

If there are $2N$ voters, each with a 50/50 chance of voting for either Bush or Kerry, then your chance of casting the tiebreaker is well approximated by the formula

$$\frac{1}{\sqrt{N\pi}}$$

where $\pi \approx 3.14$ is the ratio of a circle's circumference to its diameter. For example, if there are 6,000,000 voters, we get

$$\frac{1}{\sqrt{3000000\pi}} \approx \frac{1}{\sqrt{9424778}} \approx \frac{1}{3070}$$

which I rounded to 1/3100 in the column. If instead each voter has probability p of voting for Bush (or for Kerry) then the formula becomes

$$\frac{(4p(1-p))^N}{\sqrt{N\pi}}$$

This formula was used in the column with $p = .51$ (for Florida) and $p = .63$ (for New York). However, when I applied the formula, I made the mistake of using N instead of $2N$ for the number of voters. Thus the chance of swaying the election in Florida is comparable not to winning at Powerball 128 times in a row as I said in the column; instead it's comparable to the relatively easy task of winning at Powerball a mere 64 times in a row.