

Reference sheet for Election Night 2004
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<http://election.princeton.edu>

This document presents

- a) A short list of key states to watch to determine who wins;
- b) Key states to watch to determine a relative blowout; and
- c) A graph to let you see for yourself how much decided-voter polls differ from the final outcome (the biases spoken of so often on my Web site).

Finally, on the last page is a guide, written with slightly different assumptions, for watching the returns as the evening progresses. This was kindly provided by Will DeBello of UC Davis.

General Overview

I call states committed if they have win probabilities >90% under all different sets of assumptions, i.e. decided voters only or with undecideds/turnout allocated. Among the 23 battlegrounds designated at election.princeton.edu these committed states are

Kerry: WA, OR, NH, ME, NJ, MI. Bush: NC, TN, WV, AZ.

PA (21 EV) is down to 85% for Kerry only because of recent outlier polls, so I add it. This leads to starting numbers of **Kerry 228 EV, Bush 183 EV.**

The following states lean in one direction but are not certain (and not counted below):

Probable Kerry: HI (4). Probable Bush: AR (6), MO (11), VA (13).

The critical states are **FL(27) and OH(20)**. FL and OH together would put Kerry at 275 EV, over the top. If Bush wins both, he is only at 230 EV, but because of states listed above as probable he would be heavily favored.

Other toss-up states are

MN(10), WI(10), CO(9), IA(7), NV(5), NM(5) (total 46 EV).

If Kerry wins Florida, he is at 255 EV (259 EV with Hawaii) and needs 15 EV more.

Likely combinations that could put him over 270 EV would be: (a) OH alone, (b) MN or WI, plus IA, WV or NM. Bush will have a difficult time winning without Florida.

If Kerry wins Ohio, he is at 248 EV (252 EV with Hawaii) and needs 22 EV more. FL could do this. Many combinations could come from the toss-up states listed above.

If Bush wins Florida, he is at 210 EV (240 EV with probables). Counting probable states, he will need 29 EV more.

If Bush wins Ohio, he is at 203 EV (233 EV with probables). Counting probable states, he will need 36 EV more.

Rank order of battleground states

This list runs in order, from most likely for Kerry to most likely for Bush. Toss-ups based on decided-voter polls are in **bold**. Surprises on either side (for instance, if Bush wins a state to the left of the boldface list) indicate a significant departure from decided-voter expectations.

Kerry <<< ME / WA / NJ / OR / NH / MI / PA / MN / **HI / WI / IA / OH / FL** / NV / NM / AR / CO / MO / AZ / TN / VA / WV / NC >>> **Bush**

Canaries in the coalmine

Among decided voters (i.e. in raw polling data), some Eastern states show a medium-sized margin for one candidate or the other. Surprises in any of them would suggest an overall shift of 4 points or more from raw polling data. Therefore, they are early-evening indicators for major effects due to undecided voters, turnout effects, or polling bias. In other words, if a surprise happens in any of these states, then the election can be called very early.

Early warnings for a Kerry blowout: West Virginia (closing time 7:30pm EST; poll margin Bush +6.3%) and Arkansas (8:30pm, Bush +3.2%).

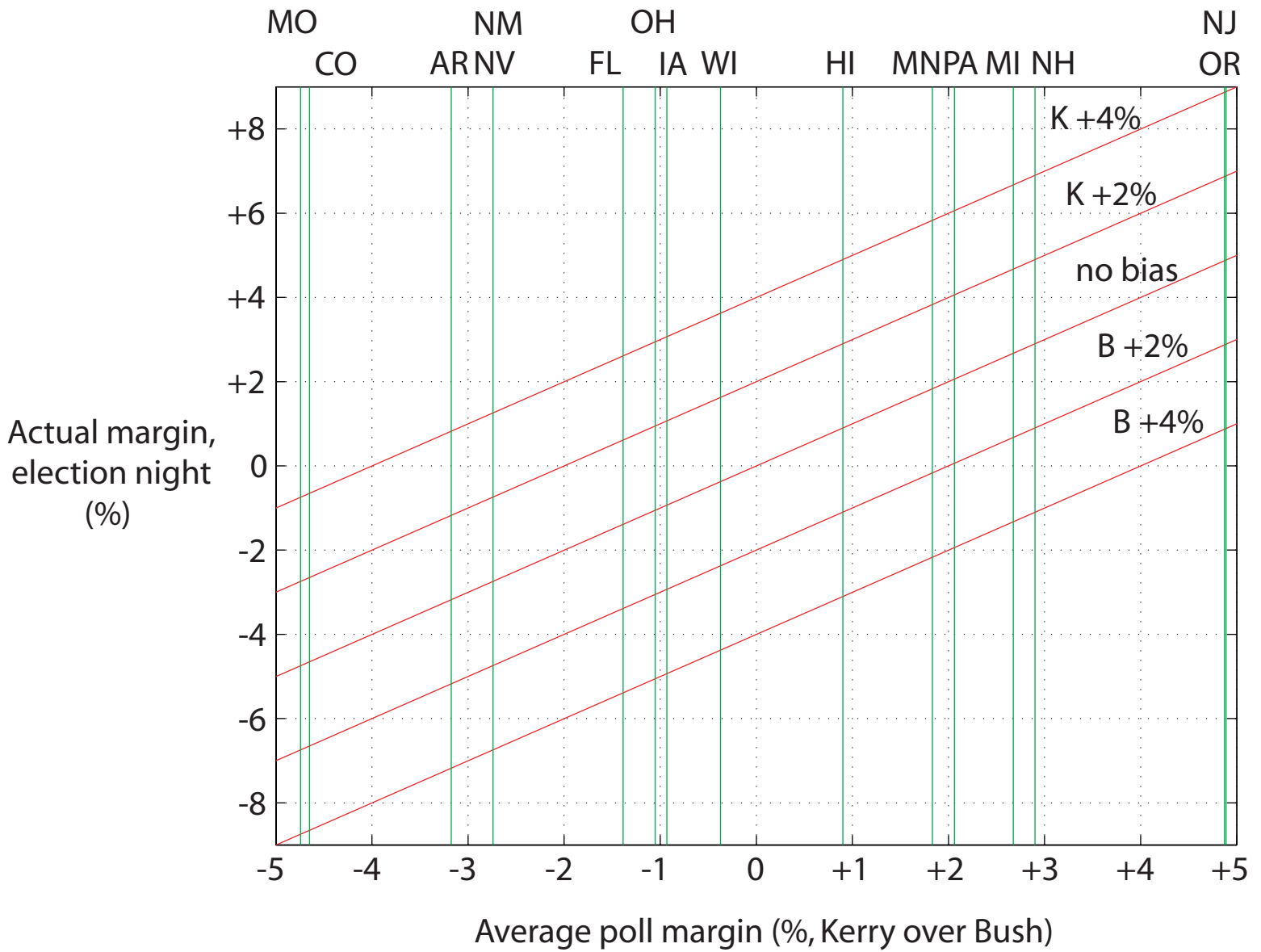
Early warning for a Bush blowout: New Hampshire (closing time 7pm EST; poll margin Kerry +2.9%).

Testing for the effect of undecideds and turnout

To gauge whether overall outcomes are very different from decided-voter polls, the most sensitive states to watch are **Ohio (closing 7:30pm), and Florida (closing 6pm and 8pm, staggered)**. If in either state either candidate wins by a margin of 2% or more, this suggests that turnout or last-minute decisions by undecided voters made a significant impact.

For a more quantitative approach to these questions, use the chart on the next page to plot the Kerry-Bush margin as a function of the decided-voter polling margin.

The vertical colored lines show the decided-voter polling margin, taken from the last available polls. When a margin becomes available, plot it on the vertical axis. If a point falls on the center diagonal, this indicates that the polls were accurate. Off-axis points indicate inaccuracy. If points fall predominantly on one side of the other, this indicates a systematic difference between polls and voting.



Plot actual results on the green vertical line corresponding to the swing state.

**Average poll margins in battleground states
Polls finished during the week of October 25 to November 1, 2004
(positive values indicate Kerry ahead of Bush)**

	EV	Mean \pm SEM poll margin <i>(SW prediction)</i>	Actual margin Tuesday (%)
Arkansas (AR)	6	-3.2 \pm 1.7 % (-0.2%)	
Arizona (AZ)	10	-8.3 \pm 3.3 % (-5%)	
Colorado (CO)	9	-4.7 \pm 1.5 % (-2%)	
Florida (FL)	27	-1.4 \pm 0.9 % (+2%)	
Hawaii (HI)	4	+0.9 \pm 1.6 % (+4%)	
Iowa (IA)	7	-0.9 \pm 0.8 % (+2%)	
Maine (ME)	4	8.3 \pm 1.5 % (+11%)	
Michigan (MI)	17	2.7 \pm 0.9 % (+6%)	
Minnesota (MN)	10	+1.8 \pm 1.8 % (+5%)	
Missouri (MO)	11	-4.7 \pm 0.5 % (-2%)	
Nevada (NV)	5	-2.7 \pm 1.1 % (+0.3%)	
New Hampshire (NH)	4	+2.9 \pm 1.1 % (+6%)	
New Jersey (NJ)	15	+4.9 \pm 1.4 % (+8%)	
New Mexico (NM)	5	-2.7 \pm 1.7 % (+0.3%)	
North Carolina (NC)	15	-8.5 \pm 1.0 % (-5%)	
Ohio (OH)	20	-1.1 \pm 0.7 % (+2%)	
Oregon (OR)	7	+4.9 \pm 1.4 % (+8%)	
Pennsylvania (PA)	21	+2.1 \pm 0.7 % (+5%)	
Tennessee (TN)	11	-10.8 \pm 4.0 % (-8%)	
Virginia (VA)	13	-6.0 \pm 1.1 % (-3%)	
Washington (WA)	11	+7.6 \pm 1.1 % (+11%)	
West Virginia (WV)	5	-6.3 \pm 1.7 % (-3%)	
Wisconsin (WI)	10	-0.4 \pm 1.5 % (+3%)	

The model at <http://election.princeton.edu> assumes margins +3% toward Kerry relative to these polling numbers. Comparison of returns to the last polls can be done graphically by plotting actual returns using the graph on page 6 of this brochure.

Electoral Map Guide – Short Version (Will DeBello, UC Davis)

This is a distilled version of the most likely electoral scenarios for election night, described as they should unfold according to published times of poll closing. Due to the closeness of the race and the problems with early reporting in 2000, the media may be somewhat more restrained in calling individual states. Still, it is reasonable to assume that the order of calls in the battleground states will follow roughly the order of poll closings.

Assumed outcome in 42 states (including long-shot swing states e.g. MI, CO, NV, HI):
Bush 227, Kerry 207, with 104 battleground electoral votes (EVs). *270 needed to win.*

The 8 battleground states in order of poll closing: NH(4), OH(20), FL(27), PA(21), MN(10), WI(10), NM(5), IA(7).

*Bottom line: If Kerry wins PA, FL and OH, he will win. If he wins only PA, he will lose. If he wins PA and **one of** OH or FL, the final result will depend on WI, MN, IA and NM.*

7 pm (all times Eastern)

Polls close in most of NH. Although a few are open until 8pm, historically the state has been called before then. NH is barely leaning Kerry. If he loses it, the main electoral scenarios are minimally affected. However, loss of NH would be an ominous sign for him.

Polls close in some of FL. Because of the problems in 2000, it seems unlikely that any calls would be made until after all FL polls close at 8pm. Probably later than that.

7:30 pm

Polls close in Ohio. Probably no calls immediately. If Kerry loses OH, realistically he must win PA and FL to stay in the game.

8:00 pm

Polls close in PA. Remaining polls close in NH and FL. *If NH hasn't yet been called, it may be promptly at 8pm.* PA could be called relatively soon after. FL, somewhat later.

If Kerry wins NH and PA he will have 232 EV. The pivot states are OH and FL:

Kerry wins OH, loses FL
Needs 18 more EV

Kerry wins FL, loses OH
Needs 11 more EV

Kerry loses OH and FL
Needs 38 more EV

Remaining battlegrounds: WI(10) MN(10) IA(7) NM(5)

9:00 pm

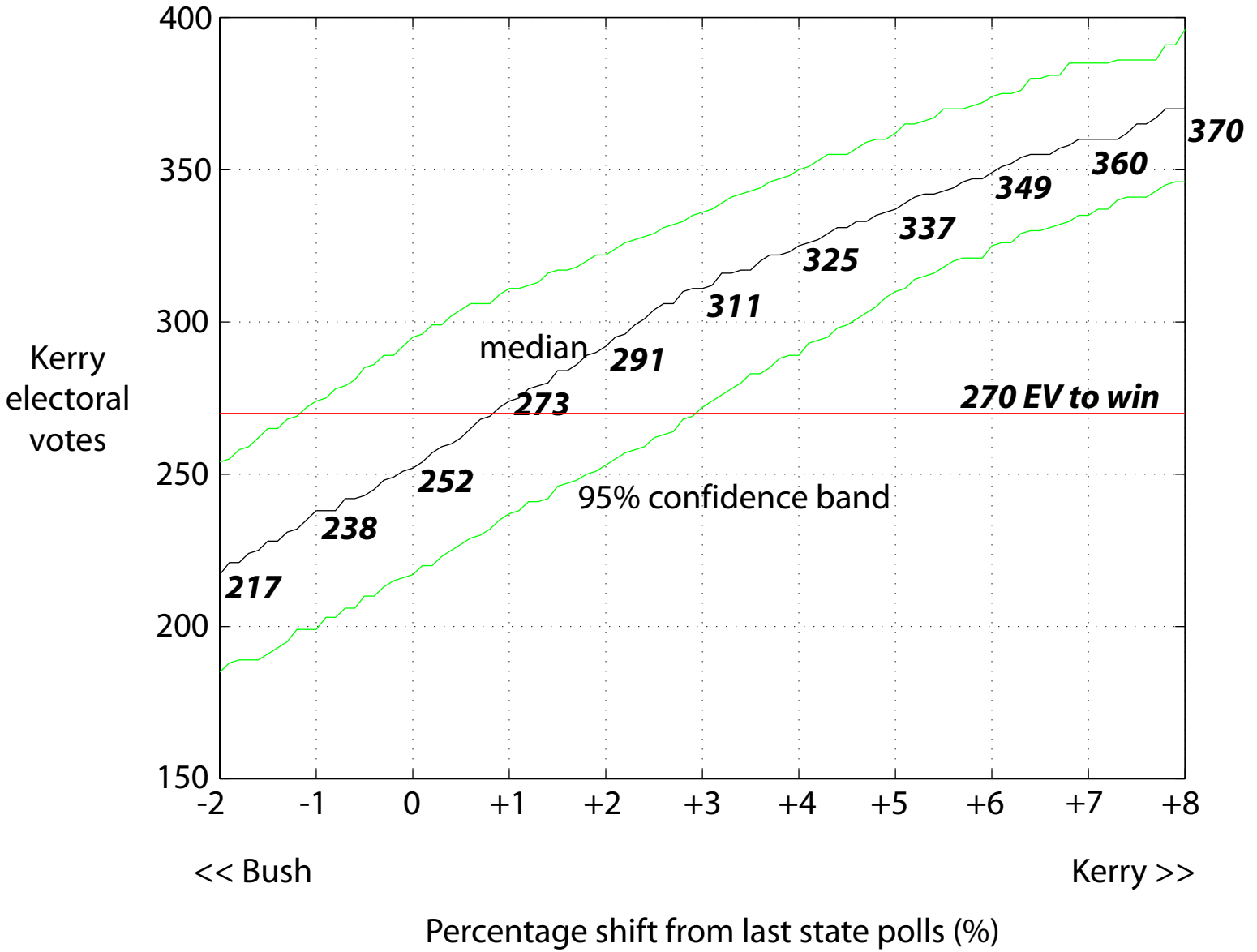
Polls close in WI, MN, NM.

10:00 pm

Polls close in IA.

For true believers: CO(9) and NV(5) are Kerry's last chances. HI(4) is Bush's.

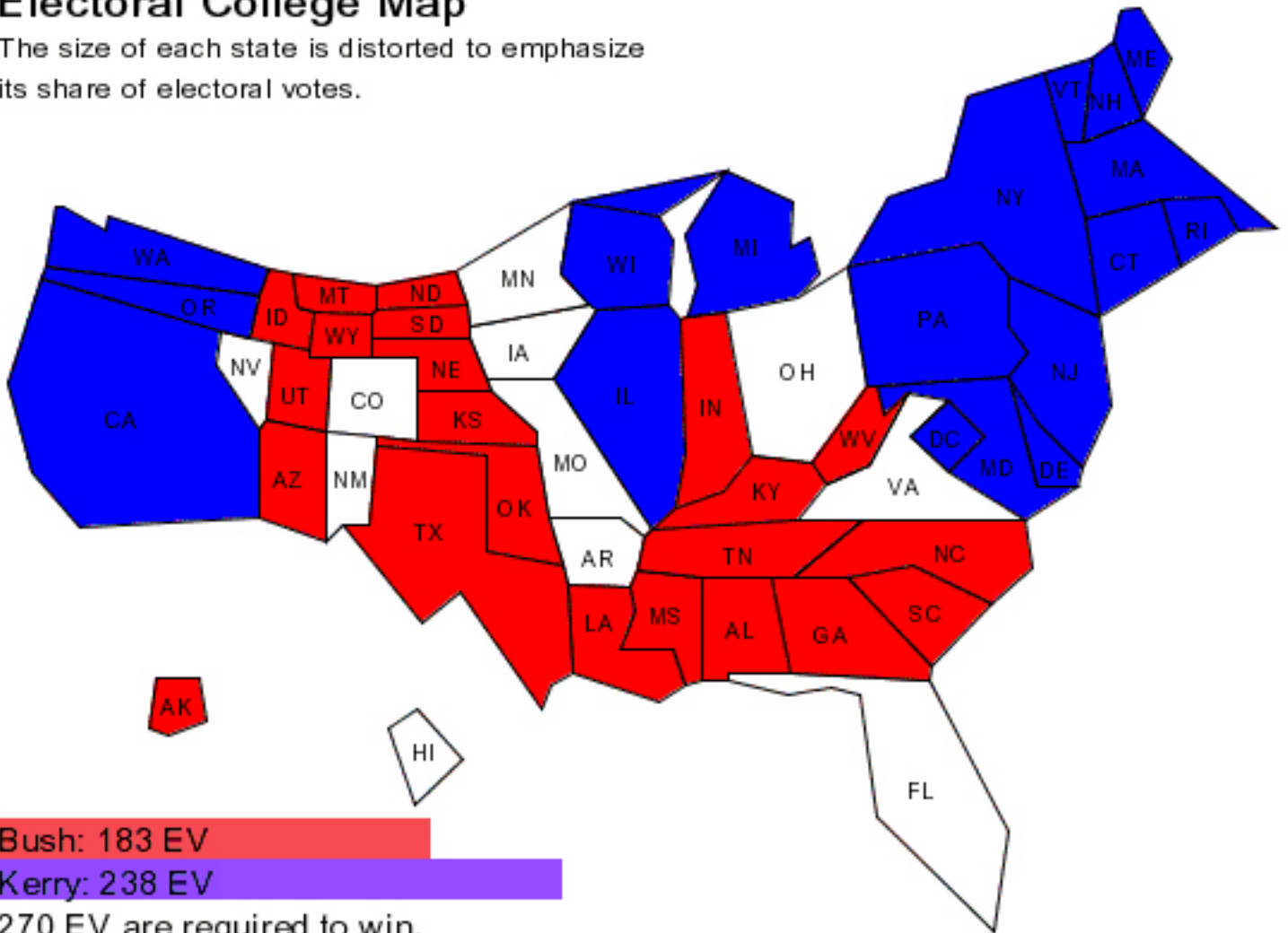
Bias calculator



After the election is over, use this graph to estimate the true bias of the result relative to last state polls.

Electoral College Map

The size of each state is distorted to emphasize its share of electoral votes.



Bush: 183 EV
Kerry: 238 EV
270 EV are required to win.