Vermont Legislative Research Shop

Ballot Order Effect

The purpose of this report is to study the effect that the name order on ballots has upon the vote share candidates receive. The report begins by briefly examining past studies concerning this phenomenon. We then report on research that The Vermont Legislative Research Shop undertook examining the effects of ballot name order on the vote shares of candidates in Vermont House races over three separate elections.

Empirical Findings

Joanne Miller and Jon Krosnick's first report on name order effects on election outcomes focused on 1992 state legislative elections in Ohio. Ohio rotates the name order of the candidates on its ballots. In the research they found that name order effects were shown in forty-eight percent of 118 races studied. In these elections it was revealed that a candidate listed first on a ballot received, on average, two-and-half percent more of the vote than those listed after.[1] Stronger effects were seen when the party affiliations were not listed, races were minimally publicized, or there was no incumbent running in the election.

Miller and Krosnick believe that the reason people choose the first name on the ballot is due to primacy effects, which is just a natural response to choose the first answer when given many possibilities. In another study Jon Krosnick, Michael Tichy, and Joanne Miller found that there's an inherent bias, based on the nature of human psychology, in the choices people make. Specifically, that options listed first will be chosen more often than those that are not.[2]

The authors go on to describe the ballot order effects on the 2000 presidential election in California, North Dakota, and Ohio. George W. Bush received more votes in all three states when he was listed first. In California Bush received a statistically significant 9.45 percent of the vote. In North Dakota and Ohio he received 1.69 and .76 percent increase in vote share when he was listed first. Al Gore, on the other hand, experienced recency effects, that is, he actually received a larger percent of votes when not listed first on the ballot. There were 7 candidates in the three states studied, thus, there were 21 tests for name order effects in the 2000 presidential elections. In 19 of those tests the data showed a statistical advantage to being named first on the

---

[1] Joanne Miller, Jon A. Krosnick, "The Impact of Candidate Name Order on Election Outcomes," *Public Opinion Quarterly* Volume 62 No. 3, 1998, Pg. 291-330.
[2] Jon A. Krosnik, Joanne M. Miller, and Michael P. Tichy, "An unrecognized need for ballot reform,'" in Ann N. Crigler, Marion R. Just, and Edward J. McCaffery (eds.), *Rethinking the Vote:The Politics and Prospects of American Election Reform* (New York: Oxford University Press, 2004), pp. 52, 53, 63.

ballot, 9 of these exhibited statistically significant outcomes. The authors conclude that although the effects of name order are relatively small in terms of affecting or distorting the will of the public, the fact remains that in a close race, the winner can, and has been decided by the order candidates' names on the ballot. [3]

Next, Krosnick et al focused on the 2000 Ohio, North Dakota, and California, statehouse races. All three of these states used different methods for rotating name order. In Ohio and North Dakota in two-candidate races 23 percent showed statistically significant name order effects. These were primacy effects which on average gained a candidate 2.88 percent of the vote. In races with more than two candidates 37 percent showed name order effects.

Another study, conducted by Jonathan Koppell and Jennifer Steen studied the 1998 Democratic primary in New York City. The study looked at 79 contests and found that in 71 of those contests candidates received a greater proportion of votes simply because they were listed first on the ballot. In 7 of the contests the candidate listed first won his race by a smaller margin of victory then the increased percentage of votes gained by being first on the ballot. This striking evidence suggests that nearly 10 percent of the elections in New York would have had a different outcome if candidates were randomly placed on ballots.

Koppell and Steen said that although Miller and Krosnick find that ballot order effects on primary elections are much more significant. Looking at the following races, being listed first in New York City primaries always resulted in a significant advantage, those listed first in
 - gubernatorial primary races had a 2.3 percent advantage
 - U.S. Senator races had a 1.8 percent advantage
 - Lt. Governor races had a 1.6 percent advantage
 - Attorney General races had a 2.2 percent advantage.
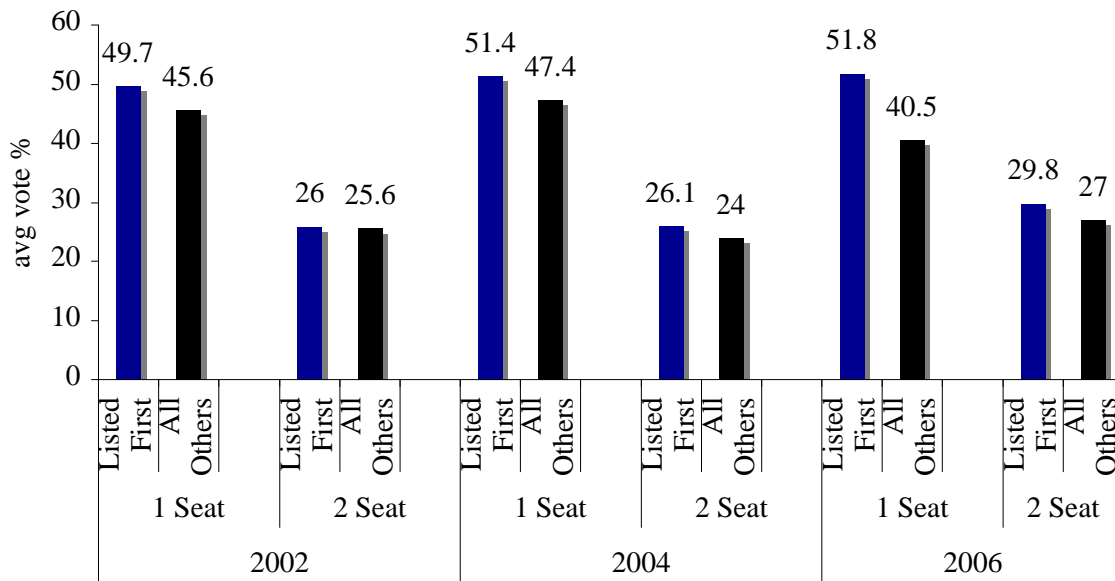
The Vermont Example

Using election and campaign finance data from the Secretary of State's office we were able to analyze the effect of ballot order in the Vermont House races in 2002, 2004, and 2006.

In Figure 1 we present the average vote of candidates in competitive elections[4] for the Vermont State House broken down in terms of one and two seat districts.

---

[3] Jon A. Krosnik, Joanne M. Miller, and Michael P. Tichy, "An unrecognized need for ballot reform."

[4] A seat was counted as competitive if the margin of victory was within 10 percentage points. For single seat districts the margin was measured as the distance from 50 percent (unless there were more than 2 candidates). For 2 seat districts margin was calculated according to a formula devised by Niemi, Jackman and Winsky, where the candidates of opposite parties are paired off against each other, with the highest vote-getter matched against the lowest vote-getter of the other party, and the second highest vote-getter matched against the highest losing vote-getter of the other party.[1] The rationale for this method is: the candidate with the highest vote would not be defeated until he or she received fewer votes than the weakest opposing party candidate, and the candidate with the second highest vote would not loose until he or she received fewer votes than the losing candidate of the opposite party with the highest losing vote total.

Figure 1: Average Percent of Vote Vermont House Candidates by Ballot Position

Looking at Figure 1, it is clear that being listed first in the ballot order has distinct advantage over being listed in any other position on a ballot, regardless of if the candidate is in a one seat or two seat district. In 2002 candidates listed first were able to capture an additional 4.1 percent of the vote share in one seat districts and an additional .4 percent in two seat districts. In 2004 candidates listed first were able to capture an additional 4 percent of the vote share in one seat districts and an additional 2.1 percent in two seat districts. In 2006 candidates listed first were able to capture an additional 11.3 percent of the vote share in one seat districts and an additional 2.8 percent in two seat districts.

To more rigorously test the effect of ballot position on candidates' vote share we conducted a regression analysis regressing candidates' vote share on factors that have been found to be related to a candidate's vote share in legislative elections, namely, whether the candidate was an incumbent or open seat candidate, the candidate's party, the proportion of the district campaign spending made by the candidate, and the number of candidates on the ballot, as well as whether the candidate was listed first on the ballot.[5] We present the results for the 2002, 2004 and 2006 state house elections in Table 2. Table entries shown in bold are significant at the .05 level, meaning that we have 95 percent confidence that the estimated effects are greater than zero.

---

[5] Breaux, David A. and Anthony Gierzynski, "It's Money that Matters: Campaign Expenditures in State Legislative Primaries," *Legislative Studies Quarterly* 16 (1991) pp. 429-443; Gierzynski, Anthony and David Breaux, "Money and Votes in State Legislative Elections," *Legislative Studies Quarterly* 16 (1991) pp. 203-217.

Tables 2: Regression Analysis, Dependent Variable Equals Percent Vote

	Unstandardized Coefficients		
	2002 B	2004 B	2006 B
(Constant)	41.887	25.857	28.046
Listed First on Ballot	7.055	8.841	3.780
Listed Second on Ballot	3.585	2.594	-.593
Democrats	2.205	.216	8.150
Incumbents	10.094	13.208	13.503
Open Seat Candidates	2.847	8.988	5.720
Candidate % of Spending	.138	.307	.343
Number of Candidates	-7.031	-3.051	-4.048
Adjusted R Sq.	.656	.739	.746

The results show that being listed first on the ballot had a significant and positive impact on a candidate's vote share in the 2002, 2004 and 2006 Vermont state house elections. The regression coefficients indicate that candidates in the 2002 election that were listed first on the ballot received, on average, a vote share 3.4 percentage points higher than candidates listed second on the ballot (7.055 minus 3.585) and 7 percentage points higher than candidates listed third or lower on the ballot. Likewise, the in the 2004 election that were listed first on the ballot received, on average, a vote share 8.8 percentage points higher than candidates listed second or lower on the ballot (the coefficient for being listed second on the ballot is not statistically significant, that is no different from 0). The ballot order effect for 2006 was less, but still statistically significant; candidates listed first won, on average, 3.78 percentage points more of the vote than those listed second or lower on the ballot.

Conclusion: Effects of Ballot Order

The existing research shows that the order in which names are listed on election ballots has a discernable effect on the vote share that candidates receive. The analysis we conducted on the 2002, 2004, and 2006 state house races in Vermont shows that such ballot order effects do occur in Vermont state House elections.

Twelve states mandate ballot name order be rotated to minimize such an impact.