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# A Study on The Influence of Ballot Form and Voting Method on Voter Choice

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# A STUDY ON THE INFLUENCE OF BALLOT FORM AND VOTING METHOD ON VOTER CHOICE

by
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This independent study submitted by Candace Fuglesten in partial fulfillment of the requirements for the Degree of Master of Public Administration from the University of North Dakota is hereby approved by the Faculty Advisor under whom the work has been done.

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Degree Master of Public Administration

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# CHAPTER I

## INTRODUCTION

In the 1980 general election 314,525 North Dakotans went to the polls to cast their vote.[1] Undoubtedly, these voters believed for the most part that the individual decisions they made in casting their secret ballots were of their own unmanipulated free will. Is it possible, however, that in the voting process established by state law there were features in the system which acted subconsciously upon the voters to prescribe voting behavior? Are the results truly reflective of the individual voter's free will, or of someone's or something's unseen influencing hand?

While this introduction might seem more appropriate for a mystery novel than a political science research paper, the underlying premise of voter manipulation and its consequences are not that farfetched. Ballot form and voting machinery design may impact on how individuals vote. Do voters react differently when casting their ballots on a voting machine rather than a paper ballot? What effect does the introduction of the punch card voting method have on voting behavior? Using selected vote tabulations from the 1980 general election, this paper will examine the three legislatively approved voting methods in an attempt to determine whether ballot form influences how individuals vote. Ballot form will

[1] North Dakota, Official Abstract of Votes Cast at the General Election Held November 4, 1980.

also be examined to determine what role, if any, it may play in adding to coattail effects and straight ticket voting.

## CHAPTER II

## REVIEW OF THE LITERATURE

### Ballot Structures

Ballot form for elected offices in North Dakota and most other states takes two general formats. The Indiana Party form provides separate columns for all candidates of one party, with party names and sometimes symbols showing at the top. By grouping all candidates of a single party together, the Indiana Party ballot simplifies party identification and reinforces the idea of voting for a party team. "The party column ballot facilitates and encourages straight party voting, sometimes blind voting."[2] The Massachusetts ballot form groups candidates according to the office they are seeking rather than in a party column.[3] Although the party designation of each candidate is noted following each name, the spatial separation of candidates of the same party by the office ballot arrangement requires the voter to at least look through the names of all candidates before voting. The Massachusetts ballot form may thus tend to discourage straight ticket voting.

### North Dakota Voting Methods

Both the Indiana Party ballot and the Massachusetts ballot formats are found in the voting machinery used in North Dakota. The three

[2]Daniel R. Grant and H. C. Nixon, State and Local Government in America 2d ed., (Boston: Allyn and Bacon, Inc., 1968), pp. 172-73.

[3]Ibid.

types of voting methods allowed by law in North Dakota include paper ballots, voting machines, and electronic voting systems.[4]

Paper ballots were used in whole or in part of 40 North Dakota counties in the 1980 general election.[5] Votes on paper ballots accounted for 35.9 percent of all votes cast in the general election.[6] The paper ballot as specified by state law is patterned after the Indiana party ballot. The ballots prepared for voting on elected candidates are printed on paper in the manner called for by the North Dakota Secretary of State and in accordance with governing state laws. "The ballot shall be of sufficient width to contain all of the tickets to be voted for under the appropriate party designation for each."[7]

Mechanical voting machines provide facilities for voting which record individual votes on a counter. The counter records the cumulative total number of movements of the operating mechanism. The ballot format again follows the Indiana party ballot design. Voting machines were introduced to the balloting process as a means to decrease voting fraud, to correct the inadequacies and problems associated in counting large numbers of votes, and to prevent spoiled ballots caused by over voting, incorrect or extraneous marks, and ballot defacing. In North

[4] North Dakota Century Code, secs. 16.1-06-04, 16.1-06-10, and 16.1-06-11.

[5] See Table 1 for a list of counties using paper ballots.

[6] The determination of which counties or precincts used a particular voting method was obtained through the assistance of all fifty-three county auditors who completed a questionnaire for this research. Official county voting abstracts were then used to tabulate the total vote cast using each voting method as well as the voting percentages for each candidate that appears in the tables later in this report.

[7] North Dakota Century Code, sec. 16.1-06-05.

Dakota in the 1980 general election all or parts of six counties used voting machines. This accounted for 32.97 percent of the total votes cast.[8]

A recent addition to North Dakota voting alternatives is the electronic voting system. Between the general elections of 1976 and 1980 all or parts of twelve counties have moved from paper ballots or voting machines to electronic voting systems.[9] Electronic voting systems accounted for 31.14 percent of the total votes cast in the North Dakota 1980 general election. The electronic voting system used in North Dakota is the punch card system. The punch card system uses computer cards which are placed in a template or guide to assist the voter in punching holes in the appropriate location corresponding to the voter's choice. The ballots are counted after the closing of the polls by computers on pretested programs.[10] The ballot form is modeled after the Massachusetts office group type of ballot. Candidates names are grouped together under the name of the office with party identification alongside the name of each candidate.

Straight Ticket Voting

Straight ticket balloting, defined as an individual voting for every candidate in one particular political party, seems to be decreasing nationally. A national study done using voting statistics in general

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[8] See Table 2 for list of counties using voting machines.

[9] Based on survey of North Dakota county auditors. See Table 3 for a list of counties using electronic voting systems.

[10] North Dakota Century Code, sec. 16.1-06-15.

elections between the years of 1952 and 1972 indicates straight ticket balloting stabilized between 71 percent and 73 percent for the 1952-1960 elections but fell an average of 10 percent for each of the elections in 1964, 1968, and 1972 to where only 42.7 percent of those voting engaged in straight ticket balloting.[11]

While the incidence of straight ticket balloting may be declining nationally, there is evidence which supports the theory that the physical characteristics of election ballots does make a difference in straight ticket voting. In a study completed by Angus Campbell and Warren E. Miller,[12] using voting statistics from the two Eisenhower presidential elections, they contrasted states that allowed for single choice types of straight ticket voting with states that did not provide single choice straight ticket voting options. In those states where voters could vote the straight ticket with a single mark or by pushing a single lever 64 percent voted a straight ticket. In the other states that required more than one mark or pushing more than one lever to vote a straight party ticket, only 54 percent voted a straight party ticket. As the distribution of party identifiers in the two types of states did not differ the researchers concluded "that the sheer ease of voting a straight ticket facilitated this type of voting."[13]

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[11]David Knoke, Change and Continuity In American Politics: The Social Bases of Political Parties (Baltimore and London: The John Hopkins University Press, 1976), p. 140.

[12]Angus Campbell and Warren E. Miller, "The Motivational Basis of Straight and Split Ticket Voting," American Political Science Review 21 (June 1957): 293-312.

[13]Ibid., p. 300.

While North Dakota does not provide for a single lever or mark to register a straight party vote, the use of the Indiana Party ballot for voting machines and paper ballots should tend to similarly facilitate straight ticket voting. For example, it takes only a few seconds to press down all the levers across a party column on a voting machine. It takes considerably longer, however, to turn the pages of the electronic voting system ballot, locate one's party candidate under each office, and make the appropriate punch.

Coattail Effect

Both politicians and researchers studying political behavior have given considerable attention to "coattailing." The coattail influence is defined as a vote given to one candidate motivated by the appeal of another candidate in the same party. The crucial point to be noted about the existence of coattail influence is that it means the candidates of one political party receive votes which they would not have received if it had not been for the candidacy of someone else in the same party. "The receipt of such votes depends on voters casting straight tickets."[14] Opinions vary concerning how powerful an effect coattailing can have and in which direction coattailing works. "It is often held that the lesser candidates on a party's ticket ride into office on the coattails of a personally popular candidate at the head of the ticket."[15] Voters view the influencing candidate as a party

[14]Stan Kaplowitz, "Using Aggregate Voting Data to Measure Presidential Coat-Tail Effects," Public Opinion Quarterly 35 (Fall 1971): 415-19.

[15]John W. Meyer, "A Reformation of the Coattails Problem," Public Opinion and Congressional Elections, ed. William McPhee and William Glaser (New York: The Free Press of Glencoe, 1962): 64.

representative which can crystallize the party vote.

While the more recent research indicates that straight ticket voting nationally has declined, Walter De Vries and V. Lance Torrance conclude in their book on ticket splitting that while they consider party identification less important in top races, it "probably still plays a major role in voting behavior, particularly for races below the level of congress."[16] Additionally, David Knoke contends his research indicates that "a popular presidential candidate is still worth several percentage points advantage to his fellow candidates down the list, both in terms of retaining support within the party's vote and in attracting the independent vote."[17]

Literature Summation

The literature reviewed would all seem to suggest directly or indirectly that ballot structure plays an influencing role in the decision process of some voters. There is evidence that facilitating straight ticket voting causes more of it to occur and the indication that the coat-tailing effect which can only occur when party identification is known can increase voting totals for lower offices.

As North Dakota had varying ballot forms in the 1980 general election, an examination of the voting results should enable us first to measure whether or not ballot structure has an effect in influencing voting behavior and secondly, if there is an effect, to determine the degree of

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[16]Walter De Vries and V. Lance Torrance, The Ticket-Splitter: A New Force in American Politics, (Grand Rapids, Michigan: Eerdmans, 1972), p. 37.

[17]Knoke, Changes and Continuity In American Politics: The Social Bases of Political Parties: 141.

the effect. Building from the literature, one would expect that electronic voting systems in comparison to paper and voting machine balloting would result in less straight ticket voting; and, if present, the coattail effect should be less on the electronic voting systems as compared to paper and voting machine balloting. This difference should result due to the "office" ballot arrangement of the electronic voting system as compared to the "party" ballot arrangement of paper ballots and voting machines.

## CHAPTER III

## METHODOLOGY AND FINDINGS

### Setting the Stage

The 1980 general election both nationally and at the statewide level resulted in major victories for the Republican Party's endorsed candidates. Their "sweep into office" is viewed in most political circles as a result of their popular presidential candidate Ronald Reagan. In North Dakota, Ronald Reagan carried every county in the state, with the exception of Rolette County. The President's lowest vote percentage was 44.8 percent of the total votes cast for president in Rolette County, while his highest vote total was 86 percent of the total votes cast for president in McIntosh County. Only nine counties in North Dakota gave President Reagan less than 60 percent of the votes cast for President. He won in the state with 64.2 percent of the total vote.[18]

Along with Reagan's decisive win in the state came a number of Republican gains in the state and local races with Republican candidates upsetting Democratic-NPL incumbent officeholders. The races for governor, state treasurer, and insurance commissioner were all won by Republicans over the Democratic-NPL incumbents. Additionally, Republican incumbents were re-elected to the state auditor's office and the secretary of state position, while new Republican officeholders were elected to continue

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[18] Lloyd B. Omdahl, The 1980 Election in North Dakota, (Grand Forks, North Dakota: Bureau of Governmental Affairs, February 1981).

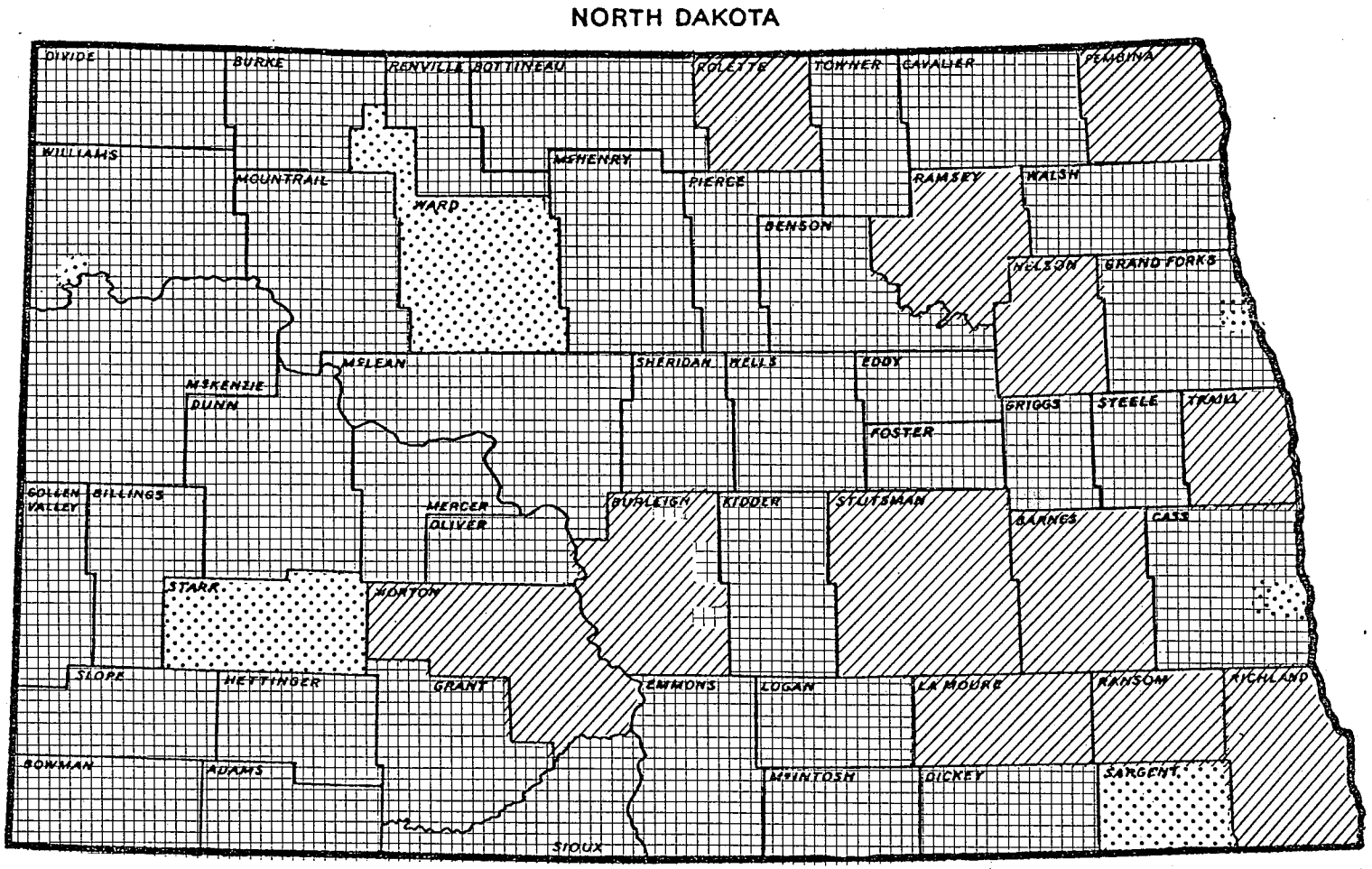
the Republicans hold on the public service commission and the attorney general's office. The Democrats lost their control of the agriculture commissioner's seat as the race between two non-incumbents was won by the Republican candidate. In the state house and senate races the Republicans made substantial gains and controlled the house membership 73 to 27 and the senate membership 40 to 10.

If coattailing, as a result of ballot form, exists, the 1980 general election would appear to be an excellent election to analyze. Since some political theorists believe that coattailing helps lesser candidates on a party's ticket ride into office because of the popular candidate at the top of the ticket, the 1980 election should be an ideal election to test this coattail hypothesis.

Type of Election Methods Used By County

All of the three statutorily-approved types of voting methods were used in North Dakota in the 1980 general election. Of all votes cast, 35.9 percent were on paper, 32.97 percent were on voting machines, and 31.14 percent were on electronic voting systems. While the percentages would seem to suggest a relatively even distribution throughout the North Dakota population, the distribution among counties is less than even. In the 1980 general election 35 counties used only paper ballots, two used only voting machines, and 11 used only electronic voting systems. Of the remaining five counties, four used a combination of voting machines and paper ballots and one used a combination of an electronic voting system and paper ballots (see Map A for locations of the varying voting machinery). Paper ballots were used primarily in the rural, less populated areas, while voting machines were used in the urban, more densely populated areas. Electronic voting systems, however, were

MAP INDICATING BALLOT FORM




Paper ballots

Voting machines

Electronic voting system

used in both the more densely populated urban areas and the rural areas. Electronic voting systems first appeared in North Dakota in the 1978 general election in Richland, Morton, and Barnes counties and by the 1980 general election were used in parts or the whole of twelve counties ranging in population size from Burleigh county, the state's fourth most populated county, to less populated counties like LaMoure and Nelson. More counties are switching from both paper ballots and voting machines to electronic voting systems.[19] There are several reasons for this. The electronic voting system first enables people to complete their voting process quickly so as to cut down lengthy waits in line and second facilitates voting results being tabulated quickly and accurately by a computer. Because electronic voting systems are cheaper than voting machines per unit, counties can buy more units for less money to facilitate speeding the voting process in areas where the population is large, and the rural counties can improve upon the paper balloting process and get away from the manual counting of ballots at a less costly alternative than voting machines. It should be noted, however, that many of the safeguards built into voting machines are not present in the electronic voting system. Spoiled ballots caused by over voting, incorrect or extraneous marks and ballot defacing can all take place with the electronic voting system.

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[19] According to a telephone conversation with Anita Hansen, Grand Forks County Auditor, both Grand Forks County and Walsh County used electronic voting systems for the 1980 primary election. In addition, Cass County as well as other counties are studying a switchover to different voting methods.

North Dakota Ballot Positioning

To appreciate possible coattailing effects and straight ticket voting in North Dakota, it is necessary to understand the ballot positioning of the various office contests. Voting machines, paper ballots, and the electronic voting systems all list the offices in the same order beginning with the presidential electors. Next on the ballot are the United States Senate and United States House of Representatives candidates followed by the state legislative races. The state office contests start with the governor-lieutenant governor race and then proceed in order with the following offices: secretary of state, state auditor, state treasurer, attorney general, commissioner of insurance, commissioner of agriculture, and public service commissioner.

In order to keep this research manageable, only selected offices were chosen to test possible coattailing and straight ticket effects. The governor's race was chosen for two reasons. First, it is the state race that traditionally generates the greatest interest. Therefore, the high visibility of the candidates for governor should minimize coattailing or party voting effects compared to lower visibility offices. Second, the defeat of incumbent Democratic-NPL Governor Arthur Link was considered by many as a political upset caused at least in part by the Reagan landslide. Thus, comparing the votes for president and governor by county and voting method should provide clues as to the impact, if any, that coattailing had on this election contest.

Three lower constitutional office contests were also selected for analysis--state auditor, state treasurer and agriculture commissioner. These races were chosen because of the subjective determination that there were no controversial issues or personalities involved in these

contests to generate a high level of visibility. Also, the duties of these offices do not generally involve a high degree of public policy making. Therefore, choices on these offices may tend to be dictated more by party voting patterns than issues or the personalities of the individual candidates. The use of three lower office races should also dilute any local influences that may result from a candidate being more widely known in one part of the state than another. In addition, the races chosen are each unique in that the state auditor's race involved a Republican incumbent, the state treasurer's race involved an appointed Democratic-NPL incumbent, and the agriculture commissioner's race had no incumbent.

Comparing Votes and Ballot Form

Using information from the official abstract of votes cast in the 1980 general election, the percentage of votes cast for each candidate in the presidential, gubernatorial, state auditor, state treasurer, and the state agriculture commissioner races were computed. Tables 1, 2, and 3 depict the county vote percentages for each candidate by type of voting method along with the statewide totals for each method.

Tables 1, 2, and 3 show that President Reagan made his strongest showing in areas using paper ballots (68.81%) and had his least strength in those areas using voting machines (59.54%). It would be erroneous, however, to conclude that the type of voting method used accounted for this result. As noted previously, the areas using each method are not scattered at random, but rather tend to represent similar voting areas. The vast majority of paper ballots were cast in rural areas where Reagan's strength appeared greatest and voting machines were used primarily in urban areas where his support was not as strong. Electronic voting systems

TABLE 1

PERCENTAGE VOTES CANDIDATES RECEIVED ON PAPER BALLOTS

| County | Presidential Electors | | | Governor | | State Auditor | | State Treasurer | | Commissioner of Agriculture | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Reagan | Carter | Other | Olson | Link | Peterson | Engel | Lesmeister | Hanson | Jones | Hoffner |
| Adams | 68.7 | 24.2 | 7.0 | 57.7 | 42.3 | 63.7 | 36.3 | 56.1 | 43.9 | 51.2 | 48.8 |
| Benson | 59.9 | 31.2 | 8.8 | 47.2 | 52.8 | 53.0 | 47.0 | 43.9 | 56.1 | 33.8 | 66.2 |
| Billings | 76.9 | 17.7 | 6.2 | 58.2 | 41.7 | 64.3 | 35.7 | 55.3 | 44.7 | 60.4 | 39.6 |
| Bottineau | 70.2 | 22.6 | 7.1 | 57.4 | 42.6 | 65.9 | 34.1 | 55.4 | 44.6 | 56.0 | 44.0 |
| Bowman | 70.5 | 21.2 | 8.0 | 56.7 | 43.3 | 69.6 | 30.4 | 49.1 | 50.9 | 55.2 | 44.8 |
| Burke | 73.3 | 21.2 | 5.6 | 56.8 | 43.2 | 66.4 | 33.6 | 55.7 | 44.3 | 57.8 | 42.2 |
| Burleigh* | 73.4 | 21.1 | 5.6 | 56.6 | 43.4 | 67.0 | 33.0 | 54.4 | 45.6 | 62.2 | 57.8 |
| Cass* | 59.3 | 30.4 | 10.3 | 50.4 | 49.6 | 57.5 | 42.5 | 48.4 | 51.6 | 48.1 | 51.9 |
| Cavalier | 64.9 | 27.8 | 7.3 | 56.2 | 43.8 | 57.8 | 42.2 | 47.3 | 52.7 | 46.9 | 53.1 |
| Dickey | 68.7 | 25.7 | 5.7 | 56.0 | 44.0 | 64.8 | 35.2 | 55.3 | 44.7 | 57.2 | 42.8 |
| Divide | 66.1 | 26.5 | 7.4 | 51.9 | 48.1 | 64.1 | 35.9 | 46.6 | 53.4 | 49.1 | 50.9 |
| Dunn | 71.5 | 22.3 | 6.2 | 50.6 | 49.4 | 60.5 | 39.5 | 61.3 | 38.7 | 55.1 | 44.9 |
| Eddy | 61.2 | 28.6 | 10.2 | 47.6 | 52.4 | 53.8 | 46.2 | 43.4 | 56.6 | 37.0 | 63.0 |
| Emmons | 77.6 | 16.4 | 6.0 | 61.7 | 38.3 | 70.6 | 29.4 | 61.0 | 39.0 | 61.6 | 38.4 |
| Foster | 66.6 | 25.4 | 8.0 | 55.3 | 44.7 | 64.0 | 36.0 | 52.4 | 47.6 | 50.3 | 49.7 |
| Golden Valley | 74.6 | 19.2 | 6.2 | 57.2 | 42.8 | 68.7 | 31.3 | 55.1 | 44.9 | 60.6 | 39.4 |
| Grand Forks* | 67.6 | 23.4 | 9.0 | 55.3 | 44.7 | 64.2 | 35.8 | 51.6 | 48.4 | 54.3 | 45.7 |
| Grant | 80.8 | 13.6 | 5.6 | 63.5 | 36.5 | 72.8 | 27.2 | 61.9 | 38.1 | 64.0 | 36.0 |
| Griggs | 61.8 | 29.3 | 8.8 | 49.5 | 50.5 | 60.3 | 39.7 | 50.9 | 49.1 | 52.2 | 47.8 |

TABLE 1--Continued

| County | Presidential Electors | | | Governor | | State Auditor | | State Treasurer | | Commissioner of Agriculture | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Reagan | Carter | Other | Olson | Link | Peterson | Engel | Lesmeister | Hanson | Jones | Hoffner |
| Hettinger | 75.3 | 19.2 | 5.4 | 56.7 | 43.3 | 68.1 | 31.9 | 51.5 | 48.5 | 55.1 | 44.9 |
| Kidder | 77.1 | 17.0 | 5.8 | 55.9 | 44.1 | 66.5 | 33.5 | 54.5 | 45.5 | 58.3 | 41.7 |
| Logan | 79.0 | 15.2 | 5.8 | 59.3 | 40.7 | 69.9 | 30.1 | 60.1 | 39.9 | 63.5 | 36.5 |
| McHenry | 71.2 | 22.9 | 5.9 | 55.8 | 44.2 | 64.3 | 35.7 | 55.7 | 44.3 | 51.7 | 48.3 |
| McIntosh | 86.0 | 10.7 | 3.3 | 70.0 | 30.0 | 81.1 | 18.9 | 71.8 | 28.2 | 72.9 | 27.1 |
| McKenzie | 67.3 | 25.7 | 7.0 | 52.8 | 47.2 | 67.8 | 32.2 | 51.9 | 48.1 | 56.4 | 43.6 |
| McLean | 67.8 | 25.8 | 6.4 | 50.7 | 49.3 | 58.3 | 41.7 | 48.6 | 51.4 | 53.1 | 46.9 |
| Mercer | 68.0 | 25.5 | 6.4 | 51.4 | 48.6 | 61.5 | 38.5 | 54.0 | 46.0 | 54.8 | 45.2 |
| Mountrail | 60.4 | 33.0 | 6.7 | 40.5 | 59.5 | 53.3 | 46.7 | 40.4 | 59.6 | 48.5 | 51.5 |
| Oliver | 73.4 | 20.5 | 6.0 | 52.0 | 48.0 | 64.6 | 35.4 | 52.5 | 47.5 | 55.6 | 44.4 |
| Pierce | 76.1 | 17.3 | 6.6 | 59.9 | 40.1 | 69.8 | 30.2 | 60.8 | 39.2 | 44.4 | 55.6 |
| Renville | 62.6 | 30.9 | 6.4 | 46.1 | 53.9 | 58.8 | 41.2 | 42.7 | 57.3 | 50.7 | 49.3 |
| Sheridan | 82.5 | 12.9 | 4.4 | 68.5 | 31.5 | 76.7 | 23.3 | 69.9 | 30.1 | 66.8 | 33.2 |
| Sioux | 57.0 | 35.2 | 8.0 | 42.0 | 58.0 | 47.9 | 52.1 | 38.2 | 61.8 | 45.4 | 54.6 |
| Slope | 71.4 | 19.8 | 8.8 | 52.8 | 47.2 | 65.2 | 34.8 | 50.5 | 49.5 | 53.7 | 46.3 |
| Steele | 53.3 | 33.0 | 13.6 | 44.9 | 55.1 | 54.3 | 45.7 | 43.6 | 56.4 | 44.2 | 55.8 |
| Towner | 64.9 | 26.8 | 8.3 | 59.2 | 40.8 | 59.9 | 40.1 | 50.5 | 49.5 | 49.8 | 50.2 |

TABLE 1--Continued

| County | Presidential Electors | | | Governor | | State Auditor | | State Treasurer | | Commissioner of Agriculture | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Reagan | Carter | Other | Olson | Link | Peterson | Engel | Lesmeister | Hanson | Jones | Hoffner |
| Walsh | 64.7 | 26.7 | 8.7 | 51.5 | 48.5 | 61.6 | 38.4 | 46.7 | 53.3 | 46.6 | 53.4 |
| Ward* | 58.2 | 33.3 | 8.6 | 40.2 | 59.8 | 50.1 | 49.9 | 42.4 | 57.6 | 45.5 | 54.5 |
| Wells | 73.9 | 20.7 | 5.4 | 59.5 | 40.5 | 66.2 | 33.8 | 57.6 | 42.4 | 46.0 | 54.0 |
| Williams* | 66.6 | 26.2 | 7.2 | 50.4 | 49.6 | 63.7 | 36.3 | 45.1 | 54.9 | 50.7 | 49.3 |
| TOTALS | 68.81 | 24.04 | 7.15 | 54.21 | 45.79 | 63.35 | 36.65 | 52.21 | 47.79 | 51.93 | 48.07 |

*Denotes county where more than one type of voting method was used. Only votes cast on paper ballots were used to compute percentages. In Burleigh County paper ballots were used in only four rural precincts. In Cass County paper ballots were used in 26 rural precincts. Paper ballots were used in all of Grand Forks County except for the City of Grand Forks. Paper ballots were used in only five consolidated rural precincts in Ward County. In Williams County paper ballots were used everywhere except the City of Williston.

TABLE 2

PERCENTAGE VOTES FOR CANDIDATES RECEIVED ON VOTING MACHINES

| | Presidential Electors | | | Governor | | State Auditor | | State Treasurer | | Commissioner of Agriculture | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| County | Reagan | Carter | Other | Olson | Link | Peterson | Engel | Lesmeister | Hanson | Jones | Hoffner |
| Cass* | 54.5 | 31.1 | 14.3 | 53.2 | 46.8 | 60.5 | 39.7 | 50.2 | 49.9 | 52.8 | 47.2 |
| Grand Forks* | 54.9 | 29.7 | 15.5 | 54.7 | 45.3 | 58.7 | 41.3 | 49.3 | 50.7 | 49.9 | 50.1 |
| Sargent | 55.4 | 37.1 | 7.4 | 45.5 | 54.5 | 51.7 | 48.3 | 42.3 | 57.7 | 43.6 | 56.5 |
| Stark | 70.1 | 22.4 | 7.5 | 56.1 | 43.9 | 64.8 | 35.3 | 54.1 | 45.9 | 59.2 | 40.8 |
| Ward* | 68.0 | 24.6 | 7.4 | 50.5 | 49.5 | 61.6 | 38.4 | 53.3 | 46.7 | 54.0 | 46.0 |
| Williams* | 65.4 | 25.3 | 9.3 | 55.4 | 44.6 | 72.3 | 27.8 | 51.9 | 48.1 | 57.1 | 42.9 |
| TOTAL | 59.54 | 28.51 | 11.95 | 53.05 | 46.95 | 61.24 | 38.76 | 50.87 | 49.13 | 53.05 | 46.95 |

*Denotes county where more than one type of voting method was used. Only ballots cast on voting machines were used to compute the percentages. In Cass County, over 95% of the votes cast were on voting machines which were used in Fargo, West Fargo, and other cities. In Grand Forks voting machines were used only in the City of Grand Forks. Voting machines were used in all but five rural precincts in Ward County. In Williams County voting machines were used only in the City of Williston.

TABLE 3

PERCENTAGE VOTES CANDIDATES RECEIVED ON ELECTRONIC VOTING SYSTEMS

| | Presidential Electors | | | Governor | | State Auditor | | State Treasurer | | Commissioner of Agriculture | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| County | Reagan | Carter | Other | Olson | Link | Peterson | Engel | Lesmeister | Hanson | Jones | Hoffner |
| Barnes | 59.8 | 29.0 | 11.2 | 51.4 | 48.6 | 58.7 | 41.3 | 44.4 | 55.6 | 50.4 | 49.6 |
| Burleigh* | 67.8 | 22.6 | 9.6 | 60.3 | 39.7 | 66.1 | 33.9 | 52.8 | 47.2 | 54.3 | 45.7 |
| LaMoure | 64.9 | 25.8 | 9.3 | 53.9 | 46.1 | 60.5 | 39.5 | 47.8 | 52.2 | 47.8 | 52.2 |
| Morton | 66.8 | 25.0 | 8.2 | 52.3 | 47.7 | 57.5 | 42.5 | 44.9 | 55.1 | 50.0 | 50.0 |
| Nelson | 62.1 | 28.0 | 9.9 | 48.8 | 51.2 | 57.5 | 42.5 | 44.8 | 55.2 | 44.7 | 55.3 |
| Pembina | 65.7 | 26.3 | 9.1 | 55.5 | 44.5 | 60.7 | 39.3 | 49.5 | 50.5 | 52.0 | 48.0 |
| Ramsey | 64.9 | 25.6 | 9.6 | 56.1 | 43.9 | 57.8 | 42.2 | 47.6 | 52.4 | 55.1 | 44.9 |
| Ransom | 59.9 | 31.0 | 9.07 | 51.0 | 49.0 | 58.5 | 41.5 | 47.9 | 52.1 | 50.1 | 49.9 |
| Richland | 61.2 | 28.9 | 9.9 | 47.9 | 52.1 | 58.0 | 42.0 | 46.9 | 53.1 | 49.0 | 51.0 |
| Rolette | 44.8 | 46.6 | 8.6 | 36.7 | 63.3 | 43.1 | 56.9 | 31.6 | 68.4 | 34.5 | 65.5 |
| Stutsman | 63.9 | 25.1 | 11.0 | 52.1 | 47.9 | 61.5 | 38.5 | 44.5 | 55.5 | 51.4 | 48.6 |
| Traill | 60.9 | 28.1 | 10.9 | 51.1 | 48.9 | 61.4 | 38.7 | 49.5 | 50.5 | 52.6 | 47.4 |
| TOTAL | 63.91 | 26.41 | 9.68 | 53.46 | 46.54 | 60.53 | 39.47 | 47.66 | 52.34 | 51.10 | 48.90 |

*Denotes county where more than one type of voting method was used. Only ballots cast on electronic voting systems were used to compute the percentages. In Burleigh County the electronic voting system was used in all but four rural precincts.

were used in both urban and rural areas, and this may account for the fact that his showing in areas using this voting method closely parallels his statewide strength (63.91% versus 64.23%).

If President Reagan's coattails substantially influenced the vote for other Republican candidates, then the other candidates' votes should be greatest in areas where Reagan was strongest. In addition, according to the theory on ballot forms, the influence of straight ticket voting should be less on the candidates' votes in areas using electronic voting systems than areas using paper ballots or voting machines. This means that in areas using paper ballots, the combination of the party column voting form and Reagan's strong vote should have given Republican candidates the greatest opportunity to benefit from a coattail effect. In voting machine areas, Reagan's popularity was lower so the party column form should have been of less advantage to other Republican candidates. Finally, in areas using electronic voting systems, Republican candidates might be predicted to do worse than their statewide average because the office ballot should discourage straight ticket voting off of Reagan's coattails. Table 4 summarizes the results actually obtained for each voting method for each Republican candidate.

TABLE 4
PERCENTAGE VOTE FOR REPUBLICAN CANDIDATES BY VOTING METHOD

| Candidates | Paper Ballot | Voting Machine | Electronic Voting | Combined Total |
|---|---|---|---|---|
| Reagan | 68.81% | 59.54% | 63.91% | 64.23% |
| Olson | 54.21 | 53.05 | 53.46 | 53.61 |
| Peterson | 63.35 | 61.24 | 60.53 | 61.78 |
| Lesmeister | 52.21 | 50.87 | 47.66 | 50.33 |
| Jones | 51.93 | 53.05 | 51.10 | 52.18 |

Table 4 shows that three of the four Republican candidates studied did somewhat better among voters using paper ballots than other voting methods. Agriculture Commissioner candidate Kent Jones, however, did slightly worse. State Treasurer John Lesmeister rated 1.88 percent higher than his statewide average, with State Auditor, Bob Peterson, and Governor Olson scoring 1.57 percent and 0.60 percent better, respectively. While this better performance for three of the four Republican candidates studied is consistent with what was predicted, the difference in voting percentages does not appear substantial. Any improved performance for Republican candidates among paper ballot voters may be explainable solely on the basis of their partisan make-up as compared to the state as a whole. Therefore, this data does not, in itself, confirm a coattail or straight party voting effect.

With respect to voting machine areas, Table 4 shows that two Republican candidates, Olson and Peterson, did slightly worse than their statewide percentage, while Lesmeister and Jones each did slightly better. These results are consistent with the theory, as previously advanced, that the results would be indeterminate since the party column ballot should increase the straight ticket voting, but Reagan's lower popularity in voting machine areas should decrease the coattail effect.

Due to the nature of the office ballot form used with the electronic voting systems, the Republican candidates should not have done as well in areas using such systems. The results of Table 4 indicate that Olson's percentage of the vote in electronic voting system areas closely mirrored his statewide percentage. The lower constitutional

office candidates, however, showed a substantial drop in support in these areas. This drop off was 2.67 percent for Lesmeister, 1.25 percent for Peterson, and 1.08 percent for Jones. The difference in effect between the governor's race and the other offices may be accounted for by the fact that coattail effects and straight ticket voting have less of an impact on high visibility races. Therefore, the type of voting method used should have less effect. The poorer performance of the Republican candidates below governor does not appear to be accounted for on the basis of partisan make-up, inasmuch as both Reagan and Olson's voting percentages closely paralleled their statewide percentage. This suggests that the partisan make-up of the voters using electronic voting systems did not differ substantially from voters in the state as a whole.

A review of the state treasurer's race, which was decided by less than one percentage point statewide, suggests that the differential impact of coattail effects and straight ticket voting by voting method may determine the outcome in a close race. Table 3 shows that Lesmeister lost eleven of the twelve counties using electronic voting systems. In contrast, he won twenty-six of the forty county areas using paper ballots and four of the six areas using voting machines. This difference in performance strongly suggests that ballot form may have important effects on election outcomes. Simple inspection of county voting data, however, does not account for the traditional partisan inclinations of each voting area. In order to be sure that coattail effects and straight ticket voting occur at all, or that the strengths of these effects differ by ballot form, it is necessary to account for the base level partisan support that would exist for all candidates of

a given party in a particular area.

Controlling For Partisanship

In studying presidential coattail effects on United States Senate races, Stan Kaplowitz devised a formula for separating long term influences, such as traditional party support, from short term influences, such as the popularity of the candidates and current issues.[20] In doing so he used a formula that related the percentage vote of the presidential candidate with the percentage vote of senate candidates of the same party, after subtracting a factor accounting for the historical partisan support for the presidential candidate's party in each state studied. He derived this factor (N) by using voting data in congressional elections to determine the traditional level of party support for each state. He then computed a correlation coefficient which measured the strength of the relationship between the presidential and senate candidates.[21]

To control for partisanship in analyzing the 1980 North Dakota election data this study has adapted Kaplowitz's methodology and applied it to each of the three voting forms. To do this it was necessary to determine an appropriate (N) value for each county to represent the historical Republican support level. The N value used for each county was derived from a study by Lloyd and Scott Omdahl on partisanship in North Dakota counties.[22] The specific N value used was the average percentage vote for selected Republican state candidates from 1956 through 1976.

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[20] Kaplowitz, "Using Aggregate Voting Data to Measure Presidential Coat-Tail Effects," pp. 415-19.

[21] Ibid.

[22] Lloyd B. Omdahl and Scott J. Omdahl, Indices of Partisanship In North Dakota Counties 1956-1976, (Grand Forks, ND: Bureau of Governmental Affairs, December 1979).

Tables 5, 6, and 7 show the N value for each county along with the Republican candidate's performance as related to these N values. Because the N value was only available at the county level, counties using paper ballots in only a few precincts are not included in Table 5. In Table 6 Williams county was not included since only 56 percent of the vote was cast on voting machines. Cass, Grand Forks, and Ward counties were included, however, because of the high percentage of votes cast on voting machines. Therefore, it is assumed that the N values for these counties approximate the true N values for these voting machine areas. Similarly, Table 7 includes Burleigh county since 98.6 percent of all votes cast in the county were on punch card ballots.

An inspection of these tables shows that Reagan consistently polled better than Republican candidates traditionally do, regardless of voting methods used. Similarly, Peterson consistently ran ahead of the historical Republican averages. In contrast, Olson, Lesmeister, and Jones had a mixed performance. It is interesting to note that Lesmeister's and Jones's performances are consistently worse than the traditional Republican totals in electronic voting system counties. In all twelve electronic voting system counties Lesmeister scored lower than the Republican historical average. Likewise, Jones scored lower in every electronic voting system county except Ramsey, which is his home county. While Olson and Peterson's performances do not show up so clearly upon visual inspection, they also appear to have done poorer in electronic voting system counties than they did in paper ballot or voting machine counties.

To test the strength of the relationship between the Reagan vote and the vote for the other Republican candidates it is necessary

TABLE 5

REPUBLICAN CANDIDATE SUPPORT RELATED TO BASE LEVEL REPUBLICAN SUPPORT IN PAPER BALLOT COUNTIES

| County | N Value | Reagan | Olson | Peterson | Lesmeister | Jones |
|---|---|---|---|---|---|---|
| Adams | 55.6 | +13.1 | + 2.1 | + 8.1 | + .5 | - 4.4 |
| Benson | 46.3 | +13.6 | + .9 | + 6.7 | - 2.4 | -12.5 |
| Billings | 54.8 | +22.1 | + 3.4 | + 9.5 | + .5 | + 5.6 |
| Bottineau | 55.0 | +15.2 | + 2.4 | +10.9 | + .4 | + 1.0 |
| Bowman | 51.9 | +18.6 | + 4.8 | +17.7 | - 2.8 | + 3.3 |
| Burke | 51.1 | +22.2 | + 5.7 | +15.3 | + 4.6 | + 6.7 |
| Cavalier | 49.9 | +15.0 | + 6.3 | + 7.9 | - 2.6 | - 3.0 |
| Dickey | 58.3 | +10.4 | - 2.3 | + 6.5 | - 3.0 | - 1.1 |
| Divide | 43.5 | +22.6 | + 8.4 | +20.6 | + 3.1 | + 5.6 |
| Dunn | 52.3 | +19.2 | - 1.7 | + 8.2 | + 9.0 | + 2.8 |
| Eddy | 47.4 | +13.8 | + .2 | + 6.4 | + 4.0 | -10.4 |
| Emmons | 60.5 | +17.1 | + 1.2 | +10.1 | + .5 | + 1.1 |
| Foster | 49.7 | +16.9 | + 5.6 | +14.3 | + 2.7 | + .6 |
| Golden Valley | 53.9 | +20.7 | + 3.3 | +14.8 | + 1.2 | + 6.7 |
| Grant | 64.5 | +16.3 | + 1.0 | + 8.3 | - 2.6 | - .5 |
| Griggs | 46.9 | +14.9 | + 2.6 | +13.4 | + 4.0 | + 5.3 |
| Hettinger | 58.5 | +16.8 | - 1.8 | + 9.6 | - 7.0 | - 3.4 |
| Kidder | 59.1 | +18.0 | - 3.2 | + 7.4 | - 4.6 | - .8 |
| Logan | 65.7 | +13.3 | - 6.4 | + 4.2 | - 5.6 | - 2.2 |

TABLE 5--Continued

| County | N Value | Reagan | Olson | Peterson | Lesmeister | Jones |
|---|---|---|---|---|---|---|
| McHenry | 52.3 | +18.9 | + 3.5 | +14.0 | + 3.4 | - .6 |
| McIntosh | 75.0 | +11.0 | - 5.0 | + 6.1 | - 3.2 | - 2.1 |
| McKenzie | 50.6 | +16.7 | + 2.2 | +17.2 | + 1.3 | + 5.8 |
| McLean | 50.2 | +17.6 | + .5 | + 8.1 | - 1.6 | + 2.9 |
| Mercer | 65.1 | + 2.9 | -13.7 | - 3.6 | -11.1 | -10.3 |
| Mountrail | 39.8 | +20.6 | .7 | +13.5 | + .6 | + 8.7 |
| Oliver | 60.1 | +13.3 | - 8.1 | + 4.5 | - 7.6 | - 4.5 |
| Pierce | 50.4 | +25.7 | + 9.5 | +19.4 | +10.4 | - 6.0 |
| Renville | 41.5 | +21.1 | + 4.6 | +17.3 | + 1.2 | + 9.2 |
| Sheridan | 68.7 | +13.8 | - .2 | + 8.0 | + 1.2 | - 1.9 |
| Sioux | 44.2 | +12.8 | - 2.2 | + 3.7 | - 6.0 | + 1.2 |
| Slope | 50.4 | +21.0 | + 2.4 | +14.8 | + .1 | - .7 |
| Steele | 44.7 | + 8.6 | + .2 | + 9.6 | - 1.1 | - .5 |
| Towner | 47.4 | +17.5 | +11.8 | +12.5 | + 3.1 | + 2.4 |
| Walsh | 47.9 | +16.8 | + 3.6 | +13.7 | - 1.2 | - 1.3 |
| Wells | 55.0 | +18.9 | + 4.5 | +11.2 | + 2.6 | - 9.0 |

TABLE 6

REPUBLICAN CANDIDATE SUPPORT RELATED TO BASE LEVEL REPUBLICAN SUPPORT IN VOTING MACHINE COUNTIES

| County | N Value | Reagan | Olson | Peterson | Lesmeister | Jones |
|---|---|---|---|---|---|---|
| Cass* | 54.5 | 0 | - 1.3 | + 6.0 | - 4.3 | - 1.7 |
| Grand Forks* | 53.6 | + 1.3 | + 1.1 | + 5.1 | - 4.3 | - 3.7 |
| Sargent | 46.2 | + 9.2 | - .7 | + 5.5 | - 3.9 | - 2.6 |
| Stark | 53.0 | +17.1 | + 3.1 | +11.8 | + 1.1 | + 6.2 |
| Ward* | 50.0 | +18.0 | + .5 | +11.6 | + 3.3 | + 4.0 |



*Candidate support determined on basis of voting machine totals only. In Cass County, this represents 95.0% of the total county votes cast. In Grand Forks, voting machine votes accounted for 77.4% of the vote and in Ward County the voting machine percentage was 95.2%.

TABLE 7
REPUBLICAN CANDIDATE SUPPORT RELATED TO BASE LEVEL REPUBLICAN SUPPORT IN ELECTRONIC VOTING SYSTEM COUNTIES

| County | N Values | Reagan | Olson | Peterson | Lesmeister | Jones |
|---|---|---|---|---|---|---|
| Barnes | 53.2 | + 6.6 | - 1.8 | + 5.5 | - 8.8 | - 2.8 |
| Burleigh* | 62.2 | + 5.6 | - 1.9 | + 3.9 | - 9.4 | - 7.9 |
| LaMoure | 54.5 | +10.4 | - .5 | + 6.0 | - 6.7 | - 6.7 |
| Morton | 50.1 | +16.7 | + 2.2 | + 7.4 | - 5.2 | - .1 |
| Nelson | 46.8 | +15.3 | + 2.0 | +10.7 | - 2.0 | - 2.1 |
| Pembina | 56.7 | + 9.0 | + 1.2 | + 4.0 | - 7.2 | - 4.7 |
| Ramsey | 53.9 | +11.0 | + 2.2 | + 3.9 | - 6.3 | + 1.2 |
| Ransom | 52.8 | + 7.1 | + 1.8 | + 5.7 | - 4.9 | - 2.7 |
| Richland | 52.0 | + 9.2 | - 4.1 | + 6.0 | - 5.1 | - 3.0 |
| Rolette | 37.7 | + 7.1 | - 1.0 | + 5.4 | - 6.1 | - 3.2 |
| Stutsman | 53.9 | +10.0 | - 1.8 | + 7.6 | - 9.4 | - 2.5 |
| Traill | 54.4 | + 6.5 | - 3.3 | + 7.0 | - 4.9 | - 1.8 |

*Candidate support in Burleigh County based on Electronic Voting System votes only which accounted for 98.6% of all county votes cast.

to devise correlation coefficients for each candidate by ballot form. This was done by using Pearson's product moment correlation.[23] The formula for this coefficient is:

$$r = \frac{\Sigma xy}{(\Sigma X^2)\ (\Sigma Y^2)}$$

For this analysis X equals the difference between the N value and Reagan's percentage vote in each county. The Y value equals the difference between the N value and the percentage vote for each of the other four Republican candidates studied. By using these values for X and Y, rather than the candidate's total county percentages, the biases of traditional party support differentials among counties should be eliminated. This should result in correlations which measure short term influences on the 1980 election such as Reagan's popularity and the other factors which led to a stronger than usual Republican showing.

The r correlation can have a value from +1.00 to -1.00. A perfect positive linear relationship would be represented by the value +1.00. If two valuables are perfectly inversely related r would equal -1.00. A value of 0.0 would show no linear relationship.[24]

If a coattail effect existed in the 1980 election, one would expect a positive correlation between the vote for Reagan and each of the other Republican candidates. One might also expect that the coattail effect and consequently the r value, would be less significant for a high visibility office contest, such as the governor's race, than races for lower constitutional offices. Furthermore, because of the

[23] Hubert M. Blalock, Social Statistics, (New York: McGraw-Hill 1960), pp. 285-87.

[24] Ibid.

difference in voting methods one should expect that the r correlations would be lower for the electronic voting system areas which use an office ballot as opposed to the paper ballot and voting machine areas which use a party column ballot.

Table 8 shows the r correlation coefficient values computed for each of the Republican state candidates studied.

TABLE 8

CORRELATION COEFFICIENTS (r VALUES) MEASURING STRENGTH OF ASSOCIATION BETWEEN REAGAN VOTE AND SELECTED REPUBLICAN CANDIDATES

| | Olson | Peterson | Lesmeister | Jones |
|---|---|---|---|---|
| Paper Ballots | .73 | .82 | .76 | .52 |
| Voting Machines | .56 | .91 | .92 | .87 |
| Electronic Voting Systems | .61 | .61 | .50 | .47 |

It is apparent from examining Table 8 that a positive correlation occurred for each candidate regardless of voting method used. Furthermore, the values obtained are quite high, suggesting a strong association between the presidential vote and the vote for other Republican candidates. While it cannot be stated with certainty that President Reagan's popularity influenced the vote for the other candidates, this seems to be a logical assumption. As Kaplowitz noted:

> . . . it is a common conviction among political scientists that by far the most salient election in a presidential year is the presidential election. If true, this would strongly suggest that the major direction of causation should be the presidential race influencing the others.[25]

[25] Kaplowitz, "Using Aggregate Voting Data to Measure Presidential Coat-Tail Effects," p. 418.

This would appear particularly true in the 1980 North Dakota election given Reagan's high levels of support.

The r values for Olson show the least variation by voting method of the candidates studied. While these r values suggest a relatively strong relationship, they do not achieve the same level of strength as other values for lower constitutional office candidates. These results are consistent with the prediction that the visibility of the governor's race would dampen the coattail effect.

The r values for Peterson and Lesmeister also conform to the earlier predictions. The strengths of association in paper ballot and voting machine areas were extremely high for both Peterson and Lesmeister. This suggests a strong coattail effect. By contrast the strengths of association recorded for these candidates in electronic voting system areas was far weaker. This supports the hypothesis that the office ballot reduces coattail and straight ticket voting effects.

The results of the correlation between Reagan and Jones appears less conclusive. While Jones's r values in voting machine and electronic voting system areas parallel the r values for Peterson and Lesmeister, his r value in paper ballot areas is substantially less. These results, however, may be explainable by the different interest level in the agriculture commissioner's race in rural and urban areas. The significance of the coattail effect in paper ballot areas, which represent primarily rural voters, would be less because of more interest in the agriculture commissioner's race and greater familiarity with the candidates involved.

# CHAPTER IV

## CONCLUSION

This paper has examined the 1980 North Dakota election to determine whether the popularity of President Reagan assisted Republican state candidates in achieving electoral success. In addition, this study sought to determine whether the type of voting method used could influence voter choices. The analysis shows that a strong relationship existed between the vote for Reagan and the vote for the other Republican candidates studied. There is also evidence to suggest that the strength of this relationship decreases in races where the candidates have a higher level of visibility.

This study confirms the hypothesis that the use of an office ballot arrangement in the electronic voting system method reduces coattail and straight ticket voting effects. This result appears especially significant due to the growing use of the electronic voting systems. In a close election, such as the race for state treasurer in 1980, the difference in behavior exhibited by voters using different voting methods could easily have determined the outcome.

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