

Equichoice

THE QUESTION -the integrity of the electoral ballot

THE ANSWER - Equichoice

A Division of Harten Investments Limited, 1234 Kingston Road, Toronto, ON M1N 1P3

Telephone: 416-691-4167 x 6

Facsimile: 416-691-8112

Email: harten@hotmail.com

'Equichoice and the Equichoice system are trademarked and patented
in various jurisdictions, including Canada

The Equichoice Ballot System*

Ballots whether printed or electronic are produced in every permutation and combination of names, an equal number of times

Being listed first on a ballot is 2 – 6% advantage

The heart of a democratic system is an electoral process as free from bias as possible

"This, together with previous research documenting the existence of position bias, should serve as evidence that as the basis of electoral reform, though not as sexy as campaign finance reform, implementing of the Equichoice system in all jurisdictions, may go farther to levelling the playing field for candidates, than any attempt to regulate campaign spending."

"It is known, accepted, and proven that a candidate for office, whose names appear at the top of a list of candidates, has a distinct advantage."

US SUPREME COURT DECISION

Using data from the 1998 Democratic Primary in New York City, which uses an Equichoice type of name rotation, precinct by precinct, we illustrate conclusively that being listed in first position contributed an average of 3 differential or 6 statistical benefit to vote tallies.

The State of Ohio, similarly, in its general election shows a 2.3% to 6% advantage for being listed first.

The Analysis of the 1998 New York City Democratic Primary Elections

The New York City democratic primary election was a vigorously contested affair. The Democratic Party had agreed to allow name permutation in response to legal challenges, and court rulings.

It was estimated that campaign expenditures by these candidates exceeded 15 million dollars, and encompassed about 5400 polling stations with 450,000 voters casting ballots.

Each candidate appeared an equal number of times in each ballot position. Each position should receive an equal number of votes.

VOTE FOR EACH BALLOT POSITION

| 1 | Ballot Position | | | | Total votes cast for this office | Number of precincts | Statistical Differential | |
|---------------|-----------------|-------|-------|-----------------------------|-------------------------------------|------------------------|-----------------------------|-----|
| | 2 | 3 | 4 | advantage of being first | | | advantage to being first | |
| Governor | 27.3% | 24.0% | 23.4% | 25.3% | 427,871 | 5,460 | 11.9 | 2.3 |
| U.S. Senator | 26.8% | 25.1% | 24.0% | 24.0% | 444,410 | 5,460 | 6.0 | 1.7 |
| Lt. Governor/ | 34.9% | 33.3% | 31.8% | | 305,331 | 5,442 | 4.6 | 1.6 |
| Atty. General | 27.2% | 25.2% | 23.9% | 23.7% | 395,820 | 5,456 | 7.3 | 2.0 |

The researchers concluded: "The results of our analysis leave no room for doubt regarding the existence of positional advantage. We can confidently reject the null hypothesis of no positional bias."

The Analysis of the 1998 New York Democratic Primary Elections (continued)

EACH CANDIDATE APPEARED AN EQUAL NUMBER OF TIMES IN EACH POSITION

VOTE % FOR EACH BALLOT POSITION

EACH POSITION SHOULD RECEIVE AN EQUAL NUMBER OF VOTES

| | District | 1 | Ballot Position | | | Total votes cast for this office | Number of precincts | Statistical advantage of being first | Differential advantage of being first |
|-------------------|----------|-------|-----------------|-------|-------|-------------------------------------|------------------------|--|---|
| | | | 2 | 3 | 4 | | | | |
| US Representative | 9 | 27.1% | 24.5% | 24.5% | 23.8% | 45,113 | 498 | | 2.1% |
| | 10 | 37.1% | 31.6% | 31.4% | | 33,477 | 514 | | 3.7% |
| | 17 | 50.0% | 50.0% | | | 23,267 | 348 | | 0.0% |
| State Senator | 17 | 56.6% | 43.4% | | | 9,209 | 251 | | 6.6% |
| | 14 | 36.8% | 31.4% | 31.8% | | 17,657 | 208 | | 3.5% |
| | 19 | 54.1% | 45.9% | | | 14,647 | 213 | Overall | 4.1% |
| | 30 | 51.6% | 48.4% | | | 28,071 | 240 | | 1.6% |
| State | 32 | 50.3% | 49.7% | | | 17,119 | 216 | average | 0.3% |
| | 29 | 55.5% | 44.5% | | | 5,833 | 85 | | 5.5% |
| Assembly Member | 31 | 53.3% | 46.7% | | | 4,368 | 75 | 6 | 3.3% |
| | 34 | 51.5% | 48.5% | | | 3,761 | 77 | | 1.5% |
| | 36 | 53.3% | 46.7% | | | 8,627 | 75 | | 3.3% |
| | 42 | 35.5% | 34.5% | 30.1% | | 5,774 | 54 | | 2.2% |
| | 43 | 53.7% | 46.3% | | | 6,531 | 62 | | 3.7% |
| | 45 | 24.5% | 24.3% | 26.8% | 24.5% | 9,816 | 103 | | -0.5% |
| | 46 | 38.5% | 30.0% | 31.7% | | 6,802 | 84 | | 4.9% |
| | 51 | 54.5% | 45.5% | | | 4,549 | 95 | | 4.5% |
| | 52 | 51.3% | 48.7% | | | 7,787 | 108 | | 1.3% |
| | 54 | 39.5% | 30.9% | 29.6% | | 4,303 | 102 | | 6.2% |
| | 55 | 50.8% | 49.2% | | | 5,632 | 104 | | 0.8% |
| 56 | 52.3% | 47.7% | | | 6,465 | 89 | | 2.3% | |

Results of the 2000 Canadian General Election - Electoral Districts Decided by a Margin of 2% or less (Source: Elections Canada Web Site)

| Province | Electoral District | Margin | %Lead |
|-----------------|------------------------------|---------------|--------------|
| Que. | Champlain | 15 | 0.0 |
| Que. | Lava! Centre | 42 | 0.1 |
| Ont. | Leeds-Grenville | 55 | 0.1 |
| Sask. | Saskatoon-Rosetown—Biggar | 68 | 0.3 |
| Y.T. | Yukon | 70 | 0.5 |
| N.B. | Tobique-Mactaquac | 147 | 0.5 |
| Sask. | Regina-Lumsden-Lake Centre | 161 | 0.5 |
| Sask. | Regina-Qu'Appelle | 164 | 0.6 |
| Sask. | Palliser | 209 | 0.7 |
| Que. | Richmond-Arthabaska | 363 | 0.7 |
| Que. | Matapedia-Matane | 276 | 0.9 |
| Ont. | Windsor-St. Clair | 401 | 1.0 |
| Que. | Argenteuil-Papineau-Mirabel | 542 | 1.1 |
| Que.. | Quebec East | 647 | 1.1 |
| Que. | Charlesbourg-Jacques-Cartier | 822 | 1.4 |
| Alta. | Edmonton West111111111 | 733 | 1.5 |
| P.E.I. | Cardigan | 76 | 1.6 |
| N.S. | Sackville-Musquodoboit | | |
| | Valley-Eastern Shore | 755 | 1.9 |
| N.S. | West Nova | 703 | 2.0 |
| Que. | Shefford | 891 | 2.0 |

Candidates were listed in alphabetical order.

Elections Canada has strict rules about influencing voters on a polling station, no logos, or even coloured folders are allowed; yet we allow the greatest influence of all positional preference to impart their decision.

INTRODUCTION

A very extensive survey of the last 12 general elections in the Irish Republic (1961-1997), demonstrates the overwhelming advantage of positional bias.

STUDY

An incumbent candidates running for election were alphabetically categorized.

Per 1000 candidates in each alphabetical grouping the results reveal that candidates with an A - C surname, had 1.65 times the delectability of those in D - T, almost 2.00 times K - M and N - Z.

As an interesting note, this led to charges that certain political parties gave preference to candidates whose surnames were in the A-C category.

| Surname Initial Letter | Electability index by surname | | | |
|---------------------------|-------------------------------|---------|---------|---------|
| | 1961—97 | 1961-73 | 1977-82 | 1987-97 |
| A-C | 1.65 | 1.56 | 1.66 | 1.58 |
| D-J | 1.01 | 1.13 | 1.13 | 0.91 |
| K-M | 0.70 | 0.76 | 0.63 | 0.73 |
| N-Z | 0.85 | 0.68 | 0.65 | 0.99 |

The conclusion drawn by the study, then was that candidates with surnames occurring early in the alphabet, and therefore listed first on a ballot, have a decided advantage.

"Voting Matters
Journal"

"Positional Voting
Bias Revisited"-
Philip Kestelman
June 15,2002

On average, top
position gave a
statistical 7%
advantage.(3%
by differential)

COMPTON. CALIFORNIA

Sharing 1st place on the ballot was worth more than 281 votes according to expert evidence

On February 8, 2002, the winning candidate for Mayor in Compton. California was removed and replaced by the candidate who finished second.

Supreme Court Judge Judith C. Chirlen ruled that, "... placing Eric Penoden first on the ballot, and Omar Bradley second, violated the rule to permutate names. Despite a 281 vote majority, the judge, based her 33 page ruling on evidence of the primacy effect, the significant advantage of being listed first.

She ruled that in an equitable permutation of names, Mr. Omar Bradley would have won the election.

A preponderance of evidence convinced the judge of the advantage being listed first in terms of voter preference. The decision is currently being appealed.

State of Ohio Elections 1992, Public Opinion Quarterly, 1998

Mirrors the results in the New York election but was a general Election.

Krosnick and Miller published an extensive study of precinct by precinct vote returns for all the 1992 elections held in the three largest counties in Ohio which had implemented a ballot name permutation system.

Results of the Krosnick and Miller Study

Candidates received on average of 2.33% more votes by direct differential, when their name appeared first on the ballot. However, in some cases, candidates received as much as 6% more votes when listed first, compared to being listed last.

**Brook D J
and Upton G I G
applied statistics
213,414-419**

**Brook and Upton Study
Elections in England and Wales**

CONCLUSION:

The position of a candidate's name on the ballot paper can have an important effect in terms of the number of votes they receive. In particular, the lower placed names were seriously disadvantaged.

**Allied Research
(D. Fielding et al)**

The Allied Study of 1990, Toronto, Ontario

4 fictitious candidates, Adams, Carter, Smith and Taylor (selected to minimize ethnic bias,) ran for an advisory board at various shopping centres, where shoppers were asked to vote for one. Ballots were presented in 24 permutations and combinations.

Advantage of being first

POSITION ON BALLOT

| | TOTAL | 1 | 2 | 3 | 4 |
|---------|-------|-----|-----|-----|-----|
| Adams | 2688 | 722 | 675 | 648 | 643 |
| Carter | 2671 | 726 | 681 | 613 | 641 |
| Smith | 2672 | 711 | 687 | 624 | 650 |
| Taylor | 2665 | 719 | 679 | 613 | 654 |
| Average | 2674 | 719 | 680 | 624 | 647 |

The Infamous FLORIDA BALLOT

Although the Democrats are listed second in the column on the left, they are the third hole on the ballot.

| | | |
|---------------------------------|------|---|
| (REPUBLICAN) | | |
| GEORGE W. BUSH - PRESIDENT | 3 → | ● |
| DICK CHENEY - VICE PRESIDENT | | ● |
| (DEMOCRATIC) | | ● |
| AL GORE - PRESIDENT | 8 → | ● |
| JOE LIEBERMAN - VICE PRESIDENT | | ● |
| (LIBERTARIAN) | | ● |
| HARRY BROWNE - PRESIDENT | 7 → | ● |
| ART OLIVIER - VICE PRESIDENT | | ● |
| (GREEN) | | ● |
| RALPH NADER - PRESIDENT | 6 → | ● |
| WINONA LA DUKE - VICE PRESIDENT | | ● |
| (SOCIALIST WORKERS) | | ● |
| JAMES HARRIS - PRESIDENT | 11 → | ● |
| MARGARET TROME - VICE PRESIDENT | | ● |
| (NATURAL LAW) | | ● |
| JOHN HAGELIN - PRESIDENT | 13 → | ● |
| NAT GOLDHABER - VICE PRESIDENT | | ● |

Punching the second hole casts a vote for the Reform Party

| | | |
|---|--|------------------------------------|
| | | (REFORM) |
| ← 4 | | PAT BUCHANAN - PRESIDENT |
| | | EZOLA FOSTER - VICE PRESIDENT |
| ← 5 | | (SOCIALIST) |
| | | DAVID McREYNOLDS - PRESIDENT |
| | | MARY CAL HOLLIS - VICE PRESIDENT |
| ← 8 | | (CONSTITUTION) |
| | | HOWARD PHILIPS - PRESIDENT |
| | | J. CURTIS FRAZIER - VICE PRESIDENT |
| ← 10 | | (WORKERS WORLD) |
| | | MONICA MCOREHEAD - PRESIDENT |
| | | GLORIA La RIVA - VICE PRESIDENT |
| <p>WRITE IN CANDIDATE To vote for a _____ write in candidate, Follow the directions on the long strip of your ballot</p> | | |

If the Equichoice ballot system had been used, Al Gore would probably have won Florida.

Bush was in first position because the party of the incumbent Governor (Jed Bush) is awarded first position, second most votes (democrats), second position, Others by order of registering.

CANADIAN EXAMPLE

The rather bizarre circumstance of the 1996 case of *R. v Taylor* provides comic illustration of the lengths to which one person went, in attempting to utilize the positional bias phenomenon to her benefit:

Sometime in 1994, Mrs. Taylor filed her nomination papers to be re-elected as School Trustee, in Ward 6, in the City of Mississauga, for the November, 1994 elections. In order to ensure her re-election as School Trustee, Mrs. Taylor convinced her daughter, Amy Taylor's boyfriend, one David Buchanan Hunter, to run as a candidate. The theory which she espoused, was that the person whose name appears at the top of the ballot would siphon off a certain percentage of the vote, and thus enable Mrs. Taylor to win the election. Mrs. Taylor obtained the nomination form, the notice of registration, the application for addition to the voters' list. She partly prepared these forms for David Hunter -using the name David Buchanan - and using an address and telephone number that had no connection with David Hunter. David Hunter did not campaign as David Buchanan. He did not send out flyers. He did not attend all candidates meetings. David Buchanan became known in the community as the "mystery candidate." The theory proved itself in practice. Mrs. Taylor won the election. Mrs. Taylor was convicted criminally of uttering forged documents, namely the municipal election forms in the name of David Buchanan. The candidate whose name would have been on the ballot first was George Carlson. He came in second by a small margin, and successfully brought a claim under the Ontario Municipal Elections Act to have himself declared elected as the Trustee in Mrs. Taylor's stead.

[1996] O.J. No. 4695 (Ont. Court General Division, per Caswell J)

In the U.S., state legislatures determine the structure of ballots.

Equichoice and the Equichoice system are trademarked and patented in various jurisdictions, including Canada

TYPICAL DECISIONS FROM OVER 100 U.S. CASES.

The general conclusion is that any fixed order position taints the electoral process.

Elliot v Michigan (cite as 295 MICH. 245; 294 N.W. 171)

It is a commonly known fact, that in an election, either primary or general, where a number of candidates or nominees are before the electorate, those whose names appear at the head of the list have a distinct advantage."

California Supreme Court Decision (Mann v. Powell 333, F . Supp. 1261)

"...a fundamental goal of a democratic society is to attain the free and pure expression of the voters choice of candidates. To that end our state and federal constitutions mandate that the government must, if possible avoid any feature that might adulterate, or indeed frustrate, that free and pure choice; the state must eschew arbitrary preferment of one candidate over another by reason of incumbency, or by alphabetical priority of the first letter of his surname. In our governmental system, the voter's selection must remain untainted by extraneous artful advantages imposed by weighted procedures of the election process."

Rash v Carrington (380 U.S. 89, 96,85,SCT,775,13L.Ed 675)

"...a procedure which invariably reserves advantageous ballot positions for candidates whose names begin with letters occurring early in the alphabet is unconstitutional. The substantial advantage which occurs to a candidate in top ballot position may significantly distort the equality and integrity of the electoral process. The simple rationality of an alphabetical order procedure is not sufficient to sustain such a provision in this context."

Gould v Grubb (14 Cal. Ed 661 (Sup. Ct. of Cal.)

The State Supreme Court in California addressed a provision in the State Election Code which provided for the names of incumbent candidates to be listed first upon a ballot, as a result of a constitutional challenge launched by two non-incumbent candidates. This was an appeal of a trial court decision which, after four days of evidence from expert witnesses, had concluded that a "ballot positional" advantage existed, and that there was no rational basis to grant that advantage to incumbents.

In considering the trial decision, the California Supreme Court, in Gould v Grubb, made an observation of particular relevance to the Canadian context of a single office ballot (as opposed to a composite, multi-office ballot as is frequently used in Canadian municipal elections), in response to an argument that ballot position preference pertains to low visibility elections only "...the record does not support the city's characterization of Petitioners' evidence as demonstrating that 'ballot placement preference' occurs only in 'low visibility' elections."

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There are more
AAA companies
in the yellow
pages than ZZZ

Why does positional preference exist?

There are complex psychological reasons for positional preference on a ballot. Numerous studies over a 30 year period, including the Geller, Shedletsky (Toronto) review commissioned in 1995, indicate two linked factors.

Symbols and
signs are not
allowed in
polling stations

The "**SATISFYING PRINCIPLE**" people seek the first solution presented if there is no compelling reason to process further information. (Primacy effect.)

An uncertain voter is likely to be affected by these behavioral laws, but even decided voters are influenced. The effect is exaggerated by voters where their primary language is foreign to the culture, or candidate choice is not compelling, or voting is seen as demonstrating good citizenship. The **RESPONSE ORDER** effect has been extensively studied by psychologists. Summarized, it confirms that in a visual presentation there is a tendency to select the first option presented. From childhood on we are indoctrinated with first is best, as in athletics or academic pursuits. This will effect the association with positional to varying degrees.

As Krosnick and Miller, psychology researchers wrote in Public Opinion Quarterly 1998, "if a citizen feels compelled to vote in races regarding which he or she may have no substantive basis for choice he or she may simply settle for the first name listed, because no reason is apparent suggesting that the candidate is unacceptable."

Producing the Ballots

As will be demonstrated ballots are produced in random permutations so that every candidate is represented in every position an equal number of times, regardless of how many ballots are needed.

The appropriate information and program would be supplied by Elections Canada to a printer, and security features can be easily incorporated. The printing "run" lets us know how many times each candidate is in each position.

There should not be any appreciable cost difference for printing. Ballots are counted in the usual way, or encoded for scanning etc.

The same principles apply for touch screen voting.

CONCLUSION

The Equichoice system eliminates the positional preference in order and proximity sequence and ensures a fair electoral process without bias or discrimination affecting candidates or voters.