

# U.S. 2016 Unadjusted Exit Poll Discrepancies Fit Political, not Statistical, Patterns

By Ron Baiman Ph.D., Chicago Political Economy Group and Benedictine University

Email: [rbaiman@cpegonline.org](mailto:rbaiman@cpegonline.org), [rbaiman@ben.edu](mailto:rbaiman@ben.edu)

## 1) Introduction

As I write this in late November 2016 press reports indicate that [Wisconsin has agreed to conduct recounts](#) based on petitions filed by the Stein Green Party, and De La Fuente independent, Presidential campaigns, and the Stein campaign has raised [almost \\$5.7 million](#) for this effort and for additional recounts in Michigan and Pennsylvania. If voting irregularities are discovered in these three states sufficient to overturn Trump's exceeding small victory margins ([Michigan, 27,200 in Wisconsin, and 68,000 in Pennsylvania](#)), Clinton [who has an over 2 million popular vote lead](#) over Trump, will win 276 electoral college votes and become the next President of the U.S. Already three Wisconsin precincts have been found to have [given Trump more votes than he received](#). *As will be shown below this is consistent with 2016 analysis that shows a pattern of highly significant unexplained increases in Trump's state vote counts relative to unadjusted exit polls in battleground and deep red states.* Politically, but *not statistically*, consistent patterns of UEP discrepancy have also been apparent [in earlier U.S. elections](#).

After a short introduction (Section 1) this paper will include an analysis of Presidential UEPs (Section 2), Senate Race UEPs (Section 3), and a short Conclusion (Section 4). Figures illustrating the analysis, provided courtesy of Greg Kilcup and Peter Peckarsky, will be presented for: Clinton in PA (Figure 3, p. 8), Trump in WI (Figure 5, p. 11), Trump in NC (Figure 6, p. 12), Trump in FL (Figure 7, p. 13), and Dem Senate Candidates: Kander in MO (Figure 11, p. 17), Feingold in WI (Figure 12, p. 18), and McGinty in PA (Figure 13, p. 19).

### a) Unadjusted Exit Polls

If you google U.S. Presidential Election exit polls you will find multiple reports and analysis that, unlike pre-election "polls," purport to provide analysis of the demographics and voting preferences of *actual voters*. However it is important to understand that these "exit polls" are *adjusted versions of actual exit poll data* that approximate real exit polls only to the extent that official vote counts are accurate and that the adjustments made are good approximations of what *would have* resulted from *unadjusted exit polls* that roughly matched the official vote count without adjustment. None of this is "conspiracy theory" but rather has been repeatedly confirmed by executives of the polling company Edison Research that conducts the exit polls for the mainstream media consortium in the U.S. For example, Joe Lenski, CEO of Edison research, is quoted [in a Pew Research article](#) as saying:

"We will know shortly after the polls close," Lenski said. "We'll have individual precinct results from all the locations where we conducted interviews, so we'll know how much understatement or

overstatement for the candidates we have. Our calls are based on all the information we have at the time – exit polls, returns from sample precincts and county results from AP – and we may re-weight the exit poll results later in the evening to match the vote estimates by geographic region.”

The rationale for this adjustment is the blanket assumption made by the mainstream media and establishment politicians that U.S. officials returns could not possibly be systemically wrong by anywhere near the magnitude of the unadjusted exit poll deviations that have been occurring in U.S. election at least since 2004. This is the case even though, as will be shown below, attempts to explain these large and systemic deviations as resulting from large-scale and one-sided exit poll *error* have been repeatedly *disproven* by the data.

Accordingly, in this paper, will analyze “unadjusted exit poll” (UEP) results that have captured by screen shots of exit polls publicized as soon as possible immediately after the closing of state election polls. These UEP results are the best *real* exit poll data that we have in the U.S. as Edison does not release UEP results in any other fashion. The 2016 UEP data analyzed below were captured and kindly provided by [Jonathan Simon](#) and [Theodore de Macedo Soares](#). Time stamped screen shots are available upon request.

It is important to note, as Jonathan Simon has pointed out, that though as far as we know these are the best UEP data available, in some or all cases they may already have been adjusted to match official results. This is almost certain in states like Florida and Michigan that cross time zones so that first exit poll results are not posted until an hour *after* polls in a large portion of the state have already closed.

## **2) 2016 Presidential Election Unadjusted Exit Poll Analysis**

### **a) Red Shift in the Presidential Race**

Figure 1 below provides analysis of 2016 Presidential UEP “red shift”.

“Red Shift” is generally defined as the increase in Republican candidate official vote count (VC) margin of victory over UEP margin of victory. In Figure 1 in order to preserve consistency with later tables, red shift (column I) is defined as the *negative* percentage value of  $(\text{Hillary VC} - \text{Trump VC}) - (\text{Hillary UEP} - \text{Trump UEP})$ .

As can be seen in the figure, where states are ordered by red shift magnitude, the 2016 presidential election, [like all national elections since 1988](#), is characterized by an overwhelmingly one-sided shift to the Republican candidate. In this case, in 24 out of the 26 states where UEP data was publicized, the Trump VC margin exceeded the Trump UEP margin.

If 2016 UEP were random as it should be for unbiased exit polls, the chance of “red shift” for every state would be 50% or 0.5. The odds of negative red shift in 24 out of 26 such state UEP results would then be 1 in 13,110, or the odds of getting 24 heads in 26 coin tosses, as shown in cell 5J.

The usual attempted explanation for these consistent and statistically impossible biased UEP discrepancies in U.S. elections is exit polling “response bias.” In 2004 this was dubbed the “reluctant

Bush responder” hypothesis [and disproven using the exit pollsters own data](#). In 2016 a similar, “shy Trump” voters, explanation has been proffered for the widespread statistically significant *and one-sided* deviations of official vote counts from pre-election polls [and again disproven by the data](#).

Similarly, the notion that an unforeseen *surge* in Trump voters that was not taken into account by pre-election polls or the exit pollsters in assigning weights necessary to derive state level exit poll results from precinct exit poll samples, was the problem, is not consistent with UEP data from the 2016 primary elections that shows [a statistically impossible bias against Sanders in the Democratic primary but no consistent UEP bias in the Republican primary](#) (another pattern that cries out for investigation). If anything one would expect that surges in Trump voters that were unforeseen by the exit pollsters would be a greater problem in the primary when Trump was initially still viewed as a marginal candidate, and the most committed Trump voters were voting. There is also the question of why U.S. exit pollsters would repeatedly get the weights wrong for Republican candidates, no matter the candidate, in every U.S. presidential election since 1988, and the unresolved question noted above as to why the “Trump surge” or “Trump Shyness” phenomena would be, as with the equivalent Bush trends in past exit poll discrepancies, highly significant *particularly in battleground and deep red states and not consistent across states*. Perhaps an argument could be made for greater turnout efforts in battleground states, but why would this occur in deep red states where Trump was most likely going to win anyway? And if Trump supporters were *generally* hyper motivated, or covert, why was there not similar “Trump surges” or “Trump Shyness” in UEP response in other states where one would expect the social stigma of identifying as a Trump supporter would be greater? Also, as will be shown below, the states with the largest “red shifts” in Figure 1: UT, MO, NJ, OH, ME, and NC, exhibit statistically significant UEP – EP discrepancies *both against Clinton and for Trump*, an occurrence that would require statistically significant patterns of “Trump voter surges and/or polling shyness”, *and* unexpected “Clinton voter drop-off and/or polling exuberance,” in these states and, *not both*, in any other states for which exit polls were conducted.

Finally, the voting integrity community has been repeatedly asking for precinct UEPs and official counts so that analysis that would be unaffected by precinct weights could be conducted, and these requests, including my own request for UEP and precinct vote count from the 2016 election, have been ignored or denied. The reason offered for this is that such information is ((in violation of the American Association for Public Opinion Research (AAPOR) code of ethics disclosure standards that specify that [the geographic location of the population sampled should be disclosed](#)) claimed as proprietary private information despite its obvious vital public importance. This is the case even though the UEP and official vote count margins are all that is needed, and could be provided without disclosing the exact locations of exit polled precincts.

In the one case, for the Ohio 2004 presidential election, where such information was obtained inadvertently and indirectly, [precinct level analysis revealed highly significant precinct level UEP discrepancies](#), confirming that the statistically significant UEP discrepancies revealed by state level analysis were *not* simply a result of inaccurate precinct weighting. Moreover, follow-up direct investigation of polling books and central tabulators from the 2004 election in Miami County, Ohio revealed [widespread discrepancies in number of votes cast](#) and [central tabulator miscounting](#)

[acknowledged by the Republican County Election Board Director](#). This demonstrates that statistically significant discrepancies between UEPs and VCs in U.S. elections have been tied to proven election irregularities, implying that these should be investigated [as the U.S. State Department recommends when UEP discrepancies with official vote counts appear in foreign elections](#).

1	A	B	C	D	E	F	G	H	I	J
2	<b>Figure 1: 2016 Presidential Election "Red Shift" or Exit Polls versus Vote Count Margins</b>									
3										
4		Sample Size	ClintonEP	TrumpEP	Exit Poll Margin (+ Clinton, - Trump)	ClintonVC	TrumpVC	Vote Count Margin (+ Clinton, - Trump)	VC Margin minus Exit Poll Margin (+Clinton, -Trump "Red Shift")	Odds of 24 out of 28 negative "red shifts" if probability of one negative red shift is 0.5
5	UT (1171)	1171	33.2%	39.3%	-6.1%	27.8%	46.6%	-18.8%	-12.7%	13,110
6	MO (1648)	1648	42.8%	51.2%	-8.4%	38.0%	57.1%	-19.1%	-10.7%	20,475
7	NJ (1590)	1590	58.2%	36.4%	21.8%	55.0%	41.8%	13.2%	-8.6%	268,435,456
8	OH (3190)	3190	47.0%	47.1%	-0.1%	43.5%	52.1%	-8.6%	-8.5%	0.008%
9	ME (1371)	1371	51.2%	40.2%	11.0%	47.9%	45.2%	2.7%	-8.3%	
10	SC (876)	867	42.8%	50.3%	-7.5%	40.8%	54.9%	-14.1%	-6.6%	
11	NC (3967)	3967	48.6%	46.5%	2.1%	46.7%	50.5%	-3.8%	-5.9%	
12	IA (2941)	2941	44.1%	48.0%	-3.9%	42.2%	51.8%	-9.6%	-5.7%	
13	PA (2613)	2613	50.5%	46.1%	4.4%	47.6%	48.8%	-1.2%	-5.6%	
14	IN (1753)	1753	39.6%	53.9%	-14.3%	37.9%	57.2%	-19.3%	-5.0%	
15	WI (2981)	2981	48.2%	44.3%	3.9%	46.9%	47.9%	-1.0%	-4.9%	
16	GA (2611)	2611	46.8%	48.2%	-1.4%	45.6%	51.3%	-5.7%	-4.3%	
17	NV (2418)	2418	48.7%	42.8%	5.9%	47.9%	45.5%	2.4%	-3.5%	
18	KY (1070)	1070	35.0%	61.5%	-26.5%	32.7%	62.5%	-29.8%	-3.3%	
19	IL (802)	802	55.7%	36.8%	18.9%	55.4%	39.4%	16.0%	-2.9%	
20	VA (2866)	2866	50.9%	43.2%	7.7%	49.9%	45.0%	4.9%	-2.8%	
21	FL (3941)	3941	47.7%	46.4%	1.3%	47.8%	49.1%	-1.3%	-2.6%	
22	CO (1335)	1335	46.5%	41.5%	5.0%	47.3%	44.4%	2.9%	-2.1%	
23	NM (1948)	1948	47.4%	37.8%	9.6%	48.3%	40.0%	8.3%	-1.3%	
24	OR (1128)	1128	50.7%	38.8%	11.9%	51.7%	41.1%	10.6%	-1.3%	
25	NH (2702)	2702	46.8%	45.8%	1.0%	47.5%	47.3%	0.2%	-0.8%	
26	AZ (1729)	1729	43.6%	46.9%	-3.3%	45.4%	49.5%	-4.1%	-0.8%	
27	MI (2774)	2774	46.8%	46.8%	0.0%	47.3%	47.6%	-0.3%	-0.3%	
28	CA (2282)	2282	60.0%	31.5%	28.5%	61.4%	33.2%	28.2%	-0.3%	
29	TX (2610)	2610	42.3%	51.8%	-9.5%	43.4%	52.6%	-9.2%	0.3%	
30	WA (1024)	1024	51.3%	35.8%	15.5%	54.9%	38.3%	16.6%	1.1%	
31	MN (1583)	1583	45.7%	45.8%	-0.1%	46.9%	45.4%	1.5%	1.6%	
32	NY (1362)	1362	55.8%	39.8%	16.0%	58.8%	37.5%	21.3%	5.3%	
33										
34	National Vote (21753)	21753	47.9%	44.7%	3.2%	47.7%	47.5%	0.2%	-3.0%	
	Notes and Sources:									
	1) No exit poll data was available for states not included in table									
	2) Vote count numbers from The Guardian website downloaded 11 am 11/11/2016									
	3) Exit poll shares from Jonathan Simon posted on Election Integrity list serve on 11/10/2016.									

## b) Clinton Presidential Exit Poll Discrepancies

Though “red shift” is a measure of overall candidate VC versus UEP margin of victory, it is difficult to analyze statistically as candidate voting shares are not independent of each other. In a two way race vote shares would be exact complements and “red shift” would be exactly twice the size of each candidate’s VC versus UEP deviation. With third party candidates in the race, the vote share relationship between the two major party candidates will not be exactly determinate. Standard statistical analysis of the difference of two *independent* proportions is thus not applicable.

The easiest way to get around this problem is to perform separate single proportion analysis of each major candidate’s VC versus UEP vote share. The analysis is a standard single proportion deviation analysis of official vote count share deviation from UEP share. The only adjustment is a 30% “clustered sampling” increase in the random standard deviation estimate due to the fact that though exit poll samples are approximately random samples of precincts responses are geographically clustered as they come from precincts selected by pollsters to be representative of the state (see p. 9, footnote 22 of [this](#)).

Figure 2 below shows the results of this analysis for Clinton UEP minus VC shares. Column D shows VC minus UEP percentage for Clinton so that a positive percentage indicates that Clinton’s vote count was less than her UEP share. Column G is the sample standard deviation (SD) estimated to be 30% larger than the standard random sample standard deviation after the cluster sampling adjustment. Column H gives one-tailed P-Values (on either side of the distribution) for each state assuming a standard normal population with a mean equal to the UEP for Clinton and SD estimated in Column G. Under these standard sampling assumptions, these are the likelihood of the VC being this different from the UEP assuming random sampling error. P-values less than 5% are considered statistically significant as they indicate a 5% or less random chance that the VC share would be this different from the UEP share. Column I presents the same information (one divided by P-Value) in terms of the odds of VC share occurring given the UEP share. Columns J and K give the lower and upper bounds of the 95% confidence interval, or the range of VC values that have a 95% probability of occurring, given the Clinton UEP result. Since this is a two-tailed confidence interval, only VCs with P-values of 2.5% or less will be outside of this confidence interval.

As can be seen in Figure 2, statistically significant VC discrepancies with Clinton UEP shares (with odds less than 1 out of 30) occurred in OH, MO, UT, PA, NJ, ME, and NC. The analysis thus shows that Clinton suffered statistically significant VC reduction relative to UEP share in a small number of battle ground states (OH, MO, PA, and NC), the deep-red state of UT, and NJ, a state with a Republican Governor and Trump ally (recall per discussion above that UEPs for FL and MI are likely to be partially adjusted and thus not true UEPs). OH in particular has a long history dating back at least to 2004 of faulty official vote count reporting, for example the documented inconsistencies and miscounting in Miami county noted above, [and many other incidents](#).

The statistically important point is that the VC shift against Clinton was not pervasive but concentrated in key suspect states, suggesting that these “errors” were not random but a result of [how the VC was](#)

[counted, not counted, or miscounted](#). This is born-out by the fact that overall Clinton's vote share was smaller than her EP in just 12 out of 24 states, as shown in Cell 5L using a calculation like that in Figure 1 in cell 5J.

1	A	B	C	D	E	F	G	H	I	J	K	L
2	<b>Figure 2: 2016 Presidential Election Clinton Exit Polls versus Vote Count</b>											
3												
4		ClintonEP	ClintonVC	Clinton VC reduction relative to exit poll (+ indicates VC share < EP share for Clinton)	Sample Size	Random Sample SD assuming Clinton exit poll population proportion	Random Sample with 30% "Cluster Factor" added to Clinton SD Estimate	One tail P value: Probability of Clinton VC share if EP is True share	Odds based on Clinton one tail Probability: one in x chance	95% Confidence Interval (CI) Low value for Clinton VC deviation from EP	95% Confidence Interval (CI) High value for Clinton VC deviation from EP	Odds of Clinton VC share being smaller than EP share 12 out of 28 times
5	OH (3190)	47.0%	43.5%	3.5%	3190	0.88%	1.1%	0.1157%	864.5	44.7%	49.3%	9
6	MO (1648)	42.8%	38.0%	4.8%	1648	1.22%	1.6%	0.1225%	816.2	39.7%	45.9%	30,421,755
7	UT (1171)	33.2%	27.8%	5.4%	1171	1.38%	1.8%	0.1271%	787.0	29.7%	36.7%	268,435,456
8	PA (2613)	50.5%	47.6%	2.9%	2613	0.98%	1.3%	1.1282%	88.6	48.0%	53.0%	11.3%
9	NJ (1590)	58.2%	55.0%	3.2%	1590	1.24%	1.6%	2.3295%	42.9	55.0%	61.4%	
10	ME (1371)	51.2%	47.9%	3.3%	1371	1.35%	1.8%	3.0029%	33.3	47.8%	54.6%	
11	NC (3967)	48.6%	46.7%	1.9%	3967	0.79%	1.0%	3.2752%	30.5	46.6%	50.6%	
12	WA (1024)	51.3%	54.9%	-3.6%	1024	1.56%	2.0%	3.8122%	26.2	47.3%	55.3%	
13	NY (1362)	55.8%	58.8%	-3.0%	1362	1.35%	1.7%	4.3182%	23.2	52.4%	59.2%	
14	IA (2941)	44.1%	42.2%	1.9%	2941	0.92%	1.2%	5.5204%	18.1	41.8%	46.4%	
15	KY (1070)	35.0%	32.7%	2.3%	1070	1.46%	1.9%	11.2498%	8.9	31.3%	38.7%	
16	AZ (1729)	43.6%	45.4%	-1.8%	1729	1.19%	1.6%	12.2815%	8.1	40.6%	46.6%	
17	IN (1753)	39.6%	37.9%	1.7%	1753	1.17%	1.5%	13.1460%	7.6	36.6%	42.6%	
18	WI (2981)	48.2%	46.9%	1.3%	2981	0.92%	1.2%	13.7267%	7.3	45.9%	50.5%	
19	CA (2282)	60.0%	61.4%	-1.4%	2282	1.03%	1.3%	14.6833%	6.8	57.4%	62.6%	
20	GA (2611)	46.8%	45.6%	1.2%	2611	0.98%	1.3%	17.2257%	5.8	44.3%	49.3%	
21	SC (876)	42.8%	40.8%	2.0%	867	1.68%	2.2%	17.9955%	5.6	38.5%	47.1%	
22	TX (2610)	42.3%	43.4%	-1.1%	2610	0.97%	1.3%	19.0785%	5.2	39.8%	44.8%	
23	VA (2866)	50.9%	49.9%	1.0%	2866	0.93%	1.2%	20.5041%	4.9	48.5%	53.3%	
24	MN (1583)	45.7%	46.9%	-1.2%	1583	1.25%	1.6%	23.0482%	4.3	42.5%	48.9%	
25	NM (1948)	47.4%	48.3%	-0.9%	1948	1.13%	1.5%	27.0287%	3.7	44.5%	50.3%	
26	NV (2418)	48.7%	47.9%	0.8%	2418	1.02%	1.3%	27.2452%	3.7	46.1%	51.3%	
27	NH (2702)	46.8%	47.5%	-0.7%	2702	0.96%	1.2%	28.7418%	3.5	44.4%	49.2%	
28	OR (1128)	50.7%	51.7%	-1.0%	1128	1.49%	1.9%	30.2664%	3.3	46.9%	54.5%	
29	CO (1335)	46.5%	47.3%	-0.8%	1335	1.37%	1.8%	32.6067%	3.1	43.0%	50.0%	
30	MI (2774)	46.8%	47.3%	-0.5%	2774	0.95%	1.2%	34.2380%	2.9	44.4%	49.2%	
31	IL (802)	55.7%	55.4%	0.3%	802	1.75%	2.3%	44.7665%	2.2	51.2%	60.2%	
32	FL (3941)	47.7%	47.8%	-0.1%	3941	0.80%	1.0%	46.1489%	2.2	45.7%	49.7%	
33												
34	National Vote (21753)	47.9%	47.7%	0.2%	21753	0.34%	0.4%	32.4838%	3.1	47.0%	48.8%	
	Notes and Sources:											
	1) No exit poll data was available for states not included in table											
	2) Vote count numbers from The Guardian website downloaded 11 am 11/11/2016											
	3) Exit poll shares from Jonathan Simon posted on Election Integrity list serve on 11/10/2016.											

Figure 3 below illustrates the Clinton UEP PA analysis conveyed in Figure 2, line 8. The normal distribution bell curve is centered around Clinton’s PA 50.5% UEP share and has a 1.3% SD (or approximate “width”) as calculated in Figure 2. Based on this SD, the 95% Confidence Interval (CI) displayed in the graph ranges from 48% to 53% as shown in Figure 2. This implies that there was a 95% chance that Clinton’s PA VC would fall within this range due to statistical sampling error. The blue area over the CI under the bell curve distribution contains 95% of the total area under the bell curve. As shown in Figure 3 Clinton’s reported PA VC of 47.6% is below the lower end of the CI, showing a statistically significant VC discrepancy with her UEP that would be expected to occur by chance only 1.1282% of the time, or less than a 1 in 88 chance (data for the illustration was from an earlier PA VC giving roughly 1 in 60 odds).

**Figure 3: Illustration of Clinton PA Statistical UEP Analysis**

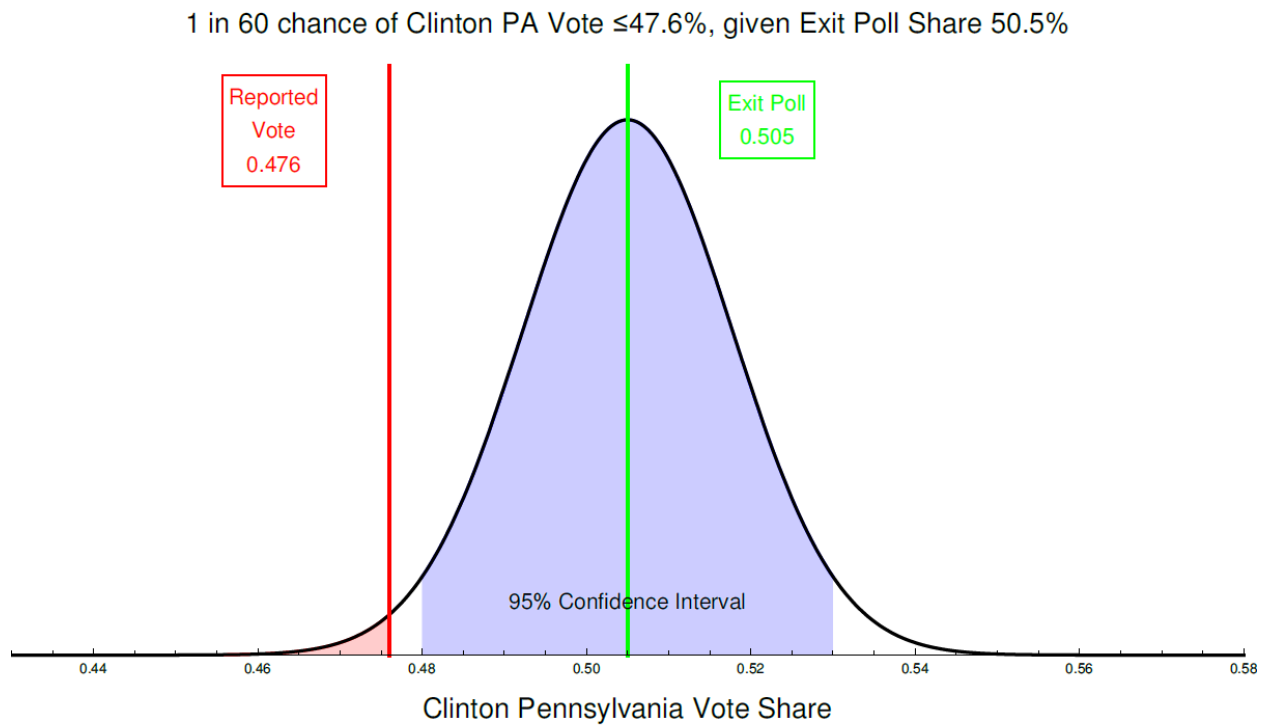


Chart courtesy of Greg Kilcup, Peter Peckarsky, and Ron Baiman.



### c) Trump Presidential Exit Poll Discrepancies

As with Figure 2, Figure 4 below shows the results of this analysis for Trump UEP minus VC shares. Column D shows VC minus UEP percentage for Clinton so that a positive percentage indicates that Trump's vote count was less than her UEP share. Column G is the sample standard deviation (SD) estimated to be 30% larger than the standard random sample standard deviation after the cluster sampling adjustment. Column H gives one-tailed P-Values (on either side of the distribution) for each state assuming a standard normal population with a mean equal to the UEP for Trump and SD estimated in Column G. Under these standard sampling assumptions, these are the likelihood of the VC being this different from the UEP assuming random sampling error. P-values less than 5% are considered statistically significant as they indicate a 5% or less random chance that the VC share would be this different from the UEP share. Column I presents the same information (one divided by P-Value) in terms of the odds of VC share occurring given the UEP share. Columns J and K give the lower and upper bounds of the 95% confidence interval, or the range of VC values that have a 95% probability of occurring, given the Trump UEP result. Since this is a two-tailed confidence interval, only VCs with P-values of 2.5% or less will be outside of this confidence interval.

As can be seen in Figure 4, statistically significant VC discrepancies with Trump UEP shares (with odds less than 1 out of 30) occurred in OH, UT, NC, MO, NJ, IA, WI, ME, FL, GA, IN, PA, SC and NV (again recall per discussion above that UEPs for FL and MI are likely to be at partially adjusted and thus not true UEPs). In all of these states Trump's VC was greater than his UEP by a statistically significant margin.

The most *highly* significant VC shifts for Trump were concentrated in suspect states suggesting that these "errors" were not random but a result of how the VC was counted. *Moreover, unlike the overall VC shift against Clinton, the odds for such a one-sided VC shift for Trump in multiple states occurring as result of random sampling, or statistical, error, is a nearly impossible 1 in 710,147, as shown in Figure 4 cell 5P using a calculation similar to that used for cell 5L in Figure 1.*

Furthermore, Figures 2 and 4 show that UEP discrepancies for the states with the largest "red shifts" in Figure 1: UT, MO, NJ, OH, ME, and NC, exhibit statistically significant UEP – EP discrepancies *both against Clinton and for Trump*, an occurrence that is even more unlikely from random error than either significant discrepancy occurring without the other.

1	A	B	C	D	E	F	G	H	I	J	K	L
2	<b>Figure 4: 2016 Presidential Election Trump Exit Polls versus Vote Count</b>											
3	<b>Calculations off of Trump EP and VC Shares</b>											
4		TrumpEP	TrumpVC	Trump VC reduction relative to exit poll (+ indicates VC share < EP share for Clinton)	Sample Size	Random Sample SD assuming Trump exit poll population proportion	Random Sample with 30% "Cluster Factor" added to Trump Estimate	One tail P value: Probability of Trump VC share if EP is True share	Odds based on Trump one tail Probability: one in x chance	95% Confidence Interval (CI) Low value for Trump VC deviation from EP	95% Confidence Interval (CI) High value for Trump VC deviation from EP	Odds of Trump VC share being larger than EP share 26 out of 28 times
5	OH (3190)	47.1%	52.1%	-5.0%	3190	0.88%	1.1%	0.0007%	148,221	44.8%	49.4%	710,147
6	UT (1171)	39.3%	46.6%	-7.3%	1171	1.43%	1.9%	0.0042%	23,969	35.7%	42.9%	378
7	NC (3967)	46.5%	50.5%	-4.0%	3967	0.79%	1.0%	0.0051%	19,583	44.5%	48.5%	268,435,456
8	MO (1648)	51.2%	57.1%	-5.9%	1648	1.23%	1.6%	0.0114%	8,776	48.1%	54.3%	0.0001%
9	NJ (1590)	36.4%	41.8%	-5.4%	1590	1.21%	1.6%	0.0288%	3,470	33.3%	39.5%	
10	IA (2941)	48.0%	51.8%	-3.8%	2941	0.92%	1.2%	0.0754%	1,325	45.7%	50.3%	
11	WI (2981)	44.3%	47.9%	-3.6%	2981	0.91%	1.2%	0.1168%	856	42.0%	46.6%	
12	ME (1371)	40.2%	45.2%	-5.0%	1371	1.32%	1.7%	0.1839%	544	36.8%	43.6%	
13	FL (3941)	46.4%	49.1%	-2.7%	3941	0.79%	1.0%	0.4468%	224	44.4%	48.4%	
14	GA (2611)	48.2%	51.3%	-3.1%	2611	0.98%	1.3%	0.7373%	136	45.7%	50.7%	
15	IN (1753)	53.9%	57.2%	-3.3%	1753	1.19%	1.5%	1.6497%	61	50.9%	56.9%	
16	PA (2613)	46.1%	48.8%	-2.7%	2613	0.98%	1.3%	1.6593%	60	43.6%	48.6%	
17	SC (876)	50.3%	54.9%	-4.6%	867	1.70%	2.2%	1.8588%	54	46.0%	54.6%	
18	NV (2418)	42.8%	45.5%	-2.7%	2418	1.01%	1.3%	1.9505%	51	40.2%	45.4%	
19	AZ (1729)	46.9%	49.5%	-2.6%	1729	1.20%	1.6%	4.7811%	21	43.8%	50.0%	
20	CO (1335)	41.5%	44.4%	-2.9%	1335	1.35%	1.8%	4.9041%	20	38.1%	44.9%	
21	NM (1948)	37.8%	40.0%	-2.2%	1948	1.10%	1.4%	6.1732%	16	35.0%	40.6%	
22	VA (2866)	43.2%	45.0%	-1.8%	2866	0.93%	1.2%	6.7273%	15	40.8%	45.6%	
23	CA (2282)	31.5%	33.2%	-1.7%	2282	0.97%	1.3%	8.9342%	11	29.0%	34.0%	
24	NY (1362)	39.8%	37.5%	2.3%	1362	1.33%	1.7%	9.1113%	11	36.4%	43.2%	
25	WA (1024)	35.8%	38.3%	-2.5%	1024	1.50%	1.9%	9.9637%	10	32.0%	39.6%	
26	OR (1128)	38.8%	41.1%	-2.3%	1128	1.45%	1.9%	11.1346%	9	35.1%	42.5%	
27	NH (2702)	45.8%	47.3%	-1.5%	2702	0.96%	1.2%	11.4331%	9	43.4%	48.2%	
28	IL (802)	36.8%	39.4%	-2.6%	802	1.70%	2.2%	12.0107%	8	32.5%	41.1%	
29	MI (2774)	46.8%	47.6%	-0.8%	2774	0.95%	1.2%	25.7987%	4	44.4%	49.2%	
30	TX (2610)	51.8%	52.6%	-0.8%	2610	0.98%	1.3%	26.4614%	4	49.3%	54.3%	
31	KY (1070)	61.5%	62.5%	-1.0%	1070	1.49%	1.9%	30.2541%	3	57.7%	65.3%	
32	MN (1583)	45.8%	45.4%	0.4%	1583	1.25%	1.6%	40.2953%	2	42.6%	49.0%	
33												
34	National Vote (21753)	44.7%	47.5%	-2.8%	21753	0.34%	0.4%	0.0000%	1.20E+10	43.8%	45.6%	
	Notes and Sources:											
	1) No exit poll data was available for states not included in table											
	2) Vote count numbers from The Guardian website downloaded 11 am 11/11/2016											
	3) Exit poll shares from Jonathan Simon posted on Election Integrity list serve on 11/10/2016.											

Figure 5 below illustrates the Trump UEP WI analysis conveyed in Figure 4, line 11. The normal distribution bell curve is centered around Trump's 44.3% WI UEP share and has a 1.2% SD (or approximate "width") as calculated in Figure 4. Based on this SD the 95% Confidence Interval (CI) displayed in the graph ranges from 42.0% to 46.6% as shown in Figure 4. This implies that there was a 95% chance that Trump's WI VC would fall within this range due to statistical sampling error. The blue area over the CI under the bell curve distribution contains 95% of the total area under the bell curve. As shown in Figure 5 Trump's reported WI VC of 47.9% is above the upper end of the CI, showing a statistically significant VC discrepancy with his UEP that would be expected to occur by chance only 0.1168% of the time, or less than a 1 in 856 chance.

**Figure 5: Illustration of Trump WI Statistical UEP Analysis**

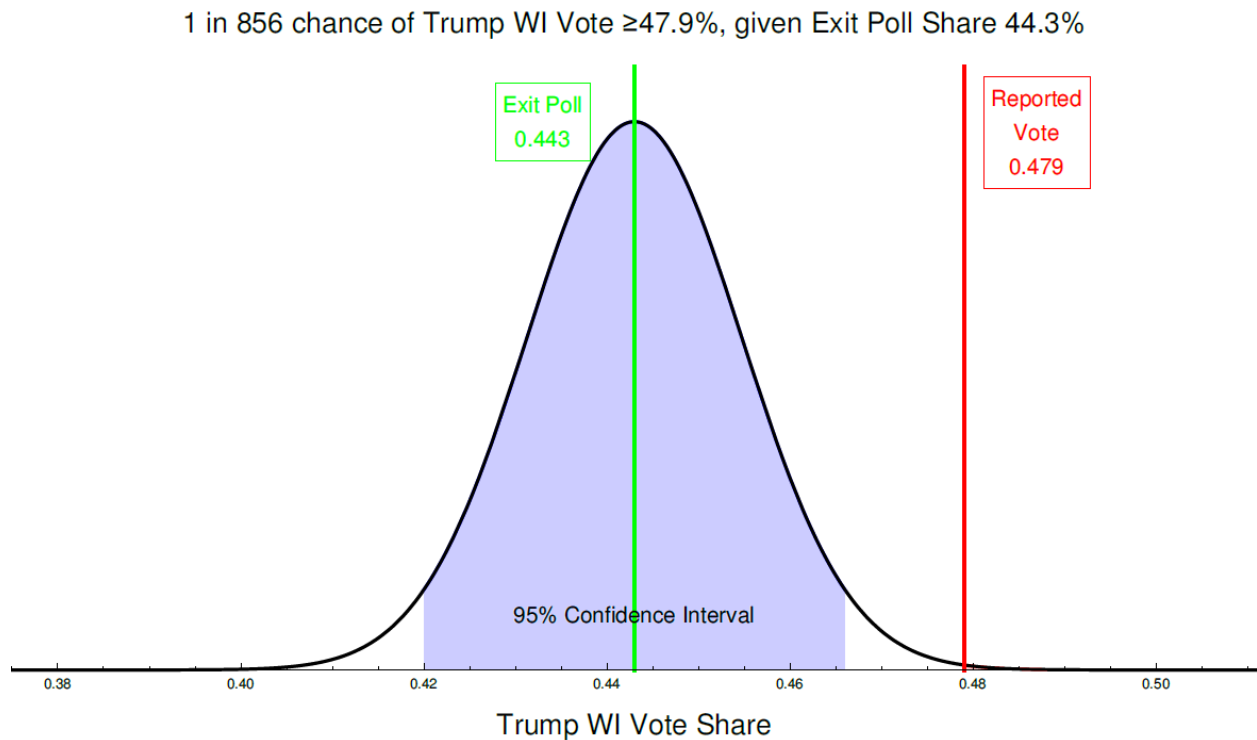


Chart courtesy of Greg Kilcup, Peter Peckarsky, and Ron Baiman.

Figure 6 below illustrates the Trump UEP NC analysis conveyed in Figure 4, line 7. The normal distribution bell curve is centered around Trump's 46.5% NC UEP share and has a 1.0% SD (or approximate "width") as calculated in Figure 4. Based on this SD the 95% Confidence Interval (CI) displayed in the graph ranges from 44.5% to 48.5% as shown in Figure 4. This implies that there was a 95% chance that Trump's NC VC would fall within this range due to statistical sampling error. The blue area over the CI under the bell curve distribution contains 95% of the total area under the bell curve. As shown in Figure 6 Trump's reported NC VC of 47.9% is above the upper end of the CI, showing a statistically significant VC discrepancy with his UEP that would be expected to occur by chance only 0.0051% of the time, or less than a 1 in 19,583 chance.

**Figure 6: Illustration of Trump NC Statistical UEP Analysis**

1 in 19583 chance of Trump NC Vote  $\geq 50.5\%$ , given Exit Poll Share 46.5%

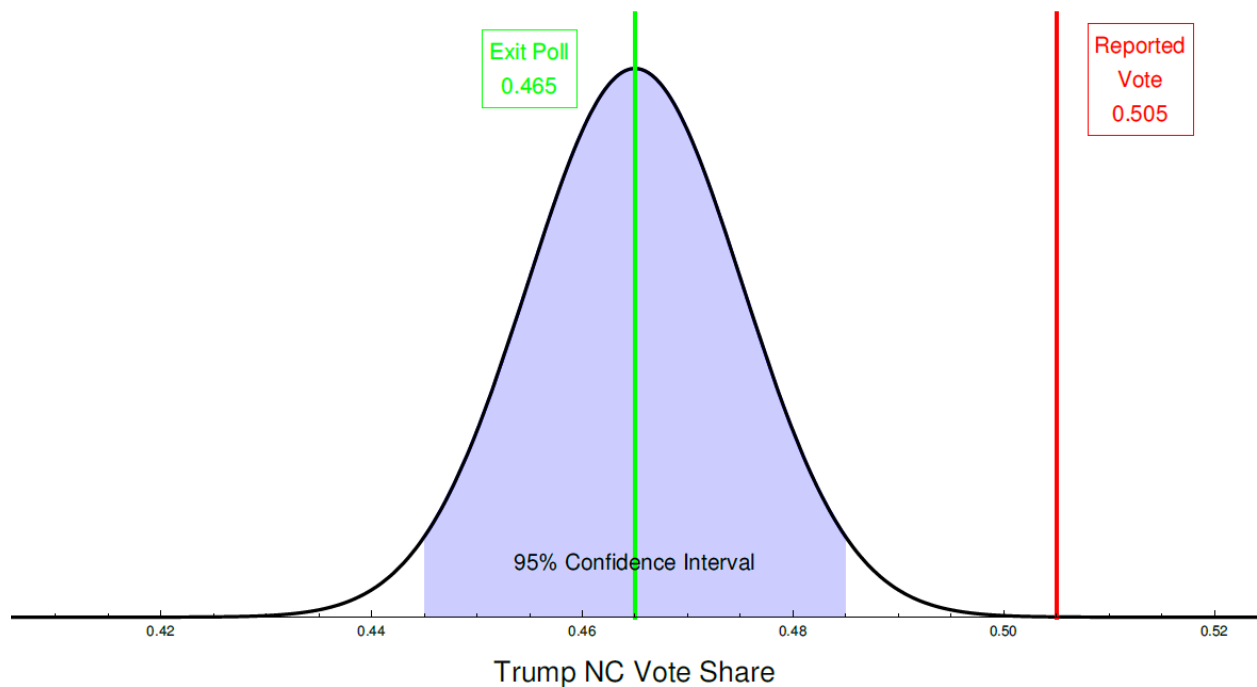


Chart courtesy of Greg Kilcup, Peter Peckarsky, and Ron Baiman.

Figure 7 below illustrates the Trump UEP FL analysis conveyed in Figure 4, line 13. The normal distribution bell curve is centered around Trump’s 46.4% FL UEP share and has a 1.0% SD (or approximate “width”) as calculated in Figure 4. Based on this SD the 95% Confidence Interval (CI) displayed in the graph ranges from 44.4% to 48.4% as shown in Figure 4. This implies that there was a 95% chance that Trump’s FL VC would fall within this range due to statistical sampling error. The blue area over the CI under the bell curve distribution contains 95% of the total area under the bell curve. As shown in Figure 7 Trump’s reported FL VC of 49.1% is above the upper end of the CI, showing a statistically significant VC discrepancy with his UEP that would be expected to occur by chance only 0.4468% of the time, or less than a 1 in 224 chance. Moreover, as was noted on p. 2, this is most likely an underestimate of the odds as the FL UEP *was probably already partially adjusted* to match the VC due to FL crossing two time zones.

**Figure 7: Illustration of Trump FL Statistical UEP Analysis**

1 in 224 chance of Trump FL Vote  $\geq 49.1\%$ , given Exit Poll Share 46.4%

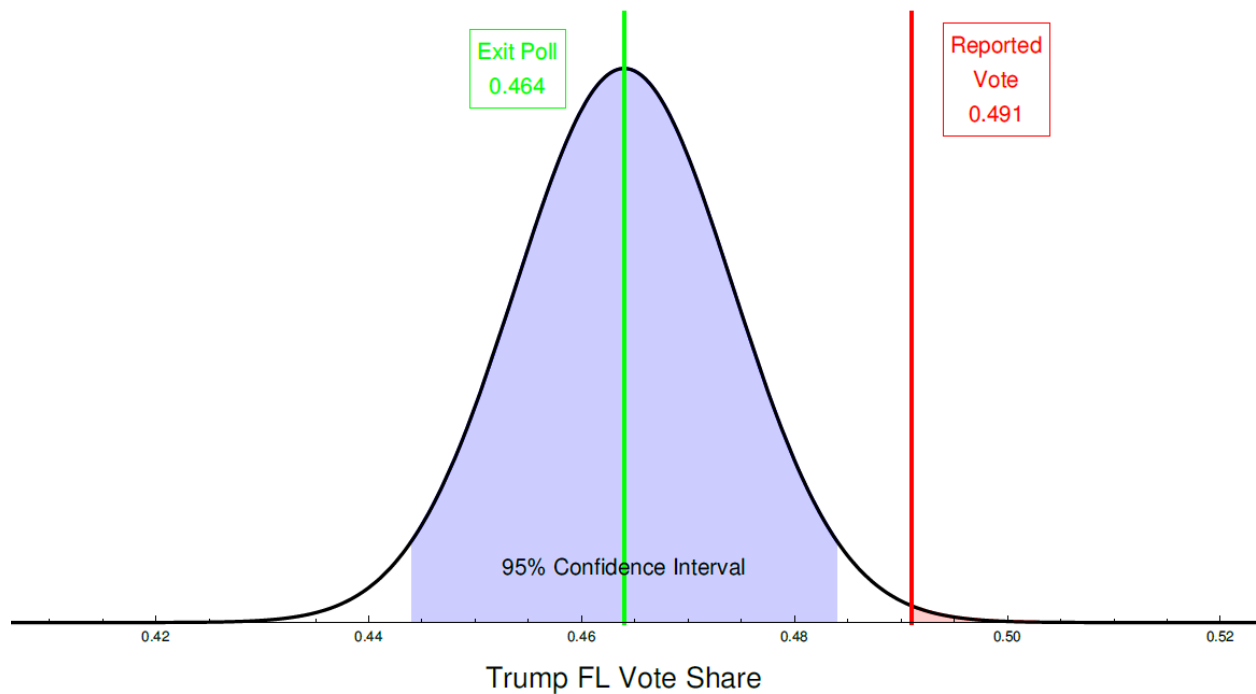


Chart courtesy of Greg Kilcup, Peter Peckarsky, and Ron Baiman.

### 3) 2016 Election Senate Races Unadjusted Exit Poll Analysis

In the following the 2016 Senate Races are analyzed in the same way as the Presidential race.

#### a) Red Shift in Senate Races

Figure 8 shows that “red shift” flipped three Senate races in MO, WI, and PA from Democratic to the Republican candidates. If the Democratic candidates had won these three highly contested races, Democrats would have retaken the majority in the Senate.

Figure 8 also shows that the 2016 Senate races showed a consistent and statistically unsupportable “red shift” in 16 out of 20 races for which UEP were available. The odds of the Democratic candidate UEP being greater than his or her VC in 16 out of 20 Senate races due to statistical random sampling error are less than 1 in 216 as can be seen in cell 5J in Figure 8.

1	A	B	C	D	E	F	G	H	I	J
2	<b>Figure 8: 2016 Senate Races "Red Shift" or Exit Polls versus Vote Count Margins</b>									
3										
4		Sample Size	DemEP	RepEP	Exit Poll Margin (+ Dem, - Rep)	DemVC	RepVC	Vote Count Margin (+ Dem, - Rep)	Dem VC reduction relative to exit poll "Red Shift" (+ indicates VC share < EP share for Dem)	Odds of 16 out of 20 positive red shifts if probability of one red shift is 0.5
5	OR (1117)	1117	63.6%	34.9%	28.7%	56.7%	33.6%	23.1%	6.9%	216
6	MO (1589)	1589	52.3%	44.8%	7.5%	46.2%	49.4%	-3.2%	6.1%	4,845
7	OH (3107)	3107	42.8%	55.7%	-12.9%	36.9%	58.3%	-21.4%	5.9%	1048576
8	UT (1138)	1138	32.7%	61.9%	-29.2%	27.3%	68.1%	-40.8%	5.4%	0.462%
9	CO (1335)	1335	54.1%	44.5%	9.6%	49.1%	45.4%	3.7%	5.0%	
10	IA (2844)	2844	40.3%	58.7%	-18.4%	35.7%	60.2%	-24.5%	4.6%	
11	SC (820)	820	41.2%	56.8%	-15.6%	37.0%	60.5%	-23.5%	4.2%	
12	WI (2970)	2970	50.7%	46.8%	3.9%	46.8%	50.2%	-3.4%	3.9%	
13	IL (707)	707	57.6%	38.9%	18.7%	54.4%	40.2%	14.2%	3.2%	
14	KY (1037)	1037	45.5%	54.5%	-9.0%	42.7%	57.3%	-14.6%	2.8%	
15	PA (2535)	2535	50.0%	47.1%	2.9%	47.2%	48.9%	-1.7%	2.8%	
16	FL (3828)	3828	46.7%	50.8%	-4.1%	44.3%	52.0%	-7.7%	2.4%	
17	NH (2643)	2643	50.3%	46.8%	3.5%	48.0%	47.9%	0.1%	2.3%	
18	NC (3904)	3904	47.5%	48.0%	-0.5%	45.3%	51.1%	-5.8%	2.2%	
19	WA (1011)	1011	62.2%	35.8%	26.4%	60.3%	39.7%	20.6%	1.9%	
20	AZ (1726)	1726	42.6%	54.9%	-12.3%	41.2%	53.3%	-12.1%	1.4%	
21	GA (2541)	2541	41.3%	53.2%	-11.9%	40.8%	55.0%	-14.2%	0.5%	
22	NV (2390)	2390	47.6%	45.4%	2.2%	47.1%	44.7%	2.4%	0.5%	
23	IN (1676)	1676	42.8%	55.7%	-12.9%	42.4%	52.1%	-9.7%	0.4%	
24	NY (1220)	1220	69.3%	28.9%	40.4%	70.4%	27.4%	43.0%	-1.1%	
	Notes and Sources:									
	1) No exit poll data was available for states not included in table									
	2) Vote count numbers from The Guardian website downloaded 11 am 11/11/2016									
	3) Exit poll shares from Jonathan Simon posted on Election Integrity list serve on 11/10/2016.									

**b) Democratic Senate Candidate Exit Poll Discrepancies**

Figure 9 below shows that VCs were lower than UEP for Democratic Senate candidates by statistically significant margins in key competitive races including the races in MO, WI, and PA that flipped in the VC versus UEP outcomes. Overall VCs were less than UEP for Democratic Senate candidates in 19 out of 20 races for which UEPs were conducted. The odds of this occurring due to random sampling error are less than 1 in 52,429 as can be seen in Figure 9, cell 5L.

1	A	B	C	D	E	F	G	H	I	J	K	L
2	<b>Figure 9: 2016 Senate Races Democratic Candidate Exit Polls versus Vote Count</b>											
3												
4		Sample Size	DemEP	DemVC	Dem VC reduction relative to exit poll (+ indicates VC share < EP share for Dem)	Random Sample SD assuming Senate Dem exit poll population proportion	Random Sample with 30% "Cluster Factor" added to Dem SD Estimate	One tail P value: Probability of Dem VC share if EP is True share	Odds based on Dem one tail Probability: one in x chance	95% Confidence Interval (CI) Low value for Dem VC deviation from EP	95% Confidence Interval (CI) High value for Dem VC deviation from EP	Odds of Dem VC share being smaller than EP share 19 out of 20 times
5	OH (3107)	3107	42.8%	36.9%	5.9%	0.89%	1.2%	0.00%	6,301,062	40.5%	45.1%	52,429
6	IA (2844)	2844	40.3%	35.7%	4.6%	0.92%	1.2%	0.01%	16,737	38.0%	42.6%	20
7	MO (1589)	1589	52.3%	46.2%	6.1%	1.25%	1.6%	0.01%	11,082	49.1%	55.5%	1,048,576
8	OR (1117)	1117	63.6%	56.7%	6.9%	1.44%	1.9%	0.01%	8,808	59.9%	67.3%	0.002%
9	WI (2970)	2970	50.7%	46.8%	3.9%	0.92%	1.2%	0.05%	1,861	48.4%	53.0%	
10	UT (1138)	1138	32.7%	27.3%	5.4%	1.39%	1.8%	0.14%	710	29.2%	36.2%	
11	CO (1335)	1335	54.1%	49.1%	5.0%	1.36%	1.8%	0.24%	417	50.6%	57.6%	
12	FL (3828)	3828	46.7%	44.3%	2.4%	0.81%	1.0%	1.10%	91	44.6%	48.8%	
13	PA (2535)	2535	50.0%	47.2%	2.8%	0.99%	1.3%	1.50%	66	47.5%	52.5%	
14	NC (3904)	3904	47.5%	45.3%	2.2%	0.80%	1.0%	1.71%	58	45.5%	49.5%	
15	SC (820)	820	41.2%	37.0%	4.2%	1.72%	2.2%	3.01%	33	36.8%	45.6%	
16	NH (2643)	2643	50.3%	48.0%	2.3%	0.97%	1.3%	3.44%	29	47.8%	52.8%	
17	KY (1037)	1037	45.5%	42.7%	2.8%	1.55%	2.0%	8.18%	12	41.6%	49.4%	
18	IL (707)	707	57.6%	54.4%	3.2%	1.86%	2.4%	9.27%	11	52.9%	62.3%	
19	WA (1011)	1011	62.2%	60.3%	1.9%	1.52%	2.0%	16.89%	6	58.3%	66.1%	
20	AZ (1726)	1726	42.6%	41.2%	1.4%	1.19%	1.5%	18.28%	5	39.6%	45.6%	
21	NY (1220)	1220	69.3%	70.4%	-1.1%	1.32%	1.7%	26.08%	4	65.9%	72.7%	
22	GA (2541)	2541	41.3%	40.8%	0.5%	0.98%	1.3%	34.69%	3	38.8%	43.8%	
23	NV (2390)	2390	47.6%	47.1%	0.5%	1.02%	1.3%	35.33%	3	45.0%	50.2%	
24	IN (1676)	1676	42.8%	42.4%	0.4%	1.21%	1.6%	39.95%	3	39.7%	45.9%	
	Notes and Sources:											
	1) No exit poll data was available for states not included in table											
	2) Vote count numbers from The Guardian website downloaded 11 am 11/11/2016											
	3) Exit poll shares from Jonathan Simon posted on Election Integrity list serve on 11/10/2016.											

### c) Republican Senate Candidate Exit Poll Discrepancies

Figure 10 below shows that VCs were greater than UEPs for Republican Senate candidates by statistically highly significant margins in key competitive races including the races in MO and WI. Interestingly, this was not the case in PA where the statistically significant “red shift” was entirely a result of the Democratic candidate’s *loss* of VC relative to his UEP. Overall, VCs were greater than UEPs for Republican Senate candidates in 15 out of 20 races for which UEPs were conducted. The odds of this occurring due to random sampling error are less than 1 in 68 as can be seen in Figure 10, cell 5L.

1	A	B	C	D	E	F	G	H	I	J	K	L
2	<b>Figure 10: 2016 Senate Races Republican Candidate Exit Polls versus Vote Count</b>											
3												
4		Sample Size	RepEP	RepVC	Rep VC reduction relative to exit poll (+ indicates VC share < EP share for Rep)	Random Sample SD assuming Senate Rep exit poll population proportion	Random Sample with 30% "Cluster Factor" added to Rep SD Estimate	95% Confidence Interval (CI) Low value for Rep VC deviation from EP	95% Confidence Interval (CI) High value for Rep VC deviation from EP	One tail P value: Probability of Rep VC share if EP is True share	Odds based on Rep one tail Probability: one in x chance	Odds of Rep VC share being larger than EP share 15 out of 20 times
5	UT (1138)	1138	61.9%	68.1%	-6.2%	1.44%	1.9%	58.2%	65.6%	0.05%	2,166	68
6	NC (3904)	3904	48.0%	51.1%	-3.1%	0.80%	1.0%	46.0%	50.0%	0.14%	699	15,504
7	WI (2970)	2970	46.8%	50.2%	-3.4%	0.92%	1.2%	44.5%	49.1%	0.21%	467	1,048,576
8	MO (1589)	1589	44.8%	49.4%	-4.6%	1.25%	1.6%	41.6%	48.0%	0.23%	438	1,479%
9	IN (1676)	1676	55.7%	52.1%	3.6%	1.21%	1.6%	52.6%	58.8%	1.12%	89	
10	OH (3107)	3107	55.7%	58.3%	-2.6%	0.89%	1.2%	53.4%	58.0%	1.24%	81	
11	WA (1011)	1011	35.8%	39.7%	-3.9%	1.51%	2.0%	32.0%	39.6%	2.33%	43	
12	SC (820)	820	56.8%	60.5%	-3.7%	1.73%	2.2%	52.4%	61.2%	5.00%	20	
13	GA (2541)	2541	53.2%	55.0%	-1.8%	0.99%	1.3%	50.7%	55.7%	8.09%	12	
14	PA (2535)	2535	47.1%	48.9%	-1.8%	0.99%	1.3%	44.6%	49.6%	8.13%	12	
15	KY (1037)	1037	54.5%	57.3%	-2.8%	1.55%	2.0%	50.6%	58.4%	8.18%	12	
16	IA (2844)	2844	58.7%	60.2%	-1.5%	0.92%	1.2%	56.3%	61.1%	10.57%	9	
17	FL (3828)	3828	50.8%	52.0%	-1.2%	0.81%	1.1%	48.7%	52.9%	12.66%	8	
18	AZ (1726)	1726	54.9%	53.3%	1.6%	1.20%	1.6%	51.8%	58.0%	15.21%	7	
19	NY (1220)	1220	28.9%	27.4%	1.5%	1.30%	1.7%	25.6%	32.2%	18.70%	5	
20	NH (2643)	2643	46.8%	47.9%	-1.1%	0.97%	1.3%	44.3%	49.3%	19.17%	5	
21	OR (1117)	1117	34.9%	33.6%	1.3%	1.43%	1.9%	31.3%	38.5%	24.16%	4	
22	IL (707)	707	38.9%	40.2%	-1.3%	1.83%	2.4%	34.2%	43.6%	29.27%	3	
23	NV (2390)	2390	45.4%	44.7%	0.7%	1.02%	1.3%	42.8%	48.0%	29.85%	3	
24	CO (1335)	1335	44.5%	45.4%	-0.9%	1.36%	1.8%	41.0%	48.0%	30.54%	3	
	Notes and Sources:											
	1) No exit poll data was available for states not included in table											
	2) Vote count numbers from The Guardian website downloaded 11 am 11/11/2016											
	3) Exit poll shares from Jonathan Simon posted on Election Integrity list serve on 11/10/2016.											



Figure 11 below illustrates the Kander UEP MO analysis conveyed in Figure 9, line 7. The normal distribution bell curve is centered around Kander's 52.3% MO UEP share and has a 1.6% SD (or approximate "width") as calculated in Figure 9. Based on this SD the 95% Confidence Interval (CI) displayed in the graph ranges from 49.1% to 55.5% as shown in Figure 9. This implies that there was a 95% chance that Kander's MO VC would fall within this range due to statistical sampling error. The blue area over the CI under the bell curve distribution contains 95% of the total area under the bell curve. As shown in Figure 9 Kander's reported MO VC of 46.2% is below the lower end of the CI, showing a statistically significant VC discrepancy with his UEP that would be expected to occur by chance only 0.01% of the time, or less than a 1 in 11,082 chance.

**Figure 11: Illustration of Kander MO Statistical UEP Analysis**

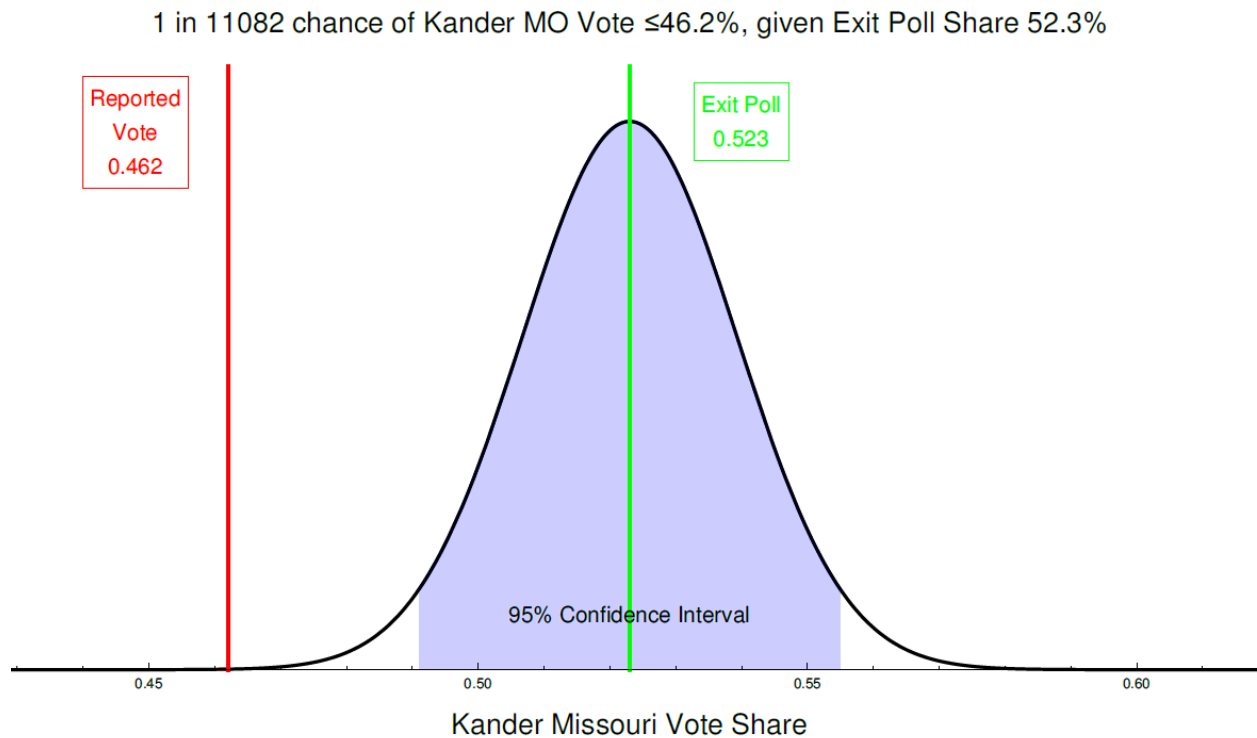


Chart courtesy of Greg Kilcup, Peter Peckarsky, and Ron Baiman.

Figure 12 below illustrates the Feingold UEP WI analysis conveyed in Figure 9, line 9. The normal distribution bell curve is centered around Feingold's 50.7% WI UEP share and has a 1.2% SD (or approximate "width") as calculated in Figure 9. Based on this SD the 95% Confidence Interval (CI) displayed in the graph ranges from 48.4% to 53.0% as shown in Figure 9. This implies that there was a 95% chance that Feingold's WI VC would fall within this range due to statistical sampling error. The blue area over the CI under the bell curve distribution contains 95% of the total area under the bell curve. As shown in Figure 9 Feingold's reported WI VC of 46.8% is below the lower end of the CI, showing a statistically significant VC discrepancy with his UEP that would be expected to occur by chance only 0.05% of the time, or less than a 1 in 1,861 chance.

**Figure 12: Illustration of Feingold WI Statistical UEP Analysis**

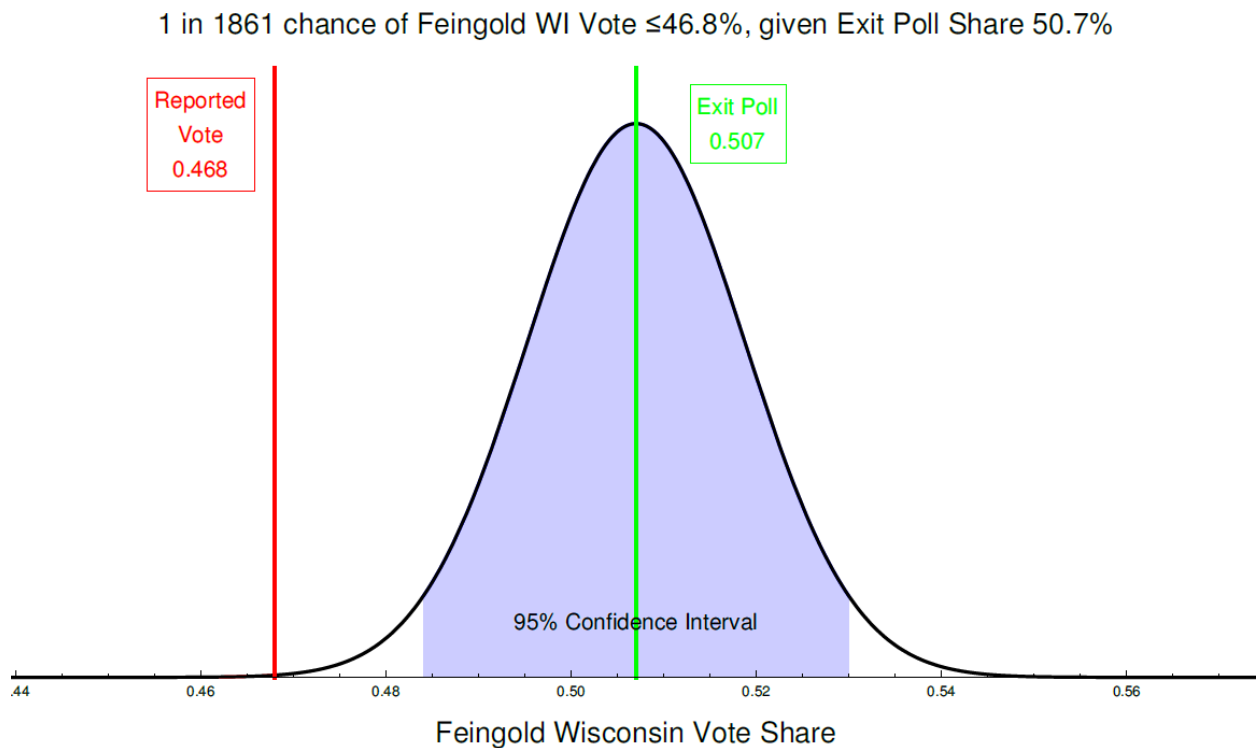


Chart courtesy of Greg Kilcup, Peter Peckarsky, and Ron Baiman.

Figure 13 below illustrates the McGinty UEP PA analysis conveyed in Figure 9, line 13. The normal distribution bell curve is centered around McGinty's 50.0% PA UEP share and has a 1.3% SD (or approximate "width") as calculated in Figure 9. Based on this SD the 95% Confidence Interval (CI) displayed in the graph ranges from 47.5% to 52.5% as shown in Figure 9. This implies that there was a 95% chance that McGinty's PA VC would fall within this range due to statistical sampling error. The blue area over the CI under the bell curve distribution contains 95% of the total area under the bell curve. As shown in Figure 9 McGinty's reported PA VC of 47.2% is below the lower end of the CI, showing a statistically significant VC discrepancy with her UEP that would be expected to occur by chance only 1.50% of the time, or less than a 1 in 66 chance.

**Figure 13: Illustration of McGinty Statistical UEP Analysis**

1 in 66 chance of McGinty PA Vote  $\leq$  47.2%, given Exit Poll Share 50.0%

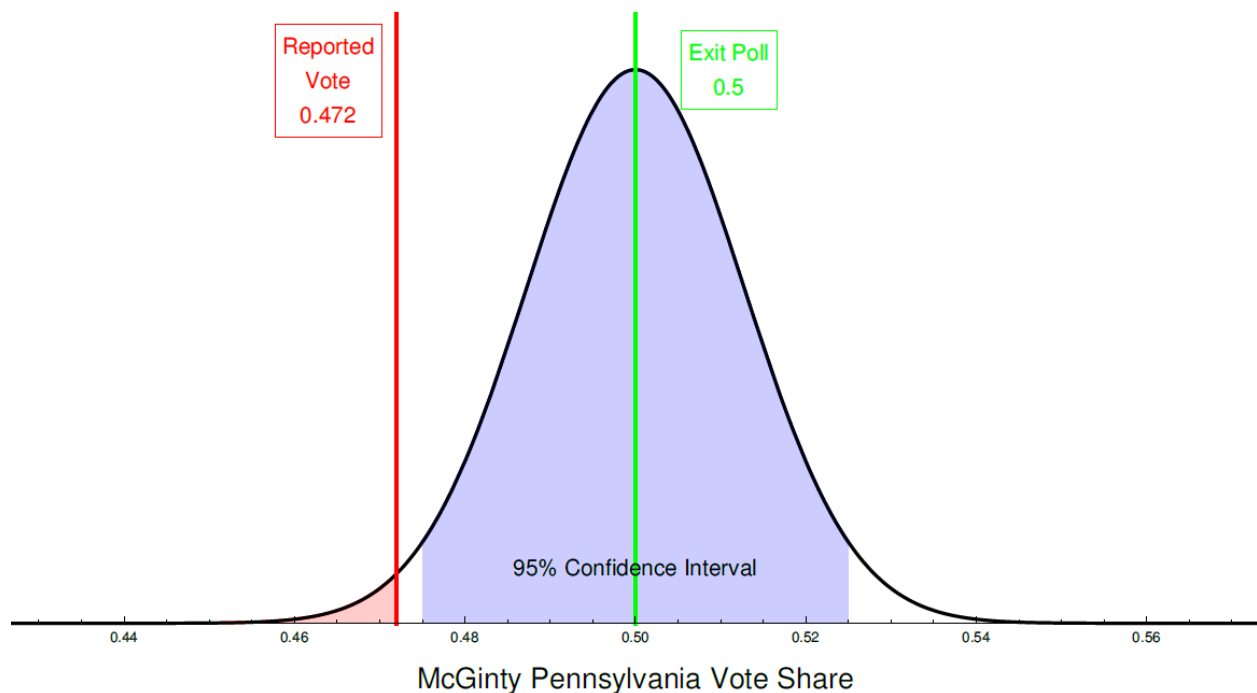


Chart courtesy of Greg Kilcup, Peter Peckarsky, and Ron Baiman.

#### 4) Conclusion

It is nearly impossible to think of a plausible *statistical*, or innocent exit poll error, rationale for the one-sided “red shift” (and anti-Bernie shift) UEP discrepancy patterns, *with the most highly significant discrepancies occurring in key battle ground and deep-red states*, in recent U.S. elections. These repeated patterns of exit poll discrepancies with official vote counts are in practice, statistically impossible, *but highly politically consistent*. Given what we know about how U.S. elections are conducted, a reasonable conclusion is that these in all likelihood reflect differences in how votes are counted, not counted, or miscounted by partisan and largely unmonitored and unregulated election officials. [As Greg Palast has pointed out](#), this does not even have to include broad based hacking or rigged machine miscounting ([though incidents of this have been found in states with large exit poll discrepancies in earlier elections](#)) but simply the process of discarding and not counting numerous spoiled, provisional, early, mail-in, and absentee ballots, based on illegal partisan voter registration stripping and *partisan and repressive* local election vote counting rules and procedures.

Time stamped screen shots of UEPs broadcast on CNN, and generously provided by [Theodore de Macedo Soares](#), are available upon request. These conform to the UEP data, generously provided by [Jonathan Simon](#), used in this analysis.