

Do the Math: Something Stinks

An E-Mail to Democratic Activists Nationwide, a Posting in Comments From Left Field, & The Basis for Several Other E-Mails & Postings and for Two Guest Appearances on NewsRap with Barry Gordon

November 12, 2004

Note: Professor Steven F. Freeman, a statistician at the University of Pennsylvania who got his PhD at MIT, performed a very similar analysis of the unadulterated exit poll data vs. the officially reported votes (albeit more in depth than the analysis below, conducted by yours truly) and came to a very similar conclusion. I later booked him and noted elections experts Bev Harris and Mark Crispin Miller as guests on the Barry Gordon From Left Field radio show / webcast.

Nobody likes being played for a fool—by one side or the other—so let's examine some facts and do the math (I'll do the "heavy lifting"). Maybe I'm missing something; but based upon CNN exit poll data late on Election Day, by my calculations (and I got A+'s in statistics at the University of California at Davis) there's a better than 99% chance that the election results, as reported, are greatly in error, in favor of George W. Bush.

I try to take things with a BIG grain of salt. Although there is a lot of information out there concerning possible voting fraud in this election, much of it has apparently been debunked ...

[Latest Conspiracy Theory—Kerry Won—Hits the Ether](#)

[Florida E-Vote Fraud? Unlikely](#)

Nonetheless, many of us have had serious concerns regarding the glaring discrepancies between the national exit poll results on Election Day 2004 and the actual final reported votes. The news media has even reported that both the Kerry and Bush camps thought during the afternoon of Election Day that Kerry had won.

The first question that comes to mind is, just how accurate ARE exit polls? Well, in the last Presidential election, [infamous for the INaccuracy of its exit polls ...](#)

"The differences between the exit poll percentages and the actual percentages the candidates received ranged from 0% to 2.6%. In only nine states was the difference greater than 1%, and in only one state (Alaska) was the difference greater than 2%.

Source: CNN"

... in other words, exit polls have been pretty darn accurate. To be more precise ...

48% for Bush

In the [CNN national exit poll in 2000](#) ...

... which, however, are exactly the OPPOSITE of the actual final reported votes ...

48% polled were males, who voted 42% for Gore and 53% for Bush

48% for Kerry

52% polled were females, who voted 54% for Gore and 43% for Bush

51% for Bush

Hmmmmmmmmmmmmmmmmmmmmmmmm.

... which, if you do the math (sex-weighted averages), gives the final exit poll results ...

How come the exit polls were so darn accurate in 2000 but so darn Inaccurate in 2004? Could it just be a "margin of error" thing?

48% for Gore

Well, having exit poll results for Kerry 3 points too high and those for Bush 3 points too low is BARELY within the 3-point margin of error typical for political polling (the margin of error for this exit poll may be somewhat higher than 3% [I would find out later that the margin of error for this poll was indeed 3%]; but as you will shortly see, it would have to be dramatically, UNrealistically higher for the following discussion to be moot).

48% for Bush

... which were EXACTLY the actual final reported votes.

In stark contrast, on Election Night 2004, I was "doing the math" from what was being reported in the national exit poll on CNN.com; and as of 6:00 PM PST (I've quadruple-checked my copy of [the original e-mail I sent to activists nationwide](#), which I had at least quadruple-checked against the CNN website that evening), over 11,000 voters had responded, giving the following exit poll results ...

Statistically speaking, margins of error are typically "95% confidence limits"; so if Kerry's support was reported at 51% and the margin of error was 3%, then there would be only a 2.5% chance of Kerry's support actually being 48% or lower (similarly, there would be only a 2.5% chance of Kerry's support actually being 54% or higher)...

46% polled were males, who voted 47% for Kerry and 51% for Bush

54% polled were females, who voted 54% for Kerry and 45% for Bush

... which, if you do the math (sex-weighted averages), gives these exit poll results ...

... and if Bush's support was reported at 48%, then there would be only a 2.5% chance of Bush's support actually being 51% or higher.

51% for Kerry

Taken together, given the CNN exit poll results as of 6:00 PM PST, showing Kerry beating Bush by 51% to 48%, the chance of Kerry's support actually being 48% or lower AND Bush's support actually being 51% or higher, would be only about 2.5% of 2.5% = 0.0625% —in other words, there's about a 99.9375% chance it just ain't so.

You can see now why all this has just kept nagging the statistician in me. People are sent to prison every day of the week with DNA evidence that is statistically less convincing than this.

But just to reassure you (and the historical record) ...

... NOW posted on the CNN website ...

... the [FINAL exit poll results are in](#) ...

46% polled were males, who voted 44% for Kerry and 55% for Bush

54% polled were females, who voted 51% for Kerry and 48% for Bush

... which, if you do the math (sex-weighted averages), gives the FINAL exit poll results ...

48% for Kerry

51% for Bush

... which are EXACTLY the actual final reported votes.

Double-

hmmmmmmmmmmmmmmmmmmmmmmmmmmmmmm

mmmm.

So what gives? How did we get such a big switch in the exit poll results after 6:00 PM PST? Were there a whole lot more respondents yet to be taken into account? Well ...

There were over 11,000 respondents by 6:00 PM PST.

There were 13,660 respondents in the final exit poll results.

In other words, no more than 2,660 additional respondents changed the exit poll results from a 3-point Kerry victory to a 3-point Bush victory.

Is that possible? Let's do a bit more math.

The number of respondents who voted for Kerry by 6:00 PM PST was ...

51% of over 11,000 voters = approx. 5,610 voters

The number of respondents who voted for Bush by 6:00 PM PST was ...

48% of over 11,000 voters = approx. 5,280 voters

Let's contrast those numbers with the voting patterns of the less than 2,660 voters who responded after 6:00 PM PST.

The number of respondents who voted for Kerry in the final exit poll results was...

48% of 13,660 voters = 6,557 voters ... an increase of about 950 voters over the 6:00 PM

returns = approx. 36% of the final 2,660 respondents

The number of respondents who voted for Bush in the final exit poll returns was ...

51% of 13,660 voters = 6,967 voters ... an increase of about 1,690 voters over the 6:00 PM returns = approx. 63% of the final 2,660 respondents

In other words, after the first 11,000-plus respondents to the CNN exit poll voted ...

51% for Kerry
48% for Bush

... the final 2,660-minus respondents voted approximately ...

36% for Kerry
63% for Bush

... which means that EITHER the CNN exit poll results as of 6:00 PM PST, for over 11,000 respondents (approximately 10 times as many as in any typical pre-election poll), were terribly biased in favor of Kerry—far beyond any reasonable margin of error—OR the final CNN exit poll results are terribly biased in favor of Bush (and posted for posterity). [What we would later learn is that the final results reported by CNN and others were "conformed"—matched after the fact—to the official, reported results.]

I try to keep an open mind about things (the advantage of having nothing between my ears!); but unless I am presented with factual evidence

to the contrary, I am forced to conclude, mathematically, that ...

EITHER the national exit poll results for President as reported by CNN (and others) until at least 6:00 PM PST on Election Day 2004—by which time the responses of over 11,000 of the eventual 13,660 respondents had been tallied—not only were far less accurate than the exit poll results in the year 2000 but also were in error far beyond any reasonable margin of error ...

OR the final reported votes for President nationwide were far from accurate, with the error dramatically in favor of George W. Bush.

Would anyone care to challenge that, mathematically?

(That's a rhetorical question; I'm pooped!)