Gore Favored in the Electoral College

Robert S. Erikson Department of Political Science Columbia University <u>rse14@columbia.edu</u>

Karl Sigman Department of Industrial Engineering and Operations Research sigman@ieor.columbia.edu

This paper can be downloaded from http://www.ieor.columbia.edu/~sigman/

Sunday, November 5, 2000

On the eve of the 2000 election, Bush almost certainly will win 24 states worth 210 electoral votes and Gore will almost certainly win 10 others worth 146 electoral votes. This leaves 17 "battleground" states where the vote is thought to be in play. Gore's task is often described as daunting: He must win a major share of these battleground states in order to overcome his Electoral College disadvantage in safe states.

If each battleground state were a 50-50 coin flip, a Bush victory would be very likely. In fact we can compute it exactly. It would be 88 percent.

But we can do better than that. We have a wealth of information from state polls to predict each battleground state as more than a coin flip. Here, we pool the late polls in each battleground states to estimate their vote divisions and the errors around these estimates. Instead of using the many national tracking polls, we infer the outcome from 26,000+ poll respondents in surveys from 17 battleground states. We count the preferences in all surveys where the middle date of the survey fell within the 9 days between October 26 and November 4^1 , yielding Gore's proportion of the two-party vote in each battleground state, see Table 1. From these proportions, we compute for each such state, the probability that the state goes to Bush and the probability that that state goes to Gore (and they do differ from 50-50). These probabilities then yield the expected outcome for the Electoral College. But we go on further to simulate one million outcomes of the Electoral College to observe the frequencies with which Bush wins and Gore wins the necessary 270 Electoral Votes. We also count the frequencies of an Electoral College

¹ For one possible battleground state, New Mexico, we have no late poll data. Since New Mexico is generally considered leaning to Bush, we assign it to Bush. For West Virginia, we include a survey centered on October 25, just outside our nine-day time frame. For the 9-day time period, we count all likely voter polls available from *National Journal* Polltrack, pollingreport.com and hotlinescoop.com. The count is last updated Sunday, November 5.

tie. These frequencies provide our estimates of the probabilities that Bush wins, that Gore wins, and that the Electoral College ends up tied.

Gore:	.847	[84.7 percent]
Bush:	.142	[14.2 percent]
Tie:	.011	[1.1 percent]

Although possibly uplifting to Gore supporters, these probabilities should be interpreted with considerable caution. Proclaiming a Gore victory would be akin to a pollster sampling many thousands of respondents over many days in order to call an election outcome as outside the margin of error when the projected victory margin is extremely slim. *If* the state pollsters uniformly know what they are doing, *if* there is no turnout surprise, and *if* there is no trend from the time of these polls to election day, Gore should win a narrow Electoral College victory as most of the battleground states fall his way.

This would be a narrow squeaker of a victory, even in the Electoral College. Over the million simulations, Gore s average number of electoral votes is 282.4, a surplus of only 12 over the required 270. Moreover, a Gore Electoral College win would almost certainly be accompanied by a popular vote loss.

If the battleground states vote should go even one percent more in Bush s favor than projected from state polls, the odds would favor Bush as strongly as they favor Gore in this analysis.² On the other hand, we could be conservative in analyzing Gore s advantage and Bush s plight. If we observe any trend at all during the nine days of our poll-of-polls, that trend favors Gore slightly. And our analysis makes no special allowance for potential Nader voters; it assumes that if Nader voters were switching to Gore in the end, they would have told the pollsters at the time of the surveys.

Final note on a tie

In this scenario, a tie is possible with a bit over a 1% chance, and happens if and only if Gore wins exactly 123 Electoral votes from the battleground total of 182 (and Bush wins exactly 59). We offer two examples of how it could occur, one giving FL to Bush, and the other giving FL to Gore:

Of the 17 battleground states,

(1) Bush wins DE, FL, ME, MO, TN, WV, and Gore the other eleven.

(2) Gore wins DE, FL, IL, MI, MN, PA, WI, WA, and Bush the other nine.

² If the vote division moves one percentage point more to Bush in each battleground state, the probabilities are: Bush .802, Gore .189, Tie .010. Gore s expected number of electoral votes would be a losing 250.3. If the vote division moves one *half* point, the Electoral College becomes truly unpredictable: Gore, .541, Bush .443, and Tie .016 Gore s expected number of electoral votes is 268.55.

State	Electors	Gore proportion of two-party vote in the state	Sample size (Bush/Gore only) of pooled state polls	Variance	Probability Gore wins the state
"AR"	6	0.494	556.25	0.000449	0.395
"DE"	3	0.477	550	0.000454	0.143
"FL"	25	0.510	3622.72	6.9E-05	0.893
"IL"	22	0.525	3584.373	6.96E-05	0.999
"IA"	7	0.497	864.61	0.000289	0.420
"ME"	4	0.500	1011.36	0.000247	0.500
"MI"	18	0.520	4493.997	5.55E-05	0.997
"MN"	10	0.543	1383.85	0.000179	0.999
"MO"	11	0.492	2003.28	0.000125	0.236
"NV"	4	0.478	562.5	0.000444	0.146
"NH"	4	0.508	1524	0.000164	0.731
"OR"	7	0.506	534	0.000468	0.602
"PA"	23	0.516	4967.7	5.03E-05	0.989
"TN"	11	0.494	2155.22	0.000116	0.289
"WA"	11	0.510	1199.9	0.000208	0.753
"WV"	5	0.488	428.8	0.000583	0.302
"WI"	11	0.517	2150.823	0.000116	0.946

 Table 1. Estimate of the Battleground State Vote