

1963: 102 94.15% affirmative

HR 8747. Independent Offices Appropriations for fiscal 1964. Adoption of conference report appropriating $13,224,518,050 for 23 executive agencies and independent offices. Agreed 356-22.

1964: 35 94.25% affirmative

HR 10908. Provide $6,908,063,000 in fiscal 1965 appropriations for the Department of Labor and Health, Education and Welfare and related agencies. Passed 347-21.

1963: 11 95.71% affirmative

HR 5366. Appropriate $5,997,026,000 to the Treasury and Post Office Departments, the Executive Office of the President and three independent agencies in fiscal 1964. Passed 385-17.

1963: 93 98.52% affirmative

HR 9139. Military Constructing Appropriation bill for fiscal 1964 appropriating $1,562,964,000 for construction at military bases in the U. S. and abroad and for payments for the family housing program. Passed 332-5.

1963: 73 99.11% affirmative

HR 7179. Conference report appropriating $47,220,010,000 to the Defense Department during fiscal 1964. Adopted 336-3.

I-3 Space spending (6 items) CR = .983; CS = .946
1963: 63 52.50% affirmative

HR 7500. Fiscal 1964 National Aeronautics and Space Administration authorization. Pelly (R Wash.) motion to recommit the conference report (H Rept 706) with instructions to reduce the authorization to the $5,203,719,400 amount approved by the House. Rejected 177-200.

1963: 74 56.46% affirmative

HR 8747. Independent Offices Appropriation bill for fiscal 1964. Wyman (R N. H.) motion to recommit the bill to the Appropriations Committee with instructions to reduce by $200 million the $3.9 billion appropriated to the National Aeronautics and Space Administration for research and development. Rejected 145-192.

1963: 64 65.48% affirmative

HR 7500. Adoption of the conference report authorizing $5,350,820,400 for the National Aeronautics and Space Administration in fiscal 1964. Adopted 248-125.

1964: 87 (Reflected) 70.37% affirmative

HR 11296. Appropriate $13,454,859,000 in fiscal 1965 for 16 independent agencies, three small agencies in the Executive Office of the President, the President's disaster relief fund and civil defense activities of the Health, Education and Welfare and Defense Departments. Wyman (R N.H.) motion to recommit the bill with instructions to reduce funds for the National Aeronautics and Space Administration by $200 million. Rejected 114-271.

1964: 26 79.72% affirmative

HR 10456. Passage of the bill, authorizing $5,193,810,500 for the National Aeronautics and Space Administration in fiscal 1965 in the following categories: research and development, $4,327,950,000; construction of facilities, $248,335,000; administrative operations, $617,525,500. Passed 283-73.

1963: 52 85.42% affirmative

HR 7500. Authorize $5,203,719,400 for the National Aeronautics and Space Administration in fiscal 1964. Passed 335-57.

I-4 Orientation to debt (9 items) CR = .979; CS = .952
1963: 89 50.97% affirmative

HR 8969. Passage of the bill to increase the temporary national debt limit to $315 billion through June 29, 1964. Passed 187-179.

1963: 28 51.07% affirmative

HR 6009. Passage of the bill. Passed 213-204.

1964: 56 52.67% affirmative

HR 11375. Increase the temporary national debt limit to $324 billion through June 30, 1965. Passed 203-182.

1963: 88 (Reflected) 53.01% affirmative

HR 8969. Extend the existing temporary $309, billion national debt limit from Nov. 30 through June 30, 1964 and further increase the temporary limit by $6 billion from Nov. 30 through June 29, 1964. Byrnes (R Wis.) motion to recommit the bill to the Ways and Means Committee in order to establish a smaller increase in the ceiling for the remainder of fiscal 1964. Rejected 172-197.

1963: 27 (Reflected) 53.19% affirmative

HR 6009. Increase the temporary national debt limit to $307 billion from time of enactment of bill through June 30 and to $309 billion from July through Aug. 31. Byrnes (R Wis.) motion to recommit the bill to the Ways and Means Committee with instructions to amend it by extending the existing $305 billion ceiling indefinitely. Rejected 195-222.

1963: 58 55.45% affirmative

HR 7824. Passage of the bill extending the existing temporary limit for three months, from Aug. 31 to Nov.30, 1963. Passed 221-175.

1963: 87 57.52% affirmative

H Res 564. A closed rule, preventing floor amendments and allowing one motion to recommit, for consideration of HR 8969, raising and extending the temporary debt limit. Adopted 212-149.

1963: 57 (Reflected) 57.82% affirmative

HR 7824. Extend the existing temporary $309 billion national debt limit. Byrnes (R Wis.) motion to recommit the bill to the Ways and Means Committee with instructions to amend it by reducing the temporary limit to $307 billion from $309 billion and to extend it for two months, from Aug. 31 to Oct. 31, 1963. Rejected 164-229.

1963: 56 79.09% affirmative

HR 7824. Adoption of a closed rule (HR Res 477) preventing floor amendments to the bill extending the existing debt limit. Adopted 303-72.

J Social welfare (15 items) CR = .956; CS = .873

1963: 108 (Reflected) 51.16% affirmative

HR 4955. Authorize new funds for an expanded vocational education program, and extend the National Defense Education Act (NDEA) and aid to federally impacted school areas. Authorizations for vocational education and NDEA programs totaled $921 million over a four-year period. Frelinghuysen (R N.J.) motion to recommit the conference report with instructions to delete authorizations of $150 million over four years for work-study programs and residential vocational education schools. Recommittal motion rejected 180-193.

1964: 79 (Reflected) 52.73% affirmative

HR 11377. The Economic Opportunity Act of 1964, authorizing $947.5 million in fiscal 1965 for a variety of programs to combat poverty. Smith (D Va.) motion to strike the enacting clause (kill the bill). Defeated 197-225.

1964: 29 (Reflected) 53.00% affirmative

HR 10222. Hoeven (R Iowa) motion to recommit the bill and add a provision requiring the states to pay half the costs of food stamp programs set up under the bill. Rejected 195-223.

1964: 80 53.94% affirmative

HR 11377. Landrum (D Ga.) substitute amendment for HR 11377, embodying the Senate-passed bill plus two major changes: it provided a veto power to state Governors over public and private projects under the community action program, and deleted authority for the Director of the poverty program to cancel repayment of certain loans. Accepted 228-190.

1964: 30 54.33% affirmative

HR 10222. Food stamp bill, authorizing the Secretary of Agriculture to set up and finance state and local food stamp programs, and authorizing $400 million over fiscal years 1964-67 to cover the costs. Passage of the bill. Passed 229-189.

1964: 82 54.65% affirmative

S 2642. Passage of the anti-poverty bill which incorporated the text of HR 11377 (above). The bill, the Economic Opportunity Act of 1964, authorized for three years, with spending of $947.5

million in fiscal 1965, a variety of programs to combat poverty. Passed 226-185.

1963: 50 58.42% affirmative

HR 5207. Foreign Service Buildings authorization for fiscal 1964 and 1965. Adoption of a special rule waiving points of order against language in the conference report that added to the bill a Philippine war claims amendment. Adopted 234-166.

1964: 99 80.77% affirmative

S 3049. Housing Act of 1964, authorizing $1,130,750,000 to fund new and existing housing and urban renewal programs through Sept. 30, 1965. Adoption of the conference report. Adopted 310-70.

1963: 109 81.02% affirmative

HR 4955. Adoption of the conference report. Agreed to 301-65.

1964: 89 81.36% affirmative

HR 12175. Passage of the Housing Act of 1964, authorizing $992 million to fund new and existing programs through June 30, 1965. Passed 308-68.

1964: 70 92.08% affirmative

HR 11865. Social Security Amendments of 1964. Adoption of a closed rule limiting debate to five hours and prohibiting floor amendments. Adopted 350-29.

1963: 65 94.33% affirmative

S 1576. The Mental Retardation Facilities and Community Mental Health Centers Construction Act of 1963, authorizing a three-year program of $238 million in grants to states and public and private institutions to combat mental illness and retardation. Passed 335-18.

1963: 78 95.50% affirmative

S 1576. Mental Retardation Facilities and Community Mental Health Centers Construction Act of 1963, authorizing $329 million

over a four-year period. Adoption of the conference report. Agreed to 299-13.

1964: 71 97.97% affirmative

HR 11865. Passage of the bill, providing a 5 percent across-the-board increase in Social Security old-age, survivors and disability benefits; raising the wage base for the Social Security tax from $4,800 to $5,400 a year; increasing payroll and self-employed tax rates; permitting widows to receive benefits at age 60 instead of 62; and bringing self-employed doctors and interns under compulsory coverage. Passed 388-8.

1963: 115 98.79% affirmative

H J Res 875. Appropriate $41,886,000 in fiscal 1964 for the Department of Health, Education and Welfare to implement two mental retardation bills (PL 88-156 and PL 88-164) passed in 1963. Passed 325-4.

K Party loyalty (14 items) CR = .981; CS = .953
1964: 91 44.62% affirmative

H Res 663. Appropriate $10,000 to the House Education and Labor Committee to cover expenses incurred by its Ad Hoc Poverty War Program Subcommittee in its work on President Johnson's anti-poverty bill. Rejected 115-156.

1964: 88 (Reflected) 51.13% affirmative

HR 12175. Housing Act of 1964. Kilburn (R N.Y.) motion to recommit the bill to the Banking and Currency Committee with instructions to report it with an amendment extending indefinitely the insurance authority of the Federal Housing Administration beyond the expiration date of Oct. 1, 1965. Rejected 184-194.

1963: 119 53.73% affirmative

HR 9499. Passman (D La.) motion to adopt an amendment permitting the President to authorize Export-Import Bank guarantees on credit to Communist countries for purchase of U. S. commodities if he considered it in the national interest and notified Congress within 30 days after each such determination. Agreed to 189-158.

1963: 103 (Reflected) 54.55% affirmative

HR 8747. Ostertag (R N.Y.) motion to concur in a Senate amendment requiring the Administrator of the Veterans Administration to use a previously appropriated and earmarked $1,722,000 for construction of an addition to the veterans hospital at Bay pines, Florida. Rejected 171-204.

1964: 8 55.70% affirmative

HR 7152. Civil Rights Act of 1964. Albert (D Okla.) motion that the House adjourn (at 10 p.m.) until Monday, Feb. 10, rather than move immediately to consideration of final titles of the bill and a vote on passage. Agreed to 220-175.

1963: 106 56.43% affirmative

Motion by Majority Leader Albert (D Okla.) to adjourn the House rather than proceed to consideration of bills under Calendar Wednesday procedure. (Republicans had announced they would attempt to bring up HR 7152, the civil rights bill, under the Calendar Wednesday rule.) Motion agreed to 214-166.

1964: 28 (Reflected) 58.25% affirmative

HR 10222. Food stamp bill. Oliver P. Bolton (R Ohio) motion to adjourn for the day without completing action on the bill. Rejected 173-239.

1964: 97 58.84% affirmative

HR 8000. Interest Equalization Tax Act, imposing a temporary, retroactive tax on the purchase by Americans of certain foreign securities in order to restrict foreign borrowing in U. S. capital markets. Adoption of the conference report. Adopted 221-147.

1963: 1 59.24% affirmative

Election of Speaker of the House of Representatives for the 88th Congress. The nominees were Reps. John W. McCormack (D Mass.), Speaker since January 1962, and Charles A Halleck (R Ind.), Minority Leader for the first time in the 86th Congress. McCormack was elected, 256-175.

1964: 16 61.65% affirmative

HR 8000. Interest Equalization Tax, imposing a temporary tax on the purchase by Americans of certain foreign securities in order to restrict foreign borrowing in U. S. capital markets. Passed 238-142.

1964: 32 62.92% affirmative

Albert (D Okla.) motion to dispense with further proceedings after a quorum call in the House. ("Further proceedings" are the locating by the Sergeant at Arms of Members who did not answer to the quorum call. This is routinely dispensed with. Some Republican Members, however, demanded the roll call in order to delay the Democratic leadership's schedule.) Agreed to 223-132.

1964: 33 65.64% affirmative

Motion to dispense with further proceedings after a second Republican-demanded quorum call. Agreed to 234-122.

1963: 118 65.95% affirmative

HR 9499. Motion to consider a rule (H Res 600) waiving points of order on the second conference report on the foreign aid bill (two-thirds majority necessary to consider the rule before it had lain on the Speaker's desk for 24 hours). Rejected 202-105.

1964: 81 (Reflected) 71.02% affirmative

HR 11377. Frelinghuysen (R N.J.) motion to recommit the Economic Opportunity Act, as amended, with instructions to the Education and Labor Committee to report it amended by a Republican substitute bill. Motion rejected 117-295.

APPENDIX C

Constituency data intercorrelations. The entire table of simple correlations (Pearson product-moment) is given first, followed by a set of summary information reporting the correlations (rounded to two places) ± .65 or higher. The data are nominally categorized for convenience. Finally, there is a list of reciprocal pairs; two variables each of whose highest correlate is the other.

Variable Name						
% Population change	1					
% Urban	2					
% Negro	3	-219	030			
% Foreign stock	4	081	639	-330		
Median age	5	-193	421	-213	577	
% With private elementary education	6	-048	611	-207	713	519
% With low education	7	-302	-316	617	-353	-412
% With high school education	8	546	415	-493	347	172
% With college education	9	415	431	-224	306	187
Median education	10	512	484	-477	396	218
Median income	11	468	710	-414	637	355
% Unemployed	12	-260	-109	222	-008	-019
% Owner occupied dwelling units	13	359	-374	-427	-343	-284
% Sound units with all plumbing	14	500	770	-368	646	415
Median rooms per dwelling unit	15	157	-125	-304	-038	-038
Median persons per dwelling unit	16	335	-241	015	-224	-715
Median home value	17	397	720	-190	694	380
Median rent	18	522	650	-323	610	310
% White collar workers	19	401	699	-304	556	415
% Blue collar workers	20	-202	022	294	-119	-843
% Farmer	21	-232	-746	035	-467	-360

	1 % Population change	2 % Urban	3 % Negro	4 % Foreign stock	5 Median age

% With private elementary education	6					
% With low education	7	-352				
% With high school education	8	174	-733			
% With college education	9	194	-394	804		
Median education	10	226	-783	956	724	
Median income	11	565	-687	754	656	785
% Unemployed	12	-138	247	-376	-406	-330
% Owner occupied dwelling units	13	-239	-311	219	-005	180
% Sound units with all plumbing	14	565	-685	709	547	758
Median rooms per dwelling unit	15	121	-390	172	031	175
Median persons per dwelling unit	16	-179	244	-102	-091	-138
Median home value	17	569	-467	636	663	645
Median rent	18	520	-657	746	619	753
% White collar workers	19	459	-514	778	839	757
% Blue collar workers	20	-012	243	-520	-546	-409
% Farmer	21	-466	308	-320	-362	-402

	6 % With private elementary education	7 % With low education	8 % With high school education	9 % With college education	10 Median education

Median income	11					
% Unemployed	12	-276				
% Owner occupied dwelling units	13	047	-217			
% Sound units with all plumbing	14	909	-290	053		
Median rooms per dwelling unit	15	234	-260	674		
Median persons per dwelling unit	16	-020	-147	461	-090	439
Median home value	17	854	-303	-243	781	-001
Median rent	18	904	-260	005	843	179
% White collar workers	19	811	-340	-106	772	-011
% Blue collar workers	20	-168	426	-104	-148	034
% Farmer	21	679	-042	207	-662	-020

	11 Median Income	12 % unemployed	13 % Owner occupied dwelling units	14 % sound units with all plumbing	15 Median rooms per dwelling unit

Median persons per dwelling unit	16					
Median home value	17	-083				
Median rent	18	-035	830			
% White collar workers	19	-216	776	761		
% Blue collar workers	20	124	-251	-284	-480	
% Farmer	21	112	-573	-523	-588	-416

	16 Median persons per dwelling unit	17 Median home value	18 Median rent	19 % White collar worker	20 % Blue collar workers

Demographic variables: 1 % Population change, 2 % Urban, 3 % Negro
4 % Foreign stock, 5 Median age

% Population change
1

[None; the highest is

8 % with high school education = .55]

% Urban
2

11 Median income = .71

14 % Sound units with all plumbing = .77

17 Median home value = .72

18 Median rent = .65

19 % White collar workers = .70

20 % Farmer = .75

% Negro
3

[None; the highest is

7 % With low education = .61

8 % With high school education =-.49

11 Median income =-.42

13 % Owner occupied dwelling units =-.43]

% Foreign stock
4

6 % With private elementary education = .71

14 % Sound units with all plumbing = .65

17 Median home value = .69

Median age
5

16 Median persons per dwelling unit =-.72

Education variables: 7 % With low education, 8 % With high school education, 9 % With college education, 10 Median education

% With low education
7

8 % With high school education	=-.78
10 Median education	=-.78
11 Median income	=-.68
14 % Sound units with all plumbing	=-.68
18 Median rent	=-.65

% With high school education
8

7 % With low education	=-.73
9 % With college education	= .80
10 Median education	= .95
11 Median income	= .75
14 % Sound units with all plumbing	= .71
18 Median rent	= .73

% With college education
9

8 % With high school education	= .80
10 Median education	= .72
11 Median income	= .66
17 Median home value	= .66
19 % White collar workers	= .84

Median education
10

7 % With low education	=-.78
8 % With high school education	= .95
9 % With college education	= .72
11 Median income	= .79
14 % Sound units with all plumbing	= .75
18 Median rent	= .75
19 % White collar workers	= .76

Economic variables: 11 Median income, 14 % Sound units with all plumbing, 17 Median home value, 18 Median rent

Median income
11

2 % Urban	= .71
7 % With low education	=-.69
8 % With high school education	= .75
9 % With college education	= .65
10 Median education	= .78
14 % Sound units with all plumbing	= .91
17 Median home value	= .85
18 Median rent	= .90
19 % White collar workers	= .81
21 % Farmer	=-.67

% Sound units with all plumbing
14

2 % Urban	= .77
4 % Foreign stock	= .65
7 % With low education	=-.68
8 % With high school education	= .71
10 Median education	= .76
11 Median income	= .91
17 Median home value	= .78
18 Median rent	= .84
19 % White collar workers	= .77
21 % Farmer	=-.66

Median home value
17

2 % Urban	= .72
4 % Foreign stock	= .69
9 % With college education	= .66
11 Median income	= .85
14 % Sound units with all plumbing	= .78
18 Median rent	= .83
19 % White collar workers	= .78

Median rent
18

2 % Urban	= .65
7 % With low education	= .66
8 % With high school education	= .73
10 Median education	= .75
11 Median income	= .90
14 % Sound units with all plumbing	= .84
17 Median home value	= .83
19 % White collar workers	= .76

Employment variables: 12 % Unemployed, 19 % White collar workers, 20 % Blue collar workers, 21 % Farmer

% Unemployed
12

[None; the highest is 20 % Blue collar workers = .43]

% White collar workers
19

2 % Urban = .70

8 % With high school education = .78

9 % With college education = .84

10 Median education = .75

11 Median income = .81

14 % Sound units with all plumbing = .77

17 Median home value = .78

18 Median rent = .76

% Blue collar workers
20

[None; the highest is 9 % With college education =-.55]

% Farmer
21

2 % Urban =-.75

11 Median income =-.68

14 % Sound units with all plumbing =-.66

Sundry remaining variables: 6 % With private elementary education, 13 % Owner occupied dwelling units, 15 Median rooms per dwelling unit, 16 Median persons per dwelling unit

% With private elementary education
6

4 % Foreign stock = .71

% Owner occupied dwelling units
13

15 Median rooms per dwelling unit = .67

Median rooms per dwelling unit 15

13 % Owner occupied dwelling units = .67

Median persons per dwelling unit 16

5 Median age =-.72

Highest reciprocal correlations: six pairs

4 % Foreign stock	.71	6 % With private elementary education	
5 Median age	-.72	16 Median persons per dwelling unit	
8 % With high school education	.95	10 Median education	
9 % With college education	.84	19 % White collar workers	
11 Median income	.91	14 % Sound units with all plumbing	
13 % Owner occupied dwelling units	.67	15 Median rooms per dwelling unit	

APPENDIX D.--Tau correlations of 21 independent constituency variables and 16 roll call voting dimensions--all members and all districts

	1 % Population change	2 % Urban	3 % Negro	4 % Foreign stock	5 Median age	6 % With private elementary education	7 % With low education	8 % With high school education	9 % With college education	10 Median education	11 Median income
Civil liberties (F)	120	273	087	217	139	185	106	055	031	023	125
Spending (I-2)	164	134	187	049	041	016	304	204	115	183	073
Urban improvement (D)	130	252	094	215	142	154	178	115	070	085	077
Conservation (B-2)	130	184	056	149	071	086	149	072	043	058	018
Foreign policy (A-1)	093	305	091	246	167	194	133	057	001	027	126
Social welfare (J)	122	219	098	178	139	155	205	120	067	101	045
Party loyalty (K)	155	170	199	063	059	041	281	203	125	174	049
Labor vs business (I-1)	166	162	170	080	086	053	285	201	133	177	052
Agricultural policy (C)	257	027	252	085	078	097	394	322	232	311	217
Consumer protection (B-1)	020	286	106	257	132	165	125	016	050	021	140
Negro rights (E)	023	328	267	495	324	450	276	215	100	239	412
Orientation to debt (I-4)	135	163	210	042	026	029	288	214	123	190	063
Space spending (I-3)	091	206	238	071	049	012	306	172	068	141	030
Orientation to professionalism (H)	071	267	113	236	152	197	174	079	025	055	106
Aid to education (G)	081	261	031	276	214	231	004	024	014	051	165
Foreign trade (A-2)	136	038	211	101	063	103	310	218	122	208	140

APPENDIX D.--Tau correlations of 21 independent constituency variables and 16 roll call voting dimensions--all members and all districts--Continued

	12 % Unemployed	13 % Owner occupied dwelling units	14 % Sound units with all plumbing	15 Median rooms per dwelling unit	16 Median persons per dwelling unit	17 Median home value	18 Median rent	19 % White collar workers	20 % Blue collar workers	21 % Farmer
Civil liberties	176	236	122	158	095	143	107	104	109	269
Spending (I-2)	190	266	055	251	038	039	090	028	143	143
Urban improvement (D)	224	233	088	166	049	089	044	068	154	273
Conservation (B-2)	200	220	026	222	104	041	012	049	080	156
Foreign policy (A-1)	159	214	144	132	076	156	103	134	118	309
Social welfare (J)	196	213	060	158	065	074	019	063	132	246
Party loyalty (K)	202	263	022	277	063	011	070	013	144	167
Labor vs business (I-1)	233	235	026	227	048	021	073	020	172	182
Agricultural policy (C)	185	357	202	321	008	163	208	171	123	013
Consumer protection (B-1)	145	173	169	174	049	190	118	137	106	269
Negro rights (E)	050	081	370	173	119	357	361	257	045	347
Orientation to debt (I-4)	194	257	031	219	018	024	079	013	151	173
Space spending (I-3)	163	256	009	247	037	003	071	026	173	206
Orientation to professionalism (H)	144	228	121	110	040	133	072	106	136	301
Aid to education (G)	167	074	166	015	126	135	117	146	091	276
Foreign trade (A-2)	176	203	127	285	034	131	198	085	094	022

APPENDIX E.--Mann-Whitney U tests--comparing the R_s correlations on economic and social dimensions for each independent variable

Economic Policy Dimensions ($n_1 = 4$)	1 % Population Change		2 % Urban		3 % Negro	
	R_s	Rank[b]	R_s	Rank	R_s	Rank[b]
Spending (I-2)	229	10	191	1	269	8
Labor vs. business (I-1)	219	9	220	3	233	7
Orientation to debt (I-4)	179	7	217	2	283	9
Space spending (I-3)	126	4	273	4	317	10
Rank Σ		25		10		34
Social Policy Dimensions ($n_2 = 6$)						
Civil liberties (F)	166	5	390	9	124	3
Urban improvement (D)	180	8	353	7	137	5
Social welfare (J)	168	6	296	5	136	4
Consumer Protection (B-1)	023	2	376	8	145	6
Negro rights (E)	028	1	434	10	360	1
Aid to education (G)	109	3	342	6	043	2
Rank Σ		30		45		21
	U' = 9		U = 0		U = 0	
	P, given U, = .305		P, given U, = .005		P, given U, = .305	

APPENDIX E.--Mann-Whitney U tests--comparing the R_S correlations on economic and social dimensions for each independent variable--Continued

Economic Policy Dimensions (n_1 = 4)	4 % Foreign stock R_S	4 % Foreign stock Rank	5 Median age R_S	5 Median age Rank	6 % With private elementary education R_S	6 % With private elementary education Rank
Spending (I-2)	072	2	063	2	028	2
Labor vs. business (I-1)	111	4	117	4	070	4
Orientation to debt (I-4)	059	1	037	1	040	3
Space spending (I-3)	098	3	073	3	018	1
Rank Σ		10		10		10
Social Policy Dimensions (n_2 = 6)						
Civil liberties (F)	327	7	202	8	276	8
Urban improvement (D)	318	6	200	7	223	7
Social welfare (J)	243	5	192	6	212	5
Consumer Protection (B-1)	346	8	174	5	221	6
Negro rights (E)	643	10	430	10	586	10
Aid to education (G)	367	9	285	9	307	9
Rank Σ		45		45		45
	U = 0 P, given U, = .005		U = 0 P, given U, = .005		U = 0 P, given U, = .005	

APPENDIX E.--Mann-Whitney U tests--comparing the R_S correlations on economic and social dimensions for each independent variable--Continued

Economic Policy Dimensions ($n_1 = 4$)	7 % With low education		8 % With high school education		9 % With college education	
	R_S	Rank[b]	R_S	Rank[b]	R_S	Rank[b]
Spending (I-2)	428	10	289	9	160	8
Labor vs. business (I-1)	285	7	271	8	181	10
Orientation to debt (I-4)	398	8	290	10	165	9
Space spending (I-3)	415	9	236	7	091	5
Rank Σ		34		34		32
Social Policy Dimensions ($n_2 = 6$)						
Civil liberties (F)	167	3	077	4	040	4
Urban improvement (D)	264	5	164	5	095	7
Social welfare (J)	270	6	165	6	092	6
Consumer protection (B-1)	172	4	023	3	064	2
Negro rights (E)	388	1	297	1	132	1
Aid to education (G)	004	2	033	2	016	3
Rank Σ		21		21		23
	U' = 0		U' = 0		U' = 2	
	P, given U', = .005		P, given U', = .005		P, given U', = .019	

APPENDIX E.--Mann-Whitney U tests--comparing the R_S correlations on economic and social dimensions for each independent variable--Continued

Economic Policy Dimensions ($n_1 = 4$)	10 Median education		11 Median income		12 % Unemployed	
	R_S	Rank[b]	R_S	Rank[b]	R_S	Rank
Spending (I-2)	258	10	105	1	261	7
Labor vs. business (I-1)	238	8	074	3	317	10
Orientation to debt (I-4)	256	9	085	2	258	6
Space spending (I-3)	191	7	040	4	220	4
Rank Σ		34		10		27
Social Policy Dimensions ($n_2 = 6$)						
Civil liberties (F)	035	4	173	7	247	5
Urban improvement (D)	125	5	113	6	310	9
Social welfare (J)	137	6	064	5	267	8
Consumer Protection (B-1)	025	3	186	8	196	2
Negro rights (E)	330	1	546	10	071	1
Aid to education (G)	068	2	221	9	219	3
Rank Σ		21		45		28
	U' = 0		U = 0		U' = 7	
	P, given U', = .005		P, given U, = .005		P, given U', = .176	

APPENDIX E.--Mann-Whitney U tests--comparing the R_s correlations on economic and social dimensions for each independent variable--Continued

Economic Policy Dimensions (n_1 = 4)	13 % Owner occupied dwelling units R_s	13 Rank[b]	14 % Sound units with all plumbing R_s	14 Rank[b]	15 Median rooms per dwelling unit R_s	15 Rank[b]
Spending (I-2)	373	10	080	1	339	10
Labor vs. business (I-1)	317[c]	6	037	3	302	8
Orientation to debt (I-4)	341	8	043	2	290	7
Space spending (I-3)	345	9	011	4	325	9
Rank Σ		33		10		34
Social Policy Dimensions (n_2 = 6)						
Civil liberties (F)	325	7	176	7	212	3
Urban improvement (D)	317[c]	5	133	6	224	5
Social welfare (J)	296	4	085	5	214	4
Consumer protection (B-1)	227	3	225	9	228	6
Negro rights (E)	091	1	492	10	228	1
Aid to education (G)	099	2	224	8	023	2
Rank Σ		22		45		21
	U' = 1		U = 0		U' = 0	
	P, given U', = .010		P, given U, = .005		P, given U', = .005	

APPENDIX E.--Mann-Whitney U tests--comparing the R_s correlations on economic and social dimensions for each independent variable--Continued

Economic Policy Dimensions ($n_1 = 4$)	16 Median persons per dwelling unit R_s	Rank	17 Median home value R_s	Rank[b]	18 Median rent R_s	Rank[b]
Spending (1-2)	051	3	056	1	129	1
Labor vs. business (1-1)	065	5	030[c]	2	097[c]	4
Orientation to debt (1-4)	024	1	030[c]	3	105	2
Space spending (1-3)	049	2	004	4	097[c]	3
Rank Σ		11		10		10
Social Policy Dimensions ($n_2 = 6$)						
Civil liberties (F)	128	8	206	8	151	7
Urban improvement (D)	068	6	137	6	066	6
Social welfare (J)	086	7	105	5	028	5
Consumer Protection (B-1)	062	4	255	9	156	8
Negro rights (E)	156	9	469	10	478	10
Aid to education (G)	159	10	177	7	157	9
Rank Σ		44		45		45
	U = 1		U = 0		U = 0	
	P, given U, = .010		P, given U, = .005		P, given U, = .005	

APPENDIX E.--Mann-Whitney U tests--comparing the R_S correlations on economic and social dimensions for each independent variable--Continued

Economic Policy Dimensions ($n_1 = 4$)	19 % White collar workers		20 % Blue collar workers		% Farmer	
	R_S	Rank[b]	R_S	Rank	R_S	Rank
Spending (I-2)	038	1	202[c]	7	206	1
Labor vs. business (I-1)	029	2	233	9	243	3
Orientation to debt (I-4)	018	3	202[c]	6	229	2
Space spending (I-3)	034	4	234	10	269	4
Rank Σ		10		32		10
Social Policy Dimensions ($n_2 = 6$)						
Civil liberties (F)	149	7	155	4	389	9
Urban improvement (D)	101	6	216	8	381	8
Social welfare (J)	088	5	181	5	332	5
Consumer Protection (B-1)	181	8	143	3	351	6
Negro rights (E)	346	10	063	1	468	10
Aid to education (G)	197	9	122	2	360	7
Rank Σ		45		23		45
	U = 0		U' = 2		U = 0	
	P, given U, = .005		P, given U', = .019		P, given U, = .005	

[c]Rank assigned from a four place computation.

[b]When a mixture of positive and negative R_S coefficients occur, the less frequent type is ranked below the more frequent type.

[a]See Siegel (1956, pp. 116-127).

APPENDIX F.--rho correlations between 21 independent constituency variables and 16 roll call voting variables--Democrats only

Independent Variables	Civil liberties (F)	Spending (1-2)	Urban improvement (D)	Conservation (B-2)	Foreign policy (A-1)	Social welfare (J)	Party loyalty (K)	Labor vs. business (1-1)
1. % Population change	003	054	013	035	042	011	003	021
2. % Urban	627	278	507	429	550	352	486	324
3. % Negro	316	196	435	296	335	309	421	279
4. % Foreign stock	719	332	683	521	638	430	614	400
5. Median age	427	196	381	301	469	316	426	273
6. % With private elementary education	652	333	594	480	579	451	586	400
7. % With low education	497	139	478	337	464	309	455	288
8. % With high school education	363	107	325	241	307	169	314	202
9. % With college education	178	039	105	115	146	028	109	030
10. Median education	431	131	380	281	367	204	365	234
11. Median income	671	277	626	469	581	404	558	361
12. % Unemployed	221	164	306	225	211	203	258	261
13. % Owner occupied dwelling units	146	058	053	104	078	023	002	012
14. % Sound units with all plumbing	619	232	552	409	555	364	519	322
15. Median rooms per dwelling unit	055	034	070	025	056	053	022	043
16. Median persons per dwelling unit	251	084	194	186	280	195	287	184
17. Median home value	619	197	508	387	496	332	460	288
18. Median rent	649	222	565	438	533	364	507	348
19. % White collar workers	466	227	400	335	436	258	402	222
20. % Blue collar workers	083	096	111	093	111	127	076	079
21. % Farmer	606	314	523	430	567	378	468	308

APPENDIX F.--rho correlations between 21 independent constituency variables and 16 roll call voting variables--Democrats only--Continued

Independent Variables	Agricultural policy (C)	Consumer protection (B-1)	Negro rights (E)	Orientation to debt (I-4)	Space spending (I-3)	Orientation to professionalism (H)	Aid to education (G)	Foreign trade (A-2)
1. % Population change	073	113	041	050	079	070	069	021
2. % Urban	167	414	548	371	363	399	391	011
3. % Negro	001	265	508	271	231	214	382	029
4. % Foreign stock	099	508	767	423	391	449	502	058
5. Median age	034	267	478	262	276	247	401	069
6. % With private elementary education	178	397	676	439	337	510	493	030
7. % With low education	034	358	567	323	266	322	420	017
8. % With high school education	000	335	347	217	221	214	213	037
9. % With college education	025	205	079	076	138	069	014	021
10. Median education	008	386	413	258	270	239	256	017
11. Median income	128	455	669	410	408	453	417	001
12. % Unemployed	090	202	233	176	083	138	253	135
13. % Owner occupied dwelling units	186	086	027	026	009	069	048	063
14. % Sound units with all plumbing	070	434	592	381	386	426	418	002
15. Median rooms per dwelling unit	088	030	109	047	012	097	088	171
16. Median persons per dwelling unit	004	188	267	147	186	099	316	089
17. Median home value	096	451	555	343	283	382	297	091
18. Median rent	150	419	609	385	284	421	376	074
19. % White collar workers	072	316	408	337	312	306	287	027
20. % Blue collar workers	041	054	125	076	122	120	086	084
21. % Farmer	126	329	561	372	335	418	372	089

APPENDIX F.--rho correlations between 21 independent constituency variables and 16 roll call voting variables--Republicans only

Independent Variables	Civil liberties (F)	Spending (I-2)	Urban improvement (D)	Conservation (B-2)	Foreign policy (A-1)	Social welfare (J)	Party loyalty (K)	Labor vs. business (I-1)
1. % Population change	068	065	052	104	085	068	077	091
2. % Urban	115	095	249	009	287	165	137	116
3. % Negro	094	028	026	233	031	013	021	007
4. % Foreign stock	150	227	438	119	406	360	202	272
5. Median age	086	175	329	029	179	212	160	314
6. % With private elementary education	144	102	294	013	314	272	262	180
7. % With low education	097	177	198	062	072	225	041	230
8. % With high school education	068	056	051	183	202	093	123	030
9. % With college education	150	093	163	081	334	159	142	059
10. Median education	078	061	061	148	212	089	127	011
11. Median income	125	101	227	027	329	150	176	095
12. % Unemployed	027	064	017	033	102	070	133	130
13. % Owner occupied dwelling units	103	143	073	188	075	114	072	039
14. % Sound units with all plumbing	070	106	232	050	297	143	169	099
15. Median rooms per dwelling unit	036	016	232	135	212	134	108	190
16. Median persons per dwelling unit	005	009	141	171	173	105	085	107
17. Median home value	109	111	209	004	346	170	169	082
18. Median rent	074	073	146	025	267	088	113	006
19. % White collar workers	147	109	218	024	319	182	159	133
20. % Blue collar workers	045	036	062	139	046	011	053	129
21. % Farmer	141	108	370	108	308	238	150	257

APPENDIX F.--rho correlations between 21 independent constituency variables and 16 roll call voting variables--Republicans only--Continued

Independent Variables	Agricultural policy (C)	Consumer protection (B-1)	Negro rights (E)	Orientation to debt (I-4)	Space spending (I-3)	Orientation to professionalism (H)	Aid to education (G)	Foreign trade (A-2)
1. % Population change	391	274	081	073	242	045	012	006
2. % Urban	425	282	183	124	402	282	203	055
3. % Negro	172	213	040	018	212	009	013	050
4. % Foreign stock	226	365	230	111	355	521	279	084
5. Median age	109	145	276	059	126	356	164	054
6. % With private elementary education	264	204	326	115	145	299	166	024
7. % With low education	222	082	050	010	122	083	050	030
8. % With high school education	261	132	114	065	251	176	160	019
9. % With college education	338	223	173	155	345	230	205	014
10. Median education	300	172	134	076	281	198	173	015
11. Median income	477	305	310	145	319	342	204	052
12. % Unemployed	088	014	164	002	041	020	047	015
13. % Owner occupied dwelling units	140	091	146	044	103	109	013	006
14. % Sound units with all plumbing	468	319	241	147	364	310	144	034
15. Median rooms per dwelling unit	124	007	319	246	056	218	158	005
16. Median persons per dwelling unit	100	124	112	143	115	047	074	066
17. Median home value	393	343	243	086	324	331	157	028
18. Median rent	378	295	188	060	230	241	110	041
19. % White collar workers	393	278	198	156	382	288	223	047
20. % Blue collar workers	032	066	003	006	071	032	015	092
21. % Farmer	479	339	234	195	403	367	251	012

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