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A study of selected factors affecting voter behavior in Nebraska school bond elections

Ough, Michael Lloyd, Ph.D.

The University of Nebraska - Lincoln, 1991



A STUDY OF SELECTED FACTORS AFFECTING VOTER BEHAVIOR IN NEBRASKA SCHOOL BOND ELECTIONS

by

Michael L. Ough

A DISSERTATION

Presented to the Faculty of

The Graduate College in the University of Nebraska

In Partial Fulfillment of Requirements

For the Degree of Doctor of Philosophy

Major: Interdepartmental Area of Administration, Curriculum, and Instruction

Under the Supervision of Dr. Donald F. Uerling

Lincoln, Nebraska

May 1991

A STUDY OF SELECTED FACTORS AFFECTING VOTER BEHAVIOR IN NEBRASKA SCHOOL BOND ELECTIONS

Michael Lloyd Ough, Ph. D. University of Nebraska, 1991

Advisor: Donald F. Uerling

The purpose for conducting this study was to determine whether there was a relationship between selected factors and the results of Nebraska public school bond elections. The study's sample was the Nebraska school districts that held bond elections from 1979 through 1989 of which there were ninety-eight. The data for examination were collected from questionnaires and statistical directories.

Fourteen factors were investigated: amount of the bond issue per resident student, total levy of the school district, valuation per resident student, unemployment rate in the county of the school district, percentage of change in the consumer price index, total square footage of the existing school building(s) per resident enrollee, month of the election, percentage of register voter turnout, number of times the proposal was presented to the voters, percentage of change in student enrollments, ratio of private to public school student enrollments, total school enrollment, school district reorganization, and existence of a citizen committee in favor of the bond election.

The product-moment coefficient was used to test for a statistically significant correlation (p < .05) between each variable and the percentage of affirmative votes. A positive relationship was found for two variables,

existence of a citizen committee in favor of the bond election and percentage of change in student enrollments. A negative relationship with election success was found for five variables, ratio of private to public school student enrollments, school district reorganization, total levy of the school district, amount of the bond issue, and percentage of registered voter turnout.

Stepwise multiple regression was used to identify the best combination of predictors at the .05 level of confidence, and a regression equation was developed from this study. A combination of four factors - - no recent school district reorganization, a low ratio of private to public school student enrollment, a small percentage of registered voter turnout, and a low school district property tax levy - - suggested a greater opportunity for passage of Nebraska school bond elections.

DISSERTATION TITLE

A STUDY OF SELECTED FACTORS AFFECTING VOTER BEHAVIOR

IN NEBRASKA SCHOOL BOND ELECT	<u> </u>
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CHAPTER I

INTRODUCTION

Context of the Problem

The passage of school bond issues is one of the major challenges faced by educational leaders. Factors that affect voter approval need to be known by public school officials if they are to attempt improvements in specific educational facility and program needs. The willingness of the local taxpayer to support the school and to vote in favor of a tax increase is tied closely to the economics of the local district. Voter participation became evident during the late 1960s and early 1970s when increasing numbers of school budget and bond elections failed. Citizens used their vote on tax issues as a means of expressing individual reactions to the way the schools were run and to the policies of the governing officials.¹

The strong public demand for property tax relief and accountability in spending was shown by the 1978 passage of California's Proposition 13. California had earlier assumed the role as a trend setter state by the Serrano v. Priest decision, which required school funding be determined by some basis other than property value. Tax reform groups promoted the popular public sentiment to pass limitation amendments to their state constitutions. In Nebraska, a lid on budgeted receipts failed to reduce property taxes, and as in many other states the movement became one of maintaining the status quo

¹James W. Guthrie, Walter I. Garms, and Lawrence C. Pierce, <u>School Finance and Education Policy</u> (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1988), 19.

on school district financial matters.² By 1988, sixty-four percent of the respondents to the Gallup Poll favored higher taxes to improve of the standards of education in the United States. This significant increase in the public attitude was up from fifty-eight percent five years earlier and was representative of every demographic and regional group of respondents. Also, the survey revealed that the group of respondents whose household income was \$40,000 or more were most strongly in favor (seventy-five percent) of increasing taxes to raise educational standards.³

The financing of public school education and building construction in Nebraska has long been through funds from local property taxes. A 1988 legislatively funded study found that the property tax rates in Nebraska were among the highest in the nation and that due to economic and social factors the public school districts differed greatly in their fiscal condition. The study examined 927 school districts that in 1986-87 provided educational services to over 266,000 students. The 1986-87 public school enrollment was found to have declined steadily from a peak of 390,000 students in the late 1960's.4

²Donald Wickert, "Some School Finance Issues Related to the Implementation of Serrano and Proposition 13," <u>Journal of Education Finance</u> 10 (Spring, 1985): 535-42; and John Naisbitt, <u>Megatrends</u> (New York: Warner Books, 1982), 168-9.

³Alec M. Gallup and Stanley M. Elam, "The 20th Annual Gallup Poll of Public's Attitudes Toward the Public Schools," <u>Phi Delta Kappan</u> 70, no. 1 (September 1988): 38.

⁴Kerri Ratcliffe, Bruce Riddle, and John Yinger, "The Fiscal Condition of School Districts in Nebraska: Is Small Beautiful?" <u>Nebraska Comprehensive Tax Study Staff Paper No. 15</u>, Metropolitan Studies Program, The Maxwell School (Syracuse, New York: Syracuse University, May 1988), 1-2.

The total number of Nebraska public school districts continued to decrease at a rate of thirty per year to 862 in 1988-89, while the total student membership increased at a rate of one thousand students annually.⁵

During the 1986-87 fiscal year, Nebraska school districts received an average of seventy-five percent of their receipts from local sources compared to a national average of fifty-one percent. There was no significant difference found in the operating expenses, but the average capital outlay for all school districts across the nation was twice the average of Nebraska school districts. Major school consolidation was recommended to reduce fiscal disparities across Nebraska school districts and thereby potentially save local taxpayers a significant amount of money by creating school districts that can take advantage of economies of scale. Also, a state-wide shift to greater emphasis on equalization aid with the state legislature increasing educational funding to the public schools was proposed by the comprehensive tax study committee.⁶

An analysis of the financial resources invested by Nebraska public school districts clearly show a downward trend in the dollar amounts spent for buildings and sites. When examining the ratios between the total investments in buildings and sites and the total annual costs of education, Uerling found that \$71 per \$1,000 was invested in the school year 1977-78, \$81 per \$1,000 in 1980-81, and \$35 per \$1,000 in 1985-86. The average daily student

⁵Nebraska Department of Education, <u>Statistics and Facts About</u>
<u>Nebraska Schools, 1988-89</u> (Lincoln: Nebraska Department of Education, 1989), 1.

⁶Ratcliffe, Riddle, and Yinger, loc. cit.

membership declined from 301,726 in 1977-78 to 266,615 in 1982-83, which suggests that enrollment decreases may have been an important factor in the general reluctance of voters in districts to invest in buildings and sites. The future need for greater investment in school buildings and sites may be necessary.⁷

Nebraska public school district officials are authorized by statute to submit the question of issuing bonds to voters at a special election or during a statewide primary or general election. The passage of a school bond issue requires a simple majority of all the qualified district patrons voting in the election.⁸ Thus, the factors that influence voter behavior are important to the success or failure of the bond issue.

Statement of the Problem

The purpose for conducting this study was to examine whether there was a relationship between selected factors that the literature suggested were related to the success or failure of school bond elections and the results of such elections held in Nebraska during the years of 1979 through 1989. An understanding of which factors and/or combination of factors may have been related to the outcome of Nebraska school bond elections will assist educational leaders in accomplishing their purpose of providing adequate school facilities. In examining the literature, no study was found that considered factors affecting the passage of Nebraska school bond elections.

⁷Donald F. Uerling, "Fewer Dollars for School Facilities." <u>CEFP Journal</u> (January-February 1988): 14-5.

⁸Nebraska Revised Statutes, Sec. 10-702 (1943).

Research Questions And Hypotheses

Three research questions were designed to address the problem statement of this study and to examine factors suggested by the review of literature. Fourteen hypotheses were developed to answer the initial research question and to later suggest additional findings concerning the combination of factors.

Research Questions

- 1. Which of the selected factors were related to the results of Nebraska school bond elections?
- 2. What combination of the selected factors suggest the best opportunity for passage of a Nebraska school bond election?
- 3. What combination of the selected factors suggest the least likely opportunity for passage of a Nebraska school bond election?

<u>Hypotheses</u>

- 1. There is a relationship between the amount of the bond issue per resident student and the percentage of affirmative votes.
- 2. There is a relationship between the total levy of the school district and the percentage of affirmative votes.
- 3. There is a relationship between the ratio of the valuation per resident student of the school district and the state average valuation per resident student in the state and the percentage of affirmative votes.
- 4. There is a relationship between the unemployment rate in the county of the school district and the percentage of affirmative votes.

- 5. There is a relationship between the percentage of change in the consumer price index during the previous twelve months and the percentage of affirmative votes.
- 6. There is a relationship between the total square footage of the existing school building(s) per resident enrollee and the percentage of affirmative votes.
- 7. There is a relationship between the month of the election and the percentage of affirmative votes.
- 8. There is a relationship between the percentage of registered voter turnout and the percentage of affirmative votes.
- 9. There is a relationship between the number of times the proposal is presented to the voters and the percentage of affirmative votes.
- 10. There is a relationship between the percentage of change in student enrollments during the previous five years and the percentage of affirmative votes.
- 11. There is a relationship between the ratio of private school student enrollments to public school student enrollments and the percentage of affirmative votes.
- 12 There is a relationship between the total school enrollment and the percentage of affirmative votes.
- 13. There is a relationship between school district reorganization within the past three years and the percentage of affirmative votes.
- 14. There is a relationship between the existence of a citizen committee in favor of the bond election and the percentage of affirmative votes.

<u>Methodology</u>

Obtaining the Data

The population for this study was defined as all the Nebraska public school districts, and the sample was those Nebraska school districts that held bond elections between September 1, 1979 and August 31, 1989. Three procedures were used to obtain information for analysis. Initially, a questionnaire was mailed to each of the ninety-three Nebraska county clerks to identify the sample. Also, if a bond election or elections were held during this decennary period, the questionnaire was used to collect information concerning the amount of the proposed bond issue, the month of the bond election, the number of yes votes, the number of no votes, and the number of registered voters in the school district.

Statistical directories published annually by the Nebraska Department of Education were used to obtain data concerning the total levy of the school district, valuation per resident student, and public and private school enrollments. Conversion of the tax levy and valuation data for the first two years of the sample to the current reporting method was required to insure consistent values for analysis. The monthly labor force/work force summaries of the Nebraska Department of Labor were examined to obtain unemployment and economic values for the county and region of each school district case at the time of the election.

The administration of the school districts identified as having had bond elections during this ten-year period were contacted to clarify and add to information concerning school district reorganization, citizen committees, private schools in the school district, the number of times the proposal had been voted on, and building square footages.

Analyzing the Data

The analysis of data included bivariate and multivariate techniques.

The relationship of the criterion variable (percentage of affirmative votes) with each of the predictor variables was examined through the use of the Pearson Product-Moment coefficient (r). Multiple regression (R) was used to examine the magnitude of the relationship between the criterion variable and some combination of the fourteen predictor variables to suggest the most likely and least likely combination of selected factors for passage of Nebraska school district bond proposals.

Definitions

In order to clarify the meanings of the various terms used in this study, a number of terms were defined as follows:

<u>Selected factors</u> - - The values and relationships of the elements of the economic and enrollment information of a school district.

<u>Percentage of affirmative votes</u> - - The ratio of yes votes to the total votes cast during a school bond election.

<u>School bond election</u> - - The vote by the registered voters of a school district to decide whether the school district will be permitted to issue school bonds for the purpose of constructing or remodeling school facilities.

Amount of the bond issue - - The dollar amount of the bond issue proposed to the residents of the school district at the time of the election.

<u>Total levy of the school district</u> - - The property tax rate for all school funds which is levied against assessed value of the property in the school district and is expressed in cents per \$100 of assessed valuation.

<u>Valuation of the school district</u> - - The dollar value of taxable property in a school district as determined by county and state regulations (including real estate, utilities, and personal property).

<u>Unemployment in the county</u> - - The ratio of citizens unemployed to the total civilian labor force as reported by the Nebraska Department of Labor.

<u>Consumer price index</u> - - An indicator of the cost of goods and services for all urban consumers for the previous twelve months.

Total square footage of the existing school building(s) per resident student - - The ratio of the total square footage of all the instructional buildings of the school district to the total resident enrollment of the school district at the time of the school bond election.

Month of the election - - The specific month in which the actual vote on the school bond issue occurred.

<u>Voter turnout</u> - - The percentage of registered voters in the school district who actually voted in a given school bond election.

Number of the proposal - - A number assigned to each school bond election presented to the voters, whether it was the first, second, or third such election held in the school district.

<u>Student enrollment</u> - - The number of students enrolled in a school district at the time of the school bond election.

<u>School District Reorganization</u> - - The merging of two or more school districts into one.

<u>Citizen Committee</u> - - An organized group of school district patrons established for the purpose of influencing the outcome of the election.

Assumptions

The following assumptions are basic to this study:

- 1. The data supplied by the Nebraska county clerks and contained in the various statistical directories were correct.
- The selected factors related to the study do exist, can be measured, and that adjustments for various methods of reporting data can be done.
- 3. The procedure used to identify the school districts as the sample for the study was valid.
- 4. The leadership ability of the school district superintendent was not a factor in influencing the vote of citizens.

Delimitations and Limitations

Delimitations

- 1. The population involved in the study was confined to Nebraska public school districts that held school bond elections during the period of September 1, 1979 through August 31, 1989.
- 2. The study concentrated on selected variables identified in the literature.
 - 3. The design for the study was ex post facto.

Limitations

1. The results of the study are only applicable to the described population during recent years.

- 2. Factors other than those studied may have influenced the election results.
- 3. The study was subject to those weaknesses inherent in an ex post facto design, such as lack of control over treatment and non-equivalent groups.

Significance of the Study

This writer was unable to find research that examined the relationship between the selected factors identified and the percentage of affirmative votes in Nebraska school bond elections. This study will provide information that will be beneficial to the educational leaders of public school districts where school bond elections may be considered to provide for the capital construction of new buildings or building additions or renovation of existing buildings.

The conclusions of this study will be of interest to researchers at institutions of higher learning especially when comparing with findings of research from other states. Also, higher educational personnel should find the conclusions helpful in discussions with graduate students in educational administration. This research should offer some insight as to which factors indicate the best possibility for passage of a school bond election for a Nebraska school district and to stimulate further research in this area.

Organization of the Study

Chapter 1 includes the context and statement of the problem, research questions and hypotheses, procedures to obtain and analysis of data, definitions, assumptions, delimitations, limitations, and significance of the study. Chapter 2 consists of the review of the literature as it relates to voter behavior and related factors. Chapter 3 describes the method used to select the study's subjects, design, devise and validate instruments, and the process used to gather and analyze the data. In Chapter 4 the data is presented and analyzed in a manner consistent with the purposes of the study. The major findings from the literature and data are presented in Chapter 5, along with conclusions and recommendations relative to the study's purpose.

CHAPTER II

REVIEW OF LITERATURE

Introduction

Any review of literature that examines indicators or factors that may affect voter behavior in public school financial elections should consider why citizens vote in elections and what influences that vote. Chapter 2 contains the review of existing research on Voter Theory, Voter Behavior, and Significant Factors that was used in this investigation.

Voter Theory

Voting is the main method of achieving consensus for individual choices in our society. Researchers of voting studies have suggested two contradictory theories often used to explain the actions of persons in school financial elections. One theory is the economic rationality of voters that surmises that people will vote when their expected gain from voting exceeds their potential cost. Downs assumed that "time is the principal cost of voting: time to register, ..., to deliberate, to go to the polls, and to mark the ballot." An individual's perception of the return he or she would receive from voting is

¹Seymore Martin Lipset, <u>Political Man: The Social Bases of Politics</u> (Garden City, New York: Anchor Books, 1963), 12.

²Anthony Downs, <u>An Economic Theory of Democracy</u> (New York: Harper and Row, 1957), 4-8.

³lbid., 265.

sustained by the degree of interest in a specific election and the impact believed his or her vote will have on deciding the outcome; and the degree to which participation is regarded as payment in return for long-range values associated with living in a participatory democracy. The individual will vote when he or she believes the short and long term benefits exceed the cost of voting.⁴

Piele and Hall, who conducted a sophisticated and systematic analysis of the research on the success or failure of school financial elections, found that parents and property owners have greater interest in the outcome of an bond issue to increase property taxes. Parents of school age children who are also property owners would have the highest level of interest because they would be affected both as parents of children in the school and as property owners required to pay local property taxes. A more normal interest in a school financial election was reported to be by those who are affected by just one factor, either by being parents who are not property owners or by being property owners who are nonparents of school age children.

Disinterest was associated with the group of potential voters that are both nonparents of school age children and nonproperty owners. Piele and Hall cautioned that although these two factors are important, there are others to be considered that add to the complexity and should be weighed when studying the cost/benefit factor of voting.⁵

⁴<u>lbid</u>., 270.

⁵Philip K. Piele and John Stuart Hall, <u>Budgets</u>, <u>Bonds</u>, <u>and Ballots</u>: <u>Voting Behavior in School Financial Issues</u> (Lexington, Massachusetts: D. C. Heath and Company, 1973), 38.

The other theory has been used by researchers to examine psychological factors and the attitudinal correlates as they affect voter behavior. Reported by Campbell, Converse, Miller, and Stokes, this theory promotes the perception that the act of voting is habitual and has little to do with thoughtful examination of the situation.⁶ Supporters of the theory point to the strength of the relationship of past voting to voting turnout in the Presidential Election of 1956, where a researcher indicated ninety-four percent of those voting in the election responded they had voted in all previous Presidential Elections since they have been old enough to vote. However, only twenty-two percent of those citizens that had never previously voted in any election voted in this specific election. Therefore, suggesting the long-term nature of the attitudinal determinants of voting behavior as stated by Campbell, et. al.:

From this viewpoint our inquiry into the determinants of voting turnout is less a search for psychological forces that determine a decision made anew in each campaign than it is a search for the attitude correlates of voting and nonvoting from which these modes of behavior have emerged and by which they are presently supported. As the inquiry proceeds we will find that some of the dimensions of attitude that are most helpful in accounting for turnout appear to have the character of orientations to politics much more than they do the character of forces acting on a present decision.⁷

⁶Angus Campbell, Philip E. Converse, Warren E. Miller, and Donald E. Stokes, <u>The American Voter</u> (New York: John Wiley and Sons, Inc., 1960), 92.

⁷<u>Ibid</u>., 93.

A number of researchers have studied the psychological approach as it has been applied to local school financial elections while trying to predict both voter turnout and the direction of the vote. Social characteristics reported by Lipset as correlating with higher voting turnout included high income, high education, male, married, white-collar employment, and membership in community organizations; characteristics identified with lower voter turnout were low income, low education, single, unskilled workers, Blacks, women, young people (age under 35), isolated individuals, and newcomers to the community.8 Lane also discovered that non-voter groups are more likely to be of "lower education, lower income, and lower occupational status" than voter groups and are usually ignorant of the issues and unwilling to sacrifice for long-range goals.9 However, Dye and Zeigler found that citizens interested in taking an active role in making community decisions are likely to vote in every election, 10 and Campell, et. al. noted that a high sense of citizen duty and a high campaign interest were factors that influence individuals to go to the polls.11

⁸Lipset, <u>op. cit.</u>, 189.

⁹Robert E. Lane, <u>Political Life: Why and How People Get Involved in Politics</u> (New York: The Free Press, 1959), 341.

¹⁰Thomas R. Dye and L. Harmon Zeigler, <u>The Irony of Democracy: An Uncommon Introduction to American Politics</u> (California: Wadsworth Publishing Company, 1970), 167.

¹¹Campbell, et. al., op. cit., 101-7.

Numerous research findings were examined by Piele and Hall, who identified generalities that correlate with one or both of the previously discussed theories and suggest voter participation in school financial elections:

- 1. Potential voters who have children in school are more likely to vote in school financial elections than those who do not.
- Citizens who express interest in school affairs are more likely to vote in school financial elections than those who do not express interest.
- 3. Potential voters who are purchasing their own homes are more likely to vote in school financial elections than renters.
- Middle-aged citizens are more likely to vote in school financial elections than either the very young or the very old.
- 5. The greater a citizen's wealth, the more likely he will vote in a school financial election.
- 6. The greater a group's wealth, the greater the average turnout of that group for school financial elections.
- 7. The greater a citizen's educational attainment, the more likely he will vote in a school financial election.
- 8. The greater an individual's attachment to the community, the more likely he will turn out for school financial elections.
- The greater an individual's feeling of political efficacy, the more likely it is that he will vote in school financial elections.¹²

¹²Piele and Hall, op. cit., 42-52.

Both theories (economic interest and attitudinal values) in part characterize the varied interpretations of voting patterns in local school financial elections. Advocates of the first theory (economic interest) propose that participation is primarily the effect of a conscious judgment by each voter of his or her economic interest in the outcome of a specific election, while the second theory (attitudinal) is used to suggest that in normal local election circumstances voters will be those individuals with long-term attitudinal values and feelings of civic responsibility. Initially developed through studies of partisan elections, these two theories have been explained more in terms of who votes rather that why individuals or groups vote in school elections. 13

Voter Behavior

The casting of votes as a way of making decisions on local, state, and national levels is a practice of great interest to sociologists and political researchers. Researchers reporting results of research on social, economic, demographic, and attitudinal characteristics have suggested a relationship has existed between variables and the direction of an individual's vote.¹⁴

Initial research in voter behavior was done by Rice in the 1920s by his investigation of "individualistic" political behavior evolving from individual attitudes. He analyzed the disparity in voting patterns between urban and rural regions, voting preferences of areas, association between the attitudes

¹³Ibid., 37-41.

¹⁴Campbell, et. al., <u>op. cit.</u>, 3.

of the public and their conception of the event, and variations in attitudes and votes by the same cluster of voters from one election to another. Although no significant findings of behavior of individual voters was found, variation between voters was identified along social, occupational, and regional lines.¹⁵

In their study of the voters in Erie County, Ohio during the 1940 Presidential campaign, Lazarsfeld, Berelson, and Gaudet found that people with similar social conditions often belong to the same groups and that voting tends to be a group decision. Socio-economic level, place of residence, and religious affiliation were found to be sociological variables that influenced the personal contact of people with each other. Cantor concurred that factors such as economic status, education, ethnicity, and group membership could be influences and that they could form a voter's perception in a manner that would last. Perelson, Lazarsfeld, and McPhee concluded from their study of voting behavior in Elmira, New York during the 1948 Presidential campaign that Stability in vote is characteristic of those interested in politics and instability of those not particularly interested.

¹⁵Stuart A. Rice, <u>Quantitative Methods in Politics</u> (New York: Alfred A. Knopf, 1928).

¹⁶Paul F. Lazarsfeld, Bernard Berelson, and Hazel Gaudet, <u>The People's Choice</u> (New York: Columbia University Press, 1968), 137-8.

¹⁷Robert D. Cantor, <u>Voting Behavior in Presidential Elections</u> (Itasca, Illinois: F. E. Peacock Publishers, Inc., 1975), 20.

group voting assumes that group membership does not alter over time; however, the 1952 Presidential election showed a major shift in group preferences, suggesting that more than one factor may be involved.¹⁹

Pomper described voters as either dependent or responsive. The dependent voter pays little attention to the campaign or the candidate because social characteristics or traditional party loyalty influenced his or her decision prior to the election. Relying neither on personal resources nor judgment, the dependent voter takes suggestions from the social group. The responsive voter is affected by social characteristics and may change choices from one election to another. Race, economic position, and opinion of issues and/or ability of the candidate cause temporary defections from the group or party loyalty.²⁰

In Key's research of the correlations between presidential preference and social factors, voters were classified as standpatters, switchers, and new voters. The standpatters were voters who stayed with the same party for two or more consecutive elections, while the switchers were comprised of two types: one moving across party lines in favor of the candidate or issue, and the other moving across party lines in the opposite direction. The new voters

¹⁸Bernard R. Berelson, Paul F. Lazarsfeld, and William McPhee, <u>Voting</u> (Chicago: University of Chicago Press, 1954), 20.

¹⁹Angus Campbell, Gerald Gurin, and Warren E. Miller, <u>The Voter Decides</u> (Evanston, Illinois: Row, Peterson and Company, 1954), 85.

²⁰Gerald M. Pomper, <u>Voter's Choice</u> (New York: Dodd, Mead & Company, 1975), 5-12.

were those who either were too young to vote in the previous election or did not choose to vote. The standpatters made up the largest component of the electorate, and although the switchers were a much smaller group, the fluctuation of voters is more prevailing than generally assumed.²¹ Key endorsed the perception that choices are made more by negative than by positive factors and this contributes to the shifting of voters in elections.²²

Burdick and Brodeck reported that voting and voting change is related to family members, friends, and co-workers and that people's social surroundings accounted for one's choices.²³ This supports the suggestion by Bone and Ranney that voters were swayed by "significant others" such as parents, ministers, teachers, spouses, and friends and that people never "graduate from social influences and strike out wholly" on their own. For some individuals these "reference groups" might be the family, for others labor unions or churches; and no event or election is ever reacted to in the same manner by all voters.²⁴ The influences were classified into three main types of groups:

²¹V. O. Key, Jr., <u>The Responsible Electorate</u> (Cambridge, Massachusetts: Harvard University Press, 1966), 16.

²²lbid., 60.

²³Eugene Burdick and Arthur J. Brodbeck, eds., <u>American Voting</u> Behavior (Glencoe, Illinois: Free Press, 1959), 330-52.

²⁴Hugh A. Bone and Austin Ranney, <u>Politics and Voters</u> (New York: McGraw-Hill Book Company, 1963), 23-36.

- Categoric groups. Each of these consists of people who share one or more characteristics (e.g., high school graduates, men, age group), who do not have conscious group identifications, goals, or organized political activity, but whose political behavior nevertheless has distinctive group characteristics.
- Secondary groups. Each of these consists of people sharing one or more traits (e.g., Negroes, medical doctors, Catholics) who to some extent have conscious group identifications and goals and some of whom form organizations to advance the group's interests (e.g., the National Association for the Advancement of Colored People, the American Medical Association).
- Primary groups. Each of these consists of people who have regular and frequent face-to-face contacts and interactions (e.g., husbands and wives, parents and children, friends, coworkers).²⁵

Much empirical research on voter behavior in partisan elections is available. Until recently educational researchers were reluctant to view the financing of education and educational facilities as a political process. A review of literature reveals that most studies correlate outcomes of school bond referendums with economic and fiscal factors, demographic variables, campaign strategies and voter participation, or attitudes toward education.²⁶ The author in a Florida study indicated that voter decisions concerning school referenda were associated with socioeconomic factors, feelings of powerlessness towards school officials, opposition to school desegregation,

²⁵<u>lbid</u>., 24.

²⁶Pat M. Keith and Rita Braito, "School Referenda: Directions for New Research," <u>Education and Urban Society</u> 7, no. 1 (November 1974): 52-69.

and opposition to taxes in general.27

Significant Factors

The remainder of this review is concerned with studies in which factors affecting voter behavior in school bond elections were reported. Numerous factors have been researched in various states concerning their correlation with election success. School district wealth and organization characteristics have been thought to be factors, some include property valuation, tax rate, tax rate increase, per pupil expenditure, district size, school district type, teacher-pupil ratio, board longevity, and superintendent experience. Also, voter and election characteristics have been suspected to be factors, some include income and education level, occupation, home ownership, age, child status, race, marital status, political party affiliation, religious affiliation, purpose of the bond issue, time of the year, past voting patterns, voter turnout, use of citizen committees and consultants, length of the campaign, community conflict, and taxpayer alienation.

Barbour's research of the bond elections held in lowa public high school and public high school-junior college districts during the period January 1, 1960 through December 31, 1964 explored the relationships of various social and economic factors to the approval or disapproval of bond issues. The data were collected by the use of a questionnaire that was sent

²⁷Thomas R. Dye, <u>Politics In States And Communities</u> (Englewood Cliffs,New Jersey: Prentice-Hall, 1981) 412-3.

to the superintendent of schools in those districts that had held bond elections during that period of time.²⁸ Results indicated the following results.

- 1. The smaller the amount of the issue the higher the percent of approval.
- 2. The lower the amount of assessed valuation per student the higher the approval rate.
- No significant relationship was found between the total school millage and the approval or disapproval of the bond proposals.
- Only in smaller enrollment school districts was there a significant relationship with the existence of a parochial school in the school district.
- 5. No statistically significant relationship was found between the time of the year of the election and the approval or disapproval of the bond proposals. From a percent standpoint, February was the best month with May as the second most successful.
- A significant statistical relationship showed that up to a 40 percent turnout and over an 80 percent turnout of eligible voters resulted in a higher approval rate than in those districts having a 40 to 80 percent voting record.²⁹

An earlier study by Kasperbauer of bond proposals during the 1957-58 school year in fifty-seven lowa school districts revealed no statistically significant relationship between the tax levy or the assessed valuation per resident child and the percent of affirmative votes. However, a negative

²⁸Edwin L. Barbour, "Effects of Socio-Economic Factors on School Bond Elections in Iowa" (Ph. D. diss., Iowa State Univ., 1966), 9.

²⁹Ibid., 186-95.

relationship between the size of the bond issue and the percentage of yes votes for bond elections was found.³⁰

In Michigan, analysis of referenda in seventeen school districts showed that the reduction in the public's willingness to approve tax rate increases during the period 1969-1971, was unrelated to property tax burden.

Neufeld's data have been used to suggest that voters with high property valuation to income ratios are more likely to support tax increases than those with lower ratios. The increasing frequency of referenda rejection was found not to be a case of citizen dissatisfaction with the educational system, but rather with the perceived gap between the actual expenditures and desired expenditures for the school district.³¹

A case study of Youngstown, Ohio's support for school referendums provided some insight into changes in voting behavior. The first six elections failed because of a solid negative block of voters. Examination of voter turnout for the November 1968 defeat and May 1969 approval at the seventh election, suggested that passage was due in part to the increased support of the high-income segment of the public.³²

³⁰Lawrence F. Kasperbauer, "School Bond Issues in Iowa" (Unpublished Master's Thesis, Iowa State University, 1959), 73-79.

³¹John L. Neufeld, "Taxrate Referenda and the Property Taxpayer's Revolt," <u>National Tax Journal</u> 30, no. 4 (December 1977): 441-56.

³²Stanley D. Brunn, Wayne L. Hoffman, and Gerald H. Romosa, "The Youngstown School Levies: A Geographical Analysis in Voting Behavior," <u>Urban Education</u> 5 (1970): 20-52.

Data from ninety-seven bond elections in seventy-four Ohio school districts during the 1970-71 fiscal year were analyzed by Van Scoy. Van Scoy divulged no relationship between the bond issue approval and the amount of the bond issue, month of the election, or the property tax valuation.³³ However, in their study of bond elections held in many states, including Ohio, Hamilton and Cohen reported there was a slight relationship between bond size and voter approval, and that the public was more often concerned with the reason for the bond issue than the amount.³⁴ In his study of the November 1975 election (in which fifty-two Ohio school districts submitted issues to the voters), Hack found a slight significance between the amount of bond issue proposal per pupil in average daily membership and election success.³⁵

The Piele and Hall comprehensive study of voting behavior in school financial elections included research from all areas of the country. Their review of individual studies done during the 1960s and early 1970s promoted several generalizations that they emphasized may not prove to be valid in all

³³David H. Van Scoy, "Ohio School District Characteristics and Bond Referendum Voter Behavior" (Ed. D. diss., Indiana Univ., 1972), 22-31.

³⁴Howard D. Hamilton and Sylvan H. Cohen, <u>Policy Making by</u> <u>Plebiscite: School Referenda</u> (Lexington, Massachusetts: D. C. Heath and Company, 1974), 62-4.

³⁵Walter G. Hack, "School District Bond Issues: Implications for Reform In Financing Capital Outlay," <u>Journal of Education Finance</u> 2 (Fall 1976), 156-77.

school district elections.³⁶ Those related to this study include the following points.

- 1. The larger the turnout, the smaller the percentage of favorable votes cast in a school financial election. Analysis of over a dozen studies of voter turnout data indicated that for a first time school bond election, undesired results may be created by indiscriminate plans to encourage citizens to vote. However, evidence did suggest that a greater voter turnout in ensuing elections held within that same year were more likely to be successful.
- 2. There is no significant relationship between school district size and election outcome. However, three studies did report a relationship between school district size and negative election outcomes; and two studies reported a curvilinear relationship: districts classified as "large" or "small" were more likely to succeed than those classified as medium-sized.
- 3. There is no significant relationship between the time of the year in which the election is held and success or failure of a school financial election. Extensive documentation suggests that school financial elections will likely be defeated when combined with other elections that draw a large turnout.
- 4. The greater a voter's income, the more likely it is he will vote in favor of a school financial issue. Findings support the view that income is an indication of ability to pay and suggests a positive association between income and yes voting. One individual study reported a negative relationship between median family income and positive voting.³⁷

In other related studies, several researchers have provided additional

³⁶Piele and Hall, <u>loc. cit</u>.

³⁷lbid., 64-114.

insight into income as a factor affecting a voter's choice at the polls during the 1960s. Alexander and Bass found, that of the more than fifty variables examined, that the proposed tax rate and proposed tax rate change suggested the greatest influence in California school financial elections.³⁸ The Jennings and Milstein analysis of citizens' perceptions of factors affecting bond referenda successes and failures in four New York school districts indicated that the lower the citizen's income the more likely the tax bill would be perceived as excessive.³⁹ According to Boskoff and Zeigler, from their investigation of local voting patterns in Georgia, the higher the income of an individual or group the more likely for voting in favor of a bond election. In these cases, the voter's ability to pay appeared to influence his or her conception of the benefit and cost of the school bond issue.⁴⁰

A study conducted and reported by Kowalski⁴¹, which contained school election information of individual states for the years 1970-75, summarized several conclusions from earlier research. Kowalski cautioned that voter

³⁸Arthur J. Alexander and Gail V. Bass, <u>Schools, Taxes, and Voter</u> <u>Behavior: Analysis of School District Property Tax Elections</u> (Santa Monica, California: The Rand Corporation, April 1974), 65.

³⁹Robert E. Jennings and Mike M. Milstein, "Citizens' Attitudes In School Tax Voting," <u>Education and Urban Society</u> (May 1973), 299-317.

⁴⁰Alvin Boskoff and Harmon Zeigler, <u>Voting Patterns in a Local Election</u> (Philadelphia: J. D. Lippincott Company, 1964), 60.

⁴¹Joan P. Sullivan Kowalski, <u>Voter Behavior and Campaign Strategies in School Finance Elections</u> (Arlington, Virginia: Educational Research Service, Inc., 1977).

behavior may vary from school district to school district and that the socioeconomic and demographic situation of a community can influence school referendum results. The following are generalizations reported by Kowalski.

- There is an inverse relationship between voter turnout and success of school referendum proposals--as the turnout increases, the passage rate decreases. When the total number of the electorate increases, the composition is modified to include more voters who are not hardcore loyalists.
- Expansion of the normal voting pool beyond the usual 30 percent turnout leads to increased representation of infrequent voters who usually vote "no."
- 3. The smaller the size of a school district the greater the voter turnout in school bond and tax levy elections.
- The more grades a school district has, the larger the turnout for school financial elections; voting rates are lower in high school districts than in elementary school districts, and highest in K-12 districts.
- 5. School districts with a high percentage of wealthy and welleducated groups are more likely to have greater turnout rates in school finance elections than other school districts.
- 6. The tax/income ratio status of a voter rather than the absolute amount of tax or income determines individual voting patterns.
- 7. The effect of a school fiscal election on a voter's tax bill as well as the period of time the proposed tax will be in effect are more important than the total size of the proposed tax levy or bond issue.

- 8. The relationship of religious affiliation to school fiscal election outcomes is situational, depending on whether or not a community has parochial schools. Opinion polls conducted in the early 1970s, however, indicate there is little difference between the willingness of public school parents and the willingness of parochial and other private school parents (as well as citizens with no children in school) to increase taxes to support public schools.
- Studies are inconclusive regarding the relationship between the time of the year that a school financial issue is placed on the public referendum and election outcomes.⁴²

Hatley, in an analysis of four school referenda in Albuquerque in 1968 and 1969, found no statistically significant relationship between income and elections utilizing the property tax as a funding base. However, other socioeconomic and geographic factors such as number of children, educational attainment, and length in residence in the school district were found to have correlation with positive voting in school financial referendums. Also, data did suggest that when income tax was used as a funding base, then income did correlate with voting behavior.⁴³

⁴²<u>Ibid</u>., 43-5.

⁴³Richard V. Hatley, "Family Income, Voting Behavior, and Financial Referendums: Educational Finance and Politics In Albuquerque, New Mexico" (Ed. D. diss., University of New Mexico, 1970), 130-6. See also Richard V. Hatley and Martin Burlingame, "Voting Behavior in Four Albuquerque School Financial Referenda," <u>Education and Urban Society</u> 4 (May 1972), 293-311 and Richard V. Hatley, "School District Financial Referendum Campaign Strategies and the Voting Behavior of District Residents," <u>Kansas Studies in Education</u> (Spring/Summer 1971), 37-44.

In a study of three Kansas school district elections, Croskey found several variables that may have contributed to bond election success.⁴⁴ The three districts differed in size: urban, suburban, and rural. An instrument, utilizing items relating to public attitudes toward education, many of which were the same items used previously by Hatley, was mailed to the sample of registered voters in each of the three school districts.⁴⁵ The degree of correlation of selected socioeconomic variables with both past and future voting behavior indicated that income, district size, and attitudes toward education have a low overall predictive potential. Croskey suggested that "voting is largely a very personal, somewhat unpredictable, impulsive behavior lacking conscious rationality on the part of the electorate" due in part to his findings that income and attitudes toward education did not support earlier studies on voting behavior.

Ritter, in his study of voter behavior in a large Missouri public school district,⁴⁷ used a data collection instrument based on the one developed and

⁴⁴Frank L. Croskey, "Socioeconomic Variables as Predictors of School Financial Referenda Voting Behavior" (Ed. D. diss., University of Kansas, 1974), 70-83. See also Richard V. Hatley and Frank L. Croskey, "Socioeconomic Variables As Predictors Of School Financial Referenda Voting Behavior," <u>Journal of Education Finance</u> 2 (Spring 1977), 481-98 and Richard V. Hatley and Frank L. Croskey, "Measuring Community Attitudes Toward Education," <u>NASSP Bulletin</u> (February 1978), 59-64.

⁴⁵Hatley, <u>loc. cit</u>.

⁴⁶Croskey, <u>loc. cit</u>.

used by Croskey in his Kansas study.⁴⁸ A questionnaire of forty-six items to measure socioeconomic and attitudinal variables and seven items to measure voting behavior in three past and two hypothetical future referenda was mailed to a sample of registered voters.⁴⁹ Ritter found in his investigation that when predicting whether or not an individual will vote in school financial elections that income, number of children, mobility, and knowledge about the schools had high predictive potential. However, when examined as a predictor related to the direction of an individual's vote, income was found to exhibit only moderate predictive potential. Factors with high predictive potential related to positive voting in school financial elections included number of children, political affiliation/orientation, home ownership, educational level, and some attitudes toward schools.⁵⁰ Ritter presented the following profile of personal, sociological, economic, informational, and attitudinal dimensions of individuals who tend to vote and who tend to vote "yes" in school financial referenda.

⁴⁷James R. Ritter, "Socioeconomic and Attitudinal Variables as Predictors of Voting In School Financial Referenda" (Ed. D. diss., University of Missouri-Columbia, 1980) 236-40. See also Richard V. Hatley and James R. Ritter, "Prediction of Voting Behavior in Local School District Financial Referenda," Paper presented at the Annual Meeting of the American Educational Research Association, Los Angles, California, April 15, 1981.

⁴⁸Croskey, <u>loc. cit</u>.

⁴⁹Ritter, <u>loc. cit</u>.

⁵⁰lbid.

The Active Voters:

The "Yes" Voters:

The Personal Dimension

Have children residing at home and enrolled in the public schools.

Have children residing at home and enrolled in the public schools.

The Sociological Dimension

Are less mobile than their counterparts, having lived in the district and at their current addresses for extended periods of time. Are less mobile than their counterparts, having lived in the district and at their current addresses for extended periods of time.

Are registered Democrats or Independents and describe themselves as "liberals" or "moderates."

The Economic Dimension

Are in an income class which is above the average for the community.

Are in an income class which is above the average for the community; have a high level of education, including some college; and work in professional, clerical, or homemaker roles.

Are renters or homeowners who have not yet retired their mortgages.

The Informational Dimension

Have an extensive and comprehensive knowledge base about the public schools, or at least they believe this to be the case.

Regardless of the extent of the knowledge base, desire still more information about the schools, and look to school sources for this information rather than to the mass media.

The Attitudinal Dimension

Participate in the financial referenda somewhat independent of their attitudes about the conditions, operations, and effectiveness and efficiency of the schools. 51

Have highly positive attitudes regarding the public schools' teaching staff, administration, program efficiency and effectiveness, and overall operations and conditions.

In a West Virginia study, Lacy found evidence to support the theory that higher incomes, higher status occupations, and higher levels of educational achievement were moderately correlated to approval of school bond elections. Data developed from official voting records and two surveys mailed to county residents in 1968 and 1969 were used to suggest that most of the expected voting patterns, such as high voter turnout being an indicator of opposition to the bond issue, did not apply to Mercer County because the issue of consolidation altered the voting patterns from the normal bond issue situation.⁵² A second West Virginia study was conducted by Rosier a decade later in two different counties. Level of income had a significant positive relationship with "yes" votes, but other variables such as property ownership, level of education, and the presence of school age children in the family did not significantly influence the voting behavior.⁵³

In a Henry study of forty-two South Carolina referenda campaigns conducted, the successful bond issues averaged \$6.9 million, while the average of the unsuccessful bond issues was almost three times that amount. Henry also reported that bond referenda succeeded more frequently in

⁵¹lbid.

⁵²Donald P. Lacy, "Voting Patterns on School Bond Referenda in Mercer County, West Virginia: A Test of Selected Hypotheses" (Ph. D. diss., University of Tennessee, 1976) 159-66.

⁵³Paul W. Rosier, "A Study of Selected Variables Associated with Voting Patterns on School Bond Elections in Selected Counties of Northeast Virginia" (Ed. D. diss., West Virginia University, 1980) 103-4.

school districts that had smaller average pupil enrollments, that had a higher turnout of registered voters, and that held the election during the autumn season. Side issues, such as consolidation or poor farming economy, appeared to influence the voting patterns. Examination of data showed that seventy-seven percent of the districts with successful campaigns did not have to contend with any side issue; however, school districts with major side issues failed at the polls seventy percent of the time. The successful referenda campaign was suggested to be student-centered, highly organized, and involve the entire community.⁵⁴

For his study of forty-one school referenda elections held in Rockford, Illinois during a twenty-one year period, Wehrle collected data by conducting interviews and mailing a forty-item questionnaire to voters. He found that elections were more successful if held during the summer months, not in conjunction with other election issues, having a voter turnout of between twenty and fifty percent, and having the stated purpose of the tax election being to lower class size for students.⁵⁵ Brown in his analysis of over two hundred bond referenda attempts in Illinois during the years of 1974-75, 1975-76, and 1978-79 utilized four study models developed from the different types of school districts. Model I was all the school districts, Model II was

⁵⁴Jeannie M. Henry, "Help for Passing Bond Referenda," <u>School</u> <u>Business Affairs</u> (December 1987), 25-27.

⁵⁵Richard I. Wehrle, "The Voter, the Schools, and the Tax Dollar: A Study of School Tax Referenda, Rockford, Illinois, 1956-77" (Ed. D. diss., Northern Illinois University, 1978) 120-1.

elementary only school districts, Model III was high school only school districts, and Model IV was unit or K-12 school districts. Brown's research indicated that the amount of the bond proposal and the assessed valuation per pupil were not significantly related to the referenda passage.⁵⁶

Lows used Illinois voting precincts as a unit of analysis in his study of five elections held from November 1981 through April 1983. His findings suggested a positive relationship between the voter turnout and approval of a school tax rate referendum. This relationship was statistically significant for each of the election dates that were held in the months of February, March, April, and twice in November; however, no evidence suggested that any one month was a more opportune time for a school financial election. Also, high voter turnout for school district financial elections was found to be associated with a high turnout for the general election, ⁵⁷ which is inconsistent with previous research by Wehrle. ⁵⁸

The month of the year as a significant indicator of school bond issue election success was investigated by Pulliam in his research of Georgia elections held during the 1970s. The month of the election was not found to

⁵⁶Alan S. Brown, "Selected Variables Predictive of Public School Bond Referenda Passage" (Ed. D. diss., Illinois State University, 1982) 52-87.

⁵⁷Raymond L. Lows, "The Illinois Consolidate Election Law and School Tax Rate Referenda: A Study of Precinct Results from a Two-Year Cycle," Paper presented at the Annual Meeting of the American Education Finance Association, Orlando, Florida, March 17, 1984.

⁵⁸Wehrle, <u>loc. cit</u>.

statistically correlate with the success or failure of the school bond issues studied. Further examination of the significance of individual months as indicators was not possible due to the limited number each month of school bond proposals that were presented to the voters.⁵⁹

Garber, in her analysis of economic and size variables affecting outcomes of county school bond referenda held in Georgia between 1977 and 1983, found there was a significant positive relationship between success at the polls and school district population, growth, and the number of bond issues held in a specific period of time. She suggested that these variables could be used to predict, with a high degree of accuracy, the outcomes of school bond referenda in Georgia.⁶⁰

In a Minnesota study by Fredericksen to discover whether a number of socioeconomic status indicators were related to approval of school tax elections, not one was found to be significant at the .05 level of confidence. Stepwise multiple linear analysis and stepwise discriminant analysis were used to examine factors such as average income and voter turnout; and although each initially suggested importance neither, alone nor in combination, was found to be significant.⁶¹

⁵⁹Timothy N. Pulliam, "A Study of Selected Factors Associated with the Success or Failure of School Bond Issues in the State of Georgia During the Decade of the 1970's" (Ed. D. diss., University of Georgia, 1983) 100-1.

⁶⁰Kathleen P. Garber, "An Analysis of Selected Variables Affecting Outcomes of School Bond Referenda In Georgia 1977-83" (Ph. D. diss., Georgia State University, 1985) 153-4.

⁶¹John E. Fredericksen, "Key Community Indicators for Referendum Levy Elections in Minnesota School Districts" (Ph. D. diss., University of Minnesota, 1987) 54-60.

Summary

The review of literature encompassing school bond elections was organized into three sections. The initial section of the chapter examined voter theory and why people vote in elections. The next section discussed voting behavior and why people make certain choices when voting in an election. The final section reviewed prior research findings and factors affecting the direction of votes in school financial elections.

The emphasis in this review was primarily on data related to economic and enrollment factors, which are most often thought to affect voter behavior in school bond elections. The amount of the bond issue has often been studied as one factor which could have a negative relationship with voter approval. As previously noted, Barbour⁶² and Kasperbauer⁶³ reported a higher percentage of approvals when the amount of the issue was smaller; however, Van Scoy⁶⁴ and Brown⁶⁵ found no relationship between the amount of the bond issue and election success or failure. Findings concerning factors such as total school levy and assessed valuation per resident student affecting voter approval were inconclusive, except that Barbour's⁶⁶ data did suggest higher voter approval correlated with a lower amount of assessed valuation

⁶²Barbour, <u>loc. cit</u>.

⁶³Kasperbauer, loc. cit.

⁶⁴Van Scoy, loc. cit.

⁶⁵Brown, loc. cit.

⁶⁶Barbour, <u>loc. cit</u>.

per student. In studies by Piele and Hall⁶⁷, Alexander and Bass⁶⁸, Rosier⁶⁹, Jennings and Milstein⁷⁰, and Boskoff and Zeigler⁷¹, high income was found to be positively related to bond election approval, while low income and low wealth was not. Although income and wealth have been found to be factors in financial elections, other variables often associated with the economics of the area, such as the unemployment rate in the county of the school district and the percentage of change in the consumer price index, have not been found to have been researched for having a relationship with school bond election approval.

School enrollment data was found to be related to bond issues by Barbour⁷² and Henry⁷³, but not in studies reported by Piele and Hall⁷⁴ and Croskey⁷⁵. Garber's⁷⁶ findings suggested a significant positive relationship

⁶⁷Piele and Hall, <u>loc. cit.</u>

⁶⁸Alexander and Bass, <u>loc. cit</u>.

⁶⁹Rosier, <u>loc. cit</u>.

⁷⁰Jennings and Milstein, <u>loc. cit</u>.

⁷¹Boskoff and Zeigler, <u>loc. cit</u>.

⁷²Barbour, loc. cit.

⁷³Henry, <u>loc. cit</u>.

⁷⁴Piele and Hall, <u>loc. cit</u>.

⁷⁵Croskey, <u>loc. cit</u>.

⁷⁶Garber, <u>loc. cit</u>.

between voter approval and both school district population and school enrollment growth. Barbour⁷⁷ and Kowalski⁷⁸ implied that the relationship of having a parochial school in the school district and the success or failure of a school bond issue is situational. Data concerning a relationship between the square footage of the existing school facility per student and the passage of a bond referendum was not found in the review of literature, which suggests the need to examine this as well as student enrollments concepts as factors in this study.

The month of the year for a school bond election, number of times the bond proposal has been offered to the voters within a specific period of time, and percentage of registered voter turnout are factors that have been examined by many researchers. Henry⁷⁹ and Wehrle⁸⁰ reported different seasons as being related to school referendum success, however Lows⁸¹, Barbour⁸², Van Scoy⁸³, and Pulliam⁸⁴ found no statistically significant data to

⁷⁷Barbour, <u>loc. cit</u>.

⁷⁸Kowalski, <u>loc. cit</u>.

⁷⁹Henry, <u>loc. cit</u>.

⁸⁰Wehrle, loc. cit.

⁸¹ Lows, loc. cit.

⁸²Barbour, loc. cit.

⁸³Van Scoy, loc. cit.

⁸⁴Pulliam, <u>loc. cit</u>.

suggest that any one month is a more opportune time to propose an election to the voters. Piele and Hall⁸⁵ and Garber⁸⁶ did find some positive correlation with repeated attempts at bond issue passage and success. The review of literature found different results reported concerning voter turnout in school financial elections. Piele and Hall⁸⁷ and Kowalski⁸⁸ found an inverse relationship between voter turnout and the percentage of yes votes; however, Lows⁸⁹ and Henry⁹⁰ reported just the opposite findings, and Barbour⁹¹ and Wehrle⁹² presented various ranges of voter turnouts indicating success.

Little information was found concerning the influence of school district reorganization and the formal formation of a citizen's committee for passage of a school bond election. Henry⁹³ suggested that voters are often negatively influenced by consolidation and other side issues but positively influenced by an organized campaign that was student centered.

⁸⁵Piele and Hall, loc. cit.

⁸⁶Garber, loc. cit.

⁸⁷Piele and Hall, <u>loc. cit</u>.

⁸⁸Kowalski, loc. cit.

⁸⁹Lows, loc. cit.

⁹⁰Henry, loc. cit.

⁹¹Barbour, <u>loc. cit</u>.

⁹²Wehrle, <u>loc. cit</u>.

⁹³Henry, loc. cit.

Based on the review of literature, the researcher identified fourteen factors that seemed likely to influence voter behavior. Factors, such as amount of bond issue, tax levy, school district valuation, school enrollment, enrollment change, month of the election, number of times the issue was presented to the voters, citizen committee influence, and voter turnout, have been researched in studies from other states. Other factors, such as inflation, unemployment, building square footage, private school enrollments, and district reorganization, were not found to have been investigated as to having a relationship with school bond election success or failure. Therefore, this review of studies found the data related to factors affecting voter behavior in Nebraska school bond elections to be inconclusive.

CHAPTER III

METHODOLOGY

Purpose of the Study

The purpose for conducting this study was to examine whether there was a relationship between selected factors that the literature suggested were related to the success or failure of school bond elections and the results of such elections in Nebraska. This purpose was accomplished by determining which of the fourteen variables or combination of variables may have been related to the outcome of Nebraska school bond elections held from September 1,1979 through August 31, 1989.

Research Questions and Hypotheses

Research Questions

The following three research questions were developed for examination in this study. (1) Which of the selected factors were related to the results of Nebraska school bond elections? (2) What combination of the selected factors suggest the best opportunity for passage of a Nebraska school bond election? (3) What combination of the selected factors suggest the least likely opportunity for passage of a Nebraska school bond election?

<u>Hypotheses</u>

Fourteen factors were selected to be tested in this correlational study.

To accomplish this task, the following null hypotheses pertaining to

Nebraska school district bond elections were developed.

- 1. No relationship exists between the amount of the bond issue per resident student and the percentage of affirmative votes.
- 2. No relationship exists between the total levy of the school district and the percentage of affirmative votes.
- 3. No relationship exists between the valuation per resident student of the school district (per state average valuation per resident student) and the percentage of affirmative votes.
- 4. No relationship exists between the unemployment rate in the county of the school district and the percentage of affirmative votes.
- 5. No relationship exists between the percentage of change in the consumer price index during the previous twelve months and the percentage of affirmative votes.
- 6. No relationship exists between the total square footage of the existing school building(s) per resident enrollee and the percentage of affirmative votes.
- 7. No relationship exists between the month of the election and the percentage of affirmative votes.
- 8. No relationship exists between the percentage of registered voter turnout and the percentage of affirmative votes.
- 9. No relationship exists between the number of times the proposal is presented to the voters and the percentage of affirmative votes.
- 10. No relationship exists between the percentage of change in student enrollments during the previous five years and the percentage of affirmative votes.

- 11. No relationship exists between the ratio of private school student enrollments to public school student enrollments and the percentage of affirmative votes.
- 12. No relationship exists between the total school enrollment and the percentage of affirmative votes.
- 13. No relationship exists between school district reorganization and the percentage of affirmative votes.
- 14. No relationship exists between the existence of a citizen committee in favor of the bond election and the percentage of affirmative votes.

Population and Sample

The population for this study consists of all the public school districts in Nebraska. At the beginning of the 1979-80 school year, there were 1,091 Nebraska public school districts. By the fall of 1988, this number had decreased to 862 public school systems. For the purpose of this study, those Nebraska public school districts that held school bond elections between September 1, 1979 and August 31, 1989 were selected as the sample for investigation.

¹Nebraska State Department of Education, <u>Statistics and Facts About Nebraska Schools</u>, <u>1979-80</u> (Lincoln: Nebraska State Department of Education, 1980), Vol. 1, 1.

²Nebraska Department of Education, <u>Statistics and Facts About Nebraska Schools</u>, <u>1988-89</u> (Lincoln: Nebraska Department of Education, 1989), 1.

Design and Instrumentation

The design of this study was ex post facto. Data for correlational analysis were obtained through the use of the following three procedures.

Step 1. Since a single state-wide data base for school district bond election results was not available, a questionnaire developed by the researcher was mailed to the county clerk's office in each of Nebraska's ninety-three counties to determine the sample for the study. Followup phone calls were used to promote complete response to the questionnaire. Information requested included the name and number of each school district that held an election within the ten-year period, the month and year of the election, the amount of the proposed bond issue, the number of yes votes and no votes, the number of registered voters in the school district at the time of the election, and whether there had been previous school bond election attempts in the school district during the previous five years.

Step 2. Statistical directories published annually by the Nebraska

Department of Education were studied to obtain needed data. Statistics and

Facts About Nebraska Schools contained the enrollments of the public and

private schools³, the Nebraska Education Directory listed the total levy of

individual school districts⁴, and the Financial Report of Public School Districts

³Nebraska Department of Education, <u>Statistics and Facts About Nebraska Schools</u>. 1974-75 through 1988-89, (Lincoln: Nebraska Department of Education).

⁴Nebraska Department of Education, <u>Nebraska Education Directory</u> <u>1979-80 through 1988-89</u>, (Lincoln: Nebraska Department of Education).

noted valuation per resident pupil data⁵. To insure consistent values for each year, the tax levy data for the 1979-80 and 1980-81 school fiscal years was converted from a prior state millage system for calculating tax levies to the current method of cents per \$100 valuation by multiplying each mill levy by .035. Also, the valuation values, for the same two years, were converted from a thirty-five percent assessed valuation to an actual valuation by dividing by .35. The monthly labor force/work force summaries of the Nebraska Department of Labor were used to obtain unemployment and economic values. Selected facility survey reports, prepared by the University of Nebraska-Lincoln, were examined for building square footage data for analysis.

Step 3. Administrators in individual school districts that held a bond issue election(s) were contacted to clarify information and to obtain complete data for all fourteen variables for each case of the sample. These followup procedures were needed to collect information about the square footage of the existing building(s), the number of times the bond proposal had previously been submitted to the voters, private schools located in the public school district at the time of election, existence of prior district reorganization, and whether there was a citizen committee promoting the election. In these situations, a letter and/or phone call to the school district superintendent, county superintendent, or board member was used to obtain complete information concerning each election held.

⁵Nebraska Department of Education, <u>Financial Report of Public School Districts 1979-80 through 1988-89</u>, (Lincoln: Nebraska Department of Education).

Data Analysis

The purpose for conducting this study was to examine whether there was a relationship between selected factors and the percentage of affirmative votes in Nebraska school bond elections held during the years from 1979 thru 1989. To accomplish this purpose, fourteen null hypotheses were tested.

Using the <u>Statistical Package for Social Sciences</u> (SPSS), bivariate and multivariate correlation techniques was used to determine: (1) which of the independent variables processed show a strong positive or negative correlation with the percentage of positive votes in school bond elections; and (2) which combination of the independent variables processed show a strong measure of predictive success or failure of school bond elections. The data was analyzed using the Pearson Product-Moment coefficient (r), with p < .05.6 Ten factors were measured in continuous scores and four factors (month of the election, number of times the proposal is presented to the voters, school district reorganization within the past three years, and existence of a citizen committee in favor of the bond election) were measured as categorical scores. The statistical package utilized point-biserial correlation to analyze the relationship of each categorical score to the dependent variable.

Multiple regression was used to determine the correlation between the percentage of affirmative votes and some combination of those variables found to be statistically significant by the previous bivariate method.

⁶Walter R. Borg and Meredith D. Gall, <u>Educational Research</u> (White Plains, New York: Longman, Inc., 1983), 585-603; and Frederick J. Gravetter and Larry B. Wallnau, <u>Statistics for the Behavioral Sciences</u> (St. Paul: West Publishing Company, 1988), 383-408.

CHAPTER IV

RESEARCH FINDINGS

Introduction

The purpose for conducting this study was to determine whether there was a relationship between fourteen selected factors that writers in the literature suggested were related to the success or failure of school bond elections and the results of such elections in Nebraska school districts. Those fourteen factors were: amount of the bond issue per resident student, total levy of the school district, ratio of the valuation per resident student of the school district and the state average valuation per resident student in the state, unemployment rate in the county of the school district, percentage of change in the consumer price index of the previous twelve months, total square footage of the existing school building(s) per resident enrollee, month of the election, percentage of registered voter turnout, number of times the proposal is presented to the voters, percentage of change in student enrollments of the previous five years, ratio of private school student enrollments to public school student enrollments, total school enrollment, school district reorganization within the past three years, and existence of a citizen committee in favor of the bond election.

In this study, the independent or predictor variables were measures of the fourteen factors, and the dependent or criterion variable was the percentage of affirmative votes.

Research Questions

To accomplish the purpose of determining which factors and/or combination of factors that may have been related to the outcome of school bond elections in Nebraska, three basic research questions were addressed.

Research Question 1. Which of the selected factors were related to the results of Nebraska school bond elections?

To answer this question, the fourteen predictor variables were tested for statistical significance using the Pearson Product-Moment Correlation (r), (p < .05). The results of the analysis of the data for elections held from September, 1979 through August, 1989 are presented in Table 1. A positive relationship was found between the percentage of affirmative votes (YES) and the following two factors: Percentage of change in student enrollments of the previous five years (CHG) and Existence of a citizen committee in favor of the bond election (COMM). A negative relationship was found between the percentage of affirmative votes (YES) and five other factors: Amount of the bond issue per resident student (AMT), Total levy of the school district (LEVY), Percentage of registered voter turnout (VOTE), Ratio of private school student enrollments to public school student enrollments (PRIV), and School district reorganization (REOR). (See Table 1)

Research Question 2. What combination of the selected factors suggest the best opportunity for passage of a school bond election in Nebraska?

To answer this question, the seven predictor variables, reported in research question 1 to be statistically significant to the results of the sample,

TABLE 1

Analysis of Data from Selected Factors Related to Affirmative Votes (YES) of Nebraska Public School Districts that held Bond Elections from September 1, 1979 through August 31, 1989

Predictor Variables	Mean	SD	Pearson r	N	
AMT *	3.906	3.513	1701 ****	98	
LEVY	1.252	.430	1852 ****	98	
VAL	1.489	1.166	.1516	98	
UNEMP	3.856	2.817	1468	98	
CPI	6.865	4.115	0655	98	
SQFT	151.057	83.288	0550	88	
MNTH	5 **	N/A	1118	98	
VOTE	.515	.173	2341 ****	63	
NUMB	1 **	N/A	1102	98	
CHG	1.020	.367	.2510 ****	98	
PRIV	.119	.206	3120 ****	98	
ENRL	477.5 ***	N/A	.0476	98	
REOR	2 **	N/A	2886 ****	97	
COMM	1 **	N/A	.2926 ****	96	

^{*} Listed per 1,000

^{**} Mode listed instead of Mean

^{***} Median listed instead of Mean

^{****} Denotes a statistically significant value, p < .05

were tested using multiple regression. Two variables - - School district reorganization (REOR) and Existence of a citizen committee in favor of the bond election (COMM) - - were coded with categorical scores, while the other five variables were listed using continuous scores. The statistical package utilized point-biserial correlations to analyze the categorical scores within the calculation of the stepwise multiple regression analyze. The overall regression model was tested using analysis of variance and found to be statistically significant (p < .05) as indicated in Table 2. The model accounted for 31% of the variance with the affirmative votes ($R^2 = .3060$). The residual value is the remaining unexplained variance in the test.

Reported in Table 3 is the summary of the stepwise multiple regression analysis of the seven selected variables, (p < .05). The combination of four variables - - School district reorganization (REOR), Ratio of private school student enrollments to public school student enrollments (PRIV), Percentage of registered voter turnout (VOTE), and Total levy of the school district (LEVY) - - were found to be statistically significant predictors of the percentage of affirmative votes (YES). Each of the significant predictor variables had a similar Beta value indicating its unique contribution to the criterion variable of the study. School district reorganization was selected by the computer program as the best predictor variable (R² increment = .1219). The improvement of the predictability in the criterion variable was indicated by the addition of the following predictors: Ratio of private to public school student enrollment (R² increment = .0787), Percentage of registered voter turnout (R² increment = .0539), and Total levy of the school district (R² increment = .0515).

TABLE 2

Analysis of Variance to Test for Significance of Model (Based on a Multiple R of .5531)

	df	SS	MS	F	р
Regression	4	.5823	.1456	6.3918	.0002 *
Residual	58	1.3211	.0228		

^{*} p < .05

TABLE 3

Summary of Stepwise Multiple Regression Analysis of Selected Factors Related to Affirmative Votes (YES) of Nebraska Public School Districts that held Bond Elections from 1979 through 1989

Predictor		Standard			
Variables	b	Error of b	Beta	F	р
REOR	1573	.0725	2447	4.715	.0340 *
PRIV	2415	.0814	3335	8.810	.0043 *
VOTE	3088	.1175	3050	6.907	.0110 *
LEVY	0949	.0458	2373	4.304	.0425 *
AMT	2354	2248	.6327	3.033	.0870
COMM	.1417	.1613	.8572	1.523	.2223
CHG	.0619	.0674	.7724	.260	.6123
(constant)	1.0010	.1093		83.938	.0000

^{*} p < .05

The regression coefficients (b) for the four significant variables and the constant value, presented in Table 3, were used to develop the multiple regression equation, YES = 1.0010 + -.1573 x (REOR) + -.2415 x (PRIV) + -.3088 x (VOTE) + -.0949 x (LEVY). The equation represents the mathematical prediction of the criterion variable within the sample of this study. The predicted values were found, on the average, to be 15 percent from the actual results. This standard error (SE = .1509) existed because the four variables were not perfect predictors. However, the negative influence of these four variables in the regression equation affected the value indicating success or failure of the election. Therefore, no School district reorganization within the past three years (REOR), a low Ratio of private school student enrollments to public school student enrollments (PRIV), a small Percentage of registered voter turnout (VOTE), and a low Total levy of the school district (LEVY) was the combination of the selected factors in this study that suggested the best opportunity for passage of a school bond election in Nebraska.

Research Question 3. What combination of the selected factors suggest the least likely opportunity for passage of a school bond election in Nebraska?

The data in Table 3 revealed that the four significant variables - - School district reorganization within the past three years (REOR), Ratio of private school student enrollments to public school student enrollments (PRIV), Percentage of registered voter turnout (VOTE), and Total levy of the school district (LEVY) - - were negatively related to the passage of school bond elections in the sample. Therefore, some school district reorganization within the past three years, a high ratio of private school student enrollments to

public school student enrollments within the election area, a high percentage of registered voter turnout for the election, and a high total levy of the school district at the time of the election is the combination of selected factors in this study that suggested the least likely opportunity for passage of a school bond election in Nebraska.

Hypotheses

To answer the three basic research questions, fourteen hypotheses were formulated and tested. The results for each are discussed in detail below.

<u>Null Hypothesis 1.</u> No relationship exists between the amount of the bond issue per resident student and the percentage of affirmative votes.

H₀: 1 was rejected at the .05 level of confidence, and, as was evident from data presented in Table 1, a negative relationship between the amount of the bond issue per resident student and the percentage of affirmative votes was found. Ninety-eight elections were held during the ten year period of the study with an average bond amount per resident student of \$3,906. However, the average financial amount per resident student for the fifty-eight successful elections was \$3,469, while the mean (\$4,538) for those unsuccessful issues was over thirty percent greater.

Table 4 shows the amount of bond issue per resident student organized in different ranges and the percentage of affirmative votes for each range. The cases in the amount range 4.00-4.99 experienced the lowest percentage (25 %) of success while below that range the average approval rate was 67%.

TABLE 4

Amount of the Bond Issue per Resident Student and Percentage of Affirmative Votes

Percentage of Affirmative Votes							
Amount *	0-24.9	25-49.9	50-74.9	75-100	Total	Percentage Approved	
9.00 & Over	0	2	2	1	5	60.0	
8.00-8.99	0	2	1	0	3	33.3	
7.00-7.99	0	0	2	0	2	100.0	
6.00-6.99	0	1	3	1	5	80.0	
5.00-5.99	0	4	4	1	9	55.6	
4.00-4.99	2	10	3	1	16	25.0	
3.00-3.99	1	2	5	3	11	72.7	
2.00-2.99	0	9	7	2	18	50.0	
1.00-1.99	0	3	13	2	18	83.3	
0.00-0.99	0	4	7	0	11	63.6	
Total	3	37	47	11	98	59.2	

^{*} In thousands of dollars

<u>Null Hypothesis 2.</u> No relationship exists between the total levy of the school district and the percentage of affirmative votes.

 H_0 : 2 was rejected at the .05 level of confidence, and a mild negative relationship between the total levy of the school district and the percentage of affirmative votes was detected. As was noted in Table 1, the mean of the total levy of the ninety-eight cases was \$1.25, with a standard deviation of 43 cents. The average levy of the school districts whose bond elections succeeded was \$1.22 (SD = .47), while those whose issues failed had an average levy of \$1.29 (SD = .37).

Table 5 shows the total levy of the school district organized in different ranges and the percentage of affirmative votes for each range. Of the forty cases that were unsuccessful elections, only six fell in the total levy ranges below \$1.00.

<u>Null Hypothesis 3.</u> No relationship exists between the valuation per resident student of the school district (per state average valuation per resident student) and the percentage of affirmative votes.

 H_0 : 3 was not rejected at the .05 level of confidence; no statistically significant relationship between the valuation per resident student of the school district and the percentage of affirmative votes was detected. As was shown in Table 1, the mean of the ratio of the cases to the state average was found to be 1.489, with a standard deviation of 1.166. The mean of the ratios for the successful elections was 1.575 (SD = 1.142), and the mean for unsuccessful proposals was 1.364 (SD = 1.205).

Table 6 shows the valuation per resident student of the school district

TABLE 5

Total Levy of the School District and Percentage of Affirmative Votes

	<u>P</u>	ercentage	of Affirmat	tive Votes		
Total Levy *	0-24.9	25-49.9	50-74.9	75-100	Total	Percentage Approved
2.00 & Over	0	3	2	1	6	50.0
1.80-1.99	0	1	1	0	2	50.0
1.60-1.79	0	3	9	2	14	78.6
1.40-1.59	0	4	7	0	11	63.6
1.20-1.39	3	12	11	1	27	44.4
1.00-1.19	0	8	5	0	13	38.5
0.80-0.99	0	4	9	1	14	71.4
0.60-0.79	0	0	3	1	4	100.0
0.40-0.59	0	1	0	2	3	66.7
0.20-0.39	0	1	0	2	3	66.7
0.00-0.19	0	0	0	1	1	100.0
Total	3	37	47	11	98	59.2

^{*} In cents per hundred dollars actual valuation

TABLE 6

Ratio of School District Valuation per Resident Student to State Average Valuation per Resident Student and Percentage of Affirmative Votes

	Percentage of Affirmative Votes								
	<u> P</u>	ercentage	of Affirmati	ive Votes					
Valuation	0-24.9	25-49.9	50-74.9	75-100	Total	Percentage Approved			
2.00 & Over	0	3	8	4	15	80.0			
1.80-1.99	0	2	3	0	5	60.0			
1.60-1.79	0	3	3	0	6	50.0			
1.40-1.59	1	1	3	1	6	66.7			
1.20-1.39	0	2	3	1	6	66.7			
1.00-1.19	0	10	8	1	19	47.4			
0.80-0.99	2	7	8	3	20	55.0			
0.60-0.79	0	6	8	1	15	60.0			
0.40-0.59	0	3	3	0	6	50.0			
0.20-0.39	0	0	0	0	0	0.00			
0.00-0.19	0	0	0	0	0	0.00			
Total	3	37	47	11	98	59.2			

Note: State average valuation per resident student ranged from a low of \$117,109 in 1979 to a high of \$167,809 in 1985.

per state average valuation per resident student and the percentage of affirmative votes for each range. The greatest election success (80%) was in the range (2.00 & over) where the ratio indicated that the school district valuation per resident student was at least twice that of the state average valuation per resident student.

Null Hypothesis 4. No relationship exists between the unemployment rate in the county of the school district and the percentage of affirmative votes.

 H_0 : 4 was not rejected at the .05 level of confidence and no statistically significant correlation between the unemployment rate in the county of the school district and the percentage of affirmative votes was found. As was shown in Table 1, the mean of the unemployment rates for all elections of the study was 3.9 percent, with a standard deviation of 2.8. The average rate of the fifty-eight successful elections was slightly lower at 3.4 percent (SD = 1.7), while the forty bond elections that failed were in counties with an average unemployment rate of 4.5 percent (SD = 3.9).

Table 7 shows the unemployment rate in the county of the school district organized in different ranges and the percentage of affirmative votes for each range. The approval rate of school bond elections was higher when the unemployment rate in the county of the school district was below the six percent level.

<u>Null Hypothesis 5.</u> No relationship exists between the percentage of change in the consumer price index during the previous twelve months and the percentage of affirmative votes.

TABLE 7
Unemployment Rate in the County of the School District and Percentage of Affirmative Votes

Percentage of Affirmative Votes									
Unemployment	0-24.9	25-49.9	50-74.9	75-100	Total	Percentage Approved			
8.0 & Over	0	2	0	0	2	00.0			
7.0-7.9	1	1	2	0	4	50.0			
6.0-6.9	0	3	2	0	5	40.0			
5.0-5.9	0	2	8	0	10	80.0			
4.0-4.9	2	6	6	2	16	50.0			
3.0-3.9	0	8	12	4	24	66.7			
2.0-2.9	0	10	8	2	20	50.0			
1.0-1.9	0	3	6	1	10	70.0			
0.0-0.9	0	2	3	2	7	71.4			
Total	3	37	47	11	98	59.2			

H₀: 5 was not rejected at the .05 level of confidence, and, as was shown in Table 1, no statistical relationship between the percentage of change in the consumer price index of the previous twelve months and the percentage of affirmative votes was evident. The mean of the percentage of change in the consumer price index for the previous twelve months was found to be the same 6.9 for each of the three groups: all elections, successful elections, and unsuccessful elections. The standard deviation ranged from 4.1 to 4.3.

Table 8 shows the percentage of change in the consumer price index of the previous twelve months organized in different ranges and the percentage of affirmative votes for each range. The majority of bond election success occurred in the two regions directly below the 6.0 consumer price index level.

<u>Null Hypothesis 6.</u> No relationship exists between the total square footage of the existing school building(s) per resident enrollee and the percentage of affirmative votes.

H_O: 6 was not rejected at the .05 level of confidence; no statistical correlation between the total square footage of the existing school building(s) per resident enrollee and the percentage of affirmative votes was found. As was noted in Table 1, the average total square footage of the existing school building(s) per resident enrollee for the eighty-eight cases examined was 151 square feet per resident student, with a standard deviation of 83 square feet. The mean for the successful elections was slightly less than the failures (144 to 160).

Table 9 shows the total square footage of existing school building(s) per

TABLE 8

Percentage of Change in the Consumer Price Index and Percentage of Affirmative Votes

Percentage of Affirmative Votes								
Consumer Price Index	0-24.9	25-49.9	50-74.9	75-100	Total	Percentage Approved		
14.0 & Over	0	2	4	0	6	66.7		
12.0-13.9	0	7	8	1	16	56.3		
10.0-11.9	0	1	1	1	3	66.7		
08.0-09.9	2	4	3	3	12	50.0		
06.0-07.9	0	2	0	0	2	00.0		
04.0-05.9	0	6	14	3	23	73.9		
02.0-03.9	1	12	16	3	32	59.4		
0.00-01.9	0	3	1	0	4	25.0		
Total	3	37	47	11	98	59.2		

TABLE 9

Total Square Footage of the Existing School Building(s)

per Resident Enrollee

and Percentage of Affirmative Votes

	Percentage of Affirmative Votes								
Square Footage	0-24.9	25-49.9	50-74.9	75-100	Total	Percentage Approved			
400 & Over	0	0	1	0	1	100.0			
350-399	0	0	0	0	0	00.0			
300-349	0	4	2	0	6	33.3			
250-299	0	2	2	1	5	60.0			
200-249	0	3	3	0	6	50.0			
150-199	2	8	10	0	20	50.0			
100-149	0	12	11	2	25	52.0			
50-099	1	7	8	3	19	57.9			
0-049	0	1	4	1	6	83.3			
Total	3	37	41	7	88 *	54.5			

^{*} Square footage information was not reported in ten cases

resident enrollee organized in different ranges and the percentage of affirmative votes for each range. The majority of cases had existing building square footage between 50 and 200 per resident enrollee.

Null Hypothesis 7. No relationship exists between the month of the election and the percentage of affirmative votes.

H_o: 7 was not rejected at the .05 level of confidence; no statistically significant relationship was detected between the month of the election and the percentage of affirmative votes.

Table 10 shows the month of the election organized in different ranges and the percentage of affirmative votes for each range. A majority of the elections held during the ten-year period of the study were during the months of May and November; these elections had a combined success rate of 50.0 percent, while the combined passage rate during the other ten months was 69.6 percent.

<u>Null Hypothesis 8.</u> No relationship exists between the percentage of registered voter turnout and the percentage of affirmative votes.

H_O: 8 was rejected at the .05 level of confidence; a negative correlation between the percentage of registered voter turnout and the percentage of affirmative votes was found. As was shown in Table 1, the mean of the voter turnout for the school district bond elections reported was 51.5 percent, with a standard deviation of 17.3 percent.

Table 11 shows the percentage of registered voter turnout organized in different ranges and the percentage of affirmative votes for each range. Two

TABLE 10

Month of the Election and Percentage of Affirmative Votes

	Percentage of Affirmative Votes								
	enth of ection	0-24.9	25-49.9	50-74.9	75-100	Total	Percentage Approved		
1.	January	0	0	1	0	1	100.0		
2.	February	0	1	3	0	4	75.0		
3.	March	0	3	2	1	6	50.0		
4.	April	0	0	0	2	2	100.0		
5.	May	1	13	14	4	32	56.3		
6.	June	0	4	6	0	10	60.0		
7.	July	0	1	2	0	3	66.7		
8.	August	0	1	2	2	5	80.0		
9.	September	0	2	3	0	5	60.0		
10.	October	1	0	4	0	5	80.0		
11.	November	1	11	8	0	20	40.0		
12.	December	0	1	2	2	5	80.0		
Tot	al	3	37	47	11	98	59.2		

TABLE 11

Percentage of Registered Voter Turnout and Percentage of Affirmative Votes

	Percentage of Affirmative Votes								
Voter Turnout	0-24.9	25-49.9	50-74.9	75-100	Total	Percentage Approved			
0.90-1.00	0	0	1	0	1	100.0			
0.80-0.89	1	2	1	0	4	25.0			
0.70-0.79	1	1	2	0	4	50.0			
0.60-0.69	0	4	8	3	15	73.3			
0.50-0.59	0	4	2	1	7	42.9			
0.40-0.49	0	4	10	1	15	73.3			
0.30-0.39	0	6	3	2	11	45.5			
0.20-0.29	0	2	3	0	5	60.0			
0.10-0.19	0	0	1	0	1	100.0			
0.00-0.09	0	0	0	0	0	0.0			
Total	2	23	31	7	63 *	60.3			

^{*} Registered voter turnout information was not reported in thirty-five cases

ranges of voter turnout (40-49 % and 60-69%) had the greatest election success. The thirty-two elections below the 50 percent voter turnout level had a slightly higher success rate than those above (62.5 % to 58.1 %).

<u>Null Hypothesis 9.</u> No relationship exists between the number of times the proposal is presented to the voters and the percentage of affirmative votes.

H_o: 9 was not rejected at the .05 level of confidence; no statistically significant relationship was detected between the number of times the proposal is presented to the voters and the percentage of affirmative votes.

Table 12 shows the number of times the proposal was presented to the voters organized in different ranges and the percentage of affirmative votes for each range. Two-thirds of the 98 school bond elections held during the ten-year period were initial attempts, which had a success rate of 62.7 percent.

<u>Null Hypothesis 10.</u> No relationship exists between the percentage of change in student enrollments during the previous five years and the percentage of affirmative votes.

H₀: 10 was rejected at the .05 level of confidence; a positive correlation between the percentage of change in student enrollments of the previous five years and the percentage of affirmative votes was found. As was shown in Table 1, the average change in student enrollments was a 2.0 percent increase; the successful elections had a 7.8 percent increase, and the unsuccessful attempts averaged a 6.3 percent decrease.

Table 13 shows the percentage of change in student enrollments during

TABLE 12

Number of Times the Proposal is Presented to the Voters and Percentage of Affirmative Votes

Percentage of Affirmative Votes								
Number	0-24.9	25-49.9	50-74.9	75-100	Total	Percentage Approved		
7th	0	0	1	0	1	100.0		
6th	0	1	0	0	1	0.0		
5th	0	1	1	0	2	50.0		
4th	0	2	2	0	4	50.0		
3rd	0	3	3	0	6	50.0		
2nd	1	7	8	1	17	52.9		
1st	2	23	32	10	67	62.7		
Total	3	37	47	11	98	59.2		

TABLE 13

Percentage of Change in Student Enrollments and Percentage of Affirmative Votes

Percentage of Affirmative Votes								
Change in Enrollments *	0-24.9	25-49.9	50-74.9	75-100	Total	Percentage Approved		
1.50 & Over	0	0	3	1	4	100.0		
1.40-1.49	0	0	0	1	1	100.0		
1.30-1.39	0	0	0	2	2	100.0		
1.20-1.29	0	1	1	0	2	50.0		
1.10-1.19	0	6	10	1	17	64.7		
1.00-1.09	0	5	6	3	14	64.3		
0.90-0.99	1	14	9	2	26	42.3		
0.80-0.89	2	9	14	0	25	56.0		
0.70-0.79	0	0	2	1	3	100.0		
0.60-0.69	0	0	1	0	1	100.0		
0.00-0.59	0	2	1	0	3	33.3		
Total	3	37	47	11	98	59.2		

^{*} Percentage of change during the previous five years

the previous five years organized in different ranges and the percentage of affirmative votes for each range. Cases at the enrollment range of 1.00 and above, experienced an average success rate of 70 percent.

<u>Null Hypothesis 11.</u> No relationship exists between the ratio of private school student enrollments to public school student enrollments and the percentage of affirmative votes.

 H_0 : 11 was rejected at the .05 level of confidence; a strong negative relationship between the ratio of private school student enrollments to public school student enrollments and the percentage of affirmative votes was found. As was shown in Table 1, the mean of the ratios for all cases was .119 (SD = .206); the successful elections had an average ratio of .069 (SD = .145), and the unsuccessful group had a ratio of .191 (SD = .256).

Table 14 shows the ratio of private school student enrollments to public school student enrollments organized in different ranges and the percentage of affirmative votes for each range. The greatest success with bond elections occurred in public school districts that did not have any private school enrollment. Also, the three cases of the study that the private school student enrollment neared the public school student enrollment failed.

Null Hypothesis 12. No relationship exists between the total school enrollment and the percentage of affirmative votes.

H_O: 12 was not rejected at the .05 level of confidence; no statistically significant relationship between the total school enrollment and the percentage of affirmative votes was found. As was shown in Table 1, the

TABLE 14

Ratio of Private to Public School Student Enrollments and Percentage of Affirmative Votes

	 -				 				
	Percentage of Affirmative Votes								
Ratio of Private/Public	0-24.9	25-49.9	50-74.9	75-100	Total	Percentage Approved			
1.00 & Over	0	0	0	0	0	0.0			
0.90-0.99	0	3	0	0	3	0.0			
0.80-0.89	0	0	0	0	0	0.0			
0.70-0.79	0	0	1	0	1	100.0			
0.60-0.69	0	0	0	0	0	0.0			
0.50-0.59	0	0	1	0	1	100.0			
0.40-0.49	0	4	1	0	5	20.0			
0.30-0.39	0	3	2	0	5	40.0			
0.20-0.29	0	3	2	0	5	40.0			
0.10-0.19	0	8	6	0	14	42.9			
0.01-0.09	1	4	6	1	12	58.3			
0.00	2	12	28	10	52	73.1			
Total	3	37	47	11	98	59.2			

median of the enrollments was 477.5, while the mean was over three times greater (1,542).

Table 15 shows the total school enrollment organized in different ranges and the percentage of affirmative votes for each range. The more successful elections were at the opposite ends of the enrollment range for the ninety-eight cases of the study. The cases in the middle enrollment ranges from 400 to 1999 students were least successful (41 %) with bond elections.

Null Hypothesis 13. No relationship exists between school district reorganization and the percentage of affirmative votes.

 H_0 : 13 was rejected at the .05 level of confidence; a statistically significant negative relationship between school district reorganization and the percentage of affirmative votes was detected. As shown in Table 1, school district reorganization had the third strongest correlation (r = -.2886).

Table 16 shows the school district reorganization within the previous three years organized in different ranges and the percentage of affirmative votes for each range. The five cases that reported reorganization in the school district prior to the bond election, were successful.

<u>Null Hypothesis 14.</u> No relationship exists between the existence of a citizen committee in favor of the bond election and the percentage of affirmative votes.

H_o: 14 was rejected at the .05 level of confidence; a strong positive correlation between the existence of a citizen committee in favor of the bond election and the percentage of affirmative votes was found. As shown in Table 1, the existence of a citizen committee in favor of the bond election had

TABLE 15

Total School Enrollment and Percentage of Affirmative Votes

Percentage of Affirmative Votes							
Enrollment	0-24.9	25-49.9	50-74.9	75-100	Total	Approved	
2000 & Over	0	0	7	0	7	100.0	
1000-1999	0	9	4	1	14	35.7	
900-999	0	3	2	0	5	40.0	
800-899	0	0	0	0	0	0.0	
700-799	1	4	1	0	6	16.7	
600-699	1	2	0	1	4	25.0	
500-599	0	4	5	1	10	60.0	
400-499	0	5	4	1	10	50.0	
300-399	0	5	9	0	14	64.3	
200-299	1	0	4	1	6	83.3	
100-199	0	5	6	1	12	58.3	
0-99	0	0	5	5	10	100.0	
Total	3	37	47	11	98	59.2	

TABLE 16
School District Reorganization in the Previous Three Years and Percentage of Affirmative Votes

Percentage of Affirmative Votes								
School Reorganization	0-24.9	25-49.9	50-74.9	75-100	F Total	Percentage Approved		
1. Yes	0	0	2	3	5	100.0		
2. No	3	37	45	7	92	53.6		
Total	3	37	47	10	97 *	58.8		

^{*} Reorganization information was not reported in one case

the second highest correlation value (r = .2926).

Table 17 shows the existence of a citizen committee in favor of the bond election organized in different ranges and the percentage of affirmative votes for each range. A majority of cases reported the use of a citizen committee, and for a success rate of 53.6 percent. Only one of twelve cases that did not use a citizen committee to promote the bond issue experienced election failure.

TABLE 17

Citizen Committee in Favor of the Bond Election and Percentage of Affirmative Votes

	P	ercentage	of Affirmat	tive Votes		
Citizen Committee	0-24.9	25-49.9	50-74.9	75-100	Total	Approved
1. Yes	3	36	40	5	84	53.6
2. No	0	1	7	4	12	91.7
Total	3	37	47	9	96 *	58.3

^{*} Committee information was not reported in two cases

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The primary purpose for conducting this study was to determine whether there was a relationship between selected factors that were suggested in the literature related to the success or failure of school bond elections and the results of such elections in Nebraska school districts. The subjects for this study were Nebraska school districts that held such elections from September 1, 1979 through August 31, 1989. An understanding of which factors influence voter behavior should assist educational leaders in accomplishing their purpose of providing adequate school facilities.

In examinating the literature, no study was found that considered the factors affecting the passage of school bond elections in Nebraska specifically. The review of literature did reveal numerous studies that had been conducted in other states that examined social, economic, and demographic factors, as well as campaign strategies and attitudes toward education. Of special note were the extensive analysis of school financial election research conducted by Piele and Hall¹ and Kowalski.²

¹Philip K. Piele and John Stuart Hall, <u>Budgets, Bonds, and Ballots:</u> <u>Voting Behavior in School Financial Issues</u> (Lexington, Massachusetts: D. C. Heath and Company, 1973).

²Joan P. Sullivan Kowalski, <u>Voter Behavior and Campaign Strategies in School Finance Elections</u> (Arlington, Virginia: Educational Research Service, Inc., 1977).

Fourteen factors were identified: amount of the bond issue per resident student, total levy of the school district, ratio of the valuation per resident student of the school district and the state average valuation per resident student in the state, unemployment rate in the county of the school district, percentage of change in the consumer price index of the previous twelve months, total square footage of the existing school building(s) per resident enrollee, month of the election, percentage of registered voter turnout, number of times the proposal had been presented to the voters, percentage of change in student enrollments of the previous five years, ratio of private school student enrollments to public school student enrollments, total school enrollment, school district reorganization within the past three years, and existence of a citizen committee in favor of the bond election.

To accomplish the purpose of this study, the following three basic research questions were addressed: (1) Which of the selected factors suggest a relationship with the passage of Nebraska school bond elections? (2) What combination of the selected factors suggest the best opportunity for passage of a Nebraska school bond election? (3) What combination of the selected factors suggest the least likely opportunity for passage of a Nebraska school bond election?

Fourteen hypotheses were developed and tested. The predictor variables were measures of the fourteen criteria, and the criterion variable was the percentage of affirmative votes. The design of this study was ex post facto, with the population defined as all the public school districts in the Nebraska. The sample selected consisted of those school districts that held school bond elections between September 1, 1979 and August 31, 1989.

A cover letter and questionnaire (Appendix A) was mailed to each of the ninety-three county clerks to identify the sample (Appendix B) which was those school districts that offered bond elections during the ten year period. Eight-five counties (91.4 % response) reported ninety-eight school bond elections. In addition to the data reported on the returned questionnaire, information was obtained from statistical directories of the Nebraska Department of Education and labor force/work force summaries of the Nebraska Department of Labor. The district or county superintendents of individual school districts that held bond issue elections were contacted by letter (Appendix C) and/or phone call to clarify and obtain as complete information as available for each case of the sample.

To answer the research questions of this study, the data (Appendix D) was analyzed using the Pearson Product-Moment coefficient (r), at the .05 level of confidence. Seven of the fourteen variables were found to have a statistically significant correlation with the percentage of affirmative votes. The seven variables identified were: amount of the bond issue per resident student, total levy of the school district, percentage of registered voter turnout, percentage of change in student enrollments of the previous five years, ratio of private school student enrollments to public school student enrollments, school district reorganization within the past three years, and existence of a citizen committee in favor of the bond election.

Multiple regression was used to test the seven significant variables for the best combination of predictors. Four variables were found to be significant indicators (p < .05) of election success in Nebraska school bond elections. The combination identified was: no school district reorganization within the past three years, a low ratio of private school student enrollment to

public school student enrollments, a small percentage of registered voter turnout, and a low total levy of the school district. A multiple regression equation was developed to predict the success or failure of Nebraska school bond elections.

The opposite of the four significant predictors suggests the least likely combination for bond election success of the sample. That combination of indicators was: school district reorganization within the past three years, a high ratio of private to public school student enrollments, a high percentage of registered voter turnout, and a high total levy of the school district.

Two variables were found to be positively related to the criterion variable. The results indicated that there was a strong positive correlation between the existence of a citizen committee in favor of the bond election and the percentage of affirmative votes. Examination of data revealed a fifty-four percent success in the cases that had an organized committee to promote the election passage. This research corresponds with information suggested by Kowalski³ that the establishment of a citizen support committee was advantageous in school financial issues. Committee membership representative of community citizens and early organization in the campaign timeline were also recommended. In Barbour's⁴ study, voter approval was found to be related to the use of citizens or advisory committees in the preparation and presentation of the bond proposal to the voters.

³<u>Ibid</u>., 37-8.

⁴Edwin L. Barbour, "Effects of Socio-Economic Factors on School Bond Elections in Iowa" (Ph. D. diss., Iowa State Univ., 1966), 186-212.

The results indicated that there was a strong positive correlation between the percentage of change in student enrollments of the previous five years and the percentage of affirmative votes. The school districts with successful elections experienced nearly an eight percent average enrollment increase, while those school districts whose attempts failed had over a six percent enrollment decrease. No study was found in the review of literature that examined the change in student enrollments as a factor affecting the direction of voters at the polls; however, county population growth over a tenyear period was found by Garber⁵ to be a significant variable in determining bond issue passage or failure; and the number of children in a family was determined by Hatley⁶ to be correlated with positive voting in school financial elections.

Five predictor variables were found to be negatively related to the criterion variable. The results indicated that there was a strong negative relationship between the ratio of private school student enrollments to public school student enrollments and the percentage of affirmative votes. Over half of the cases reported no private school located within the district boundary of the public school at the time that the bond election was held. Of the forty-six districts that contained private schools, the cases with successful elections had a ratio of private to public school enrollment that averaged less than

⁵Kathleen P. Garber, "An Analysis of Selected Variables Affecting Outcomes of School Bond Referenda in Georgia 1977-83" (Ph. D. diss., Georgia State University, 1985) 153-4.

⁶Richard V. Hatley, "Family Income, Voting Behavior, and Financial Referendums: Educational Finance and Politics in Albuquerque, New Mexico" (Ed. D. diss., University of New Mexico, 1970), 130-6.

seven percent, while the private-public enrollment ratio was nearly three times greater in those cases that failed. These findings support those reported by Barbour⁷ that in public school districts that had enrollments of fewer than 750 students there was a negatively significant relationship with the existence of a parochial school located in the public school district.

The results indicated that there was a strong statistically significant negative relationship between school district reorganization and the percentage of affirmative votes. This negative relationship supports the information presented by Henry⁸ and Piele and Hall⁹ that certain issues have great potential to generate community controversy that may influence undecided individuals to vote negatively at the polls. In this study, 92 cases reported no reorganization within the three years prior to the school bond election. This large number of elections void of school district reorganization suggests that there may have been a conscious effort in some of the cases to avoid a possible negative community conflict.

The results indicated a significant negative correlation of mild magnitude between the total levy of the school district at the time of the bond issue election and the percentage of affirmative votes. This negative relationship corresponds with reports by Piele and Hall¹⁰ and

⁷Barbour, <u>loc. cit</u>.

⁸Jeannie M. Henry, "Help For Passing Bond Referenda," <u>School Business Affairs</u> (December 1987), 25-27.

⁹Piele and Hall, op. cit., 78-81.

¹⁰lbid., 94.

Alexander and Bass¹¹ that higher school district property tax rates are related to higher probability of election failure. However, other studies have reported no significant correlation between voter behavior and property tax rates for school districts.

The results indicated that there was a significant negative correlation between the amount of the bond issue per resident student and the percentage of affirmative votes. This is consistent with the findings of Barbour¹² and Kasperbauer¹³, who reported a greater percentage of election approvals when the amount of the financial issue was less.

The results indicated that there was a strong negative correlation between the percentage of registered voter turnout and the percentage of affirmative votes. This negative relationship supports findings by Piele and Hall¹⁴ and Kowalski¹⁵ that there is an inverse relationship between voter turnout and passage of school financial elections, especially in first time elections. However, a larger voter turnout in subsequent elections suggests election success. The mean of the voter turnout variable in this study was

¹¹Arthur J. Alexander and Gail V. Bass, <u>Schools. Taxes. and Voter</u> <u>Behavior: Analysis of School District Property Tax Elections</u> (Santa Monica, California: The Rand Corporation, April 1974), 65.

¹²Barbour, loc. cit.

¹³Lawrence F. Kasperbauer, "School Bond Issues in Iowa" (Unpublished Master's Thesis, Iowa State University, 1959), 73-79.

¹⁴Piele and Hall, <u>op. cit</u>., 64-9.

¹⁵Kowalski, <u>op. cit.</u>, 43-5.

51.5 percent, with elections above the fifty percent voter turnout having a slightly lower success rate than those elections with less than fifty percent turnout.

The remaining seven variables were not found to be related to the criterion variable. The results indicated no statistically significant relationship between the valuation per resident student of the school district (per state average valuation per resident student) and the percentage of affirmative votes. Earlier studies by Brown¹⁶ and Kasperbauer¹⁷ found no significant effect of bond issue amount on referenda passage; however, Barbour¹⁸ found a negative relationship.

The results indicated no statistically significant correlation between the unemployment rate in the county of the school district and the percentage of affirmative votes. No study was found that investigated unemployment rates as a factor affecting voter behavior; however, studies on income by Alexander and Bass¹⁹ and Jennings and Milstein²⁰ reported low income as negatively related to passage of elections.

The results indicated no statistically significant relationship between the

¹⁶Alan S. Brown, "Selected Variables Predictive of Public School Bond Referenda Passage" (Ed. D. diss., Illinois State University, 1982) 52-87.

¹⁷Kasperbauer, <u>loc. cit.</u>

¹⁸Barbour, loc. cit.

¹⁹Alexander and Bass, <u>loc. cit.</u>

²⁰Robert E. Jennings and Mike M. Milstein, "Citizens' Attitudes in School Tax Voting," <u>Education and Urban Society</u> (May 1973), 299-317.

percentage of change in the consumer price index of the previous twelve months and the percentage of affirmative votes. The review of literature revealed that the consumer price index as an indicator of economic growth of urban consumers had not been researched as a variable affecting the direction of votes in school bond elections. However, Hatley²¹ found that although income was not significant, socioeconomic factors correlated with positive voting in school financial referendums; and Kowalski²² reported that rather than a voter's income or tax amount that the tax/income ratio affected the individual voting pattern.

The results indicated no statistically significant correlation between the total square footage of the existing school building(s) per resident enrollee and the percentage of affirmative votes. No research was found that had previously examined square footage as a factor affecting voters, and this study of Nebraska school bond elections with various size buildings and student enrollments revealed no significant relationship between existing building size per student enrolled and election success or failure.

The results indicated no statistically significant relationship between the month of the election and the percentage of affirmative votes. The findings of this study support those by Lows²³, Pulliam²⁴, Van Scoy²⁵, and Barbour²⁶ that

²¹Hatley, <u>loc. cit</u>.

²²Kowalski, <u>loc. cit</u>.

²³Raymond L. Lows, "The Illinois Consolidate Election Law and School Tax Rate Referenda: A Study of Precinct Results From a Two-Year Cycle," Paper presented at the Annual Meeting of the American Education Finance Association, Orlando, Florida, March 17, 1984.

no significant correlation existed between the time of the year that the election is held and success or failure. More than half of the total number of elections were held the May and November, the normal months for primary or general elections held in Nebraska. However, the combined approval rate of the elections during May and November was less than the combined approval rate of the elections held during the other ten months. Piele and Hall²⁷ reported that school financial elections held with other elections are more likely to be defeated due to a large voter turnout.

The results indicated no statistically significant relationship between the number of times the proposal is presented to the voters and the percentage of affirmative votes. The findings of this study differ from those reported by Garber²⁸ who found the number of bond elections the school district held within a specific time period statistically correlated to the election outcome. Although not statistically significant, data examined in many individual cases revealed that repeated bond elections in the same district were eventually

²⁴Timothy N. Pulliam, "A Study of Selected Factors Associated with the Success or Failure of School Bond Issues in the State of Georgia During the Decade of the 1970's" (Ed. D. diss., University of Georgia, 1983), 100-1.

²⁵David H. Van Scoy, "Ohio School District Characteristics and Bond Referendum Voter Behavior" (Ed. D. diss., Indiana Univ., 1972), 22-31.

²⁶Barbour, <u>loc. cit</u>.

²⁷Piele and Hall, op. cit., 92.

²⁸Kathleen P. Garber, "An Analysis of Selected Variables Affecting Outcomes of School Bond Referenda in Georgia 1977-83" (Ph. D. diss., Georgia State University, 1985) 153-4.

successful; possibly due, as noted by Hamilton and Cohen²⁹, to local bargaining of the issue amount at the local level.

The results indicated no statistically significant relationship between the total school enrollment and the percentage of affirmative votes. School enrollments in the ninety-eight cases examined in this study ranged from 6 to 41,243 students with a median enrollment of 477 students. In this study, the cases with the seven largest and ten smallest enrollments were all successful. This supports findings by Piele and Hall³⁰ that although no significant correlation exists between school district size and election outcome, some evidence suggests a curvilinear relationship, where large or small enrollment districts were more likely to pass financial elections than medium-sized enrollment school districts.

Conclusions

A successful bond campaign should begin long before the school district officials decide to present the issue to the voters. An ongoing public relations program should be in place that provides district patrons information and the opportunity to contribute towards the decisions of their school system. The review of literature suggested that the most successful school financial election campaigns focused on the educational needs of

²⁹Howard D. Hamilton and Sylvan H. Cohen, <u>Policy Making by</u>
<u>Plebiscite: School Referenda</u> (Lexington, Massachusetts: D. C. Heath and Company, 1974), 62-4.

³⁰Piele and Hall, op. cit., 75.

the students and were highly organized, but were often influenced by side issues. Numerous variables have been researched over the years in other states in which researchers have suggested voter behavior is often situational and that school leaders should learn everything about the voters of their school district and what influences them at election time.

Definite conclusions were found in this study of selected factors affecting voter behavior in Nebraska school bond elections. In this study an examination of the influence of fourteen variables on the outcome of ninety-eight elections held from 1979 through 1989 was made. The results suggested seven of the investigated factors have a statistically significant correlation, either individually or in combination, with positive voting. The following conclusions were reached about Nebraska school bond elections:

- The combination of no recent school district reorganization, a low ratio of private to public school student enrollment, a small percentage of registered voter turnout, and a low school district property tax levy suggested a greater opportunity for passage.
- A lack of school district reorganization within the previous three years prior to the election suggested a greater percentage of affirmative votes.
- A smaller ratio of private school student enrollments to public school student enrollments suggested a greater percentage of affirmative votes.
- A smaller percentage of registered voter turnout for the election suggested a greater percentage of affirmative votes.

- A smaller school district total property tax levy suggested a greater percentage of affirmative votes.
- A smaller bond issue amount per resident student suggested a greater percentage of affirmative votes.
- 7. The existence of an active citizen committee in favor of the bond election suggested a greater percentage of affirmative votes.
- 8. A greater percentage of increase in student enrollments, during the previous five years, suggested a greater percentage of affirmative votes.
- 9. The following factors were found to have no statistically significant correlation with the percentage of affirmative votes in the Nebraska school bond elections examined in this study: valuation per resident student of the school district, unemployment rate in the county of the school district, percentage of change in the consumer price index, total square footage of the existing school building(s) per resident enrollee, month of the election, number of times the proposal is presented to the voters, and total school enrollment.

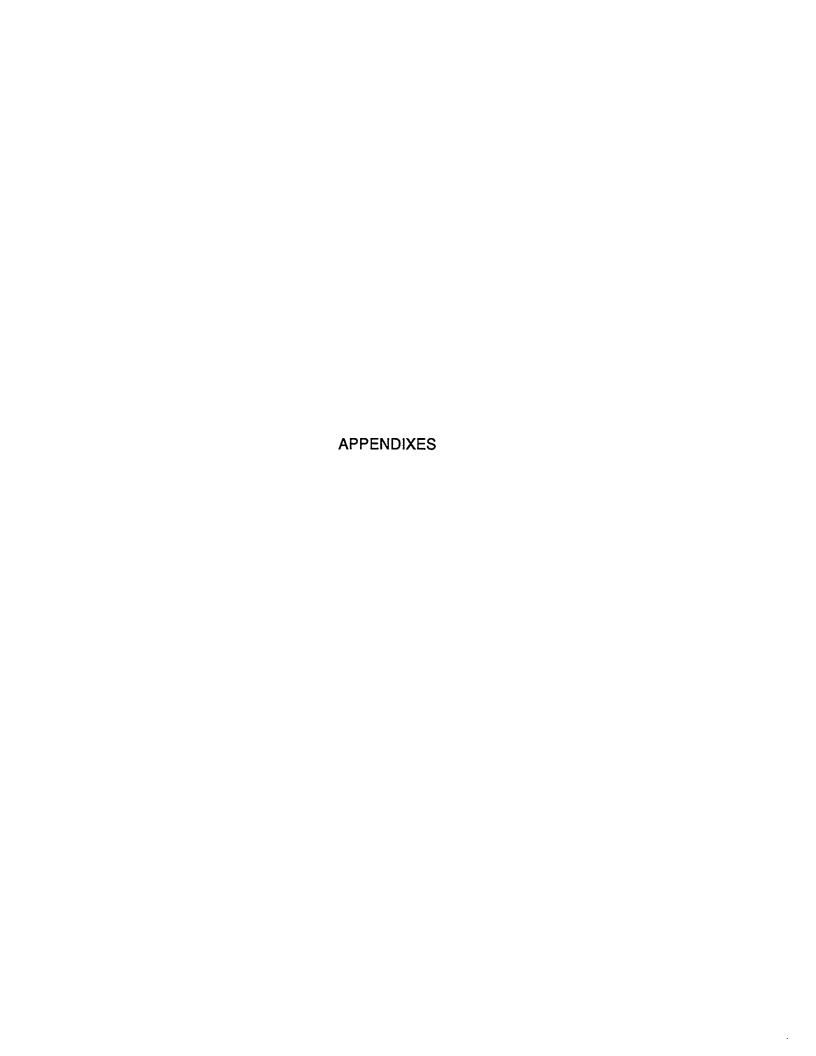
Recommendations

Many factors influence voters and consequently the passage or failure of school financial issues. Educational leaders need to be aware of the factors and apply the information to better provide for capital construction and building renovation. The following recommendations are offered:

- School district superintendents should provide the leadership to develop a strong public relations program in which citizen input is encouraged. A systematic method of involving students, teachers, school support staff, parents, and other district patrons should be used to annually develop recommendations for student program and building improvements.
- School district superintendents should encourage the
 membership of citizen committees, organized for the passage of a
 bond election, to be comprised of school district patrons that had
 ownership in the recommendation for building improvement.
- 3. School district superintendents should understand which bond proposals and tax levies are acceptable to the voters, and provide leadership to neutralize factors in the community that may have a negative influence on the outcome of the election.

In order to accomplish the task of adding to the body of research about voter behavior in school bond elections, the following recommendations are offered:

- This study should be replicated in other states that present school bond proposals to voters to investigate for common influences in the area of voter behavior in school bond issues.
- Other voter behavior studies, previously conducted in other states, should be replicated in Nebraska following school bond issue elections to add to the body of Nebraska school bond election research begun by this study.



APPENDIX A

LETTER TO COUNTY CLERKS

P. O. Box 55 North Bend, NE 68649 May 1, 1990

Dear County Clerk:

I am writing to ask for your help. I am doing research concerning factors affecting the passage of school bond elections in Nebraska. The enclosed questionnaire is the initial procedure of a three phase method to obtain the needed data for analysis and your help is very important.

Please check your records for any public school bond elections held between September 1, 1979 and August 31, 1989. If more than two elections were held during this period, please duplicate the questionnaire as needed. Exact information is requested; however, if you must estimate the number of registered voters in the school district at the time of the election please do and note that it is an estimate.

Thank you for your time and help in filling out the questionnaire and returning it to me in the enclosed envelope as soon as possible. If you have any questions, please call me at the phone number (402) 652-3268.

Sincerely yours,

Michael L. Ough

enc.

APPENDIX A (continued)

COUNTY CLERK QUESTIONNAIRE

1.	Was there any school bond election held in your county during the years from September 1, 1979 through August 31, 1989?	
	YesNo	
2.	If \$\mathbb{Y} \end{aligned} \sigma, please record the requested data for each election in the spaces below. If more than two elections were held during this ten year period, please duplicate this questionnaire as needed.	
Sc	chool District Name & Number	
Мо	nth & Year of Election	
Am	ount of Proposed Bond Issue	
Nur Nur If th	mber of Yes Votes mber of No Votes mber of Registered Voters in the School District at Election Time nis school district had a prior school bond election(s) in 1973-79, please list years:	
	chool District Name & Number	
	nth & Year of Election	
Am	ount of Proposed Bond Issue	
Nur Nur If th	mber of Yes Votes mber of No Votes mber of Registered Voters in the School District at Election Time nis school district had a prior school bond election(s) in 1973-79, please list	

APPENDIX B

NEBRASKA SCHOOL BOND ELECTIONS BY COUNTY

September 1, 1979 - August 31, 1989

County Name	District Number	Date of Election	Amount of Bond	Yes Votes	No <u>Votes</u>	Registered Voters-Est.
Adams	01-	-none-				
Antelope	02-	Question	naire not retur	ned		
Arthur	03-	-none-				
Banner	04-	-none-				
Blaine	05-	-none-				
Boone	06-0001 06-0001 06-0006	05-1981 01-1983 05-1983	1,300,000 1,300,000 125,000	363 582 163	761 345 115	N/A N/A N/A
Box Butte	07-0010 07-0006 07-0006 07-0016 07-0006 07-0025 07-0006	12-1979 11-1981 11-1981 03-1983 05-1983 06-1983 02-1985	200,000 4,000,000 4,450,000 60,000 900,000 53,000 2,725,000	294 1,177 1,021 23 956 37 1,905	175 1,600 1,758 10 1,023 20 1,336	1,086 5,597 5,597 80 5,764 200 6,645
Boyd	08-	-none-				
Brown	09-	-none-				
Buffalo	10-0120 10-0002	08-1982 09-1987	60,000 555,000	52 397	21 163	145 1,220
Burt	11-0014	10-1980	1,950,000	494	389	1,455
Butler	12-	-none-				

APPENDIX B (continued)

County Name	District Number	Date of Election	Amount of Bond	Yes <u>Votes</u>	No <u>Votes</u>	Registered Voters-Est.
Cass	13-	-none-				
Cedar	14-	-none-				
Chase	15-0012 15-0003 15-0003 15-0015	05-1981 10-1988 12-1988 12-1988	2,710,000	130 562 641 719	20 256 216 396	243 2,304 2,234 2,234
Cherry	16-0170	05-1980	23,000	14	5	44
Cheyenne	17-	-none-				
Clay	18-0501 18-0501	05-1983 05-1984	• •	557 556	653 728	N/A N/A
Colfax	19-0504	08-1988	95,000	42	4	132
Cuming	20-0001	06-1989	1,875,000	476	922	3,009
Custer	21-	-none-				
Dakota	22-	-none-				
Dawes	23-0002 23-0062	03-1983 07-1989	1,690,000 155,000	697 50	491 38	N/A 140
Dawson	24-	-none-				
Deuel	25-	-none-				
Dixon	26-	-none-				
Dodge	27-	-none-				
Douglas	28-0017 28-0001	05-1987 11-1988	•	3,167 53,685	•	29,427 165,818

APPENDIX B (continued)

County	District	Date of	Amount	Yes	No	Dogistarad
County <u>Name</u>	Number	Election	Amount <u>of Bond</u>	Votes	No <u>Votes</u>	Registered Voters-Est.
Dundy	29-0117 29-0117	05-1980 05-1980	1,900,000 2,280,000	570 485	399 478	1,500 1,500
Fillmore	30-	-none-				
Franklin	31-	Questionr	naire not retui	rned		
Frontier	32-	-none-				
Furnas	33-	Questionr	naire not retur	rned		
Gage	34-0030	05-1987	350,000	267	101	N/A
Garden	35-0001	11-1980	2,750,000	468	739	1,569
Garfield	36-	-none-				
Gosper	37-	-none-				
Grant	38-	-none-				
Greeley	39-0007 39-0007 39-0007	11-1979 11-1979 06-1981	840,000 342,000 850,000	214 162 315	222 275 128	N/A N/A N/A
Hall	40-0026 40-0002	05-1981 10-1981	2,500,000 7,250,000	402 4,643	189 2,842	N/A N/A
Hamilton	41-	-none-				
Harlan	42-0002	06-1988	1,885,000	583	569	N/A
Hayes	43-	-none-				
Hitchcock	44-	-none-				
Holt	45-0007	05-1986	1,900,000	690	738	5,000

APPENDIX B (continued)

County <u>Name</u>	District <u>Number</u>	Date of Election	Amount of Bond	Yes <u>Votes</u>	No <u>Votes</u>	Registered Voters-Est.
Holt	45-0007 45-0007	05-1989 05-1989	3,400,000 300,000	700 466	997 1,203	5,000 5,000
Hooker	46-	-none-				
Howard	47-0100	12-1980	1,500,000	652	167	N/A
Jefferson	48-0008 48-0300 48-0300 48-0008 48-0008 48-0008	11-1979 11-1979 11-1981 09-1983 06-1986 12-1986 06-1987	5,250,000 2,070,000 1,095,000 4,250,000 3,990,000 4,190,000 4,290,000	587 474 667 678 1,387 1,544 1,735	1,609 591 509 1,801 1,509 1,580 1,178	N/A N/A N/A N/A N/A N/A
Johnson	49-	-none-				
Kearney	50-0501 50-0502	05-1984 07-1989	269,000 115,000	273 200	123 98	N/A 677
Keith	51-0001 51-0001	11-1979 11-1980	6,500,000 3,150,000	680 1,484	1,140 1,240	3,774 3,774
Keya Paha	52-	-none-				
Kimball	53-	-none-				
Knox	54-0096	05-1982	2,995,000	274	624	1,085
Lancaster	55-0148 55-0161 55-0160 55-0160 55-0160 55-0160 55-0001	09-1979 03-1980 08-1981 11-1981 05-1984 05-1988 05-1988 11-1988	1,995,000 3,000,000 275,000 3,000,000 495,000 100,000 1,790,000 17,000,000	235 346 469 214 748 794 877 47,705	215 989 1,148 1,186 313 868 779 23,298	535 1,940 2,719 1,940 2,700 2,700 2,700 98,321

APPENDIX B (continued)

Pawnee	67-	Questionn	aire not retur	ned		
Otoe	66-0011 66-0111	05-1981 05-1988	50,000 4,960,000	28 903	5 1,600	N/A 8,428
Nuckolls	65-	-none-				
Nemaha	64-	-none-				
Nance	63-	-none-				
Morrill	62-0021	08-1989	2,680,000	705	233	1,606
Merrick	61-	Questionr	naire not retur	ned		
McPherson	60-	-none-				
Loup	58-0025 59-0080 59-0005 59-0080 59-0080 59-0080 59-0005 59-0002	10-1980 02-1980 05-1983 05-1984 11-1985 02-1986 02-1987 11-1987	995,000 550,000 380,000 980,000 3,500,000 2,000,000 625,000 7,500,000	248 325 212 171 252 453 548 355 2,274	147 473 320 307 489 521 369 220 1,913	1,770 1,235 1,235 1,900 1,900 1,900 1,300 10,150
_			·			
Logan	56-0037 57-0501	05-1989 10-1984	1,530,000 870,000	300 108	249 377	N/A 561
	56-0055	06-1988	950,000	271	179	N/A
Lincoln	56-0037 56-0037 56-0007	09-1979 09-1979 06-1980	730,000 630,000 990,000	341 190 201	133 261 70	N/A N/A N/A
Lancaster	55-0161	05-1989	2,900,000	633	739	2,000
<u>Name</u>	<u>Number</u>	Election	Amount <u>of Bond</u>	<u>Votes</u>	No <u>Votes</u>	Registered Voters-Est.
County	District	Date of	A ==+	Yes	Nic	Donictore

APPENDIX B (continued)

County	District	Date of	Amount	Yes	No	Pogistored
Name	Number	Election	Amount of Bond	Votes	No <u>Votes</u>	Registered Voters-Est.
Perkins	68-0033	05-1981	1,068,000	577	102	1,050
Phelps	69-	-none-				
Pierce	70-0002	03-1982	2,500,000	407	645	N/A
	70-0002	03-1984	2,745,000	523	797	N/A
	70-0002	06-1989	1,085,000	475	622	4,721
	70-0002	08-1989	734,000	587	533	4,721
Platte	71-0502	05-1989	1,115,000	523	247	2,364
Polk	72-0032	11-1987	850,000	370	136	824
Red Willow	73-0023	04-1981	100,000	51	13	N/A
	73-0111	07-1983	500,000	91	96	N/A
	73-0041	05-1984	70,000	47	16	N/A
	73-0017	05-1984	970,000	1,635	1,177	N/A
Richardson	74-	-none-				
Rock	75-0100	11-1981	2,990,000	771	1,200	
. took	75-0100	04-1989	1,250,000	262 756	83	1,278
• "						
Saline	76-	-none-				
Sarpy	77-0027	11-1983	7,500,000	1,493	634	8,315
Saunders	78-0001	05-1985	1,055,000	405	269	1,470
.						
Scotts Bluff	79-	Questionr	naire not retur			
Seward	80-0009	11-1987	3,500,000	855	1,229	3,400
Sheridan	81-	Questionr	aire not retur	ned		
Sherman	82-0001	05-1981	2,695,000	245	973	N/A
Sioux	83-	-none-				

APPENDIX B (continued)

County Name	District Number	Date of Election	Amount of Bond	Yes <u>Votes</u>	No <u>Votes</u>	Registered Voters-Est.
Stanton	84-	Questionr	naire not retur	ned		
Thayer	85-0060	11-1980	2,465,000	340	339	750
Thomas	86-	-none-				
Thurston	87-	-none-				
Valley	88-	-none-				
Washington	89-0001	03-1988	4,050,000	1,616	522	5,379
Wayne	90-	-none-				
Webster	91-	-none-				
Wheeler	92-	-none-				
York	93-	-none-				

APPENDIX C

LETTER TO SUPERINTENDENTS

Superintendent M: Michael L. Ough E: September 1, 1990 J: Assistance to verify and provide needed bond election information
I am writing to ask for your help. I am doing research for my dissertation serning factors affecting the passage of school bond elections in Nebraska and provide missing facts? The information provided by you is the final of a three phase method to obtain the needed data for analysis and your is very important.
Thank you for your time and help in completing and returning this copy to n the enclosed envelope this week if possible. If you have any questions, se call me at the phone number (402) 652-3268.

HOOL DISTRICT NAME TE OF ELECTION OUNT OF BOND ISSUE \$
What was the total square footage of the existing school building(s) at the time of the election?sq. ft.
If any, please list the names of the private schools (not home schools) that were in your school district at the time of this bond election?

4) Was there in existence a citizen committee in favor of the passage of the

(YES or NO)

school bond election?

APPENDIX D

DEFINITION OF HEADINGS

YES Percentage of affirmative votes in a school bond election.
AMT Amount of the bond issue per thousand dollars per resident student.
LEVY Total property tax levy of the school district.
VAL Ratio of the valuation per resident student of the school district and the state average valuation per resident student.
UMEMP Unemployment rate in the county of the school district.
CPI Percentage of change in the consumer price index during the previous twelve months.
SQFT Total square footage of the existing school building(s) per resident enrollee.
MNTH Month of the election (i.e. 01 - January).
VOTE Percentage of registered voter turnout for the election.
NUMB Number assigned to each bond election (i.e. 1st, 2nd,).
CHG Percentage of change in student enrollments during the previous five years.
PRIV Ratio of private to public school student enrollments.
ENRL Total school enrollment at the time of the election.
REOR School district reorganization within the past three years (1 - Yes) (2 - No).
COMM Existence of a citizen committee in favor of the bond election (1 - Yes) (2 - No).

APPENDIX D (continued)

Individual Case Raw Data of the Sample of Nebraska Public School Districts that offered Bond Elections between September 1, 1979 and August 31, 1989

CASE ID YES AMT LEVY VAL UNEMP CPI	YES	AMT	LEVY	VAL	UNEMP	CPI	SQFT	MNTH	MNTH VOTE NUMB CHG	NUMB	CHG	PRIV	ENRL F	REOR	COMM
060001.1 0.32 02.62 1.34	0.32	02.62	1.34	0.89	02.5	09.7	112	05	* 66.6	-	0.83	0.13	00577	2	-
060001.2 0.63 02.87 1.2	0.63	02.87	1.28	0.99	06.1	03.6	123	01	9.99	8	0.81	0.18	00512	8	-
060006.3 0.59 00.79 0.8	0.59	00.79	0.89	1.51	04.5	03.4	* 666	02	9.99	-	0.75	0.00	00197	8	8
070010.1 0.63 00.74 0.87	0.63	00.74	0.87	1.61	01.4	13.4	690	12	0.43	-	0.92	0.03	00304	8	8
070006.2 0.42 02.27 1.3	0.42	02.27	1.38	0.54	19.7	09.3	118	Ξ	0.50	-	1.12	0.13	01909	8	
070006.3 0.37 02.52 1.3	0.37	02.52	1.38	0.54	19.7	09.3	118	-	0.50	-	1.12	0.13	01909	8	-
070016.4 0.70 05.45 0.8	0.70	05.45	0.89	3.58	07.4	03.8	055	03	0.41	-	1.83	0.00	00011	-	8
070006.5 0.48 00.51 1.20	0.48	00.51	1.20	0.57	07.2	03.4	117	05	0.34	7	1.12	0.14	01929	8	-
070025.6 0.65 01.33 0.81	0.65	01.33	0.81	2.32	05.5	02.5	* 666	90	0.29	-	3.64	0.00	00040	8	-
070006.7 0.59 01.44 1.3	0.59	01.44	1.31	0.52	05.3	03.5	110	02	0.49	က	1.11	0.13	02069	8	_
100120.1 0.71 01.25 0.6	0.71	01.25	99.0	0.98	05.1	05.8	040	80	0.50	-	2.53	0.00	00048	8	8
100002.2 0.71 01.01 1.7	0.71	01.01	1.76	0.85	03.5	04.3	133	60	0.46	-	0.94	0.04	00562	8	-
110014.1 0.56 05.72 1.1	0.56	05.72	1.18	0.78	04.5	12.7	143	10	0.61	-	0.80	0.00	00413	8	-
150012.1 0.87 01.78 0.24	0.87	01.78	0.24	0.86	8.00	09.7	* 666	05	0.62	-	1.44	0.00	99000	7	* တ

*Denotes missing data for SQFT (999), VOTE (9.99), REOR (9), and COMM (9)

APPENDIX D (continued)

'ES AM	155	LEV	/ VAL	CASE ID YES AMT LEVY VAL UNEMP	CPI	SQFT	MNTH VOTE NUMB CHG	VOTE	NUMB	СНС	PRIV	ENRL REOR	EOR	COMM
150003.2 0.69 07.87 1.64 1.53 C	1.53	1.53	0	01.9	04.2	* 666	10	0.36	-	1.12	0.00	00446	0	-
0.75 06.09 1.64 1.53 0	1.53	1.53	0	01.8	04.4	* 666	12	0.38	2	1.12	0.00	00446	-	-
0.64 09.20 0.60 6.19 01	6.19	6.19	9	01.8	04.4	* 666	12	0.50	-	0.81	0.00	00177	-	-
0.74 03.83 1.21 4.26 02	4.26		0	02.2	14.5	290	05	0.43	-	1.00	0.00	90000	Ø	2
0.46 04.06 1.12 1.76 04	1.76	1.76	0	04.0	03.4	124	05	9.99	-	0.90	0.00	00473	8	-
0.43 04.94 1.12 1.88 02.6	1.88	1.88	05	9.	03.0	131	05	9.99	01	0.92	0.00	00451	8	_
0.91 03.80 0.82 3.47 02.1	3.47	3.47	02	-	03.9	138	80	0.35	-	1.39	0.00	00025	-	8
0.34 03.08 1.14 1.51 02.8	1.51	1.51	02.	æ	05.2	115	90	0.46	-	1.12	0.91	29900	0	-
0.59 01.88 1.52 0.58 05.3	0.58	0.58	05.	က	03.8	094	03	9.99	-	0.85	0.00	00957	N	•
0.57 08.61 1.42 2.31 01.9	2.31	2.31	01.9	~	05.1	226	07	0.63	-	0.82	0.00	00018	Ŋ	8
0.70 00.57 1.68 0.71 05.9	0.71	0.71	05.9	6	03.7	124	05	0.15	-	1.18	0.01	14889	Ø	2
0.54 01.36 1.62 1.03 03.3	1.03		03.3	~	04.1	158	Ξ	09.0	-	0.98	0.28	41243	N	-
0.59 05.31 0.85 1.74 00.6	1.74	1.74	00.6	~	14.5	162	05	0.65	က	0.80	0.00	00358	Ø	-
0.50 06.37 0.85 1.74 00.6	1.74	1.74	00.6	.	14.5	162	05	0.64	က	0.80	0.00	00358	N	-
0.73 01.88 1.77 1.33 03.8	7 1.33	_	03.8	~	03.7	349	05	9.99	-	0.86	0.00	00189	Ø	2
0.39 22.00 0.42 6.54 02.6	6.54	6.54	02.6	<i>(</i> 0	12.7	328	Ξ	0.77	+	0.80	0.00	00126	8	-
0.49 06.00 0.87 1.62 01.3	7 1.62		01.	8	12.9	112	Ξ	9.99	-	0.58	0.36	00140	0	-

APPENDIX D (continued)

EOR COMM	2	2	2	2	2	2	2	2	2	2 2	2	2	2	2	2	2	2
ENRL REOR	00140	00135	29800	06163	00349	00780	00787	00787	00610	01160	00524	00503	00985	69600	00987	00987	00245
PRIV	0.36	0.33	0.00	0.13	0.00	0.41	0.42	0.42	0.07	0.06	0.11	0.11	0.09	0.08	90.0	90.0	90.0
CHG	0.58	0.55	1.13	0.93	1.11	0.90	0.95	0.95	0.91	0.83	0.90	0.89	0.83	0.87	0.93	0.93	0.85
NUMB	-	7	8	8	-	-	8	8	-	-	က	4	N	က	4	2	-
VOTE	9.99 *	9.99	9.99	9.99	9.99	0.29	0.34	0.33	9.99	9.99 *	9.99	9.99	9.99 *	9.99 *	9.99 *	9.99	* 66.6
MNTH	1	90	02	10	90	05	90	05	12	Ξ	Ξ	Ξ	60	90	12	90	05
SQFT	112	116	121	155	160	061	090	090	082	074	272	282	084	085	083	083	412
CPI	12.9	09.5	09.7	10.1	03.8	01.1	05.4	05.4	12.6	12.9	12.9	09.3	02.7	01.3	9.00	03.7	03.0
UNEMP	01.3	03.2	03.3	04.2	02.4	04.8	02.5	02.5	03.1	8.00	8.00	03.5	03.7	04.5	04.5	05.3	02.1
VAL	1.62	1.59	1.35	0.77	1.04	0.76	0.75	0.75	0.95	1.13	1.92	1.98	1.19	1.12	1.02	1.02	3.11
LEVY	0.87	0.99	1.00	1.15	1.25	0.86	1.40	1.40	1.21	1.27	1.1	1.07	1.26	1.38	1.74	1.74	0.88
AMT	02.44	06.30	07.00	01.19	05.50	02.65	04.61	0.28 00.41 1.40	0.80 02.51 1.21	0.27 04.86 1.27	04.02	02.20	0.27 04.47 1.26	04.27	04.38	04.48	01.13
YES	0.37	0.71	0.68	0.62	0.51	0.48	0.41	0.28	0.80	0.27	0.45	0.57	0.27	0.48	0.49	09.0	69.0
CASE ID YES AMT LEVY VAL UNEMP CPI SQFT MNTH VOTE NUMB CHG	390007.2 0.37 02.44 0.87	390007.3 0.71 06.30 0.99	400026.1 0.68 07.00 1.00	400002.2 0.62 01.19 1.15	420002.1 0.51 05.50 1.25	450007.1 0.48 02.65 0.86	450007.2 0.41 04.61 1.40	450007.3	470100.1	480008.1	480300.2 0.45 04.02 1.11	480300.3 0.57 02.20 1.07	480008.4	480008.5 0.48 04.27 1.38	480008.6 0.49 04.38 1.74	480008.7 0.60 04.48 1.74	500501.1 0.69 01.13 0.88

APPENDIX D (continued)

Σ		٠.	•															11
COMIM		CV	CA	_	_	_	_	_	_	_	_	-	_	_	_	_	_	
REOR	2	7	8	8	8	8	8	8	8	0	8	8	8	0	Ø	0	8	
ENRL REOR	00220	01377	01260	00379	00352	06200	01162	00773	01130	01166	01166	26567	00675	00516	00516	00246	00317	
PRIV	0.00	0.11	0.13	0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.00	
CHG	1.03	0.93	0.86	0.94	1.15	1.02	1.01	0.92	98.0	1.03	1.03	1.08	0.95	1.23	1.23	1.15	0.90	
NUMB CHG	-	-	8	-	_	-		8	-	-	-	-	-	8	Ø	-	_	
VOTE I	0.44	0.48	0.72	0.83	0.84	69.0	0.59	0.72	0.39	0.62	0.61	0.72	69.0	9.99	9.99	9.99	9.99	
MNTH VOTE	07	11	1	05	60	03	80	Ξ	05	05	05	Ξ	05	60	60	90	90	
SQFT	236	031	108	182	038	166	136	170	140	137	137	152	191	157	157	* 666	092	
	05.1	12.9	12.7	06.5	12.4	14.5	10.7	09.3	12.6	03.8	03.8	04.1	05.4	12.4	12.4	14.3	03.8	
UNEMP CPI	01.4	02.5	02.7	04.5	02.8	03.3	03.5	04.1	03.0	03.3	03.3	02.1	02.6	02.6	02.6	05.1	04.3	
VAL	1.98	0.71	0.74	1.08	1.14	0.86	0.91	0.84	0.84	0.82	0.82	1.06	0.85	0.73	0.73	1.02	1.04	
	1.21	1.61	1.53	1.12	1.29	1.33	1.23	1.31	1.31	1.75	1.75	1.45	2.01	1.95	1.95	1.31	1.74	
AMT	00.54	05.06 1.61	02.66 1.53	08.39 1.12	06.50 1.29	03.90 1.33	00.24 1.23	03.98 1.31	00.45 1.31	00.09 1.75	01.58 1.75	00.64 1.45	04.33	02.09	01.80	04.18	03.04	
YES	0.67	0.37	0.54	0.31	0.52		0.29	0.18	0.70				0.46	0.72	0.42	0.74	09.0	
CASE ID YES AMT LEVY	500502.2 0.67 00.54 1.21	510001.1 0.37	510001.2 0.54	540096.1 0.31	550148.1 0.52	550161.2 0.26	550160.3 0.29	550161.4 0.18	550160.5 0.70	550160.6 0.48	550160.7 0.53	550001.8 0.67	550161.9 0.46 04.33 2.01	560037.1 0.72 02.09 1.95	560037.2 0.42 01.80 1.95	560007.3 0.74 04.18 1.31	560055.4 0.60 03.04 1.74	

APPENDIX D (continued)

CASE ID YES AMT LEVY VAL UNEMP CPI	YES	AMT	LEVY	VAL	UNEMP		SQFT	MNTH	SQFT MNTH VOTE NUMB	NUMB	CHG	PRIV	ENRL R	REOR	COMM
560037.5 0.55 03.33 2.11	0.55	03.33	2.11	0.68	03.3	05.4	149	05	* 66.6	-	0.98	0.00	00482	2	-
570501.1 0.22 04.20 1.27	0.22	04.20	1.27	1.56	07.2	03.6	193	10	0.86	-	0.84	0.00	00210	8	_
580025.1	0.63	0.63 03.88 1.01	1.01	1.86	6.00	12.7	030	10	0.62	-	0.75	0.00	00165	8	-
590080.1 0.41 02.81 1.15	0.41	02.81	1.15	1.31	9.60	14.2	193	02	0.45	4	0.86	0.00	00387	8	_
590005.2 0.40 01.75 1.16	0.40	01.75	1.16	1.19	05.3	03.4	318	05	0.43	-	0.94	0.94	00339	0	-
590005.3 0.36 01.21 1.16	0.36	01.21	1.16	1.19	05.3	03.4	318	05	0.39	-	0.94	0.94	00339	8	-
590080.4 0.34 02.89 1.21	0.34	02.89	1.21	1.28	03.9	03.0	202	90	0.39	2	0.91	0.00	00359	8	-
590080.5 0.47 08.58 1.56	0.47	08.58	1.56	0.99	6.90	03.4	168	Ξ	0.51	9	1.11	0.00	00423	8	
590080.6 0.60 04.90 1.56	0.60	04.90	1.56	0.99	07.5	02.9	168	02	0.48	7	1.11	0.00	00423	8	-
590005.7 0.62 02.16 1.31	0.62	02.16	1.31	1.25	0.90	01.8	346	05	0.44	8	0.92	0.56	00311	8	-
590002.8 0.54 02.20 1.26	0.54	02.20	1.26	0.85	04.2	04.7	156	Ξ	0.41	-	1.05	0.34	03608	8	-
620021.1	0.75	0.75 05.11 2.05	2.05	0.80	03.9	04.7	064	08	0.58	-	0.97	0.00	00540	-	-
660011.1	0.85	03.57 0.24	0.24	1.04	04.9	09.7	* 666	05	9.99	-	0.78	0.00	00014	* တ	*
660111.2	0.36	0.36 04.05 2.09	2.09	09.0	9.60	03.8	144	05	0.30	-	1.04	0.19	01311	8	-
680033.1	0.85	04.24 0.40	0.40	3.22	00.5	09.7	* 666	05	0.65	-	1.02	0.00	00252	8	-
700002.1	0.39	05.64 1.26	1.26	1.16	06.1	06.5	233	03	* 66.6	-	0.87	0.21	00491	0	-
700002.2 0.40 05.98 1.27	0.40	05.98	1.27	1.09	06.4	03.3	224	03	9.99	8	0.89	0.24	00499	8	-

APPENDIX D (continued)

CASE ID YES AMT LEVY	YES	AMT	LEVY	VAL	UNEMP	CPI	SQFT	MNTH	MNTH VOTE NUMB	NUMB	CHG	PRIV	ENRL	REOR	COMM
700002.3 0.43 02.05 2.00	0.43	02.05	2.00	0.88	02.9	05.2	195	90	0.23	က	1.14	0.21	00567	2	-
700002.4 0.52 01.39 2.00	0.52	01.39	2.00	0.88	01.8	04.7	195	80	0.24	4	1.14	0.21	00567	8	-
710502.1 0.68 03.98 0.68	0.68	03.98	0.68	3.84	02.8	05.4	278	05	0.33	-	1.10	0.40	00288	8	-
720032.1 0.73 02.62 1.60	0.73	02.62	1.60	1.13	9.60	04.7	201	Ξ	0.61	-	96.0	0.00	00325	8	-
730023.1 0.80 03.33 0.18	0.80	03.33	0.18	1.27	03.7	10.1	290	04	9.99	-	1.30	0.00	000030	8	Ø
730111.2 0.49 05.38 0.98	0.49	05.38	0.98	2.42	04.2	02.1	347	07	• 66.6	-	0.91	0.00	00113	8	-
730041.3 0.75 01.52 0.78	0.75	01.52	0.78	3.16	03.7	03.0	033	02	• 66.6		1.81	0.00	00047	0	Ø
730017.4 0.58 00.69 1.35	0.58	69.00	1.35	0.74	03.7	03.0	980	05	9.99 *	-	0.89	0.00	01501	2	-
750100.1 0.25 21.51 0.25	0.25	21.51	0.25	5.90	01.4	09.3	261	Ξ	0.86	-	0.88	0.10	00162	8	-
750100.2 0.90 09.33 0.53	0.90	09.33	0.53	3.87	02.0	05.8	271	04	99.0	-	1.02	0.00	00141	8	
770027.1	0.70	0.70 01.27 1.51	1.51	0.40	04.5	02.8	960	Ξ	0.26	8	1.01	0.04	05912	8	-
780001.1	0.60	01.55 1.47	1.47	0.65	9.30	04.1	058	05	0.46	-	0.86	0.00	00744	0	
800009.1	0.41	02.89 1.48	1.48	1.17	9.60	04.7	175	Ξ	0.61	-	1.05	0.35	01224	0	-
820001.1	0.20	04.69 1.32	1.32	0.91	04.1	09.7	078	05	9.99 *	-	0.82	0.08	00611	0	-
850060.1	0.50	12.91 0.90	0.90	2.40	03.3	12.7	* 666	Ξ	0.91	-	0.66	0.72	00191	8	-
890001.1	0.76	0.76 02.11 1.68	1.68	0.70	04.2	03.3	142	03	0.40	-	1.08	0.00	01933	8	7

*Denotes missing data for SQFT (999), VOTE (9.99), REOR (9), and COMM (9)



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