

DECISION ON THE ENVIRONMENT: A Study of Environmental
Roll Call Behavior in the United States
House of Representatives

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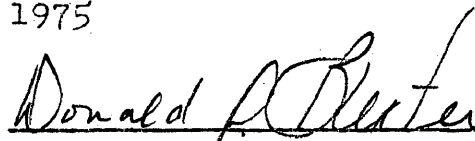
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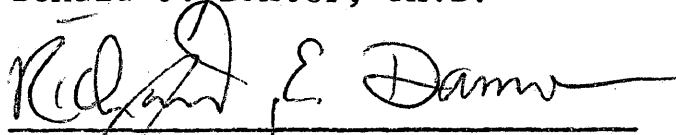
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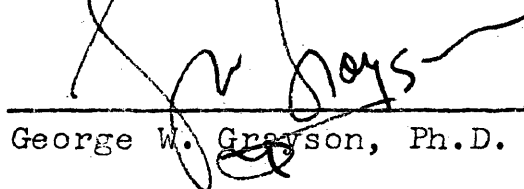

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ABSTRACT

This study is a roll call analysis of voting in the House of Representatives on the environment during five Congresses (the Eighty-eighth through Ninety-second). Its purpose is to test a central hypothesis about how Congressmen voted on environmental issues in these years against two ideas from the conventional wisdom.

The central hypothesis suggests that a Congressman's vote on the environment will be determined by certain physical constituency characteristics. It posits that Congressmen from wealthy, urban and industrialized constituencies will tend to vote in favor of environmental protection on the roll call. A small amount of evidence is found to support this hypothesis with a more significant amount found after 1970.

The study also tests the conventional wisdom idea that Party Identification is the most important determinant of roll call voting in this area. Evidence found in the study confirms this from 1963 through 1970. During these years Democrats tended to vote in favor of environmental protection on the roll call more often than Republicans.

The "democracy really works" theory is also tested by the study. It maintains that roll call voting is related to the magnitude of a Representative's electoral victory. Inconsistent evidence is found in the Eighty-ninth and Ninety-second Congresses to support this idea from the conventional wisdom.

The results of the study suggest a pattern of explanation about environmental roll call voting. Until 1970 the conventional wisdom about Party Identification and magnitude of electoral victory are sound explanations of this voting. After 1970 the central hypothesis of the study becomes a better explanation of environmental roll call voting.

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INTRODUCTION

The stark realities of environmental pollution seemed a nightmare come true to the residents of Donora, Pennsylvania. This small town, nineteen miles southeast of Pittsburgh, was founded in 1900 as a result of the tremendous expansion in the steel industry. It was a mill town of about 13,000 that produced wire, zinc and steel products. Due to this accent on industry the sky in Donora was seldom clear. This was especially true during the last week of October, 1948. A dense fog had blanketed the town for at least a week, but on the thirty-first it seemed even thicker than usual. By nightfall eighteen people had died and hundreds were finding it difficult to breathe. The local Board of Health said it was impossible to determine how many residents were sick, but the community's doctors and nurses could not keep up with the situation. By two in the morning, the hospitals were overflowing and medical supplies were nearly exhausted.

Relief came the next day when it rained. Residents returned from the hills where they had gone to escape the fumes that enveloped the town. In all, it was reported that 5000 residents were affected. There had been 20 human deaths and 800 animal deaths. A month later, after a

thorough study at the University of Cincinnati, it was determined that but for the rain, the entire town of 13,500 would have been depopulated in one or two more days.

This is not an imaginary, fear-engendering scenario. These events actually happened in Donora.¹ They were an indication of the seriousness of the air pollution problem in this country and they served as a stimulus for air pollution control legislation in the following decades. The most immediate result of the Donora disaster was the Air Pollution Control Act of 1955. This was a limited piece of legislation aimed at initiating research into air pollution. The most significant legislation inspired by the catastrophe was the Clean Air Act of 1963.

The Clean Air Act was the first substantive air pollution control act. It had two major provisions. "It granted \$95 million for matching grants to state, local and interstate agencies to develop air pollution prevention and control programs, and it provided a series of steps, culminating in legal action, that a state, municipality or Federal Government could take to bring an end to air pollution."² The act was the first to recognize air pollution

¹The account was taken from: New York Times, 31 October 1948, sec. 1, p. A1. And New York Times, 1 November 1948, sec. 1, p. A1.

²Congressional Quarterly Services, Congress and the Nation Vol. I. (Washington, D.C.: Congressional Quarterly Services, 1964), p. 1148.

as a serious problem, and the first to give the Federal Government enforcement powers.

The legislative battle over the act can be seen best in two parts: First, the fight over the role of the Federal Government and second, the struggle over the importance of the issue of air pollution. The primary issue of the enforcement fight was whether or not the Federal Government should have the power to carry out parts of the act. A clear division in groups developed during the argument in 1963. The group favoring Federal enforcement was composed of the President, U. S. Conference of Mayors, American Municipal Association, National Association of Counties and urban minded Senators and Representatives. The group opposing federal power was made up of the Public Health Service, Bureau of the Budget, National Association of Manufacturing, American Medical Association and a handful of Congressmen.³ Both groups argued that something should be done about air pollution but the second group wanted the power in the hands of the states and localities.

The issue was resolved by the determined activity of the cities lobby (American Municipal Association) directed by Hugh Miels. Miels had convinced certain Congressmen that the cities could only be cured of the problem by federal action. With the aid of strong leadership in both

³Randall B. Ripley, "Congress and Clean Air: The Issue of Enforcement, 1963," in Federick N. Cleaveland, Congress and Urban Problems (Washington, D.C.: The Brookings Institution, 1969), p. 237.

Houses (notably: Senators Muskie, Ribicoff and Kerr; Congressmen Roberts, Schenck and Harris), Mielsds convinced the President that Federal enforcement was necessary.⁴ This resolve by legislators and the Executive made their position unbeatable in floor and committee proceedings.

The second aspect of the legislative proceedings is more interesting and significant. In order for the act to pass there had to be support for the idea that air pollution was a problem serious enough to merit this attention. Backing for this came from the cities lobby led by Mielsds but it is interesting to see why Congressmen advocated this position.

No doubt, the legislators were influenced by the Mielsds' lobby, but it is apparent from the accounts of the proceedings that there was a broader base for Congressional support. The first reason was the concern for public health. As Congressman Rogers of Florida argued: "Polluted air, a byproduct of industrialization and urban growth, threatens the health of every American, as well as the food he eats and the material he uses."⁵

The idea of air pollution as a menace to public

⁴Ibid., p. 240.

⁵U.S. Congress, House, Congressman Rogers speaking for the Clean Air Act of 1963, HR 6518, 88th Cong., 1st sess., 1963, Congressional Record, 109:13280.

health pervaded the committee and floor proceedings. A more intimate connection was made, however, between air pollution and urbanization. One of the leading Congressional figures, Representative Roberts, claimed that he came to support the legislation because of the situation in his home city of Birmingham, Alabama.⁶ Congressman Smith of California implied the same connection in broader national terms during floor debate:

Air pollution is a serious national problem. I am certain that any member who has been in Los Angeles at any time realizes the seriousness of the situation. I understand that there are many other cities throughout the U.S. that are faced with this problem.⁷

Just as pervasive as the health concern, this area was seen as crucial because of the nature and extent of urbanization in the United States.

Another reason for support by the legislators was the economic loss caused by air pollution. A per capita estimate of \$65 in economic loss alone was attributed to it by Roberts.⁸ Representative Halpern of New York made the same point, in a more dramatic manner, on the floor:

The estimates of the economic cost of air pollution are staggering. They range from \$7.5 to \$11 billion annually.⁹

⁶Ripley, p. 251.

⁷U.S. Congress, House, Congressman Roberts speaking for the Clean Air Act of 1963, HR 6518, 88th Cong., 1st sess., 1963, Congressional Record, 109:13273.

⁸Ibid., p. 13274.

⁹U.S. Congress, House, Congressman Halpern speaking

There was also evidence in committee hearings that this reason led to industrial influence on Congressmen. Representative Burkhalter (California) said in a hearing that industry wanted air pollution stopped because of the economic loss involved in production and maintenance and that it was trying to be cooperative in pollution control efforts.¹⁰ The point is that air pollution was seriously attacked due to the nature and extent of industrialization in the constituencies.

The overall thrust of this aspect of the legislative battle is that the legislators appear to have come to support a strong position on air pollution control because of physical constituency characteristics. They supported the Clean Air Act of 1963 because of the physical well-being, urbanization and industrialization of their respective constituencies.

In light of this it becomes interesting to see if it holds for other pieces of environmental legislation. In 1967 Congress passed a strong air pollution control act. It was passed in response to an inversion that reportedly caused the deaths of 80 people over a four day period in

for the Clean Air Act of 1963, HR 6518, 88th Cong., 1st sess., 1963, Congressional Record, 109:13278.

¹⁰U.S. Congress, House, Hearings before a Subcommittee of the Committee on Interstate and Foreign Commerce, 88th Cong., 1st sess., 1963, p. 25.

New York City.¹¹ It was the Clean Air Act of 1967. The legislation greatly enlarged existing federal responsibility for air pollution control. In more specific terms, it authorized:

- a two year study of the impact of national emission standards
- court action to halt atmospheric emission when it presented an imminent danger to public health
- federal automobile exhaust standards and fuel additive registration.¹²

There were two areas of controversy in the legislative haggling over this bill. The first was that the bill was supposed to establish uniform emission standards for specific pollutants. This was dropped from the administration bill by the Senate and in conference because it was felt that further research into them was needed. This research was provided for in the act. The second area of controversy was over the special position of California in enforcing automobile exhaust standards. The representatives from this state finally won what almost turned out to be a states right battle. They won because it was felt that California had the worst air pollution problem

¹¹J. Clarence Davies, The Politics of Pollution (New York: Pegasus, 1970), p. 54.

¹²Congressional Quarterly Services, Congressional Quarterly Almanac, Vol. XXV (Washington, D.C.: Congressional Quarterly Services, 1967), p. 875.

and was therefore entitled to use stricter standards which it had already established.

Support for this bill follows very closely the lines of support shown on the Clean Air Act of 1963. The hearings and floor debate are saturated with pleas to do something about pollution because it is an urban problem. This aspect of the support was again linked to the public health argument as Rep. Smith (Cal.) argued: "Illnesses from heart problems to lung diseases have been linked with the existence of polluted air in some of our cities."¹³ The relationship between urbanization, illness and pollution seems to provide sound explanation for a representative's support of such environmental legislation.

Other reasons for support become evident in the discussion of this act which were less clear in 1963. There is a clear indication by Congressmen that pollution was now a crucial constituency issue. For example, Congressman Ryan of New York said, "Recognizing the danger, our constituents are asking for immediate and meaningful Federal action to deal with air pollution."¹⁴ This concern is

¹³U.S. Congress, House, Congressman Smith speaking for the Air Quality Act of 1967, S780, 90th Cong., 1st sess., 1967, Congressional Record, 113:30940.

¹⁴U.S. Congress, House. Hearings before the Committee on Interstate and Foreign Commerce, on HR 9509 and S 780, 90th Cong., 1st sess., 1967, p. 4.

further backed by an indication that a recent Harris poll had shown significant constituent interest in controlling air pollution.¹⁵

Congressmen were also coming to support this legislation for reasons linked to the industrialization of their constituencies. Congressman Ryan saw a direct link between industry and pollution:

As industry grew in the United States environmental pollution inexorably grew with it . . . The process is inevitable.¹⁶

Ryan supported the legislation because he comes from such an industrialized area with this environmental problem. Other members of Congress saw different industrial reasons for supporting the bill. Congressman McCarthy (N.Y.) made the strongest case:

The fear of the economic consequences of a major industrial employer and taxpayer leaving an area as the result of strict air pollution controls has effectively prevented many communities from taking decisive action against heavy polluters. A national standard is needed.¹⁷

The point here is that localities were cautious about attempting to control the industries that had caused pollution and hoped the Federal Government would take action to control it. Support is engendered in this area by a clear link between industrial conditions in a constit-

¹⁵Ibid., p. 35.

¹⁶Ibid., p. 37.

¹⁷Ibid., p. 247.

uency and a Congressman's responsibility to control the resulting pollution. For this reason, representatives from industrialized areas came out in support of pollution control legislation.

Another reason for support of environmental legislation was beginning to emerge in the battle over this bill. Congresswoman Kelly from New York saw pollution as detrimental to homeowners and the "comfort loving" society in her constituency.¹⁸ The impression given here was that Congressmen who come from richer communities could also come to support pollution control legislation.

It seems apparent from these two pieces of legislation that there is a relationship between physical constituency characteristics and a Congressman's behavior in support of environmental protection. Specifically, it was suggested that Congressmen from urban, industrial, unhealthy on the one hand and wealthy, suburban, residential communities on the other, tend to support air pollution control legislation.

These brief legislative scenarios suggest some intriguing hypotheses which might aid in understanding the relationship between representatives and their constituencies. According to Duncan MacRae:

¹⁸Ibid., p. 357.

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.¹⁹

It is the purpose of this study to aid in this understanding by examining the relationship between these physical constituency characteristics and representatives' roll call behavior on environmental issues.

The study will employ roll call analysis which has been used to study the degree of association between voting behavior of Congressmen and constituency characteristics and attitudes. It has also been used to study the effect of party identification on roll call behavior. In fact, the main trend of thought in roll call analysis has been that it is party identification that determines a legislator's roll call vote on most issues. An idea in conjunction with this is that representatives are most responsive to constituency pressure when they have been elected by a small margin.²⁰ Roll call analysis then has followed three main areas of association, those between roll call voting and constituency characteristics, party identification and margin of electoral success.

This study will investigate these areas of associa-

¹⁹Duncan MacRae, Dimensions of Congressional Voting (Berkeley: University of California Press, 1958), p. 256.

²⁰See: Julius Turner, Party and Constituency: Pressures on Congress (Baltimore: Johns Hopkins Press, 1952).

tion in regard to environmental issues. It will be unique in this regard because no comprehensive roll call analysis has been done in this issue area. It will also be important because the environment is now considered one of the country's most crucial domestic problems. The central hypothesis of the study will be that Congressmen from highly urban, highly industrialized and wealthy constituencies tend to vote in favor of environmental protection on the roll call. The influence of party identification and magnitude of electoral victory will also be explored as possible alternative explanations for a Congressman's environmental roll call behavior. The study will consider voting in the House of Representatives. In effect, it is being hypothesized that in this issue area, contrary to the more common finding, constituency characteristics have a more deterministic role than party identification and magnitude of electoral success.

This introductory chapter will be followed by a brief chapter describing the research design used in the study. This will precede the body of the paper, which will present the results of the analysis for the five Congresses studied (88th through 92nd). The final chapter will be a conclusion that will assess the accuracy of the hypothesis over the five Congresses under study.

CHAPTER I

VARIABLE DEFINITION AND METHODOLOGY

The operationalization of the concepts of any study is a key to the success of the endeavor. This study which seeks to explore the relationship between environmental roll call voting and constituency characteristics is no exception. The hypothesis to be investigated is that Congressmen from highly urban, highly industrialized and wealthy constituencies tend to vote in favor of environmental protection on the roll call. The influence of Party Identification and Magnitude of Electoral Victory will also be explored as competing explanations of a Congressman's environmental roll call behavior.

The study will employ one dependent and five independent variables: Urbanization, Industrialization, Wealth, Party Identification and Magnitude of Electoral Victory. The writer has made them operational with care, but also with an eye toward the availability of accurate data. It is the purpose of this brief chapter to explain this procedure and the statistical tools to be utilized in the analysis.

Research Design

The logic of this inquiry is quite simple. It will be a cross-sectional study employing correlation procedures. Each of five Congresses (Eighty-eighth through Ninety-second) will be studied individually. A Roll Call Score will be developed and correlated with scales for the independent variables separately for each Congress. Conclusions about the validity and reliability of the central hypothesis will be made for each Congress. In addition, overall trends in the relationship defined by the hypothesis will be noted across the time span of the study (1963 through 1972).

It is important to re-emphasize that this is a cross-sectional study rather than a longitudinal one. A longitudinal study would be preferable because it allows direct comparison over an extended period of time. In addition such a study would facilitate causal inference. This study, however, is cross-sectional for two reasons. First, it does not attempt to put forward a causal theory about environmental roll call voting. The theory advanced here is new and the author feels that a more conservative and descriptive approach is best for such an initial inquiry. In addition the cross-sectional study allows the author to pay closer attention to descriptive details. In such a virgin data area such attention gives improved validity to any conclusions. Second, the nature of the data to be used

facilitates a cross-sectional approach. This is especially true for the data on the independent variables. This data is recorded for each Congress and differs for each Congress. Longitudinal aggregation of such data would be complicated and could jeopardize validity. While doubts about the value of this initial study may come to mind, it is vital to consider that this type of work lays a necessary foundation for more advanced (longitudinal) analysis.

Definition of Variables

Dependent Variable

The study will employ roll call analysis. In this regard, it draws on substantial experiences in the discipline with the study of roll call votes in the Congress. The first modern empirical study to employ this approach was done by A. Lawrence Lowell in 1902. Lowell investigated party-line voting in the British Parliament, the U.S. Congress and several American state legislatures.¹ Many works of significance followed upon Lowell's. Julius Turner wrote a volume in 1952 comparing party with constituency factors in Congressional voting.² David Truman

¹A. Lawrence Lowell, "The Influence of Party on Legislation in England and America," American Historical Association, Annual Report, 1901, Number 1, pp. 319-542.

²Julius Turner, Party and Constituency: Pressures on Congress (Baltimore: Johns Hopkins Press, 1952.)

elaborated on Turner's work in 1958 by exploring the patterns of this influence in greater detail.³ Following this were a number of works by Duncan MacRae, who sought to refine the methods used and give more detail and weight to roll call studies.⁴

These works were in a way a first generation of roll call studies. They relied primarily on simple analysis with some bloc analysis and Guttman scaling. In the middle and late 1960's a newer more sophisticated method of roll call analysis began to emerge. This was the attempt by men like Warren Miller, Donald Stokes, Charles Cnudde and Donald McCrone to construct causal models linking constituency attitudes and Congressional voting behavior.⁵ Their work used more refined statistical techniques but was limited to a narrower range of issue areas than the earlier works.

More recent works carry the logic and methodology of these even further. Aage Clausen in a 1973 volume studies congressional voting behavior in five policy dimensions. He used methodology developed by MacRae and others to describe the effects of party and constituency

³David B. Truman, The Congressional Party (New York: John Wiley, 1959.)

⁴Two important works by MacRae are: Dimensions of Congressional Voting (above) and Issues and Parties in Legislative Voting (New York: Harper and Row, Publishers, 1970.)

⁵Warren E. Miller and Donald E. Stokes, "Constituency Influence in Congress," APSR, March 1963, pp. 45-56 and Charles F. Cnudde and Donald J. McCrone, "The Linkage Between Constituency Attitudes and Congressional Voting Behavior: A Causal Model," APSR, March 1966, pp. 66-72.

on roll call voting in these policy areas.⁶ His most interesting finding is that there is continuity in voting patterns over time in each of the policy dimensions. In addition, certain policy areas are found to be responsive to party influence while others better reflect constituency pressure.

The most advanced work in the field, from a methodological point of view, is done by Cherryholmes and Shapiro in Representatives and Roll Calls.⁷ This is a sophisticated attempt at computer simulation of voting in Congress. It is based on all the previous propositions developed by authors writing about Congressional voting behavior. These are incorporated as underlying assumptions in seven headings (party, constituency, sectionalism, the individual, process, communication and norms) and form the basis for the simulation model. The propositions are used to develop a theory of how legislators vote and roll calls are predicted from this theory on real issues. These predictions are then compared with actual votes on the issues and the model is critically evaluated. The model developed here has two parts: the individual part and the inside (or

⁶Aage R. Clausen, How Congressmen Decide (New York: St. Martin's Press, 1973.)

⁷Cleo H. Cherryholmes and Michael J. Shapiro, Representatives and Roll Calls (New York: The Bobbs Merrill Company, 1969.)

communication) part. The first represents legislator's reactions to party and constituency factors. The second predicts on the basis of norm, interaction and process oriented variables. The results of the simulations are impressive. By incorporating all these factors into a working model the authors are able to predict roll call votes accurately at the macro and micro levels.

All of these works and this study rely on the assumption that it is important to study roll call votes. Central to this assumption is that roll call votes are valuable for study and their study can be facilitated because issues that reach the roll call stage can be equated in terms of intent and the functioning of the legislative process. Many arguments are given in support of these assumptions by the authors above. One of the best is by Turner:

. . . the votes of the members are an excellent reflection of the individuals or groups on which each member is most dependent for advice. The roll call record thus accurately reflects the effectiveness of the various pressures brought to bear on each Congressman, particularly with regard to issues which are so important or controversial that a part of the membership wants a record of the vote.⁸

Roll call votes are also valuable for study because of the very public character of the vote. Because they are so public, subtleness of intent is taken away from the vote allowing the researcher to see objectively patterns

⁸Turner, p. 11.

of intent.⁹ Roll call analysis is valuable because it permits objective study of the intent of members of legislatures and the influences that brought about that intent. Taken in quantity they are excellent subjects for statistical analysis.

There are, however, critics of roll call analysis. Their major argument is that the roll call vote is too gross a measure to accurately reflect the attitude of or the pressures that influence legislators. They maintain that this gross measure ignores more important and effective decisions that are made by legislators in less public arenas. Committee work and the bargaining process that leads to non-public votes are examples of these arenas. In this regard, substantive knowledge of the content of the issues appreciates the value of roll call analysis.¹⁰ Such knowledge adds a degree of specificity to the undertaking. In addition, sound conceptualization of variables and relationships improves roll call analysis as a tool.¹¹

The research design explained in this chapter and the descriptive introduction to the chapters that follow

⁹Truman, The Congressional Party, p. 13.

¹⁰Wilder Crane, Jr., "A Caveat on Roll Call Studies of Party Voting," in Midwest Journal of Politics, August 1960, p. 249.

¹¹Fred I. Greenstein and Elton T. Jackson, "A Second Look at the Validity of Roll Call Analysis," in Midwest Journal of Politics, May 1963, p. 165.

are the methods this study uses to improve on its use of roll call analysis. With these improvements and the fundamental value of roll call analysis, confidence can be taken in the methodology of the study.

The dependent variable here is the roll call voting behavior of Congressmen on environmental issues in the five Congresses from 1963 to 1972. An environmental issue is defined as any bill, amendment, motion or resolution pertaining to ecological protection or environmental deterioration that came to a roll call or teller vote. This provides a broad range of environmental concerns from air and water pollution to recreation and conservation.

Each roll call was carefully studied and scaled. A vote that fostered ecological protection and sought to curtail environmental deterioration was given a score of one (+1). Favorable stands on the roll call as indicated by pairings and announcements in Congressional Quarterly polls were also assigned a value of one.¹² Inaction on the part of members, whether in general pairs or non-voting, was assigned a score of zero. A vote that curtailed ecological protection and continued environmental exploitation

¹²Congressional Quarterly Services conducts polls of nonvoting Congressmen in which they indicate how they would have voted on the legislation in question. In addition CQ records pairings of Congressmen on a bill. A general pair occurs when two non-voting members agree not to vote and also do not announce their stand on the bill. An announced pair occurs when two non-voting members agree not to vote when they hold opposing views on the legislation. In effect, they cancel each other's vote.

was assigned a score of minus one (-1). Unfavorable positions on roll calls, as indicated by pairings or Congressional Quarterly polls were also given a value of minus one. One vote was recorded and scored for each member on each roll call in every Congress. The votes were tallied producing a Roll Call Score for each member in each Congress.

With the exception of the Eighty-eighth Congress the Roll Call Score was assumed to form an interval scale. This appears to be a reasonable assumption because in these Congresses there was a sufficient number of votes to provide a range of at least forty points (i.e.: +20 to -20).¹³ In the Eighty-eighth Congress there were only seven votes that pertained to environmental issues. Because there were so few votes a range of only 14 points was produced (+7 to -7). This range was not assumed to be large enough to conform to an interval scale. Instead the votes were scored as described above and recoded into three categories as follows:

Low: bottom third of the distribution (-7 to -2)

Medium: middle third of the distribution (-3 to +5)

High: top third of the distribution (+6 to +7)

These categories were designed to be compatible with the ordinal categories that were set up for the independent

¹³Complete lists of all votes used, the source of the votes and the score assigned a yes vote are given in the Appendixes.

variables in the Eighty-eighth Congress.

This procedure, then, produced a separate roll call score for each member in each Congress. Only one member was excluded. The Speaker of the House (McCormack and Albert) voted only on teller votes and therefore had an incomplete score.

Independent Variables

There are five independent variables in the study: Urbanization, Industrialization, Wealth, Party Identification and Magnitude of Electoral Victory. Each is treated as an interval variable except where indicated and especially in the Eighty-eighth Congress. In that Congress each variable was coded into three categories. Each category was composed of one third of the distribution of the variable with the exception of Party Identification, which only had two. The bottom third of the distribution was labelled "low"; the middle third "medium"; and the top third "high." This produced an ordinal scale for each independent variable in the Eighty-eighth Congress.

Each member was assigned a Party Identification. This was determined by the listing of his name in the Congressional Quarterly Almanac. The two nominal categories were Democrat and Republican.

A combination of two measures was used to determine Urbanization: population density and the number of urban

places per district with more than 10,000 residents.¹⁴ The Urbanization variable was the product of these two measures. This equalizes each constituency in relation to land size and number of urban residents, with a population of 10,000 taken as a realistic cutting point for classification of an area as urban.

There were a number of possible ways to define the wealth of a constituency. Total income, per capita income and median income were the most appealing. Wealth was operationalized as Median Income. This was chosen over total income because it was easier to work with and more comparable over districts. Per capita income was not used because it can be biased by a large non-working population. Median Income for each district was recorded from the 1960 Census of United States Population.¹⁵

¹⁴The source for all the independent constituency variables (exclusive of Margin of Electoral Victory) was: Congressional District Data Book (Washington, D.C.: Government Printing Office, 1963). Urbanization proved to be the most difficult independent variable to make operational. The urbanization statistics in the Congressional District Data Book were not used because they are based on Census data, which classifies any place with over 2,500 residents as an urban area. It was felt that this was not a realistic measure of a district's urbanization.

¹⁵All statistics are updated in later Congresses from data found in: Congressional District Data Book-Districts of the 89th Congress (Washington, D.C.: Government Printing Office, 1965); CDDB-Districts of the 90th Congress (Washington, D.C.: Government Printing Office, 1966); CDDB-Districts of the 92nd Congress (Washington, D.C.: Bureau of the Census, 1971).

Two statistics were used to measure Industrialization. They were dollar amount of new capital expenditure and total number of employees in manufacturing as presented in the 1958 Census of Manufacturing.¹⁶ These two were chosen because they represent two aspects of Industrialization: the physical and the human. New capital expenditures reflect industrial development in terms of expansion of buildings, inventories and physical plant. Total number of employees reflects industrial expansion in terms of absolute number of human beings (workers). In this regard it is a better measure than salary in that more workers clearly indicate more industry while higher salaries do not indicate industrial expansion.

Margin of Electoral Victory was measured as absolute electoral plurality.¹⁷ It was not considered important to differentiate between competitive and non-competitive districts. A more sophisticated study with this as a causal variable would demand such a distinction. Further, this absolute figure is as acceptable as a percentage difference because Congressional districts are roughly equivalent in numbers of eligible voters.

¹⁶Ibid.

¹⁷Richard M. Scammon (ed.), America Votes 5-9, (Washington, D.C.: Congressional Quarterly, Inc., 1964-72).

Statistical Procedures

Because of the differences in types of data available due to the Eighty-eighth Congress two methods of analysis will be used. The first will be an interval procedure and the second will be ordinal.

Stepwise multiple regression was used to analyze the data from the Eighty-ninth through Ninety-second Congresses. It was more appropriate to this data and a more powerful tool of analysis because the data can be considered interval.¹⁸ It was used to describe the amount of variance in the Roll Call Score accounted for by each independent variable. In this manner, it describes the strength of association between the dependent variable and each independent variable separately, and in combination.

For the data from the Eighty-eighth Congress, cross tabulation was performed on each pair of dependent and independent variables.¹⁹ This procedure produced an ordinal data matrix with Kendall's Tau-beta used to measure the degree of association between the variables. Chi-square is

¹⁸The data for the independent variables are clearly interval and it is assumed that the Roll Call Score is interval because it has a range in these Congresses of at least 40. In addition the data conform to a normal distribution which is another requirement for the use of regression analysis.

¹⁹All statistical work was done on the IBM 360 Computer at the College of William and Mary Regional Computer Center, employing the Statistical Package for the Social Sciences.

used to define the level of significance. Kendall's Tau-beta was chosen because it is an efficient and powerful measure of the degree of association between two sets of ranks.²⁰ Chi-square was used to define the level of significance because in the case of tau-beta it proves to be a compatible test of significance, largely due to the fact that the sampling distribution is known.²¹ In addition, each variable pair was studied while controlling for Party Identification. This was done to compare the strength of Party Identification to that of the constituency variables.

While the analysis for the Eighty-eighth Congress is less powerful it is not less valid. Both procedures attempt to explain the relationship between the individual roll call scores and the hypothesized independent variables. Both pay particular attention to the independent effect of Party Identification. In effect, both provide valid and appropriate means for testing the hypothesis.

This chapter has, in essence, presented the research design for the study. In general, it defined the work as a cross-sectional correlation analysis study. In particular, it defined and made operational the dependent and inde-

²⁰Sidney Siegel, Non-Parametric Statistics for the Behavioral Sciences (New York: McGraw-Hill Book Company, 1956), p. 214.

²¹Ibid., pp. 213 and 218.

pendent variables. Further it described the history and promise of roll call analysis and the statistical procedures that will be employed in the thesis. The remainder of the paper will present the data gathered and conclusions reached by implementing the design presented here.

CHAPTER II

THE EIGHTY-EIGHTH CONGRESS

Introduction

Before dealing with the data for the Eighty-eighth Congress an explanatory note about the organization of this chapter and succeeding ones is in order. Each chapter will begin with a background narrative about the important events that occurred during the Congress under study. This is included so that the reader can have an appreciation in descriptive terms of the policy making atmosphere of each Congress. By grounding the empirical data in historical reality about other issues, the reader can better understand how important environmental policy was to the total policy output of each session. This descriptive introduction will be followed by a presentation of results for the Congress under consideration. Each chapter will conclude with a section that summarizes the data analysis included in that chapter.

The Eighty-eighth Congress, which was in session during 1963 and 1964, was an important one in modern American history. Its tenure was in an environment of economic prosperity at home and tranquil relations abroad. It grieved over the assassination of a President and was

stimulated by this forced change in leadership. The Congress' political tone was set by the climax of the civil rights issue, the beginning of the war on poverty and a major tax cut.

The most significant external event to affect this Congress was the assassination of John F. Kennedy in November of 1963. His tragic death brought Lyndon Johnson to the presidency which resulted in a dramatic change in the relationship between Congress and the Executive. The new President was an experienced legislator who knew how to get things done in Congress. Where Kennedy had failed to produce a civil rights bill or a tax cut, Johnson succeeded almost immediately. It has been said that the difference between the Kennedy and Johnson Congresses was the difference between night and day.¹

Major legislation was introduced and passed in both Houses of Congress during the session. The two most important measures were the Civil Rights Act of 1964 and a major tax cut initiated in February of 1964. Many new programs were also started. Chief among them was the war on poverty. But also important were a program to attack mental illness, a student loan program, an incentive for medical school construction, man power retraining programs,

¹Congressional Quarterly Services, Congress and the Nation Vol. I. (Washington, D.C.: Congressional Quarterly Services, 1964), p. 48.

a mass transit program and significant action on air pollution. The only real failure of the Congress was that it failed to approve the Johnson Medicaid program.

In terms of the environment, the Congress was also important. It was considered by the President and Secretary of the Interior Udall as a "conservation Congress" because it passed a National Wilderness System Act. It also made significant gains in the air pollution fight by passing a mass transit act and an air pollution act. While these actions were significant, they were not overriding. Environmental problems were more than overshadowed by the fight over civil rights. However, the Eighty-eighth Congress marks, in a very real way, the substantive beginning of Congressional concern with the environment. It was preoccupied with civil rights, social welfare and tax cut legislation but it still managed to produce real action in the conservation and air pollution areas.²

Results

It is important to recall that the data for the Eighty-eighth Congress are being treated as ordinal data. Therefore, the analysis here will be slightly different from that on the other Congresses. The results of the cross tabulation are found in TABLE 1, on page 32 following.

²A complete list of the roll call votes can be found in Appendix A.

TABLE 1
RESULTS OF CROSS TABULATION FOR INDEPENDENT VARIABLES
AND ROLL CALL SCORE IN THE EIGHTY-EIGHTH CONGRESS
(N=434)

Variable	Kendall's Tau Beta	χ^2
1. Urbanization	0.24	40.37*
2. Median Income	0.12	12.43*
3. Industrialization:		
a. Total Employment Manufacturing	0.08	7.40
b. New Capital Expenditures	0.09	4.53
4. Party Identification	-0.46	105.51*
5. Electoral Margin	0.05	9.07

* $p \leq .05$

There appear to be two fairly strong relationships present: that between Roll Call Score and Party Identification and that between Roll Call Score and Urbanization. To examine them in more detail the frequency distributions of Roll Call Score with Party Identification and Urbanization are presented in TABLES 2 and 3 on page 33.

There is a strong and significant negative relationship between a Congressman's Roll Call behavior on the environment and his Party Identification. This means that Democrats have a stronger pro-environment stand (higher Roll Call Score) than do Republicans in the Eighty-eighth

TABLE 2

CROSS TABULATION OF ROLL CALL SCORE AND PARTY IDENTIFICATION IN THE EIGHTY-EIGHTH CONGRESS
(N=434)

Roll Call Score	Democrats	Republicans	Total
Low	35 (25.0%)	105 (75.0%)	140
Medium	103 (65.2%)	55 (34.8%)	158
High	115 (84.6%)	21 (15.4%)	136
Totals	253	181	434

$$x^2=105.51$$

$$p \leq .05$$

$$T_b = -0.46$$

TABLE 3

CROSS TABULATION OF ROLL CALL SCORE AND URBANIZATION
IN THE EIGHTY-EIGHTH CONGRESS
(N=434)

Roll Call Score	Urbanization			Total
	Low	Medium	High	
Low	64 (45.7%)	52 (37.1%)	24 (17.1%)	140
Medium	47 (29.7%)	61 (38.6%)	50 (31.6%)	158
High	34 (25.0%)	32 (23.5%)	70 (51.5%)	136
Totals	145	145	144	434

$$x^2=40.37$$

$$p \leq .05$$

$$T_b = 0.24$$

Congress. This can be seen in absolute detail by looking at the frequency distribution in TABLE 2. Here we see that 84.6% of the high Roll Call Scores are among Democrats and that 75.0% of the low Roll Call Scores are among Republicans.

The second strong relationship is between environmental Roll Call Score and Urbanization. There is a strong and significant positive relationship between a Congressman's roll call behavior on the environment and the urbanization of his constituency in the Eighty-eighth Congress. This means that, in this Congress, Representatives from highly urban constituencies tended to vote in favor of environmental protection on the roll call. This can be seen in raw detail by studying the frequency distribution in TABLE 3. Here we find that 51.5% of the high Roll Call Scores are in highly urban constituencies and that 45.7% of the low Roll Call Scores are in low-urbanization constituencies.

There is no important relationship between Roll Call Score and any of the other independent variables. At best it can be said that these results are inconclusive but point to the fact that there is no relationship between Industrialization (in either measure) and Electoral Margin and Environmental Roll Call Score in the Eighty-eighth Congress.

It is valuable and possible to combine these data in such a way as to control for certain of the effects of

an independent variable. In this case, the control variable of most interest is Party Identification. By controlling it we can determine the strength of its relationship and its effect on the other independent variables. The data with Party Identification controlled are shown in TABLES 4 and 5.

TABLE 4

RESULTS OF CROSS TABULATION BETWEEN INDEPENDENT VARIABLES AND ROLL CALL SCORE AMONG DEMOCRATS IN THE EIGHTY-EIGHTH CONGRESS
(N=253)

Variable	T_b	χ^2
Urbanization	0.24	24.96*
Median Income	0.31	37.77*
Industrialization: Total Employment	0.14	8.63
Capital Expenditure	0.15	10.89
Electoral Margin	-0.03	10.15

* $p \leq .05$

TABLE 5

RESULTS OF CROSS TABULATION BETWEEN INDEPENDENT VARIABLES AND ROLL CALL SCORE AMONG REPUBLICANS IN THE EIGHTY-EIGHTH CONGRESS
(N=181)

Variable	T_b	χ^2
Urbanization	0.34	34.93*
Median Income	0.20	14.88*
Industrialization: Total Employment	0.06	1.33
Capital Expenditures	0.13	5.42
Electoral Margin	0.12	3.77

* $p \leq .05$

When we hold Party Identification constant a curious thing happens: the relationship between Urbanization and Median Income on the one hand and Roll Call Score on the other increases in strength. This result suggests that Party Identification is not the key determinant of Roll Call Score. If it were, the relationships between the other variables and Roll Call Score would disappear when Party Identification was held constant. This clearly does not happen here but this is also not sufficient evidence to suggest that Urbanization and Median Income are the key determinants of Roll Call Score. To evaluate the relative strength of these independent variables we need to control for them in the relationship between Roll Call Score and Party Identification. The results of that process are presented in TABLE 6 on page 37.

If Urbanization and Median Income were the stronger determinants of Roll Call Score the relationship between Party Identification and Roll Call Score would disappear when they were held constant. This again does not occur as seen in TABLE 6. What does happen is that the relationship between Party Identification and Roll Call Score increases in strength at four out of the six levels of these two independent variables. The relationship begins to weaken at high levels of Urbanization and at low levels of Median Income.

TABLE 6

RESULTS OF CROSS TABULATION BETWEEN ROLL CALL SCORE
AND PARTY IDENTIFICATION AT CONSTANT LEVELS
OF URBANIZATION AND MEDIAN INCOME

Variables	T_b	χ^2	N
Roll Call Score vs. Party Identification at Low Urbanization	-0.49	38.94*	145
Medium Urbanization	-0.56	50.87*	145
High Urbanization	-0.35	26.24*	144
Roll Call Score vs. Party Identification at Low Median Income	-0.30	15.88*	144
Medium Median Income	-0.68	78.56*	144
High Median Income	-0.48	38.64*	146

* $p \leq .05$

The implications of this analysis of relative strength is not absolutely clear. It is apparent that none of the three independent variables taken alone is the sole determinant of Roll Call Score in this Congress. Rather, there appears to be a reinforcing relationship between Party Identification, Urbanization, Median Income and Roll Call Score. While Party Identification has the strongest simple relationship with Roll Call Score, its power as a predictor of that score is enhanced by considering Urbanization and even Median Income. The statistical analysis substantiates this because in the controlled cross tabulations the strength of the simple relationships are generally increased by holding one of the variables constant. This fulfills the

statistical requirements for considering the relationship of these independent variables as reinforcing.³

Summary

The central hypothesis of the study is that representatives from highly urban, highly industrialized and wealthy constituencies will tend to vote in favor of environmental protection on the roll call. It suggests that physical constituency characteristics determine roll call votes in this area. It also implies that the conventional wisdom of Party Identification as the determinant of roll call voting does not hold in the environmental area. Further it maintains that Dahl's theory (the "democracy really works theory") that representatives will be more responsive to constituents' needs depending on the size of their electoral victory is also inappropriate here.

The data for the Eighty-eighth Congress allow one clear conclusion. The "democracy really works theory" is repudiated because there is no viable relationship between Roll Call Score and Electoral Margin in the Eighty-eighth Congress. Conclusions about the other two theories are not arrived at as easily.

It appears that the conventional wisdom about Party Identification and roll call voting is confirmed here by

³James A. Davis, Elementary Survey Analysis (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1971), pp. 121 and 143.

the findings. But this finding does not stand alone because at least one physical constituency characteristic (Urbanization) also has a strong relationship with roll call voting. In fact, two of these characteristics (Urbanization and Median Income) have a reinforcing effect on the Party Identification - Roll Call Score relationship. The conclusion would have to be that the conventional wisdom does not hold on its own in the Eighty-eighth Congress. It holds only if you realize that at least two physical constituency characteristics are also important determinants of roll call voting on the environment in the Eighty-eighth Congress. The findings are, then, a partial confirmation of the conventional wisdom and also a partial confirmation of the central hypothesis of the study.

It is important to consider here that the central hypothesis has not been totally discredited. An important degree of association was found between physical constituency characteristics and environmental roll call behavior. The ultimate test of the hypothesis will come when it is considered in the Eighty-ninth through Ninety-second Congresses; for it is in these sessions that the environment became a crucial issue. It will also be in these Congresses that we are able to use the better parametric statistics.

CHAPTER III

THE EIGHTY-NINTH CONGRESS

Introduction

The Eighty-ninth Congress that was in session during 1965 and 1966 was one of the most productive ones in the history of the country. It was amazingly productive both in scope and volume of legislation considered. It was buoyed by the leadership of President Johnson and the largest party majority enjoyed by any President in three decades. With this majority, the President pushed through legislation that had long been on the agenda of the Democratic Party. The Elementary and Secondary Education Act of 1965 gave aid directly to students rather than to school systems. Of equal importance, was the \$6.5 million medical care bill that was passed over strong Republican opposition. Other important bills were an immigration measure amending the quota system, the Voting Rights Act of 1965, a bill setting up a cabinet level Department of Housing and Urban Development, strong auto and highway safety bills, and continuation of the war on poverty. It was even rumored that the President cared more about the amount of legis-

lation passed than the detail of rush legislation.¹

On the environmental scene the Congress took many far reaching actions. In number of bills alone, this Congress almost quadrupled the actions of the Eighty-eighth Congress. In the roll call votes under study, eighteen dealt directly with air and water pollution while ten were concerned with recreation and conservation.²

The most important water pollution control measure was the Water Quality Act of 1965 (PL 89-234). It amended the Federal Water Pollution Control Act of 1948 as follows:

- each state had to file with the Secretary of Health, Education and Welfare a letter of intent that it would by June 30, 1967: 1) establish water quality standards for interstate waters 2) adopt a plan to implement the standards.
- The HEW secretary could use any existing abatement procedures if a pollution threst was present even without the consent of the Governor of the state involved.³

The Act also established in the HEW Department a Federal Water Pollution Control Administration and authorized the addition of an Assistant HEW Secretary to supervise it. This bill was the strongest water pollution bill to date. It shifted the emphasis, established in previous legislation, from research to positive standard setting control

¹The Congressional summary here is garnered from: Congressional Quarterly Services, Congress and the Nation Vol. II (Washington, D.C.: Congressional Quarterly, Inc., 1969), pp. 2-5.

²A complete list of roll calls can be found in Appendix B.

³Congress and the Nation Vol. II, p. 497.

aimed at protecting the purity of water.

The key air pollution bill passed here was the Motor Vehicle Air Pollution Control Act of 1965 (PL 89-272). It directed the Secretary of HEW to establish as soon as possible standards applicable to emission of substances from new motor vehicles or new motor vehicle engines which caused air pollution endangering the health or welfare of humans. Also, it prohibited domestic sale, manufacture for domestic sale, or importation of any vehicle or engine not in conformity with the regulation.⁴ This act was of crucial importance because it was the first to single out the automobile as the central cause of air pollution.

In these areas and in the conservation-recreation area, the Eighty-ninth Congress was of central importance. It laid the groundwork for much of the environmental legislation that was to follow. It also increased the pace of attention to environmental concerns that had lagged until this time.

Results

It is important to recall that beginning with this Congress we are able to use the more powerful parametric statistics. The results of the stepwise multiple regression analysis between Roll Call Score in the Eighty-ninth Congress and the independent variables are shown in TABLE 7 following:

⁴Ibid., p. 499.

TABLE 7

EIGHTY-NINTH CONGRESS--REGRESSION SUMMARY TABLE
 ROLL CALL SCORE WITH INDEPENDENT VARIABLES
 (N=430)

	Multiple R	R Square	ESQ Change	Simple R
Party ID	0.65736	0.43212	0.43212	-0.65736
Median Income	0.71346	0.50903	0.07691	0.13645
Electoral Margin Absolute	0.71416	0.51003	0.00100	0.18990
1958 Total Em- ployees Manuf.	0.71488	0.51106	0.00103	0.04945
Capital Expendi- tures New \$ 1958	0.71490	0.51108	0.00002	0.05627
Urbanization	0.71877	0.51663	0.00555	0.22349

This table points to the interesting fact that this cluster of independent variables explains 51% of the variance in the Roll Call Score. Contrary to the hypothesis, the variable with the most explanatory power is Party Identification. Here again we find that Democrats vote more often for environmental protection than do Republicans. The table, however, does suggest a fairly strong relationship between Roll Call Score on the one hand and Median Income, Electoral Margin and Urbanization, on the other.

To investigate in more careful detail the simple relationships between these constituency variables and Roll Call Score a plotting was produced of these variables

with Roll Call Score.⁵ One of interest is Wealth or Median Income. If forty-four of the extreme values are excluded, the graph (Figure 1) on the following page is produced.⁶ This plotting produces a correlation coefficient of (simple Pearson's R) of .15. This would indicate that even with the extreme values excluded, there is no real relationship between wealth of constituencies and favorable environmental roll call behavior in the Eighty-ninth Congress. While this relationship gains in strength over the original one presented in TABLE 7, there is still no indication of an important relationship here. This can be seen graphically by the wide dispersal of points in the plotting.

Another interesting relationship becomes evident when we follow the same procedure for the relationship between Roll Call Score and Margin of Electoral Victory. Figure 2 on page 46 presents this relationship. This was done by excluding only four extreme values. It yields a correlation coefficient of .29. This is a marked increase over the .18 coefficient seen in TABLE 7. It indicates

⁵This was done by using the scattergram program in the Statistical Package for the Social Sciences.

⁶While no sound methodological justification exists for these exclusions there are two reasons why the data are discussed in this manner. First, this exclusion allows the researcher to focus on areas of the relationship where correlation does exist. Second, this technique simplifies the presentation of the data. The conclusions drawn on the basis of this technique are enlightened by this caveat.

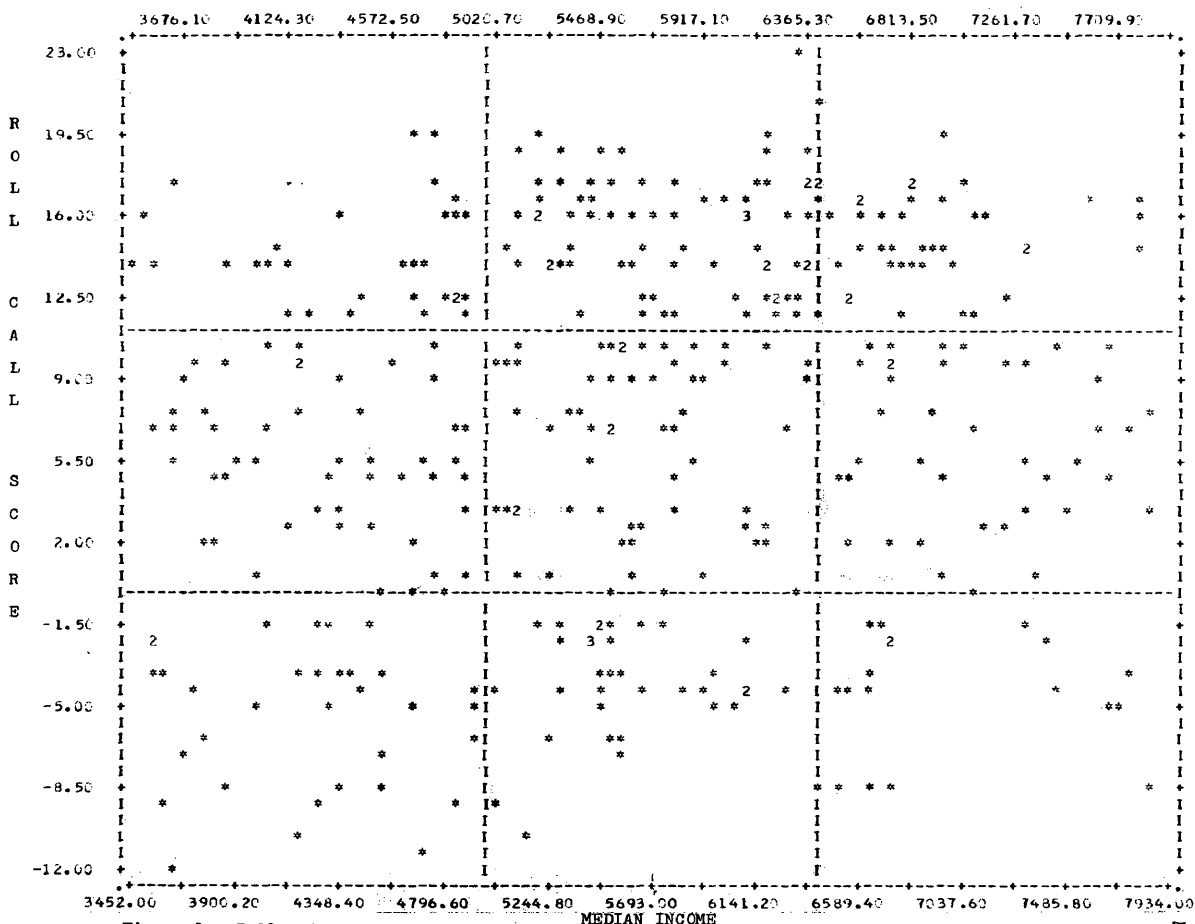
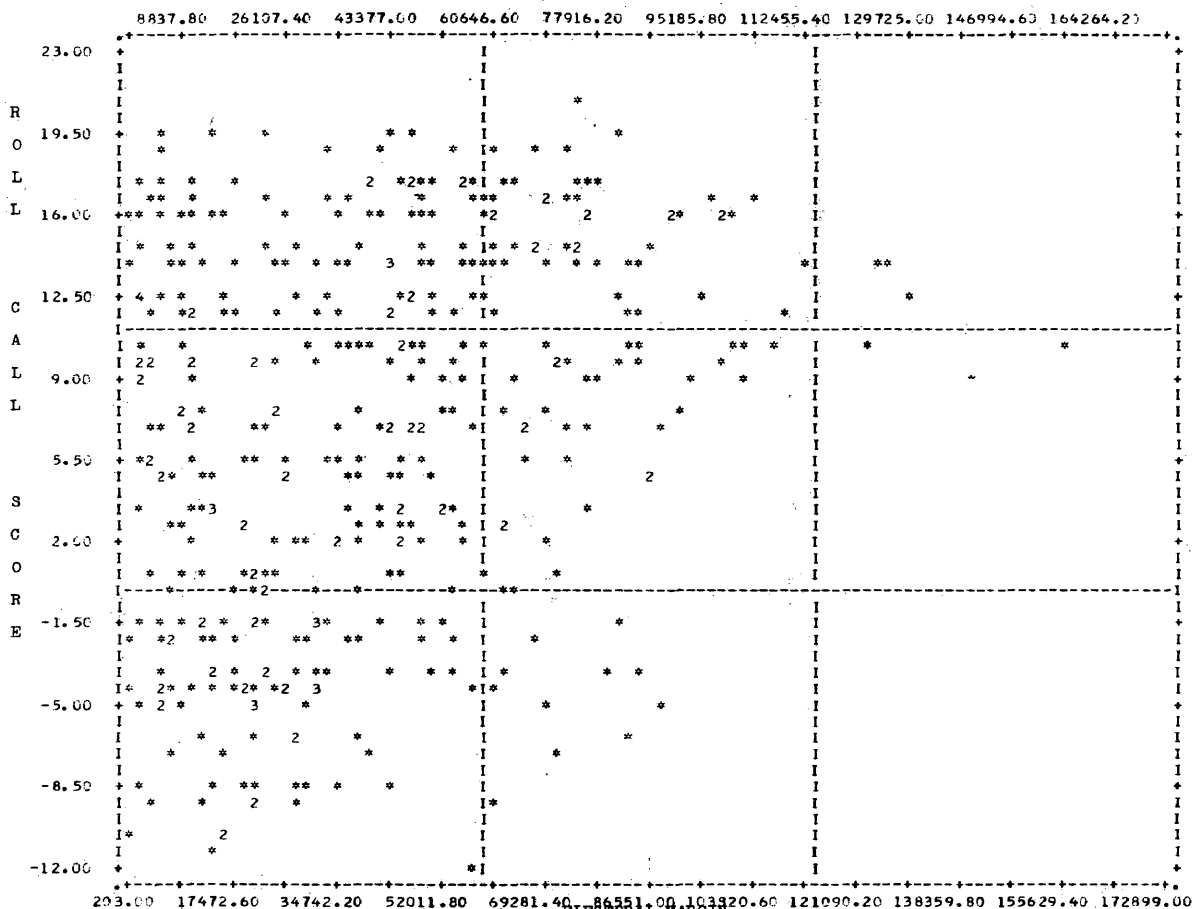


Figure 1. Roll Call Score by Median Income, Eighty-ninth Congress.

5



203.00 17472.60 34742.20 52011.80 69281.40 86551.00 103820.60 121090.20 138359.80 155629.40 172899.00

Figure 2. Roll Cell Score by Electoral Margin, Eighty-ninth Congress.

that there is a fairly strong positive relationship between magnitude of Electoral Victory and Roll Call Score in the Eighty-ninth Congress. In other words, if we consider the four excluded cases as deviant, Congressmen elected by larger absolute margins seem to have higher environmental Roll Call Scores in this Congress. This can also be seen in graphic manner by noting the tendency of the cluster of points to slope in a positive direction.

A third interesting pattern is observed when eighteen extreme values are excluded from the Urbanization-Roll Call Score relationship. The plotting of this can be seen in Figure 3 on page 48. This yields a correlation coefficient of .25. This is a slight increase on the coefficient in TABLE 7 and indicates a weak simple relationship between Roll Call Score and Urbanization. This can be seen graphically in Figure 3 by the tending of the points to cluster in the first third of the plotting.

These three plottings point out that there are interesting relationships between two constituency variables and Roll Call Score. They also point tentatively toward a strong simple relationship between Magnitude of Electoral Victory and Roll Call Score. In none of the three cases is there encouraging evidence to question the original finding. Party Identification is by far the best determinant of environmental roll call voting in this Congress.

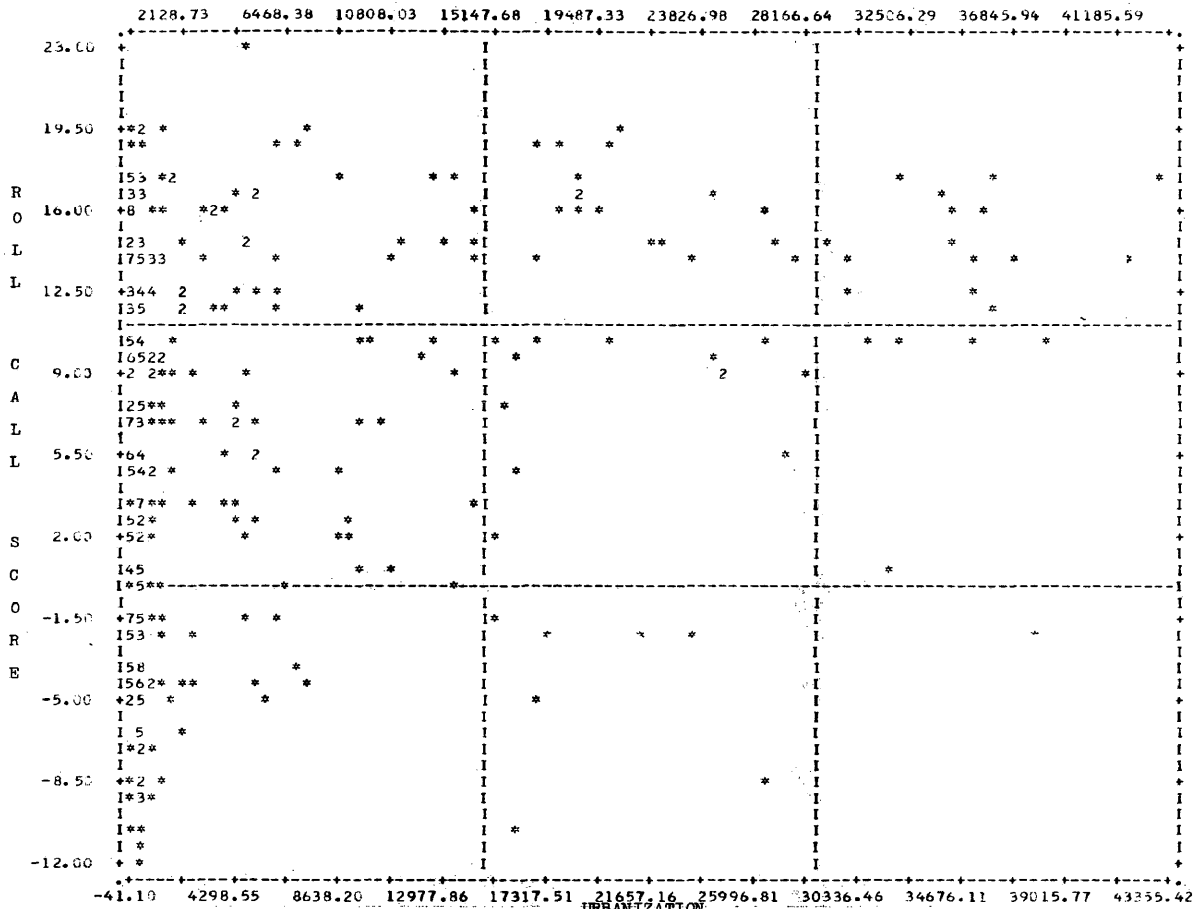


Figure 3. Roll Call Score by Urbanization, Eighty-ninth Congress.

8

Summary

The results for the Eighty-ninth Congress are far from discouraging. They show that the cluster of variables chosen in the hypothesis explains 51% of the variance in the Roll Call Score. In harmony with the findings for the Eighty-eighth Congress they indicate that Party Identification has the strongest relationship with Democrats still tending to have higher Roll Call Scores (i.e., it explains 43% of the variance in Roll Call Score).

Two constituency variables, however, do relate to environmental Roll Call Score in the Eighty-ninth Congress. They are Urbanization and Wealth. As hypothesized, members of the Eighty-ninth Congress from highly urban and wealthy constituencies tend to vote in favor of environmental protection on the roll call.

The most interesting relationship found here was that between Magnitude of Electoral Victory and Roll Call Score. Members elected by larger absolute margins seem to vote in favor of environmental protection on the roll call. Attempting to explain this from the simple analysis above is difficult. It may be that members of the Eighty-ninth Congress felt it was time to do something about this issue. They were led in this action by members who had the most confidence in their constituencies as a result of being elected by large margins. This could be an explanation due to the findings above and the fact of larger output of

environmental measures in the Eighty-ninth Congress. It would also be supported by the fact that as the years go by environmental protection is becoming a more popular issue.

Party Identification is still the best determinant of roll call voting behavior on the environment. In the Eighty-ninth Congress the conventional wisdom has triumphed. The "democracy really works theory" is given some slight plausibility by the findings on Electoral Margin while the central hypothesis of the study is generally found not to apply.

CHAPTER IV

THE NINETIETH AND NINETY FIRST CONGRESSES

The Ninetieth and Ninety First Congresses were studied together. This was done because of compatible data circumstances and because the four years from 1966 to 1970 are best viewed together from an issue standpoint.

The Ninetieth Congress

The Ninetieth Congress was far different from the Eighty-Ninth in that after two years of furious activity action diminished. The year of 1967 was one of inaction in Congress. This may be attributed to frustration over Vietnam, urban rioting and the substantial gain in Republican House seats in the 1966 election.¹ President Johnson toned down many of his requests in comparison with the previous sessions and even these met with stiff resistance. This mood changed a little in 1968. Congress occupied itself chiefly with inflation and crime and appears to

¹The Congressional survey is taken from Congressional Quarterly Services, Congress and the Nation Vol. II (Washington, D.C.: Congressional Quarterly, Inc., 1969), pp. 8-12.



have become more conservative.

In spite of the mood described above, some important measures did come from the Congress. Social Security and anti-poverty bills were enacted, the Senate ratified outer space and U.S.-Soviet consular treaties, postal rates were increased and boosts were made in federal salaries. Congress also passed a 10 per cent income tax surcharge, a strong civil rights law and a landmark housing and urban development bill.

In addition to this specific legislation, the most significant action of the Congress came when two members, Rep. Adam Clayton Powell and Sen. Thomas Dodd, were disciplined. Powell's was the most significant because he was excluded from membership in the Ninetieth Congress.²

Environmental legislation in the Ninetieth Congress took an anticipated turn after the dramatic activity of the Eighty-ninth:

Consideration of water pollution legislation between 1967 and 1970 focused primarily on particular pollution problems which had been dealt with only fleetingly or not at all in the 1965 and 1966 acts.³

²Ibid., p. 10. (For this reason, there are only 433 cases in the data deck for this Congress.)

³Clarence J. Davies, The Politics of Pollution (New York: Pegasus, 1970), p. 46.

For this reason there were a number of minor bills directed at very specialized problems, such as nuclear desalting, sewer systems, pesticide research and aircraft noise.

The Ninetieth Congress considered the same number of environmental bills as the Eighty-ninth but they were of a different nature.⁴ In these sessions of the House, sixteen of the roll calls were in the recreation and conservation area while only twelve were in the air and water pollution control area.

This Congress is important because it shows the continuation of environmental protection as a key legislative issue. A large amount of environmental legislation was passed and a change was manifested in substance.

Results

The summary for the stepwise multiple regression is presented in TABLE 8, on page 54. It is apparent from this Table that the hypotheses fair less well for the Ninetieth Congress. The cluster of independent variables only explains about 8 per cent of the variance in the Roll Call Score.

However, a pattern that was discovered to exist in the Eighty-eighth Congress is continued. Party Identification still has the strongest correlation with Roll Call Score. In this Congress the relationship is far weaker

⁴A complete list can be found in Appendix C.

TABLE 8

NINETIETH CONGRESS REGRESSION SUMMARY TABLE: ROLL CALL
SCORE WITH INDEPENDENT VARIABLES
(N=433)

Variable	Multiple R	R Square	RSQ Change	Simple R
Party Identification	0.23426	0.05488	0.05488	-0.23426
Median Income	0.26796	0.07180	0.01692	0.07636
Total Employment Manufacturing	0.27038	0.07310	0.00130	-0.01110
Capital Expenditures	0.27061	0.07323	0.00013	-0.01008
Electoral Margin	0.27070	0.07328	0.00005	-0.00356
Urbanization	0.28222	0.07965	0.00637	0.00345

than in any of the previous ones. So too are the relationship between any of the other independent variables and Roll Call Score. It is fair to say that there is no apparent relationship between any of these independent variables and Roll Call Score.

The relationships are not explained any more fully by scattergram analysis or when the extreme values are excluded, as in the previous chapter. This lends further credence to the initial finding of the absence of any strong relationships.

The results from the Ninetieth Congress support the traditional thought about the relationship between

Party Identification and Roll Call Score. It is still a negative relationship indicating Democrats tend to favor environmental protection more often than Republicans. There is apparently no evidence to support the hypothesized relationship between physical constituency characteristics and Roll Call Score. Also conspicuously absent is a relationship between Magnitude of Electoral Victory and Roll Call Score.

Ninety-first Congress

The Ninety-first Congress was similar in overall tone to the Ninetieth. It was a conservative one that passed fewer public laws than any Congress since 1933.⁵ The list of significant action taken during 1969 is small. On it are a sweeping new tax code, a closer examination by Congress of defense spending, defeat of the ABM system, and the rejection of the Haynesworth Supreme Court nomination. Much time was spent by Congress in this session scrutinizing foreign commitments and especially the Vietnam involvement.

The second session in 1970 carried on this attention to foreign aid matters and also scrutinized foreign military rules. Still in the foreign affairs area, it repealed the

⁵This legislative summary is taken from Congressional Quarterly Almanac Vol. XXV, p. 77, and Congressional Quarterly Almanac Vol. XXVI, p. 73.

Tonkin Gulf resolution. On the domestic scene, this session made substantial gains in many areas. It approved interim funding for the SST, set up the government owned postal corporation, authorized \$25 billion for education purposes, passed a sweeping farm bill and gave eighteen year olds the vote. The pace of both legislation and general committee activity picked up in the second session of the Ninety-first Congress.

The Ninety-first Congress was similar to its predecessor in the environmental field. In its two sessions, thirty environmental issues came to a roll call vote in the House.⁶ Of these, seventeen were in the air and water pollution control area and thirteen in the recreation-conservation area.

Highlighting this increased amount of action were a number of important bills. One was PL 91-190 which set up the Environmental Quality Council. The bill declared that it was the continuing policy of the Federal Government

to use all practicable means and measures, including financial and technical assistance, in a manner calculated to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony and fulfill the social, economic and other requirements of present and future generations of Americans.⁷

⁶A complete list can be found in Appendix C.

⁷Congressional Quarterly Almanac Vol. XXV, p. 525.

This bill is of crucial importance because it is the first formal statement of a national concern over all pollution problems.

With this increased emphasis on pollution there was a major water pollution control law passed in 1970. This was the Water Quality Improvement Act of 1970. This act has a long Congressional history. It started out as S2760 and died at the end of the Ninetieth Congress because it was introduced too late. In 1969 it reappeared as S3206 but became deadlocked in conference committee. Finally in 1970 it surfaced as HR 4148 and saw final action.

HR 4148 (PL 91-224) declared it to be U.S. policy that there should be no oil discharges into navigable waters of the United States or adjoining shorelines. It also authorized the President to designate those discharges, other than oil, which constituted dangerous substances and to remove such substances, unless accomplished immediately by an owner or operator of a vessel or onshore or offshore facility. Compliance with the water quality standards and the purposes of the Act by all Federal agencies and Departments engaged in public works activity of any kind was also required.⁸ As we can see the Act is a specialized one that deals with specialized aspects of the water pollution problem. The incidents that provoked passage were

⁸Congressional Quarterly Almanac Vol. XXVI, p. 465.

the oil spills off the Florida, Louisiana and California coasts. It is a far-reaching act in scope and detail that shows in substantive terms the extent of Congressional interest in water pollution.

The major air pollution control legislation was the Clean Air Bill with Auto Emission Deadline (HR 17255 PL 91-604). This is the most comprehensive bill in the field and it followed close on a 1969 act which asserted Federal responsibility in the fight against air pollution.

The bill required that model 1975 cars must emit 90% less carbon monoxide and hydrocarbons than did model year 1970 cars. It also specified that nitrogen oxides in 1976 model cars must be reduced by 90% compared with model year 1971 level. A one year extension could be granted by the EPA Administrator. He was also required to devise national primary (pertaining to public health) and secondary (pertaining to welfare) air control quality standards.⁹ This air pollution bill represents the zenith of this type of legislation. It is the most important air pollution bill to come out of any Congress.

The Ninety-first Congress was of tremendous environmental importance. It acted on a huge number of environmental matters and it passed significant legislation. It was also similar to the Ninetieth Congress in that it paid

⁹Ibid., p. 472.

attention to detailed aspects of specific pollution problems.

Results

The results of the stepwise multiple regression analysis for the Ninety-first Congress are in TABLE 9:

TABLE 9

NINETY-FIRST CONGRESS REGRESSION SUMMARY TABLE:
ROLL CALL SCORE WITH INDEPENDENT VARIABLES
(N=434)

Variable	Multiple R	R Square	RSQ Change	Simple R
Median Income	0.09578	0.00917	0.00917	0.09578
Capital Expenditures	0.10161	0.01033	0.00115	0.05283
Total Employment Manufacturing	0.10449	0.01092	0.00059	0.04720
Electoral Margin	0.10888	0.01186	0.00094	-0.02304
Party Identification	0.11169	0.01247	0.00062	-0.00689
Urbanization	0.12467	0.01554	0.00307	-0.01204

These results indicate a continuation of what we saw happening in the Ninetieth Congress. Here the relationship has broken down even more. The cluster of independent variables only explains 1.5% of the variance in the environmental Roll Call Score in the Ninety-first Congress. Thus it would be fair to say that there is no evidence here

of a relationship between any of the independent variables (including Party Identification) and environmental Roll Call Score.

One interesting point does come out of these results. Although none of the simple correlation coefficients are strong, there is a marked change in the pattern set in the previous Congresses. There Party Identification had the strongest relationship. Here it is Wealth in the form of Median Income. In fact, Party Identification drops from first on the list in the previous Congresses to next to last here.

It is also the cue with the results that when the extreme values are excluded from the scattergram no new relationships appear. This also contributes to a lack of evidence of any strong relationship in this Congress.

The results for the Ninety-first Congress do not fit any previously established pattern. There are no strong relationships present and the primacy of Party Identification as the best of the six considered determinants of environmental Roll Call Score disappears.

Summary

The Ninetieth and Ninety-first Congresses are anomalies in this study. Neither Congress exhibits any strong relationships among environmental Roll Call Score and the independent variables. In the Ninety-first, Party

Identification loses its central role as the strongest determinant of roll call voting on the environment. While this is a repudiation of the conventional wisdom these results do not produce any evidence that the "democracy really works theory" or the constituency characteristics theory hold in these Congresses. Both Congresses do, however, continue to show increased attention to the environment. In both, the amount of environmental legislation considered is high and the nature of that legislation is diverse.

An explanation for these curious results may be seen in the nature of the legislation in these Congresses and in the nature of the times in which they met. The environmental legislation analyzed here was of a detailed and specialized nature. Only two major bills of a comprehensive nature arose and these came late in the Ninety-first Congress. This type of technically specialized legislation may have led to a confusion over the nature of the issue and hence to a disappearance of any strict relationship as encountered in the previous Congresses. It is harder to perceive a comprehensive relationship when the subjects of that relationship are not comprehensive.

This confusion may have been heightened by the nature of the times. The years 1966 through 1970 were a crucial time for Americans in other issues. Campus unrest, law and order, and Vietnam seriously detracted from

the importance that attached to environmental issues in the Eighty-ninth Congress. This can account for the nature of the legislation passed and for the fact that the hypothesized relationship disappears.

These Congresses can be viewed as existing in a different setting. Environmental issues had become confused in detail and were overridden in importance by other issues. This conjecture can best be tested by studying the next Congress when many of these other issues lessened in importance.

CHAPTER V

THE NINETY-SECOND CONGRESS

The Ninety-second Congress was one of furious activity compared to the two that went before. The major focus of both sessions was on hard work and significant legislative output.¹ The first session continued the domination of foreign policy issues over domestic. The most impressive action was approval of the Mansfield Amendment pertaining to troop withdrawals in Vietnam. On the domestic side, there was a cut in personal and business taxes, an extension of Presidential control over the economy, a new draft bill and a \$250 million loan to the Lockheed Air Craft corporation. None of the President's six domestic goals outlined in his State of the Union Address (and titled the "New American Revolution") were approved.

The second session increased the activity of the first. One of the President's goals, general revenue sharing, was approved and significant action was taken in

¹The legislative summary is taken from Congressional Quarterly Services, Congressional Quarterly Almanac Vol. XXIX (Washington, D.C.: Congressional Quarterly, Inc., 1971), p. 21, and Congressional Quarterly Services, Congressional Quarterly Almanac Vol. XXX (Washington, D.C.: Congressional Quarterly, Inc., 1972), p. 10.

the domestic area. Among these were approval of the women's rights amendment to the Constitution, reformation of campaign spending procedures and passage of an important water pollution bill. With Vietnam becoming a dead issue and the Russia and China trips a reality, the most outstanding development in foreign affairs, was the devaluation of the dollar. Both sessions of this Congress were radically different from the conservative and inactive preceding four sessions.

Environmental protection made a stunning comeback as a major issue in the Congress. The number of roll calls acted on was the highest ever, fifty-seven. Of that, twenty-one were in the recreation-conservation area and thirty-six in the air and water pollution control area. Not only was the number greater but the nature of the bills was comprehensive and diverse.²

One of the most important measures to emerge from either session was the comprehensive Federal Water Pollution Control Act (S2770). Action was completed on S2770 in October of 1972. It was approved by both Houses, vetoed by the President and passed over his veto. The bill initiated a major change in the basic approach to water pollution control in the United States by limiting effluent discharges as well as setting water quality standards. It set a national goal of eliminating all pollution discharges into U.S. waters by 1985. A new pollutant discharge program

²A complete list of the bills can be found in Appendix D.

was established under strict guidelines administered by the EPA and citizens suits against polluters were allowed.³ This bill represents the most comprehensive anti-pollution measure ever passed in the United States.

The Ninety-second Congress provides a fitting ending to this study. It was an important session that took sweeping action in many fields. It mirrored a new concern for domestic issues in general, and a true culmination of concern over environmental issues in particular.

Results

The results of the stepwise multiple regression analysis for the Ninety-second Congress are presented in TABLE 10 on page 66. These results are more encouraging than the ones in the previous chapter. Here we see that our cluster of variables explains approximately 15% of the variance in the environmental Roll Call Score for the Ninety-second Congress. We also note that there are present a number of fairly strong relationships. While none of the simple relationships are overwhelming, they are far more significant than any we found in the last chapter.

It is interesting to note that Party Identification appears once again as the first among the list of variables. The pattern set in the Eighty-eighth through Ninetieth Congresses re-establishes itself in that Democrats still

³ Congressional Quarterly Almanac Vol. XXIX, p. 709.

TABLE 10

NINETY-SECOND CONGRESS REGRESSION SUMMARY TABLE:
 ROLL CALL SCORE WITH INDEPENDENT VARIABLES
 (N=434)

Variable	Multiple R	R Square	RSQ Change	Simple R
Party Identification	0.08517	0.00725	0.00725	-0.08517
Electoral Margin	0.25272	0.06387	0.05661	-0.19380
Median Income	0.37131	0.13787	0.07400	0.17978
Capital Expenditures	0.37141	0.13794	0.00007	-0.00813
Urbanization	0.38728	0.14999	0.01205	0.17117
Total Employment	0.38769	0.15030	0.00032	0.00541

tend to vote in favor of environmental protection more often than Republicans. At the outset there are also three other fairly strong simple relationships. They are between environmental Roll Call Score and Electoral Margin, Wealth and Urbanization.

By further investigating these relationships through scattergram analysis, some interesting facts are brought to light. No important relationship is found by excluding extreme values in the relationship between Electoral Margin and Roll Call Score.⁴ The curious relationship here can be seen in not excluding any extreme values. The

⁴The rationale for this exclusion is the same as in Chapter III.

scattergram of this is presented in Figure 4 on page 68. We see a negative simple correlation coefficient of $-.19380$. This indicates that Congressmen elected by a small margin tend to have higher environmental Roll Call Scores. This is the opposite of the finding for this relationship that we saw in the Eighty-ninth Congress. There it was a positive relationship of almost the same magnitude. This could indicate a reversal of how the issue came to be viewed in these years. Earlier safe seats voted for the environment because it was not a popular issue. Now hotly contested seats vote for the issue because it has become popular and a good record on it may in fact insure chances of election.

The other relationship that emerges from this analysis auger well for the central hypothesis. The first of these is that between Wealth and Roll Call Score. The scattergram for the relationship between Median Income and environmental Roll Call Score with only two extreme values excluded can be seen in Figure 5 on page 69. Here the simple correlation coefficient increases to $.37692$. This indicates a strong relationship between the two. Thus Congressmen from wealthy constituencies tend to vote in favor of environmental protection on the Roll Call in the Ninety-second Congress.

Another strong relationship emerges when we exclude three extreme values in the Roll Call Score--total employ-

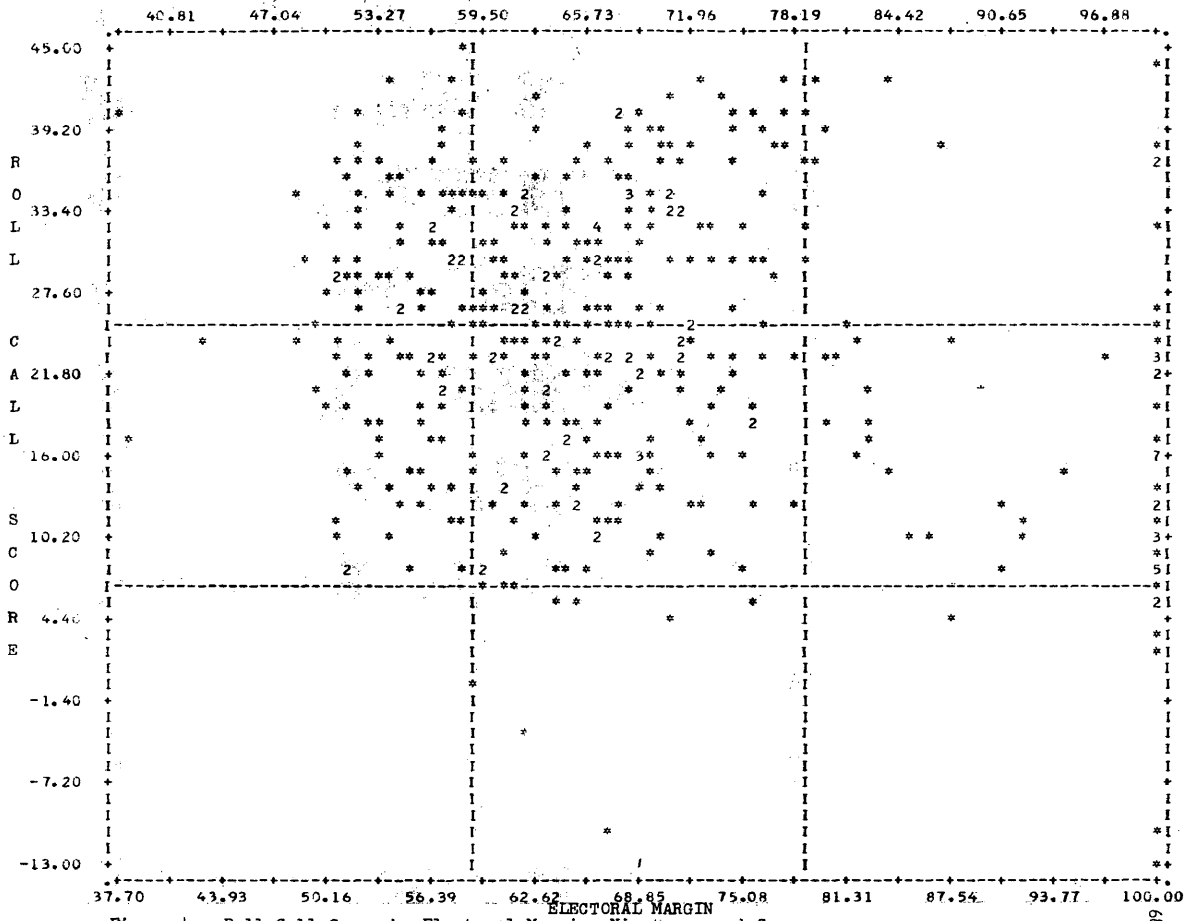


Figure 4. Roll Call Score by Electoral Margin, Ninety-second Congress.

ment relationship. The scattergram for this is presented in Figure 6 on page 71. Here the correlation coefficient is .22791. This is a large gain over the one seen in the summary table. It indicates that Industrialization (as measured by total employment in manufacturing) does correlate with environmental roll call more. In fact, we can suggest that Congressmen from industrialized districts tend to vote in favor of environmental protection on the roll call in the Ninety-second Congress.

The final relationship investigated in this manner was that between Urbanization and Roll Call Score. The original regression analysis initially shows a strong positive relationship between the two. This is strengthened when five of the extreme values are excluded. The scattergram for this relationship can be seen in Figure 7 on page 72. Here the correlation coefficient is .24699. It is fair to suggest from this analysis that Congressmen from urban districts tend to vote in favor of environmental protection on the roll call in the Ninety-second Congress.

Summary

In terms of results the Ninety-second Congress has proved most fruitful. In it we see the reassertion of this cluster of variables as explaining an important amount of the variance in Roll Call Score on the environment. It also shows the continuation of the primacy of Party Identification as the basic determinant of environmental Roll

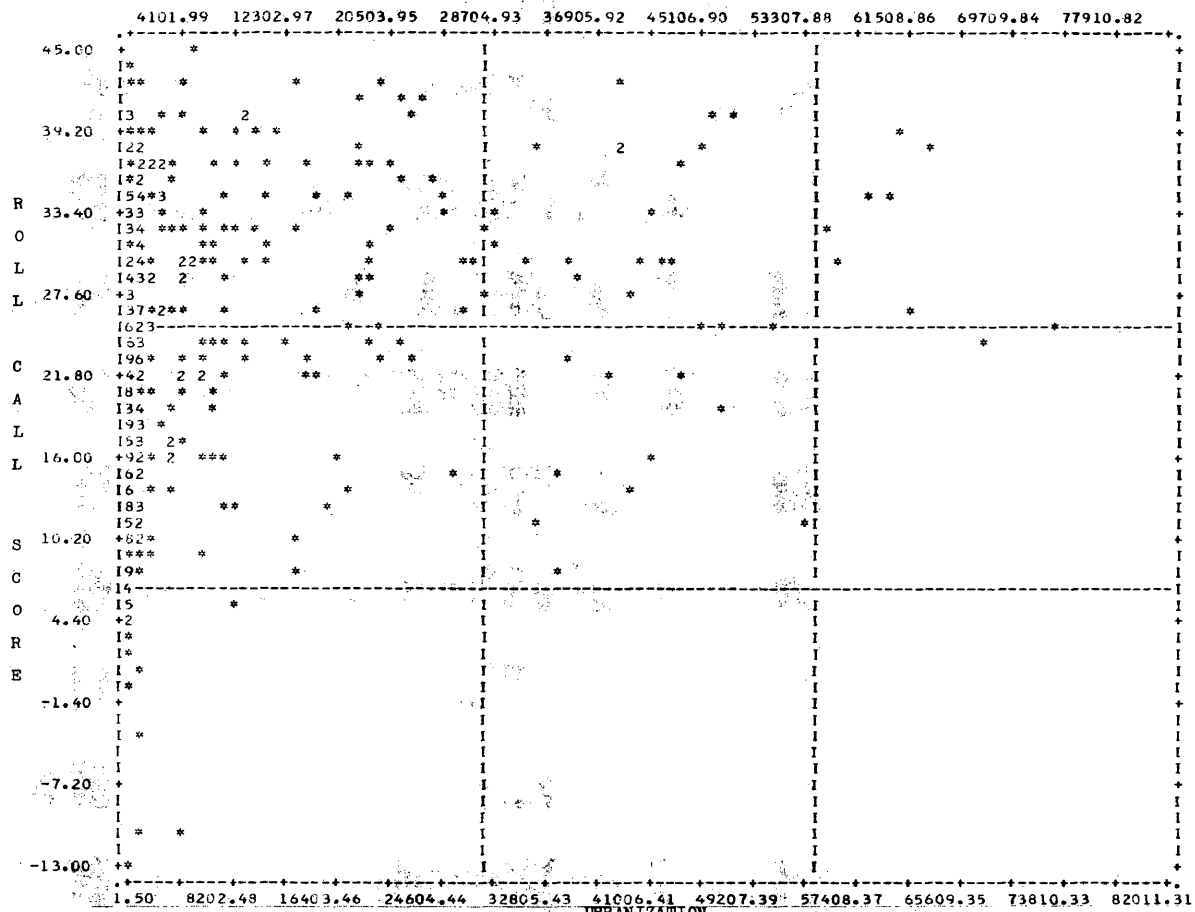


Figure 7. Roll Call Score by Urbanization, Ninety-second Congress.

Call Score.

However, the Ninety-second Congress also gives the best evidence for the remainder of the hypothesis. In it Urbanization, Wealth and Industrialization are found to correlate significantly and positively with environmental Roll Call Score. A curious relationship between Roll Call Score and Electoral Margin is also manifest.

The analysis for the Ninety-second Congress suggests that the hypothetical relationship exists and that the conventional wisdom about the effect of Party Identification may be changing.

CONCLUSION

This study has traced the evolution of environmental protection as a major domestic issue in the United States. Its aim has been to understand the relationship between certain physical and organizational variables of a Congressman's district and his public behavior on the issue of the environment. It has studied an exhaustive list of this behavior in the form of one hundred and fifty roll call votes on environmental issues between 1963 and 1972. In the course of this analysis many interesting observations have come to light and they will be described in this concluding section.

The most common findings of roll call studies has been that Party Identification is the most important determinant of a Congressman's roll call voting. This study provides evidence which supports this finding on environmental issues. Party Identification is the most important determinant of roll call voting behavior but with some important exceptions. In the Eighty-eighth through Ninetieth Congresses, Party Identification had the strongest correlation with Environmental Roll Call behavior. In the Ninety-first Congress it had practically none, while in the Ninety-second it again had the strongest. In all of

the Congresses studied physical characteristics of the constituency also had strong simple correlations with environmental roll call behavior. In the Ninety-second Congress, all three constituency variables produced had higher simple correlation coefficients with environmental roll call votes than did Party Identification.

This evidence leads to the conclusion that until 1968 Party Identification was the strongest determinant of environmental roll call behavior in the House of Representatives. The pattern appears to have been that Democrats tended to vote in favor of environmental protection and Republicans against it. After 1968 the relationship seems to be more complex. It indicates Democratic preference for environmental issues, but not as strongly as before 1968. By 1972 physical characteristics of the constituency seem to be more important determinants of roll call votes than Party Identification.

This finding can be explained if the nature of the issue is explored in more detail. Until 1968 the environment was not a popular issue. It was not completely understood and other issues like civil rights and Vietnam may have seemed more important to legislators. In such a state it is natural to find the issue defined in partisan terms. After 1968 and the upsurge of the environmental movement in the country the issue became more popular. Congressmen had to consider the issue substantively and to

decide on it in something other than partisan terms. In effect, the issue had matured by the seventies and partisan images of it were no longer applicable to a growing number of legislators.

An interesting relationship was observed when the Magnitude of Electoral Victory was studied. This variable, considered somewhat important in the literature, was found to have a strong relationship in only two of the Congresses studied. In the Eighty-ninth Congress it had a positive relationship and in the Ninety-second Congress it had a negative one. Its effect was absent from all of the other sessions. The explanation for this difference in relationships can also be seen when the nature of the issue is considered. In the Eighty-ninth Congress (1965 through 1966) the issue was unfamiliar and Congressmen from safe seats with large electoral margins led the way in defining the issue position for other members. After the issue became more popular it was desirable for reelection to be associated with a pro-environment stand. Hence hotly contested seats came to be associated with higher environmental Roll Call Scores.

The preceding discussion tells us a lot about the conventional wisdom in this area. Until 1970 there is little evidence to doubt its assertion that Party Identification determines roll call voting, even on the environment. In addition there is evidence in the above discus-

sion to strengthen the "democracy really works theory." In two Congresses evidence can be found to support its assertion that roll call voting is related to the size of a Congressman's Margin of Electoral Victory. To be fair it must be said that in this issue area these two theories continue to be sound explanations of roll call voting behavior on the environment.

The central hypothesis of the study, however, is not discredited by the above finding. Evidence can be seen in the results to support the hypothesis that Wealth, Urbanization and Industrialization are related to environmental roll call voting. In all of the Congresses except the Ninety-first there was a fairly strong relationship between Roll Call Score and Median Income. It must also be recalled that in the Ninety-first Congress Median Income was the strongest predictor of Roll Call Score in the regression analysis. There does appear to be a tendency for Congressmen from wealthy districts to vote in favor of environmental protection on the roll call.

Urbanization also had a strong relationship with Roll Call Score in all but one of the Congresses studied. It also played an important role in the regression analysis in all but one Congress. It can be concluded, then, that Congressmen from urban districts do tend to vote in favor of environmental protection on the roll call.

Industrialization, on the other hand, did not correlate with Roll Call Score as often nor as strongly as

did Wealth and Urbanization. Neither measure of Industrialization produced a significant relationship in the analysis until the Ninety-second Congress. Here total employment in manufacturing had a strong positive relationship with Roll Call Score. To be accurate, it must be said that there is no evidence of a relationship between Industrialization and Roll Call Score before 1970. After that date there is a little evidence to suggest that Congressmen from industrialized constituencies vote in favor of environmental protection on the roll call.¹

An explanation can be posited to describe this absence of a relationship. This argument would again relate to the nature of the issue. Before 1970 and the overwhelming popularity of the issue environmental protection was loosely defined and perhaps not perceived as an industrial problem. After the maturity of the issue and the series of environmental disasters, such as Donora, a serious case was made that pollution was indeed an industrial concern.

After studying the conclusions for each variable separately it becomes the ultimate purpose of this study to evaluate the three posited theories for the years under consideration. To understand how conclusive the evidence

¹It should be noted here that the data available for measuring industrialization were limited. Data of the proper kind are simply not kept for Congressional districts.

is we must consider how well the five independent variables explained environmental Roll Call Score. In all but one of the Congresses this cluster of independent variables explained an important part of the variance in Roll Call Scores. This amount varies from an encouraging 51% to a somewhat less conclusive 8%. In all, the variables seem to fit as an explanation of roll call behavior on this issue.

In all honesty it must be concluded that the central hypothesis (constituency characteristics theory) does not hold until 1970. Congressmen from wealthy, highly urban and highly industrialized constituencies simply did not favor environmental protection on the roll call in the manner hypothesized. During that period (1963 through 1970) Party Identification (the conventional wisdom) seems to be a more powerful determinant of environmental roll call behavior. After 1970 there is evidence that Congressmen from wealthy, highly urban and industrialized constituencies tended to favor the issue on the roll call. This evidence also seems to overshadow Party Identification as the strongest determinant. In essence, the central hypothesis only holds after 1970.

This finding can be seen as a pattern relating to the popularity of the issue and supported by the finding concerning Magnitude of Electoral Victory ("the democracy really works theory"). The Eighty-eighth and Eighty-ninth Congresses represent immature sessions in which the

issue was best defined in partisan terms. The Ninetieth and Ninety-first Congresses represent a transition period when the issue became confused in detail and blurred in definition. The Ninety-second Congress shows the environment as a mature issue still influenced by partisan pressure but better understood in substantive terms.

The study has shown that Party Identification is still an important determinant of Congressional roll call behavior. But it also has demonstrated that physical constituency characteristics did play an important role in the past and that they are becoming even more important.

APPENDIXES

Abbreviations in the following appendixes conform to the following style:

CQ CN I - Congress and the Nation Vol. I.

CQ CN II - Congress and the Nation Vol. II.

CQ year - Congressional Quarterly Almanac. 1967-1972.

CR vol. # - Congressional Record.

Sample source entry:

CQ	1967	p. 74-H
<u>Congressional</u>	year of	page number the
<u>Quarterly</u>	the	vote is on
<u>Almanac</u>	almanac	

APPENDIX A

ENVIRONMENTAL ROLL CALL VOTES IN THE
EIGHTY-EIGHTH CONGRESS

1.	HR 8070 Y=+1	Public Land Policy Y 329 N 29	CR 110 p. 4875
2.	HR 6518 Y=+1	Clean Air Act of 1963 (House Passage) Y 273 N 102	CR 109 p. 13293
3.	HR 6518 Y=+1	Clean Air Act of 1963 (Conference Report Passage) Y 272 N 109	CR 109 p. 23966
4.	S2 Y=+1	Water Resources Research Act Y 347 N 0	CR 110 p. 15906
5.	HR 9070 Y=+1	National Wilderness Preservation System Y 374 N 1	CR 110 p. 17458
6.	HR 4487 Y=+1	Pesticide Bill Y 235 N 111	CR 110 p. 21184
7.	S6 Y=+1	Urban Mass Transit Act of 1964 Y 212 N 186	CQ CN I p. 96-A

APPENDIX B

ENVIRONMENTAL ROLL CALL VOTES IN THE
EIGHTY-NINTH CONGRESS

1.	S 2084 Y=+1	Highway Beautification (House Passage) Y 245 N 138	CR 111 p. 26321
2.	HR 1111 Y=+1	Water Resources Planning Act Y 384 N 0	CR 111 p. 6405
3.	HR 14810 Y=-1	Urban Mass Transit (Recommit) Y 205 N 161	CR 112 p. 19590
4.	HR 14810 Y=+1	Urban Mass Transit (House Passage) Y 235 N 127	CR 112 p. 19591
5.	HR 5863 Y=+1	High Speed Ground Transportation Y 317 N 24	CR 111 p. 22801
6.	HR 11588 Y=+1	Dickey Lincoln Project (increase appro.) Y 166 N 162	CR 111 p. 27859
7.	S 4 Y=+1	Water Quality Act of 1965 Y 396 N 0	CR 111 p. 8690
8.	S 1761 Y=+1	Grand Coulee Dam (amendment) Y 240 N 111	CR 112 p. 8430
9.	S 1761 Y=+1	Grand Coulee Dam (motion) Y 249 N 79	CR 112 p. 8431
10.	HR 14359 Y=-1	Federal Aid Highway Act (House passage) Y 341 N 1	CR 112 p. 19106

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| 11. | HR 14359
Y=-1 | Federal Aid Highway
Act (Conference
report passage)
Y 359 N 1 | CR 112 p. 21340 |
| 12. | HR 14359
Y=-1 | Federal Aid Highway
Act (recommit)
Y 173 N 175 | CR 112 p. 19105 |
| 13. | HR 16076
Y=+1 | Water Pollution Con-
trol Act Amendments
of 1966
Y 312 N 0 | CR 112 p. 24624 |
| 14. | HR 13447
Y=+1 | Estuarine Areas
Y 209 N 108 | CR 112 p. 24888 |
| 15. | SJ Res 167
Y=+1 | International Con-
ference on Water
for Peace
Y 196 N 79 | CR 112 p. 27707 |
| 16. | HR 8678
Y=+1 | Pictured Rocks
National Lakeshore
Y 247 N 70 | CR 112 p. 22886 |
| 17. | SJ Res 167
Y=+1 | International Con-
ference on Water
for Peace
Y 161 N 154 | CR 112 p. 22943 |
| 18. | HR 11555
Y=-1 | Chamizal Memorial
Highway (recommit)
Y 149 N 199 | CR 112 p. 23701 |
| 19. | S 2947
Y=+1 | Clean Waters Res-
toration Act
Y 247 N 0 | CR 112 p. 27141 |
| 20. | HR 11555
Y=-1 | Chamizal Memorial
Highway (conference
passage)
Y 202 N 48 | CR 112 p. 22214 |
| 21. | HR 11555
Y=-1 | Chamizal Memorial
Highway (House
passage)
Y 173 N 134 | CR 112 p. 19324 |
| 22. | HR 2091
Y=-1 | National Parks
(recommit)
Y 73 N 298 | CR 111 p. 23654 |

23. S 4
Y=+1
Water Quality Act
of 1965 (conference
passage)
Y 381 N 0
CR 111 p. 24592
24. S 306
Y=-1
Clean Air Act
(recommit)
Y 80 N 220
CR 111 p. 25071
25. S 306
Y=+1
Clean Air Act
(House passage)
Y 294 N 4
CR 111 p. 25072
26. HR 2020
Y=+1
S. Nevada Water Pro-
ject (House passage)
Y 240 N 134
CR 111 p. 26244
27. S 2084
Y=-1
Highway Beautifica-
tion (recommit)
Y 153 N 230
CR 111 p. 26321
28. S 2300
Y=+1
Rivers and Harbors
Act
Y 221 N 139
CR 111 p. 27717

APPENDIX C

ENVIRONMENTAL ROLL CALL VOTES IN THE NINETIETH AND
NINETY-FIRST CONGRESSES

Ninetieth Congress

1.	HR 480 Y=+1	Wet Lands Acquisition Y 329 N 8	CQ 1967 p. 36-H
2.	HR 482 Y=+1	Duck Stamps Y 238 N 97	CQ 1967 p. 36-H
3.	HR 207 Y=+1	Nuclear Desalting Plant Y 315 N 38	CQ 1967 p. 22-H
4.	S 20 Y=+1	National Water Com- mission Y 396 N 19	CQ 1967 p. 42-H
5.	HR 43 Y=+1	San Felipe Project Y 235 N 83	CQ 1967 p. 52-H
6.	S 1633 Y=+1	Potomac Interceptor Sewer Y 118 N 109	CQ 1967 p. 56-H
7.	SJ Res 112 Y=-1	Commission on Urban Problems Y 344 N 10	CQ 1967 p. 74-H
8.	HR 11641 Y=-1	Dickey Lincoln Pro- ject (decrease appro- priation) Y 162 N 236	CQ 1967 p. 82-H
9.	HR 11641 Y=-1	Dickey Lincoln Pro- ject (eliminate planning funds) Y 283 N 111	CQ 1967 p. 82-H

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| 10. | S 780
Y=+1 | Air Quality Act
of 1967
Y 362 N 0 | CQ 1967 p. 86-H |
| 11. | HR 12010
Y=+1 | Wheeling Creek Water-
shed Compact
Y 356 N 2 | CQ 1967 p. 92-H |
| 12. | S 889
Y=-1 | San Rafael Wilderness
Y 156 N 238 | CQ 1968 p. 12-H |
| 13. | HR 15979
Y=+1 | Pesticide Research
Y 333 N 25 | CQ 1968 p. 20-H |
| 14. | HR 8578
Y=+1 | Land and Water Con-
servation Fund
Y 336 N 13 | CQ 1968 p. 40-H |
| 15. | S 3033
Y=+1 | Missouri River Basin
Y 296 N 18 | CQ 1968 p. 36-H |
| 16. | HR 3400
Y=+1 | Aircraft Noise
Y 312 N 0 | CQ 1968 p. 44-H |
| 17. | HR 17903
Y=-1 | Dickey Lincoln Pro-
ject (decrease ap-
propriation)
Y 266 N 132 | CQ 1968 p. 50-H |
| 18. | S 2837
Y=+1 | Cradle of Forestry
Y 280 N 71 | CQ 1968 p. 54-H |
| 19. | HR 17134
Y=-1 | Federal Aid Highway
Bill
Y 211 N 145 | CQ 1968 p. 58-H |
| 20. | S 3710
Y=+1 | Rivers and Harbors
Act
Y 307 N 86 | CQ 1968 p. 62-H |
| 21. | S 2515
Y=+1 | Redwood Park
Y 389 N 15 | CQ 1968 p. 62-H |
| 22. | HR 5117
Y=+1 | Palmetto Bend Project
Y 295 N 104 | CQ 1968 p. 62-H |
| 23. | HR 4805
Y=+1 | Trails System
Y 378 N 18 | CQ 1968 p. 62-H |

24. S 6 Oahe Unit South
Y=+1 Dakota
Y 264 N 128 CQ 1968 p. 64-H
25. S 2515 Redwood Park (con-
Y=+1 ference report)
Y 329 N 1 CQ 1968 p. 80-H
26. HR 18260 Scenic Rivers
Y=+1 Y 267 N 7 CQ 1968 p. 80-H
27. HR 16771 Great Swamp Wilderness
Y=+1 Y 271 N 22 CQ 1968 p. 82-H
28. S 3206 Water Pollution Act
Y=+1 Y 277 N 0 CQ 1968 p. 92-h

Ninety-First Congress

1. HR 4148 Water Quality Im-
Y=+1 provement Act
Y 392 N 1 CQ 1969 p. 12-H
2. HR 11609 Great Smoky Mountains
Y=+1 National Park
Y 341 N 3 CQ 1969 p. 32-H
3. HR 12085 Air Pollution (addi-
Y=+1 tional resolution)
Y 332 N 0 CQ 1969 p. 42-H
4. HRJ Res 247 National Parks
Y=+1 Y 334 N 55 CQ 1969 p. 42-H
5. HR 12549 Environmental
Y=+1 Quality Council
Y 372 N 15 CQ 1969 p. 44-H
6. S 574 Water Resources
Y=+1 Y 365 N 16 CQ 1969 p. 44-H
7. HR 14465 Aviation Facility Ex-
Y=-1 pansion Act of 1969
Y 337 N 6 CQ 1969 p. 62-H
8. HR 11193 National Capitol Trans-
Y=-1 portation Act (Amend-
ment)
Y 52 N 256 CQ 1969 p. 68-H
9. HR 11193 National Capitol Trans-
Y=+1 portation Act (passage)
Y 286 N 23 CQ 1969 p. 68-H

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|-----|------------------|---|-----------------|
| 10. | HR 14741
Y=-1 | Federal Aid Highway
Act of 1969
Y 342 N 1 | CQ 1969 p. 68-H |
| 11. | HR 1049
Y=+1 | Fish Conservation
Y 301 N 19 | CQ 1970 p. 4-H |
| 12. | HR 15165
Y=+1 | Population Commission
Y 371 N 13 | CQ 1970 p. 6-H |
| 13. | HR 4148
Y=+1 | Water Quality Im-
provement Act of 1970
Y 358 N 0 | CQ 1970 p. 12-H |
| 14. | HR 780
Y=+1 | Rogue River Basin
Project
Y 271 N 15 | CQ 1970 p. 16-H |
| 15. | HR 14465
Y=-1 | Airport and Airway
Development Act of
1970
Y 362 N 3 | CQ 1970 p. 24-H |
| 16. | HR 17255
Y=+1 | Clean Air Act Amend-
ments of 1970 (rule)
Y 336 N 40 | CQ 1970 p. 34-H |
| 17. | HR 17255
Y=+1 | Clean Air Act Amend-
ments of 1970 (passage)
Y 375 N 1 | CQ 1970 p. 34-H |
| 18. | HR 15361
Y=+1 | Youth Conservation
Corps
Y 256 N 54 | CQ 1970 p. 34-H |
| 19. | S 2315
Y=+1 | Golden Eagle Program
(Land and Water Con-
servation)
Y 314 N 1 | CQ 1970 p. 36-H |
| 20. | HR 11833
Y=+1 | Resource Recovery
Act of 1970
Y 339 N 0 | CQ 1970 p. 36-H |
| 21. | HR 14114
Y=+1 | National Park Service
Administration
Y 325 N 0 | CQ 1970 p. 46-H |
| 22. | HR 18260
Y=+1 | Environmental Educa-
tion Act
Y 289 N 28 | CQ 1970 p. 50-H |

23. S 3547 Missouri River Basin
Y=+1 (conference report)
Y 337 N 4 CQ 1970 p. 58-H
24. HR 17795 Water and Sewer
Y=+1 Facilities
Y 281 N 32 CQ 1970 p. 60-H
25. HR 9306 Apostle Islands
Y=-1 National Lakeshore
Y 29 N 199 CQ 1970 p. 60-H
26. HR 14678 Illegal Fishing
Y=+1 Y 315 N 0 CQ 1970 p. 62-H
27. HR 18127 Dickey Lincoln Project
Y=-1 Y 131 N 230 CQ 1970 p. 64-H
28. HR 18185 Urban Mass Transpor-
Y=-1 tation (amendment)
Y 199 N 146 CQ 1970 p. 64-H
29. HR 18185 Urban Mass Transporta-
Y=+1 tion (passage)
Y 328 N 16 CQ 1970 p. 66-H
30. HR 19504 Federal Aid Highway
Y=-1 Act Amendments
(conference rep.)
Y 319 N 11 CQ 1970 p. 84-H

APPENDIX D

ENVIRONMENTAL ROLL CALL VOTES IN THE NINETY-
SECOND CONGRESS

- | | | | |
|----|------------------------|---|-----------------|
| 1. | HJ Res 468 (T)
Y=+1 | Department of
Transportation
Appropriation*
Y 217 N 204 | CQ 1971 p. 6-H |
| 2. | HJ Res 468
Y=+1 | Department of
Transportation
Appropriation
Y 215 N 294 | CQ 1971 p. 6-H |
| 3. | HR 8190 (T)
Y=-1 | Second Supple-
mental Appropria-
tion Bill (SST)
Y 201 N 195 | CQ 1971 p. 20-H |
| 4. | HR 8190
Y=-1 | Second Supplemental
Appropriation Bill
Y 201 N 197 | CQ 1971 p. 20-H |
| 5. | HR 56
Y=+1 | National Environ-
mental Data System
Y 305 N 18 | CQ 1971 p. 21-H |
| 6. | HR 5060
Y=+1 | Wildlife Shooting
from Aircraft
Y 307 N 8 | CQ 1971 p. 21-H |
| 7. | HR 2587
Y=+1 | National Ad-
visory Committee on
Oceans and Atmos-
phere
Y 293 N 10 | CQ 1971 p. 21-H |
| 8. | HR 8190
Y=-1 | Second Supplemental
Appropriation Bill
(conference report)
Y 264 N 28 | CQ 1971 p. 24-H |

* (T) indicates teller vote.

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|-----|---------------------|---|-----------------|
| 9. | HR 8190
Y=+1 | Second Supplemental
Appropriation Bill
(terminate SST)
Y 118 N 156 | CQ 1971 p. 24-H |
| 10. | HJ Res 155
Y=+1 | Select Committee on
Energy Resources
Y 128 N 218 | CQ 1971 p. 24-H |
| 11. | HR 3146
Y=+1 | National Forest
System
Y 361 N 2 | CQ 1971 p. 34-H |
| 12. | HR 9093
Y=+1 | Water Desalting
Program
Y 325 N 0 | CQ 1971 p. 41-H |
| 13. | HJ Res 3
Y=+1 | Joint Committee on
the Environment
Y 372 N 18 | CQ 1971 p. 45-H |
| 14. | HR 9727
Y=+1 | Marine Dumping
Y 305 N 3 | CQ 1971 p. 58-H |
| 15. | HR 8140
Y=+1 | Ports and Waterways
Safety Act
Y 336 N 1 | CQ 1971 p. 70-H |
| 16. | HR 7854
Y=+1 | Small Reclamation
Projects
Y 346 N 7 | CQ 1971 p. 76-H |
| 17. | HR 10729(T)
Y=+1 | Pesticide Act
(Amendment)
Y 152 N 221 | CQ 1971 p. 84-H |
| 18. | HR 10729(T)
Y=+1 | Pesticide Act
(Amendment)
Y 168 N 203 | CQ 1971 p. 84-H |
| 19. | HR 10729(T)
Y=+1 | Pesticide Act
(Amendment)
Y 167 N 209 | CQ 1971 p. 84-H |
| 20. | HR 10729
Y=+1 | Pesticide Act
(Passage)
Y 288 N 91 | CQ 1971 p. 85-H |

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|-----|---------------------|--|-----------------|
| 21. | HR 11080
Y=+1 | Redwood National
Park
Y 148 N 203 | CQ 1971 p. 89-H |
| 22. | HR 11932(T)
Y=+1 | D.C.Rapid Transit
Appropriation
Y 196 N 183 | CQ 1971 p. 94-H |
| 23. | HR 11932(T)
Y=+1 | D.C. Rapid Transit
Appropriation
Y 163 N 205 | CQ 1971 p. 94-H |
| 24. | HR 10420(T)
Y=+1 | Marine Mammal Pro-
tection
Y 199 N 150 | CQ 1971 p. 98-H |
| 25. | HR 6957
Y=+1 | Sawtooth National
Recreation Area
Y 369 N 9 | CQ 1972 p. 3-H |
| 26. | HR 10086
Y=+1 | National Park
System
Y 303 N 2 | CQ 1972 p. 4-H |
| 27. | HR 7088
Y=+1 | Tinicum National
Environmental
Center
Y 361 N 8 | CQ 1972 p. 6-H |
| 28. | HR 12186
Y=+1 | Bald Eagle Pro-
tection
Y 352 N 7 | CQ 1972 p. 8-H |
| 29. | HR 12741
Y=+1 | Water Pollution
Y 340 N 7 | CQ 1972 p. 8-H |
| 30. | HR 11021
Y=+1 | Noise Control Act
of 1972
Y 356 N 32 | CQ 1972 p. 10-H |
| 31. | HR 12931(T)
Y=-1 | Rural Development
Act of 1972
Y 150 N 224 | CQ 1972 p. 10-H |
| 32. | HR 11384
Y=+1 | High Speed Ground
Transportation
Y 361 N 14 | CQ 1972 p. 12-H |
| 33. | HR 10420
Y=+1 | Ocean Mammal Pro-
tection
Y 362 N 10 | CQ 1972 p. 14-H |

34. HR 11896(T)
Y=+1 Federal Water Pol-
lution Control Act
of 1972
Y 140 N 249 CQ 1972 p. 18-H
35. HR 11896(T)
Y=+1 Water Pollution Act
Y 125 N 268 CQ 1972 p. 18-H
36. HR 11896(T)
Y=+1 Federal Water Pol-
lution Control Act
of 1972
Y 66 N 337 CQ 1972 p. 19-H
37. HR 11896(T)
Y=+1 Water Pollution Act
Y 154 N 251 CQ 1972 p. 19-H
38. HR 11896(T)
Y=+1 Water Pollution Act
Y 161 N 232 CQ 1972 p. 19-H
39. HR 11896(T)
Y=+1 Water Pollution Act
Y 275 N 117 CQ 1972 p. 20-H
40. HR 11896(T)
Y=+1 Water Pollution Act
Y 251 N 130 CQ 1972 p. 20-H
41. HR 11896(T)
Y=+1 Water Pollution Act
Y 210 N 173 CQ 1972 p. 21-H
42. HR 11896(T)
Y=+1 Water Pollution Act
Y 380 N 14 CQ 1972 p. 21-H
43. HR 13089
Y=+1 National Forest Re-
forestation
Y 371 N 5 CQ 1972 p. 28-H
44. HR 10310
Y=+1 Seal Beach Wildlife
Refuge
Y 314 N 0 CQ 1972 p. 39-H
45. HR 14731
Y=+1 Hunting from
Aircraft
Y 311 N 5 CQ 1972 p. 40-H
46. HR 14106
Y=+1 Water Resources
Y 318 N 0 CQ 1972 p. 40-H
47. HR 13152
Y=+1 Control of Predator
Animals
Y 279 N 73 CQ 1972 p. 56-H

48. HR 141146(T)
Y=+1 Coastal Zone
Management
Y 190 N 191 CQ 1972 p. 63-H
49. HR 141146
Y=+1 Coastal Zone
Management
Y 376 N 6 CQ 1972 p. 63-H
50. HR 6957
Y=+1 Sawtooth National
Recreation Area
Y 363 N 0 CQ 1972 p. 69-H
51. HR 13089
Y=+1 National Forest
Reforestation
Y 303 N 1 CQ 1972 p. 76-H
52. HR 1121
Y=+1 Gateway Recreation
Area
Y 350 N 4 CQ 1972 p. 84-H
53. HR 16012
Y=+1 Reclamation Projects
Y 293 N 64 CQ 1972 p. 84-H
54. S 2770
Y=+1 Water Pollution
Control
Y 366 N 11 CQ 1972 p. 88-H
55. HR 10729(T)
Y=+1 Pesticide Control
Y 198 N 99 CQ 1972 p. 94-H
56. S 11478
Y=+1 Toxic Substances
Y 204 N 61 CQ 1972 p. 94-H
57. S 2770
Y=+1 Water Pollution
Control
Y 247 N 23 CQ 1972 p. 98-H

BIBLIOGRAPHY

- Clausen, Aage R. How Congressmen Decide. New York: St. Martin's Press, 1973.
- Cleaveland, Frederick N. Congress and Urban Problems. Washington, D.C.: The Brookings Institution, 1969.
- Cnudde, Charles F. and McCone, Donald J. "The Linkage between Constituency Attitudes and Congressional Voting Behavior: A Causal Model." American Political Science Review Vol. LX no. 1. March 1966.
- Congressional District Data Book--Districts of the Eighty Ninth Congress. Washington, D.C.: Government Printing Office, 1965.
- Congressional District Data Book--Districts of the Ninetieth Congress. Washington, D.C.: Government Printing Office, 1966.
- Congressional District Data Book--Districts of the Ninety Second Congress. Washington, D.C.: Bureau of the Census, 1971.
- Congressional Quarterly Services, Congress and the Nation Vol. I. Washington, D.C.: Congressional Quarterly, Inc., 1964.
- _____. Congress and the Nation Vol. II. Washington, D.C.: Congressional Quarterly, Inc., 1969.
- _____. Congressional Quarterly Almanac, Vol. XXV. Washington, D.C.: Congressional Quarterly, Inc., 1967.
- _____. Congressional Quarterly Almanac Vol. XXVI. Washington, D.C.: Congressional Quarterly, Inc., 1968.
- _____. Congressional Quarterly Almanac Vol. XXVII. Washington, D.C.: Congressional Quarterly, Inc., 1969.
- _____. Congressional Quarterly Almanac Vol. XXVIII. Washington, D.C.: Congressional Quarterly, Inc., 1970.

- _____. Congressional Quarterly Almanac Vol. XXIX.
Washington, D.C.: Congressional Quarterly, Inc.,
1971.
- _____. Congressional Quarterly Almanac Vol. XXX.
Washington, D.C.: Congressional Quarterly, Inc.,
1972.
- Crane, Wilder Jr. "A Caveat on Roll Call Studies of Party
Voting." Midwest Journal of Politics Vol. IV, no. 3.
August, 1960.
- Davies, Clarence J. III. The Politics of Pollution. New
York: Pegasus, 1970.
- Davis, James A. Elementary Survey Analysis. Englewood
Cliffs, N.J.: Prentice-Hall Inc., 1971.
- Froman, Lewis A. Congressmen and Their Constituencies.
Chicago: Rand McNally, 1963.
- _____. "Inter-Party Constituency Differences and Con-
gressional Voting Behavior." American Political
Science Review Vol. LVII no. 1, March 1963.
- Goodfield, Edwin D. (ed.) Congressional District Data Book--
The Eighty Eighth Congress. Washington, D.C.:
Government Printing Office, 1963.
- Greenstein, Fred L. and Jackson, Elton F. "A Second Look
at the Validity of Roll Call Analysis." Midwest
Journal of Politics Vol. VII no. 2. May 1963.
- Huitt, Ralph E. and Peabody, Robert L. Congress: Two
Decades of Analysis. New York: Harper & Row,
Publishers, 1969.
- Jackson, John E. "Statistical Model of Senate Roll Call
Voting." American Political Science Review Vol. LXV,
June 1971.
- Mac Rae, Duncan Jr. Dimensions of Congressional Voting.
Berkley: University of California Press, 1958.
- _____. Issues and Parties in Legislative Voting.
New York: Harper & Row, Publishers, 1970.
- Miller, Warren E. and Stokes, Donald E. "Constituency
Influence in Congress." American Political Science
Review Vol. LVII no. 1, March 1963.

New York Times, 31 October 1948.

New York Times, 1 November 1948.

Peabody, Robert L. and Polsby, Nelson W. (ed.) New Perspectives on the House of Representatives. Chicago: Rand McNally and Company, 1969.

Saloma, John S. Congress and the New Politics. Boston: Little, Brown and Company, 1969.

Scammon, Richard M. (ed.) America Votes 5. Washington, D.C.: Congressional Quarterly, Inc., 1964.

_____. America Votes 6. Washington, D.C.: Congressional Quarterly, Inc., 1966.

_____. America Votes 7. Washington, D.C.: Congressional Quarterly, Inc., 1968.

_____. America Votes 8. Washington, D.C.: Congressional Quarterly, Inc., 1970.

_____. America Votes 9. Washington, D.C.: Congressional Quarterly, Inc., 1972.

Siegel, Sidney. Nonparametric Statistics for the Behavioral Sciences. New York: McGraw Hill Book Company, Inc., 1956.

Truman, David B. The Congressional Party. New York: John Wiley and Sons, Inc., 1959.

_____. The Governmental Process. New York: Alfred A. Knopf, Inc., 1971.

Turner, Julius. Party and Constituency: Pressures on Congress. Baltimore: The Johns Hopkins Press, 1951.

U.S. Congress, House, Congressman Halpern speaking for the Clean Air Act of 1963, HR 6518, 88th Cong., 1st sess., 1963, Congressional Record, vol. 109.

_____. Congressman Rogers speaking for the Clean Air Act of 1963, HR 6518, 88th Cong., 1st sess., 1963. Congressional Record, vol. 109.

_____. Congressman Roberts speaking for the Clean Air Act of 1963, HR 6518, 88th Cong., 1st sess., 1963. Congressional Record, vol. 109.

U.S. Congress, House. Congressman Smith speaking for
the Air Quality Act of 1967, S 780, 90th Cong.,
1st sess., 1967. Congressional Record, vol. 113.

. Hearings before a Subcommittee of the Committee
on Interstate and Foreign Commerce, 88th Cong.,
1st sess., 1963.

. Hearings before the Committee on Interstate
and Foreign Commerce on HR 9509 and 5780, 90th Cong.,
1st sess., 1967.

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