Ron Baiman
Aug. 8, 2017

Updated, Expanded and Corrected Affidavit Version: U.S. 2016 Unadjusted Exit Poll Discrepancies Fit Chronic Republican Vote – Count Rigging, not Random Statistical, Patterns[1]

1. I, _____after being first sworn, state that the following is true based upon my own personal knowledge:
2. My name is Ron Paul Baiman. I reside at 205 S. Humphrey Ave, Oak Park, Illinois. I am currently employed as Assistant Professor of Economics in the Graduate Business Administration Department of Benedictine University, Lisle, IL. I hold a Ph.D. in Economics, received in 1992 from the New School University, New York, New York. My professional fields are economics and statistics. I have taught numerous college statistics courses and worked as a statistical data analyst for both the private and public sectors. My Curriculum Vita is attached as Exhibit A.
3. I have reviewed the following information in connection with this affidavit:

1. Time stamped CNN screen shots of "unadjusted exit poll data" (UEP), as explained in points 6 - 9 below, for the 2016 general election, for the Presidential races from Theodore de Macedo Soares for the 28 states where Presidential exit polls where conducted, and for the Senate races from the 21 states where exit polls were conducted. UEP Senate race data for MO is from a CNN screen shot captured by Jonathan Simon. Time stamped screen shots for the 2016 Presidential general election are here.[2] Time stamped screen

[1] This Affidavit was never used, but includes data and analysis that corrects, updates, and expands on the data published in an earlier 12/10/2016 article: "U.S. 2016 Unadjusted Exit Poll Discrepancies Fit Chronic Republican Vote - Count Rigging, not Random Statistical, Patterns".

[2] These were kindly provided by Theodore de Macedo Soares of www.tdmsresearch.com author of this exit polling article: http://tdmsresearch.com/2016/11/10/2016-presidential-election-table/ .

shots for the 2016 Senate general election are here.[3]

2. Official 2016 Election vote counts (VC) for the U.S. President and U.S. Senate from CNN website downloaded Dec. 12 and Dec. 13, 2016 for all the states where exit polls were conducted.

    a. Sample sizes for final "adjusted exit polls" (AEP) by state for President and Senate from the CNN website, downloaded Dec. 14, 2016.

4. In the following I will show that:

    a. There was a one-sided "red shift" or margin of victory VC shift for Presidential candidate Donald Trump relative to his UEP margin of victory, in the 26 out of the 28 states where exit polls were conducted. 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.

    b. This included statistically significant *reduced* VC relative to UEP for Presidential candidate Hillary Clinton that was likely to happen by chance less than 5% of the time occurred in seven states: MO, OH, NJ, PA, UT, ME, and NC. For example:

    c. Candidate Clinton's reported PA VC of 47.6% was below the lower end of a 95% confidence CI, showing a statistically significant VC discrepancy with her UEP that would be expected to occur by chance

[3] As is noted in the text, the MO general election Senate race screen shot was generously supplied by Jonathan Simon, Director and Co-Founder of the Election Defense Alliance.

only 1.1282% of the time, or with less than a 1 in 85 chance.

d. This pattern of pervasive "red shift" also included statistically significant VC *increases* for candidate Trump relative to his UEP that were likely to happen by chance less than 5% of the time in OH, NC, MO, IA, NJ, GA, WI, ME, FL, PA, IN, SC, NV, NH, UT, CO, and AZ. Of these, *highly* significant VC shifts *for* Trump were concentrated in the battleground or deep red states of: OH, NC, MO, IA, GA, WI, and FL. As is explained below, the UEPs for FL and MI are likely to be at least partially adjusted and thus not true UEPs. The 2 out of 28 cases of UEP – VC deviations *against* Trump in MN and NY were not statistically significant. For example:

e. For example, the official WI VC of 47.8% for candidate Trump was above the upper end of a 95% confidence interval (CI) around the UEP for Trump in WI showing a statistically significant VC discrepancy that would be expected to occur by chance only 0.163% of the time, or less than a 1 in 614 chance.

f. The official NC VC of 47.8% for candidate Trump was above the upper end of a 95% CI around the UEP for Trump in NC, showing a statistically significant VC discrepancy with his UEP that would be expected to occur by chance only 0.0055% of the time, or less than a 1 in 18,073 chance.

g. The official FL VC of 49.1% for candidate Trump was above the upper end of a 95% CI around the UEP for Trump in FL, showing a statistically significant VC discrepancy with his UEP that would be expected to occur by chance only 0.3872% of the time, or less than a 1 in 258 chance, and as is noted below this is most likely an underestimate of the odds as the FL UEP was probably already partially adjusted to match the VC due to state of FL covering two time zones.

h. Consistent and statistically unsupportable "red shift" in 19 out of 21 Senate races for which Senate race exit polls were conducted. The odds of the Democratic candidate UEP being greater than his or her VC in 19 out of 21 Senate races due to statistical random sampling error are less than 1 in 9,986.

i. VCs were *lower* than UEP for Democratic Senate candidates in 19 out of the 21 states for which Senate exit polls were conducted. The odds of this occurring again being 1 in 9,986. These 19 states include three key competitive races in MO, WI, and PA where the VC was lower than the UEP by a statistically significant margin and the Democratic candidate would have won based on the UEP but lost in terms of VC. All of the statistically significant deviations except one in CA are *against* the Democratic Senate candidate and the VC

increase over UEP in CA would not have affected the outcome of that race. For example:

j. MO Democratic Senate Candidate Kander received a 52.3% UEP share but received 46.2% in the official VC. This would be expected to occur by chance only 0.01% of the time, or less than a 1 in 11,082 chance. WI Democratic Senate candidate Feingold received 50.7% in his UEP but a 46.8% official VC share. This would be expected to occur by chance only 0.05% of the time, or with less than a 1 in 1,975 chance.

k. PA Democratic Senate candidate McGinty received a 50.0% UEP but an official VC share of 47.2%. This would be expected to occur chance 1.66% of the time, or with less than a 1 in 60 chance.

l. VCs greater than UEPs *for* Republican Senate candidates in 16 out of 21 races for which Senate race exit polls were conducted. The odds of this occurring due to random sampling error are less than 1 in 103. There are no cases of statistically significant shift *against* the Republican Senate candidate.

m. I conclude that it is nearly impossible to think of a plausible statistical, or innocent exit poll error, rationale for the one-sided "red shift" UEP discrepancy patterns, with the most highly significant discrepancies occurring in key battle ground and deep-red states, in

the 2016 U.S. general election. These repeated patterns of exit poll discrepancies with official vote counts are in practice, statistically impossible, but plausible from a political or election security standpoint. In other words, the only plausible explanations are how votes are counted, not counted, or miscounted by partisan and largely unmonitored and unregulated election officials, or other external violators of election security, such as domestic or foreign hackers.

5. Executives of the polling company Edison Research that conducts the exit polls for the mainstream media consortium in the U.S. have repeatedly confirmed that published Edison adjusts actual exit polling data to be consistent with official vote counts. For example, Joe Lenski, CEO of Edison research, is quoted in a Pew Research article as saying:

6. "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."

7. 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. elections since 1988. 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, for example for the 2004 election and for pre-election polls in 2016 election.

8. 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 right before or after 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.[4]

9. From each screen shot I have calculated the Democratic President and Senate candidate UEP results for each state by multiplying the overall male share by the male Democratic candidate vote share and adding it to the overall female vote share by female Democratic candidate vote share. Similarly I have calculated UEP results for the Republican candidates for President and Senate. These are presented in Exhibits G for the President and Exhibit H for the Senate races.

10. Exhibit G also includes calculations of the ratio between UEP sample sizes and final adjusted exit poll (AEP) samples sizes by state for the Presidential race by state. As can be seen in Column Q, this ratio is less than 85% in only five of the 28 states (IL, ME, NH, NJ, and NM) for which Presidential exit polling was conducted. I conclude that for the purposes of this analysis the screen shots of UEP

[4] 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.

results are from sufficiently large sample sizes relative to the final AEP, to be statistically representative of complete sample UEPs for most of the states for which Presidential exit polling was done.

11. Exhibit H also includes calculations of the ratio between UEP sample sizes and final adjusted exit poll (AEP) samples sizes by state for the Senate race by state. As can be seen in Column Q, this ratio is less than 84% in only two of the 21 states (IL and UT) for which Senate exit polling was conducted. I conclude that for the purposes of this analysis the screen shots of UEP results are from sufficiently large sample sizes relative to the final AEP, to be statistically representative of complete sample UEPs for most of the states for which Senate exit polling was done.

12. Exhibit I provides analysis of 2016 Presidential UEP "red shift". "Red Shift" is the increase in Republican candidate official vote count (VC) margin of victory over UEP margin of victory, in other words, the discrepancy between the exits polls and the office vote count.[5] Exhibit I shows states ordered by red shift magnitude. In the 2016 presidential election, there was an overwhelmingly one-sided shift to the Republican candidate. In 22 out of the 28 states where exit polls were conducted, and UEP data were captured, the Trump VC exceeded Trump's UEP numbers.

13. Assuming the exit polls were unbiased, the chance of "red shift" for any one state would be 50% or 0.5. The odds of negative red shift – that Trump's official vote count would be better than his exit polls -- in 22 out of 28 such state UEP results would then be 1 in 713. Those are the odds of getting 22 heads in 28 coin tosses. (See cell 5K.)

[5] In Exhibit I and later tables, red shift (column I) is defined as the *negative* percentage value of (Hillary VC -Trump VC) – (Hillary UEP – Trump UEP).

14. A "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 no consistent UEP bias in the Republican primary. 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. The "Trump surge" or "Trump Shyness" explanation is even more questionable in light of highly significant exit poll discrepancies *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 the discrepancies arise 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 were there not similar "Trump surges" or "Trump Shyness" in UEP response in other states like New York where one would expect the social stigma of identifying as a Trump supporter would be greater?
15. Voting integrity organizations have repeatedly requested precinct UEPs and official counts so that analysis that would be unaffected by precinct weights could be conducted. 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. Nevertheless, requests for precinct information, including my own, have been ignored or denied by Edison. The reason given for these nondisclosures is that such information is, despite its obvious vital public importance, proprietary private information. Disclosure is refused 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.

16. Moreover, the one case in in Ohio in 2004, where *precinct level* exit polls and vote counts were inadvertently obtained, precinct level analysis revealed statistically highly significant discrepancies that were not a result of state level weighting. In addition, follow-up direct investigation of polling books and central tabulators from the 2004 election in Miami County, Ohio revealed numerous discrepancies between voters and official vote numbers and central tabulator miscounting acknowledged by the Republican County Election Board Director. This demonstrated that statistically significant discrepancies between UEPs and VCs in U.S. elections have been tied to proven election irregularities. There is no statistical or logical basis why these should not be investigated.

17. Investigation is recommended for *foreign elections* by the U.S. State Department when UEP discrepancies with official vote counts like those appearing in the U.S. 2016 election, such as those in Wisconsin, Pennsylvania, and Florida. . In 2015, the U.S. Agency for International Development published a pamphlet entitled: "Executive Summary: Assessing And Verifying Election Results, A Decision-Maker's Guide To Parallel Vote Tabulation And Other Tools". It had this to say on exit polls and detecting election fraud in overseas elections: It notes under the

heading “Detect Electoral Fraud” that: “Other tools, such as exit polls and election forensics techniques, can highlight anomalies in results that may suggest irregularities in the voting or counting process.” (p. 11). Eric Bjornlund and Glenn Cowan’s 2011 pamphlet “Vote Count Verification: a User’s Guide for Funders, Implementers and Stakeholders,” produced by Democracy International for the US Agency for International Development (USAID), outlines how exit polling is used to ensure free and fair elections.“U.S-funded organizations have sponsored exit polls as part of democracy assistance programs in Macedonia (2005), Afghanistan (2004), Ukraine (2004), Azerbaijan (2005), the West Bank and Gaza Strip (2005), Lebanon (2005), Kazakhstan (2005), Kenya (2005, 2007), and Bangladesh (2009),among other places,” the pamphlet states.

18. 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.

19. The most appropriate and practical method to analyze such proportions is 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. A direct empirical test of this adjustment factor by Theodore De Macedo Soares for the 2016 Republican primary results that (unlike the 2016 Democratic primary results that exhibit highly significant non-random error bias against Sanders) show that that by increasing the standard statistical margin of error by 32% random exit poll error from all factors is reduced to the standard statistically acceptable level of below 5%.[6]

20. (Exhibit P) 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 the "Z-Score," or number of SD's, of the UEP – VC deviation. Column I 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. The P-value for each state is the random statistical probability of the Clinton VC given the Clinton UEP for that state. The lower the P-Value the less likely it is that the VC would occur as a result of random

[6] Note that Soares uses standard statistical analysis to calculate the Margin of Error (MOE) of the "red shift" based on this reference. However, as this MOE is roughly twice the Margin of Error for one poll that I use, the 30% factor remains applicable for the more conservative MOE calculation that I use.

chance. 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 J presents the same information (one divided by P-Value) in terms of the odds of VC share occurring given the UEP share. Columns K and L 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 internal, only VCs with P-values of 2.5% or less will be outside of this confidence interval.

21. As can be seen in Exhibit P, statistically significant VC *reductions* from Clinton's UEP shares (with P-Value of less than 5%) occurred in MO, OH, NJ, PA, UT, 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. (As discussed 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. Note that Exhibit P shows some evidence of statistically significant (below 5% P-value) Democratic UEP – VC discrepancy *for* Clinton in the deep blue state of NY, but as can be seen from the odds in Column J, the level of significance is much smaller than the pervasive discrepancies *against* Clinton in multiple states noted above.

22. Exhibit Q below illustrates the Clinton UEP PA analysis conveyed in Exhibit 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 indicates 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 Exhibit Q 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 85 chance.

23. Exhibit R shows the results of this analysis for Trump UEP minus VC shares. Column D shows VC minus UEP percentage for Trump so that a negative percentage indicates that Trump's vote count was greater than his 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 the "Z-Score," or number of SD's, of the UEP – VC deviation. Column I 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. The P-value for each state is the random statistical probability of the Clinton VC given the Clinton UEP for that state. The lower the P-Value the less likely it is that the VC would occur as a result of random chance. 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 J presents the same information (one divided by P-Value)

in terms of the odds of VC share occurring given the UEP share. Columns K and L 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 internal, only VCs with P-values of 2.5% or less will be outside of this confidence interval.

24. As can be seen in Exhibit R, statistically significant VC discrepancies with Trump UEP shares (with p-value less than 5%) occurred in OH, NC, MO, IA, NJ, GA, WI, ME, FL, PA, IN, SC, NV, NH, UT, CO, and AZ (as noted in footnote 1 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. Note that though there were UEP – VC deviations *against* Trump in MN and NY these were not statistically significant. Most of the most *highly* significant VC shifts for Trump were concentrated in the battleground or deep red states: OH, NC, MO, IA, GA, WI, and FL suggesting that these "errors" were not random but a result of how the VC was counted.

25. 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 Exhibit R cell 5M using a calculation similar to that used for cell 5J in Exhibit I.

26. Exhibit S below illustrates the Trump UEP WI analysis conveyed in Exhibit R, 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 Exhibit R. Based on this SD the 95% Confidence Interval (CI) displayed in the graph ranges

from 42.0% to 46.6% as shown in Exhibit S. 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 Exhibit S Trump's reported WI VC of 47.8% 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 0.163% of the time, or less than a 1 in 614 chance.[7]

27. Exhibit T below illustrates the Trump UEP NC analysis conveyed in Exhibit R, line 6. 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 Exhibit 4 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 R. 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 Exhibit T Trump's reported NC VC of 47.8% 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 0.0055% of the time, or less than a 1 in 18,073 chance.[8]

28. Exhibit U below illustrates the Trump UEP FL analysis conveyed in Exhibit 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

[7] Odds in Exhibit R are conservatively rounded down to 1 in 610.
[8] Odds in Exhibit T are conservatively rounded down to1 in 18,000.

44.3% to 48.4% as shown in Exhibit R. 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 Exhibit U 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 0.3872% of the time, or less than a 1 in 258 chance.[9] Moreover, as was noted above 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.

29. In the following the 2016 Senate Races discussed below are analyzed using the same method as the Presidential race. Exhibit V 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.

30. Exhibit V also shows that the 2016 Senate races showed a consistent and statistically unsupportable "red shift" in 19 out of 21 races for which UEP were available. The odds of the Democratic candidate UEP being greater than his or her VC in 19 out of 21 Senate races due to statistical random sampling error are less than 1 in 9,986 as can be seen in cell 5J in Exhibit V.

31. Exhibit W 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. Note again

[9] Odds in Exhibit U are conservatively rounded down to 1 in 220.

that all of the statistically significant deviations except one in CA are *against* the Democratic Senate candidate. And the one in CA would not have affected the outcome of that race.

32. Overall, VCs were less than UEP for Democratic Senate candidates in 19 out of 21 races for which UEPs were conducted. The odds of this occurring due to random sampling error are less than 1 in 9,986 as can be seen in Exhibit W, cell 5M.

33. Exhibit X 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.

34. Overall, VCs were greater than UEPs for Republican Senate candidates in 16 out of 21 races for which UEPs were conducted. The odds of this occurring due to random sampling error are less than 1 in 103 as can be seen in Exhibit X, cell 5M. There are no cases of statistically significant shift against the Republican Senate candidate, though CA comes close.

35. Exhibit Y below illustrates the Kander UEP MO analysis conveyed in Exhibit W, 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 Exhibit W, 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.[10]

36. Exhibit Z below illustrates the Feingold UEP WI analysis conveyed in Exhibit W, 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 Exhibit W. Based on this SD the 95% Confidence Interval (CI) displayed in the graph ranges from 48.4% to 53.1% as shown in Exhibit Z. 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 Exhibit Z 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 1,975 chance.[11]

37. Exhibit AA below illustrates the McGinty UEP PA analysis conveyed in Exhibit W, 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 Exhibit W. Based on this SD the 95% Confidence Interval (CI) displayed in the graph ranges from 47.4% to 52.5% as shown in Exhibit 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

[10] Odds are conservatively rounded to 1 in 11,000 in Exhibit Y.
[11] Odds are lower at 1 in 861 (result of calculation before data update) in Exhibit Z.

95% of the total area under the bell curve. As shown in Exhibit AA 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 1.66% of the time, or less than a 1 in 60 chance.

38. In conclusion, it is nearly impossible to think of a plausible statistical, or innocent exit poll error, rationale for the one-sided "red shift" UEP discrepancy patterns, with the most highly significant discrepancies occurring in key battle ground and deep-red states, in the 2016 U.S. general election. These repeated patterns of exit poll discrepancies with official vote counts are in practice, statistically impossible, but plausible from a political or election security standpoint. In other words, the only plausible explanations are how votes are counted, not counted, or miscounted by partisan and largely unmonitored and unregulated election officials or other external violators of election security, such as domestic or foreign hackers.

Exhibit A

Curriculum Vitae for Ron Baiman

PERSONAL INFORMATION

Name: Ron Paul Baiman **Date:** August 7, 2017

Home address: 205 S. Humphrey Ave. **Phone:** (708) 445-9052

City: Oak Park **State:** Illinois **Zip:** 60302

E-mail: Baiman@sbcglobal.net

EDUCATION

Ph.D. Economics, 1992
New School for Social Research, New York, NY

Dissertation Title: "Non-Neoclassical Microeconomics: A Nominal Total Bill Approach to Residential Telephone Usage Demand Estimation"

M.A. Economics with Honors, 1981
New School for Social Research, New York, NY

One Year Graduate Studies, Mathematics
University of California, Berkeley, 1974 and 1978

B. Sc. Mathematics and Physics, magna cum laude, 1973
Hebrew University, Jerusalem, Israel

EXPERIENCE

8/13 - present. Assistant Professor of Economics, Graduate Business Administration, Benedictine University, Lisle, IL. Teaching economics courses to MBA students, and working on academic research projects and university service activities.

6/13 - 8/13. Economic Development Planner, Center for Urban Economic Development, University of Illinois at Chicago, Chicago, IL. Performed data research for State of Working Chicago report and for Illinois Labor Force projection estimates.

8/09 – 11/12. Director of Budget and Policy Analysis, Center for Tax and Budget Accountability, Chicago, Illinois. Lead research and analysis of state and local budget and policy issues. With other staff, author reports, present testimony and public presentations, and engage in media outreach. Consult union leaders, public officials, journalists, and other key policy actors in Illinois on state and local policy issues.

8/06 -8/09. Research Economist, Illinois Department of Employment Security, Chicago, Illinois. Senior economic researcher for special projects and consultant for upper management of Market Analysis and Information Division.

3/00 – 6/07. Visiting Assistant Professor, University of Chicago, Chicago, IL. Co- instructor of senior capstone course on " Neo-Liberalism and Neo-Imperialism", and before that: "Globalization and Neo-Liberalism," as part of the "Big Problems" Spring Program.

1/06 – 6/07. Policy Research Project Development Analyst, Center for Urban Research and Learning, Loyola University, Chicago, Illinois. Principal investigator for research on the economic impact of a Chicago west side Wal-Mart.

9/05 -1/06. Visiting Research Assistant Professor, College of Urban Planning and Public Affairs, University of Illinois at Chicago. In collaboration with other project team members, work on analyses of economic impacts of federal funded transportation projects targeted toward low-income and otherwise disadvantaged populations.

12/04 - 1/06. Visiting Senior Economic Research Specialist, Institute of Government and Public Affairs, University of Illinois at Chicago. Project Director and co-principal investigator for research on the economic impact of the 2003 Illinois minimum wage increase and other local, state, and national, economic and public policy issues.

9/04 -12/04. Visiting Senior Economic Research Specialist, Department of Economics, University of Illinois at Chicago. Senior economic researcher and co-principal investigator for research on the economic impact of the 2003 Illinois minimum wage increase.

9/01 - 9/04. Visiting Research Assistant Professor, Center for Urban Economic Development, University of Illinois at Chicago. Senior economic researcher on a wide variety of state and local economic development issues including Illinois state business tax incidence. Position included supervision of graduate student researchers and some teaching responsibilities.

8/94 - 8/01. Assistant Professor of Economics, Dept. of Economics, Roosevelt University, Chicago, IL. Teaching graduate and undergraduate courses in: introductory microeconomics and macroeconomics, advanced microeconomics, modern political economy, comparative systems, statistics, and intermediate macroeconomics.

1/94 - 6/94. Visiting Professor, New School for Social Research, Graduate School for Management and Urban Policy, New York, N.Y. Taught Statistical and Research Methods for graduate students in urban policy and public and non-profit administration programs.

1/93 - 6/94. Associate Director, Telecommunications Exchange, Dept. of Economic Development of New York State, New York, N.Y. Responsible with the Director for facilitating the formulation of joint government-business-labor policy recommendations, focusing on telecommunications and economic development, for the governor. In this capacity responsible for writing, and supervising the writing of, briefing and policy reports, and of overseeing consultant contracts.

12/91 - 1/93. Modeling Manager, AT&T, Database Marketing Services, Bridgewater, NJ. Responsible for statistical modeling of customer database information for marketing purposes.

10/87 - 12/91. Manager, AT&T, Consumer Communications Services Forecasting, Basking Ridge, NJ. Manager of Domestic Consumer Long Distance direct-dial rate evaluation. Responsibilities included: estimation of rate change effects on telephone usage demand for regulatory and planning purposes, state level regulatory support, and research into household level estimation of telephone usage demand price elasticities.

1/87 - 9/87. Instructor, Division of Liberal Arts, Mount Ida College, Newton, MA. Taught macroeconomic and microeconomic Principles, and conducted an upper division seminar on current issues in economics.

6/86 - 9/87. Research Associate, Regional Science Research Center, University of Lowell, Lowell, MA. Responsibilities included literature review and data base preparation for ongoing research.

9/85 - 12/86. Visiting lecturer, School of Graduate and Continuing Education, Framingham State College, Framingham, MA. Taught quantitative methods for business administration within the graduate business administration program, a graduate course in quantitative methods for health care with computer applications and an undergraduate statistics course.

9/84 - 6/86. Lecturer, Economics Dept., University of Massachusetts at Lowell. Taught undergraduate statistics, and microeconomics and macroeconomics principles courses.

9/83 - 6/84. Research and Teaching Assistant, New School for Social Research, New York, N.Y. Taught Lab section for graduate level math methods in economics course.

PROFESSIONAL AWARDS AND SERVICE

8/95- present. Member of the Policy Council of Illinois Citizens Action.

8/99 - present. Member of the Editorial Board of the *Review of Radical Political Economics.*

12/05 - Recipient of Woods Foundation Grant, with Joseph Persky, for "An Empirical Evaluation of the Economic Development Impact of the West Side Chicago Wal-Mart"

11/04 - Recipient of Russell Sage Foundation Grant, with Joseph Persky and Elizabeth Powers, for study of the "Impacts of the Illinois Minimum Wage: Employment, Hours, and Labor Substitution in the Fast Food Industry."

1/01 - *Choice* award for "Best Academic Title", with Heather Boushey and Dawn Saunders, for *Political Economy and Contemporary Capitalism: Radical Perspectives on Economic Theory and Policy*, M. E. Sharpe, 2000.

10/00 – 10/01. President of the "Illinois Economics Association" (IEA).

COURSES TAUGHT

Advanced Microeconomics: Self developed graduate course with focus on critiques of Neoclassical Microeconomics and Post Keynesian alternatives.

Introductory Microeconomics: Undergraduate introduction to microeconomics.

Economic Development: Planning. Graduate course on regional planning strategies and techniques taught in the College of Urban Planning and Public Affairs.

Statistical and Research Methods: Graduate course on statistical and research methods for students of urban policy and public and non-profit administration.

Quantitative Methods for Business: Graduate course on quantitative methods for students of business management.

Quantitative Methods for Health Care: Graduate course on quantitative methods for health care administration students.

Introduction to Statistics: Introductory undergraduate statistics course for social science and engineering students.

Mathematical Methods for Economics: Lab section instructor for graduate course on mathematical methods in economics.

Current Issues in Economics: Upper level undergraduate seminar on contemporary economic policy issues.
Introductory Macroeconomics: Undergraduate introduction to macroeconomics.

Intermediate Macroeconomics: Upper level undergraduate and graduate survey of the major modern schools of macroeconomics with a particular focus on Post Keynesian macroeconomics.

Globalization and Neo-Liberalism: Self developed, with another instructor, interdisciplinary course on the history and political economy of globalization and Neo-Liberalism.

From Neo-Liberalism to Neo-Imperialism: Self developed, with another instructor, interdisciplinary course on the political economy and history of Neo-Liberalism and Neo-Imperialism.
Comparative Economic Systems: Self-developed upper level undergraduate and graduate course on alternate political economic systems in a wide variety of countries.

Modern Political Economy: Self-developed upper level undergraduate and graduate course on Neo-Marxist, Post Keynesian, and Radical Economic theory and policy.

History of Economic Thought: Self developed tutorial for Independent Study offering. The Course emphasized the ideas of Joseph Schumpeter and Robert Owen in accordance with student interest.

Economies in the International Context: International Studies graduate course comparing different national economies.

SCHOLARLY PUBLICATIONS

Books

The Global Free Trade Error: The Infeasibility of Ricardo's Comparative Advantage Theory, Routledge, 2017.

The Morality of Radical Economcs: Ghost Curve Ideology and the Value Neutral Aspect of Neoclassical Economics, Palgrave Macmillan, 2016.

Political Economy and Contemporary Capitalism: Radical Perspectives on Economic Theory and Policy, co-edited with Heather Boushey and Dawn Saunders, M. E. Sharpe, June, 2000.

Refereed Papers, Reviews, and Chapters in Books

"Vote miscount or poll response bias? What causes discrepancy between polls and election results?" with Kathy Dopp, *Italian Journal of Applied Statistics* Vol. 25 (3) 209-237.

"Unequal Exchange and the Rentier Economy," *Review of Radical Political Economics*, December 2014, 46(4) 536-557.

"The Impact of an Urban Wal-Mart Store on Area Businesses: The Chicago Case," with David Merriman, Joseph Persky, and Julie Davis, *Economic Development Quarterly*, November 2012, 26(4) 321-333.

"A Permanent Jobs Program for the U.S.: Economic Restructuring to Meet Human Needs," with Williaml Barclay, Sidney Hollander, Haydar Kurban, Joseph Persky , Elce Redmond, and Mel Rothenberg, *Review of Black Political Economy*, March, 2012, 29(1) 29-41.

"Do State Minimum Wage Laws Reduce Employment? Mixed Messages from Fast Food Outlets in Illinois and Indiana," with Joseph Persky, *Journal of Regional Analysis and Policy*, 40(2):132-142, 2010.

"The Infeasibility of Free Trade in Classical Theory: Ricardo's Comparative Advantage Parable has no Solution," *Review of Political Economy*, Vol. 22(3), July, 2010.

"The Estimated Economic Impact of a Chicago Big Box Living Wage Ordinance," *Review of Radical Political Economics,* Vol. 38(3), Fall 2006.

"Unequal Exchange without the Labor Theory of Prices: On the need for a Global Marshall Plan and a Solidarity Trading Regime," *Review of Radical Political Economics*, Vol. 38(1), Winter 2006.

"Why Equity Cannot be Separated from Efficiency II: When Should Social Pricing be Progressive?," *Review of Radical Political Economics*, Vol. 34(3), Summer 2002.

"Why Equity Cannot be Separated from Efficiency: The Welfare Economics of Progressive Social Pricing," *Review of Radical Political Economics*, Vol. 33(2), Spring 2001.

"Why the Emperor has no Clothes: The *Neoclassical* Case *for* Price Regulation," included in *Political Economy and Contemporary Capitalism*, Baiman, Boushey, and Saunders, Eds. M. E. Sharpe, June, 2000.

"Neoclassical Economics and the End of Equitable, Open, and Universal Telecommunications Services in the United States," *Review of Radical Political Economics*, Vol. 27(3), September 1995.

"Structural Subemployment in the U.S. and the Full Employment Debate", *The Imperiled Economy, Vol II*, New York: URPE 1988.

Review of *Deepening Democracy: Institutional Innovations in Empowered Participatory Governance*, by Archon Fung and Erik Olin Wright. *Science and Society*, Vol. 70(4) 2006.

Review of *Market Socialism: The Debate among Socialists*, edited by David Schweickart, James Lawler, Hillel Ticktin, and Bertell Ollman, *Science and Society*, Vol. 63(4), winter 1999-2000.

Review of *Socialism after Communism: The New Market Socialism*, By Christopher Pierson, *Science and Society*, Vol. 62(2), summer 1998.

Review of *Lean and Mean: The Changing Landscape of Corporate Power in the Age of Flexibility*, by Bennett Harrison, *Review of Radical Political Economics*, Vol. 29(4), Dec. 1997.

Review of *Against Capitalism*, by David Schweickart, *Review of Radical Political Economics*, Vol. 27(1), 1995.

Review of *The Overworked American: The Unexpected Decline of Leisure*, by Juliet B. Schor, *Review of*

Radical Political Economics, Vol. 25(2), 1993.

SAMPLE RESEARCH AND OTHER REPORTS AND PUBLICATIONS

Why Did So Many Cook County Municipalities Vote for Increased Poverty and Super-Exploitation? July 10, 2017. Chicago Political Economy Group.

What a LaSalle Street Tax Would Do for Chicago, with Bill Barclay, in *Chicago is Not Broke: Funding the City We Deserve*, Edited by Tom Tresser, 2016. CivicLab and the TIF Illumination Project.

We Don't Need Another Casino: We Need to Tax the One We Have! with Bill Barclay, June 15, 2015. Chicago Political Economy Group.

Restoring Chicago's Fiscal and Economic Health, with Bill Barclay, Luis Diaz-Perez, Caitlyn Prosapio, and June Zaccone, March 21, 2015. Chicago Political Economy Group.

CTBA Analysis of the Illinois FY 2013 General Fund Enacted Budget, with Ralph Martire, Yerik Kaslow, Amanda Kass, and Jennifer Lozano, August, 2103, Center for Tax and Budget Accountability.

CTBA Analysis of Proposed Illinois FY 2013 General Fund Budgets, with Ralph Martire, Yerik Kaslow, Amanda Kass, and Jennifer Lozano, April, 2103, Center for Tax and Budget Accountability.

Illinois Should Enact a Wage Sharing Program, June 2012, with Ralph Martire, Kathy Miller, and Zach Lipchutz, Center for Tax and Budget Accountability.

Raise the Illinois Minimum Wage Now, May 2012, Center for Tax and Budget Accountability.

The Case for Creating a Graduated Income Tax in Illinois, with Ralph Martire, Yerik Kaslow, Amanda Kass, and Jennifer Lozano, February, 2012, Center for Tax and Budget Accountability.

Cost Benefit Analysis of Chicago's Proposed Stable Jobs, Stable Airports Ordinance, with Virginia Parks, Jack Metzgar, and William Sites, November, 2011. Chicago Political Economy Group, University of Chicago, and Roosevelt University.

CTBA Analysis of the Enacted FY 2012 Illinois Budget, with Ralph Martire and Yerik Kaslow, October, 2011, Center for Tax and Budget Accountability.

Wrong Time to Implement New Tax Breaks, with Ralph Martire, Nov. 2011, Center for Tax and Budget Accountability.

FY 2011 Illinois Proposed Budget Analysis, March 2011, with Ralph Martire, March 2011, Center for Tax and Budget Accountability,.

Issue Brief: The Taxpayer Accountability and Budget Stabilization Act (P.A. 96-1496), with Ralph Martire, February, 2011, Center for Tax and Budget Accountability.

Funding our Future: Reforming Illinois Tax Policy, with Ralph Martire, Yerik Kaslow, and Mason Laird, October, 2010, Center for Tax and Budget Accountability, ,.

Issue Brief: A Comparison of Major Illinois Tax Proposals, with Ralph Martire, Center for Tax and Budget Accountability, September 2010.

Illinois Funding for Human Services in Context, Center for Tax and Budget Accountability, with Ralph Martire, Center for Tax and Budget Accountability, February, 2010.

A Permanent Jobs Program for the U.S.: Economic Restructuring to Meet Human Needs, with Bill Barclay, Sidney Hollander, Joe Persky, Elce Redmond, and Mel Rothenberg, The Chicago Political Economy Group, February, 2009.

Replacing the Baby Boomers: An Industry Perspective, with George Putnam and Allan Ross, State of Working Illinois Policy Brief, Northern Illinois University Regional Development Institute, November 2006.

Was the 2004 Election Stolen? The History, The Crime, The Cover-Up, and Conclusions, American Association of Public Opinion Research Conference (AAPOR), Montreal, May 2006.

The Gun is Smoking: 2004 Ohio Precinct-Level Exit Poll Data Show Virtually Irrefutable Evidence of Vote Miscount, with Kathy Dopp, *US Count Votes / National Election Data Archive*, January 2006.

Official States Electronic Voting System Added Votes Never Cast In 2004 Presidential Election: Audit Log Missing, with Peter Peckarsky and Robert Fitrakis. *The Free Press* , November 2006

A Longitudinal Analysis of Effects of Lack of Adequate Transportation Access, with Piyushimita Thakuriah and Yihua Liao, Urban Transportation Center, University of Illinois at Chicago, North American Regional Science Council, November 2005.

Analysis of the 2004 Presidential Election Exit Poll Discrepancies, with Dopp, Freeman, Joiner, Lovegren, Mittledorf, Read, Sheehan, Simon, Singer, Velleman, and O'Dell. US Count Votes' National Election Data Archive Project, Park City, Utah. March 31, 2005, updated April 12, 2005. Major contribution: Appendix B.

The Economic Impact of Wal-Mart: An Assessment of the Wal-Mart Store Proposed for Chicago's West Side, with Chirag Mehta and Joseph Persky. Center for Urban Economic Development, University of Illinois at Chicago, March 2004.

"Stop the Free Trade Shipwreck: An Open Letter to John Kerry and John Edwards," *Democratic Left*, Summer 2004.

A County-Level Regional Cost-of-Living Index for Illinois, with Sarah Beth Coffey. Center for Urban Economic Development, University of Illinois at Chicago, May 2004.

Illinois Business Tax Incidence, with Joseph Persky and Marc Doussard. Center for Urban Economic Development, University of Illinois at Chicago, April 2004.

"Free Trade" and the Coming National and Global Economic Train Wreck: an Open Letter to John Kerry," *New Ground*, July-August 2004.

"Giving Bigger Tax Breaks to the Poor Could Really Stimulate the Economy," with Joseph Persky, *Chicago Sun Times*, June 7, 2003.

Raising and Maintaining the Value of the Illinois Minimum Wage: An Economic Impact Study, with Marc Doussard, Sharon Mastracci, Joe Persky, and Nik Theodore. Center for Urban Economic Development, University of Illinois at Chicago, March 2003.

"A Dinner in the Trenches of the Low Wage Economy," *New Ground*, Fall, 2003

The High Cost of Living and Working in DuPage County: A Case for a Living Wage for the Suburban Workforce, with Chris Schwartz, Joseph Persky, Patricia Nolan, and Nick Brunick. Center for Urban Economic Development, University of Illinois at Chicago, December 2002.

A Self-Sufficiency Living Wage for Chicago, with Joseph Persky and Patrica Nolan. Center for Urban Economic Development, University of Illinois at Chicago, October 2002.

Fulfilling the Promise of the Living Wage: A Review of Potential Improvements to the Chicago Living Wage Ordinance, with Nicholas Brunick, Saura Sahu, Julie H. Hurwitz and Chirstina K. Salib. Center for Urban Economic Development, University of Illinois at Chicago, August, 2002.

A Step in the Right Direction: An Analysis of Forcasted Costs and Benefits of the Chicago Living Wage Ordinance, with Joseph Persky and Nicholas Brunick, Center for Urban Economic Development, University of Illinois at Chicago, July 2002

The Economic and Fiscal Benefits of O'Hare Airport Expansion to Bensenville and Elk Grove Village, Illinois, with Bill Lester, Joseph Persky, and Nik Theodore. Center for Urban Economic Development, University of Illinois at Chicago, Chicago, IL, March, 2002.

Economic Effects of the Proposed Closing of the Lincoln Developmental Center, Center for Urban Economic Development, University of Illinois at Chicago, Chicago, IL, October, 2001

Connecting to the Future: Greater Access, Services, and Competition in Telecommunications, co-author with other core staff, report of the New York Telecommunications Exchange, Published by the Office of Economic Development and Department of Public Service of New York State, Dec. 1993.

NON-PROFESSIONAL INTERESTS

Old-time and Bluegrass Fiddle
4th Place, Senior Division, 2005 DeKalb County, IL (Sandwich) Fair, Fiddle Contest
3rd Place, Senior Division, 2005 Butterprint Farm, Monee IL, Fiddle Contest
2nd Place, Senior Division, 2011 Butterprint Farm, Monee IL, Fiddle Contest

Exhibit G

1	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
2		**Exhibit G: Presidential Race Unadjusted Exit Poll (UEP) Calculations, Adjusted Exit Poll (AEP) Sample Size data, UEP/AEP Sample Size Percentage by State**														
3																
4					**Clinton**	Trump	**Clinton**	Trump	**Clinton**	**Trump**	**Clinton**	**Trump**				
5	**State**	**Time Stamp ET**	**Male**	**Female**	**Male**	**Male**	**Female**	**Female**	**Calculated UEP**	**Calculated UEP**	**Vote Count**	**Vote Count**	**UEP Sample Size**	**AEP Sample Size**	**UEP Sample Size/ AEP Sample Size**	**%UEP SS/AEP SS < 85%**
6	**AZ**	8:25 PM	49%	51%	38.0%	51.0%	49.0%	43.0%	43.6%	46.9%	45.4%	49.5%	1729	1729	100%	
7	**CA**	10:39 PM	50%	50%	55.0%	34.0%	65.0%	29.0%	60.0%	31.5%	61.6%	32.8%	2282	2469	92%	
8	**CO**	8:56 PM	50%	50%	39.0%	45.0%	54.0%	38.0%	46.5%	41.5%	47.3%	44.4%	1335	1335	100%	
9	**FL**	7:42 PM	47%	53%	44.0%	49.0%	51.0%	44.0%	47.7%	46.4%	47.8%	49.1%	3941	3997	99%	
10	**GA**	6:51 PM	45%	53%	38.0%	57.0%	54.0%	41.0%	45.7%	47.4%	45.6%	51.3%	2611	2767	94%	
11	**IA**	9:47 PM	47%	53%	34.0%	57.0%	53.0%	40.0%	44.1%	48.0%	42.2%	51.8%	2941	2972	99%	
12	**IL**	7:42 PM	49%	51%	49.0%	44.0%	58.0%	33.0%	53.6%	38.4%	55.4%	39.4%	594	916	65%	**x**
13	**IN**	6:54 PM	49%	51%	35.0%	58.0%	44.0%	50.0%	39.6%	53.9%	37.9%	57.2%	1753	1817	96%	
14	**KY**	6:54 PM	50%	50%	28.0%	69.0%	42.0%	54.0%	35.0%	61.5%	32.7%	62.5%	1070	1099	97%	
15	**ME**	7:42 PM	48%	52%	45.0%	47.0%	57.0%	34.0%	51.2%	40.2%	47.9%	45.2%	1371	2128	64%	**x**
16	**MI**	8:41 PM	48%	52%	40.0%	52.0%	53.0%	42.0%	46.76%	46.80%	47.3%	47.6%	2774	2812	99%	
17	**MN**	8:56 PM	47%	53%	42.0%	49.0%	49.0%	43.0%	45.7%	45.8%	46.9%	45.4%	1515	1636	93%	
18	**MO**	7:53 PM	47%	53%	37.0%	56.0%	48.0%	47.0%	42.8%	51.2%	38.0%	57.1%	1648	1941	85%	
19	**NC**	7:19 PM	46%	54%	41.0%	53.0%	55.0%	41.0%	48.6%	46.5%	46.7%	50.5%	3967	4297	92%	
20	**NH**	7:19 PM	47%	53%	42.0%	50.0%	56.0%	39.0%	49.4%	44.2%	47.6%	47.2%	1719	2800	61%	**x**
21	**NJ**	7:42 PM	47%	53%	55.0%	39.0%	64.0%	33.0%	59.8%	35.8%	55.0%	41.8%	1037	1633	64%	**x**
22	**NM**	8:56 PM	47%	53%	41.0%	41.0%	54.0%	35.0%	47.9%	37.8%	48.3%	40.0%	1515	2014	75%	**x**
23	**NV**	9:47 PM	48%	52%	43.0%	47.0%	54.0%	39.0%	48.7%	42.8%	47.9%	45.5%	2418	2778	87%	
24	**NY**	8:56 PM	44%	56%	48.0%	46.0%	62.0%	35.0%	55.8%	39.8%	58.8%	37.5%	1362	1466	93%	
25	**OH**	7:18 PM	47%	53%	39.0%	54.0%	54.0%	41.0%	47.0%	47.1%	43.5%	52.1%	3190	3397	94%	
26	**OR**	10:39 PM	48%	52%	45.0%	45.0%	56.0%	33.0%	50.7%	38.8%	51.7%	41.1%	1128	1128	100%	
27	**PA**	7:52 PM	47%	53%	42.0%	54.0%	58.0%	39.0%	50.5%	46.1%	47.6%	48.8%	2613	2935	89%	
28	**SC**	6:54 PM	47%	53%	38.0%	54.0%	47.0%	47.0%	42.8%	50.3%	40.8%	54.9%	867	895	97%	
29	**TX**	8:56 PM	47%	53%	37.0%	56.0%	47.0%	48.0%	42.3%	51.8%	43.4%	52.6%	2610	2827	92%	
30	**UT**	8:25 PM	47%	53%	26.0%	46.0%	38.0%	38.0%	32.4%	41.8%	27.8%	45.9%	870	1203	72%	**x**
31	**VA**	6:54 PM	47%	53%	44.0%	49.0%	57.0%	38.0%	50.9%	43.2%	49.9%	45.0%	2866	2942	97%	
32	**WA**	10:39 PM	48%	52%	44.0%	42.0%	58.0%	30.0%	51.3%	35.8%	54.4%	38.2%	1024	1024	100%	
33	**WI**	8:56 PM	48%	52%	42.0%	49.0%	54.0%	40.0%	48.2%	44.3%	47.0%	47.8%	2981	3047	98%	
					Clinton	**Trump**	**Clinton**	**Trump**	**Clinton**	**Trump**	**Clinton**	**Trump**	**Sample Size**			
		Sources:														
		1. CNN UEP screen printouts from Theodore de Mateo Soares and Jonathan Simon.														
		2. CNN official vote count and sample size data downloaded Dec. 12 -14, 2016.														

Exhibit H

2	Exhibit H: Senatel Races Unadjusted Exit Poll (UEP) Calculations, Adjusted Exit Poll (AEP) Sample Size data, UEP/AEP Sample Size Percentage by State															
3					Dem	Rep	Dem	Rep	Dem	Rep	Dem	Rep				
4		Time Stamp ET	Male	Female	Male	Male	Female	Female	Calculated UEP	Calculated UEP	Vote Count	Vote Count	UEP Sample Size	AEP Sample Size	UEP Sampe Size/AEP Sample Size	%UEP SS/AEP SS < 84%
5	AZ	8:56 PM	49%	51%	39%	58%	46%	52%	42.6%	54.9%	54.9%	53.4%	1726	1726	100%	
6	CA	10:39 PM	48%	52%	56%	41%	59%	39%	57.6%	40.0%	41.1%	37.6%	1937	2097	92%	
7	CO	8:56 PM	49%	51%	51%	47%	57%	42%	54.1%	44.5%	41.1%	45.3%	1335	1335	100%	
8	FL	7:59 PM	46%	54%	44%	53%	49%	49%	46.7%	50.8%	41.1%	52.0%	3828	3835	100%	
9	GA	6:54 PM	46%	55%	33%	62%	48%	46%	41.6%	53.8%	41.1%	55.0%	2541	2696	94%	
10	IA	9:47 PM	47%	53%	35%	64%	45%	54%	40.3%	58.7%	41.1%	60.2%	2844	2875	99%	
11	IL	7:59 PM	49%	51%	54%	42%	62%	36%	58.1%	38.9%	41.1%	40.2%	507	820	62%	X
12	IN	6:54 PM	49%	51%	40%	53%	48%	47%	44.1%	49.9%	41.1%	52.1%	1676	1738	96%	
13	KY	6:54 PM	50%	50%	40%	60%	51%	49%	45.5%	54.5%	41.1%	57.3%	1037	1064	97%	
14	MO	Simon Download 8:11 PM	47%	53%	47%	49%	57%	41%	52.3%	44.8%	41.1%	49.4%	1589	1881	84%	
15	NC	7:19 PM	46%	54%	41%	55%	53%	42%	47.5%	48.0%	41.1%	51.1%	3904	4230	92%	
16	NH	7:59 PM	48%	52%	43%	53%	57%	41%	50.3%	46.8%	41.1%	47.9%	2643	2741	96%	
17	NV	9:47 PM	49%	51%	43%	50%	52%	41%	47.6%	45.4%	41.1%	44.7%	2390	2739	87%	
18	NY	8:56 PM	45%	55%	61%	36%	76%	23%	69.3%	28.9%	41.1%	27.4%	1220	1317	93%	
19	OH	7:19 PM	47%	53%	37%	61%	48%	51%	42.8%	55.7%	41.1%	58.3%	3107	3313	94%	
20	OR	10:39 PM	48%	52%	60%	38%	67%	32%	63.6%	34.9%	41.1%	33.6%	1117	1117	100%	
21	PA	7:59 PM	47%	53%	42%	54%	57%	41%	50.0%	47.1%	41.1%	48.9%	2535	2853	89%	
22	SC	6:54 PM	47%	53%	38%	60%	44%	54%	41.2%	56.8%	41.1%	60.5%	820	840	98%	
23	UT	9:47 PM	47%	53%	32%	62%	36%	59%	34.1%	60.4%	41.1%	68.0%	852	1168	73%	X
24	WA	10:39 PM	48%	52%	57%	41%	67%	31%	62.2%	35.8%	41.1%	40.9%	1011	1011	100%	
25	WI	8:56 PM	48%	52%	45%	52%	56%	42%	50.7%	46.8%	41.1%	50.2%	2970	3035	98%	
	Notes and Sources:															
	1) No exit poll data was available for states not included in table															
	2) Vote count numbers from CNN downloaded 12/12/2016 9 PM CT															
	3) Exit poll shares from CNN screen shots provided by Theodore de Macedo Soares except for MO provided by Jonathan Simon.															

Exhibit I

1	A	B	C	D	E	F	G	H	I	J
2	**Exhibit I: 2016 Presidential Election "Red Shift" or Exit Polls versus Vote Count Margins**									
3										
4	**State**	**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 22 out of 28 negative "red shifts" if probablity of one negative red shift is 0.5**
5	NJ	1037	59.8%	35.8%	24.0%	55.0%	41.8%	13.2%	-10.8%	713
6	MO	1648	42.8%	51.2%	-8.4%	38.0%	57.1%	-19.1%	-10.7%	376,740
7	UT	870	32.4%	41.8%	-9.4%	27.8%	45.9%	-18.1%	-8.7%	268,435,456
8	OH	3190	47.0%	47.1%	-0.2%	43.5%	52.1%	-8.6%	-8.4%	0.14%
9	ME	1371	51.2%	40.2%	11.0%	47.9%	45.2%	2.7%	-8.3%	
10	SC	867	42.8%	50.3%	-7.5%	40.8%	54.9%	-14.1%	-6.6%	
11	NC	3967	48.6%	46.5%	2.0%	46.7%	50.5%	-3.8%	-5.8%	
12	IA	2941	44.1%	48.0%	-3.9%	42.2%	51.8%	-9.6%	-5.7%	
13	PA	2613	50.5%	46.1%	4.4%	47.6%	48.8%	-1.2%	-5.6%	
14	IN	1753	39.6%	53.9%	-14.3%	37.9%	57.2%	-19.3%	-5.0%	
15	NH	1719	49.4%	44.2%	5.3%	47.6%	47.2%	0.4%	-4.9%	
16	WI	2981	48.2%	44.3%	3.9%	47.0%	47.8%	-0.8%	-4.7%	
17	GA	2611	45.7%	47.4%	-1.7%	45.6%	51.3%	-5.7%	-4.0%	
18	NV	2418	48.7%	42.8%	5.9%	47.9%	45.5%	2.4%	-3.5%	
19	KY	1070	35.0%	61.5%	-26.5%	32.7%	62.5%	-29.8%	-3.3%	
20	VA	2866	50.9%	43.2%	7.7%	49.9%	45.0%	4.9%	-2.8%	
21	FL	3941	47.7%	46.4%	1.4%	47.8%	49.1%	-1.3%	-2.7%	
22	CO	1335	46.5%	41.5%	5.0%	47.3%	44.4%	2.9%	-2.1%	
23	NM	1515	47.9%	37.8%	10.1%	48.3%	40.0%	8.3%	-1.8%	
24	OR	1128	50.7%	38.8%	12.0%	51.7%	41.1%	10.6%	-1.4%	
25	AZ	1729	43.6%	46.9%	-3.3%	45.4%	49.5%	-4.1%	-0.8%	
26	MI	2774	46.8%	46.8%	0.0%	47.3%	47.6%	-0.3%	-0.3%	
27	TX	2610	42.3%	51.8%	-9.5%	43.4%	52.6%	-9.2%	0.3%	
28	CA	2282	60.0%	31.5%	28.5%	61.6%	32.8%	28.8%	0.3%	
29	WA	1024	51.3%	35.8%	15.5%	54.4%	38.2%	16.2%	0.7%	
30	IL	594	53.6%	38.4%	15.2%	55.4%	39.4%	16.0%	0.8%	
31	MN	1515	45.7%	45.8%	-0.1%	46.9%	45.4%	1.5%	1.6%	
32	NY	1362	55.8%	39.8%	16.0%	58.8%	37.5%	21.3%	5.3%	
	Notes and Sources:									
	1) No exit poll data was available for states not included in table									
	2) Vote count numbers from CNN downloaded 12/12/2016 9 PM CT									
	3) Exit poll shares from CNN screen shots provided by Theodore de Macedo Soares.									

Exhibit P

	A	B	C	D	E	F	G	H	I	J	K	L	M
2	**Exhibit P: 2016 Presidential Election Clinton Exit Polls versus Vote Count**												
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**	**UEP - VC Discrepancy Measured in Z-Score, or SD's from Clinton UEP Share**	**One tail P value: Probabilily of Clinton VC share if EP is True share**	**Odds based on Clinton one tail Probablility: 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 16 out of 28 times**
5	MO (1648)	42.8%	38.0%	4.8%	1648	1.22%	1.6%	3.05	0.1152%	868.4	39.7%	45.9%	9
6	OH (3190)	47.0%	43.5%	3.5%	3190	0.88%	1.1%	3.00	0.1335%	749.1	44.7%	49.2%	30,421,755
7	NJ (1590)	59.8%	55.0%	4.8%	1037	1.52%	2.0%	2.41	0.7985%	125.2	55.9%	63.6%	268,435,456
8	PA (2613)	50.5%	47.6%	2.9%	2613	0.98%	1.3%	2.27	1.1756%	85.1	48.0%	53.0%	11.3%
9	UT (1171)	32.4%	27.8%	4.6%	870	1.59%	2.1%	2.21	1.3503%	74.1	28.3%	36.4%	
10	ME (1371)	51.2%	47.9%	3.3%	1371	1.35%	1.8%	1.90	2.8507%	35.1	47.8%	54.7%	
11	NC (3967)	48.6%	46.7%	1.9%	3967	0.79%	1.0%	1.80	3.5689%	28.0	46.5%	50.6%	
12	IA (2941)	44.1%	42.2%	1.9%	2941	0.92%	1.2%	1.57	5.8060%	17.2	41.7%	46.4%	
13	KY (1070)	35.0%	32.7%	2.3%	1070	1.46%	1.9%	1.21	11.2498%	8.9	31.3%	38.7%	
14	NH (2702)	49.4%	47.6%	1.8%	1719	1.21%	1.6%	1.16	87.7175%	1.1	46.3%	52.5%	
15	IN (1753)	39.6%	37.9%	1.7%	1753	1.17%	1.5%	1.11	13.2859%	7.5	36.6%	42.6%	
16	WI (2981)	48.2%	47.0%	1.2%	2981	0.92%	1.2%	1.04	14.8655%	6.7	45.9%	50.6%	
17	SC (876)	42.8%	40.8%	2.0%	867	1.68%	2.2%	0.90	18.3559%	5.4	38.5%	47.1%	
18	VA (2866)	50.9%	49.9%	1.0%	2866	0.93%	1.2%	0.82	20.7391%	4.8	48.5%	53.3%	
19	NV (2418)	48.7%	47.9%	0.8%	2418	1.02%	1.3%	0.62	26.7451%	3.7	46.1%	51.3%	
20	GA (2611)	45.7%	45.6%	0.1%	2611	0.97%	1.3%	0.09	46.2284%	2.2	43.2%	48.2%	
21	FL (3941)	47.7%	47.8%	-0.1%	3941	0.80%	1.0%	-0.09	46.5330%	2.1	45.7%	49.7%	
22	NM (1948)	47.9%	48.3%	-0.4%	1515	1.28%	1.7%	-0.25	40.2944%	2.5	44.6%	51.2%	
23	MI (2774)	46.8%	47.3%	-0.5%	2774	0.95%	1.2%	-0.44	33.0520%	3.0	44.3%	49.2%	
24	CO (1335)	46.5%	47.3%	-0.8%	1335	1.37%	1.8%	-0.45	32.6067%	3.1	43.0%	50.0%	
25	OR (1128)	50.7%	51.7%	-1.0%	1128	1.49%	1.9%	-0.51	30.6280%	3.3	46.9%	54.5%	
26	IL (802)	53.6%	55.4%	-1.8%	594	2.05%	2.7%	-0.68	75.1883%	1.3	48.4%	58.8%	
27	MN (1583)	45.7%	46.9%	-1.2%	1515	1.28%	1.7%	-0.72	23.7234%	4.2	42.4%	49.0%	
28	TX (2610)	42.3%	43.4%	-1.1%	2610	0.97%	1.3%	-0.88	19.0785%	5.2	39.8%	44.8%	
29	AZ (1729)	43.6%	45.4%	-1.8%	1729	1.19%	1.6%	-1.15	12.4137%	8.1	40.6%	46.6%	
30	CA (2282)	60.0%	61.6%	-1.6%	2282	1.03%	1.3%	-1.20	11.5044%	8.7	57.4%	62.6%	
31	WA (1024)	51.3%	54.4%	-3.1%	1024	1.56%	2.0%	-1.54	6.2207%	16.1	47.3%	55.3%	
32	NY (1362)	55.8%	58.8%	-3.0%	1362	1.35%	1.7%	-1.69	4.5305%	22.1	52.4%	59.3%	
	Notes and Sources:												
	1) No exit poll data was available for states not included in table												
	2) Vote count numbers from CNN downloaded 12/12/2016 9 PM CT												
	3) Exit poll shares from CNN screen shots provided by Theodore de Macedo Soares												

Exhibit Q

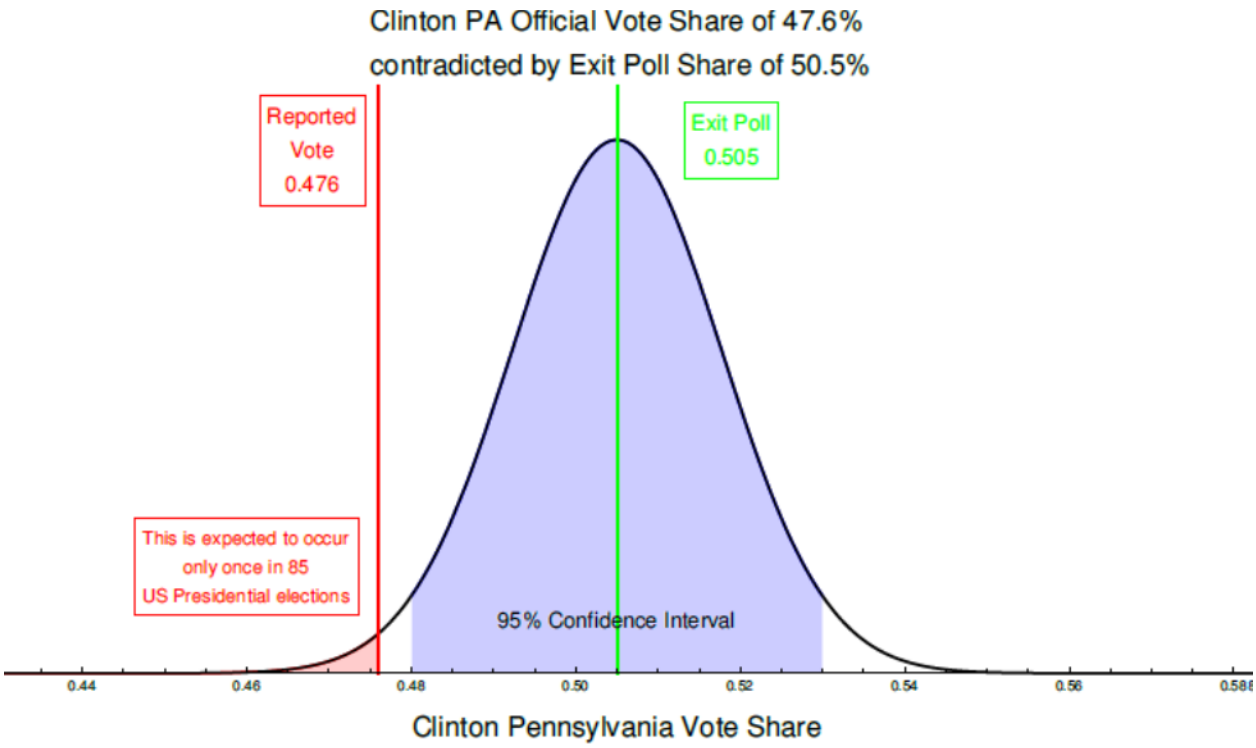

Figure Credit: Greg Kilcup and Peter Peckarsky

Exhibit R

	A	B	C	D	E	F	G	H	I	J	K	L	M
2	**Exhibit R: 2016 Presidential Election Trump Exit Polls versus Vote Count**												
3				**Calculations off of Trump EP and VC Shares**									
4		**TrumpEP**	**TrumpVC**	**Trump VC reduction relative to exit poll (- indicates VC share > EP share for Trump)**	**Sample Size**	**Random Sample SD assuming Trump exit poll population proportion**	**Random Sample with 30% "Cluster Factor" added to Trump Estimate**	**UEP - VC Discrepancy Measured in Z-Score, or SD's from Trump UEP Share**	**One tail P value: Probabilily of Trump VC share if EP is True share**	**Odds based on Trump one tail Probablility: 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	47.1%	52.1%	-5.0%	3190	0.88%	1.1%	-4.34	0.0007%	142,424	44.9%	49.4%	710,147
6	NC	46.5%	50.5%	-4.0%	3967	0.79%	1.0%	-3.87	0.0055%	18,073	44.5%	48.5%	378
7	MO	51.2%	57.1%	-5.9%	1648	1.23%	1.6%	-3.67	0.0123%	8,156	48.1%	54.4%	268,435,456
8	IA	48.0%	51.8%	-3.8%	2941	0.92%	1.2%	-3.18	0.0733%	1,364	45.6%	50.3%	0.0001%
9	NJ	35.8%	41.8%	-6.0%	1037	1.49%	1.9%	-3.09	0.1003%	997	32.0%	39.6%	
10	GA	47.4%	51.3%	-3.9%	2611	0.98%	1.3%	-3.09	0.1015%	985	44.9%	49.9%	
11	WI	44.3%	47.8%	-3.5%	2981	0.91%	1.2%	-2.94	0.1630%	614	42.0%	46.6%	
12	ME	40.2%	45.2%	-5.0%	1371	1.32%	1.7%	-2.88	0.1983%	504	36.9%	43.6%	
13	FL	46.4%	49.1%	-2.8%	3941	0.79%	1.0%	-2.66	0.3872%	258	44.3%	48.4%	
14	PA	46.1%	48.8%	-2.8%	2613	0.98%	1.3%	-2.17	1.5024%	67	43.6%	48.5%	
15	IN	53.9%	57.2%	-3.3%	1753	1.19%	1.5%	-2.12	1.7033%	59	50.9%	57.0%	
16	SC	50.3%	54.9%	-4.6%	867	1.70%	2.2%	-2.09	1.8383%	54	46.0%	54.6%	
17	NV	42.8%	45.5%	-2.7%	2418	1.01%	1.3%	-2.03	2.1012%	48	40.3%	45.4%	
18	NH	44.2%	47.2%	-3.0%	1719	1.20%	1.6%	-1.95	2.5828%	39	41.1%	47.2%	
19	UT	41.8%	45.9%	-4.1%	870	1.67%	2.2%	-1.90	2.8410%	35	37.5%	46.0%	
20	CO	41.5%	44.4%	-2.9%	1335	1.35%	1.8%	-1.65	4.9041%	20	38.1%	44.9%	
21	AZ	46.9%	49.5%	-2.6%	1729	1.20%	1.6%	-1.65	4.9105%	20	43.9%	50.0%	
22	VA	43.2%	45.0%	-1.8%	2866	0.93%	1.2%	-1.52	6.4070%	16	40.8%	45.5%	
23	NM	37.8%	40.0%	-2.2%	1515	1.25%	1.6%	-1.35	8.9157%	11	34.6%	41.0%	
24	WA	35.8%	38.2%	-2.4%	1024	1.50%	1.9%	-1.25	10.5080%	10	31.9%	39.6%	
25	OR	38.8%	41.1%	-2.3%	1128	1.45%	1.9%	-1.24	10.7331%	9	35.1%	42.5%	
26	CA	31.5%	32.8%	-1.3%	2282	0.97%	1.3%	-1.03	15.1884%	7	29.0%	34.0%	
27	TX	51.8%	52.6%	-0.8%	2610	0.98%	1.3%	-0.66	25.4426%	4	49.3%	54.3%	
28	MI	46.8%	47.6%	-0.8%	2774	0.95%	1.2%	-0.65	25.7987%	4	44.4%	49.2%	
29	KY	61.5%	62.5%	-1.0%	1070	1.49%	1.9%	-0.52	30.2541%	3	57.7%	65.3%	
30	IL	38.4%	39.4%	-1.0%	594	2.00%	2.6%	-0.39	34.8510%	3	33.3%	43.5%	
31	MN	45.8%	45.4%	0.4%	1515	1.28%	1.7%	0.25	40.0371%	2	42.6%	49.1%	
32	NY	39.8%	37.5%	2.3%	1362	1.33%	1.7%	1.36	8.7407%	11	36.5%	43.2%	
	Notes and Sources:												
	1) No exit poll data was available for states not included in table												
	2) Vote count numbers from CNN downloaded 12/12/2016 9 PM CT												
	3) Exit poll shares from CNN screen shots provided by Theodore de Macedo Soares												

Exhibit S

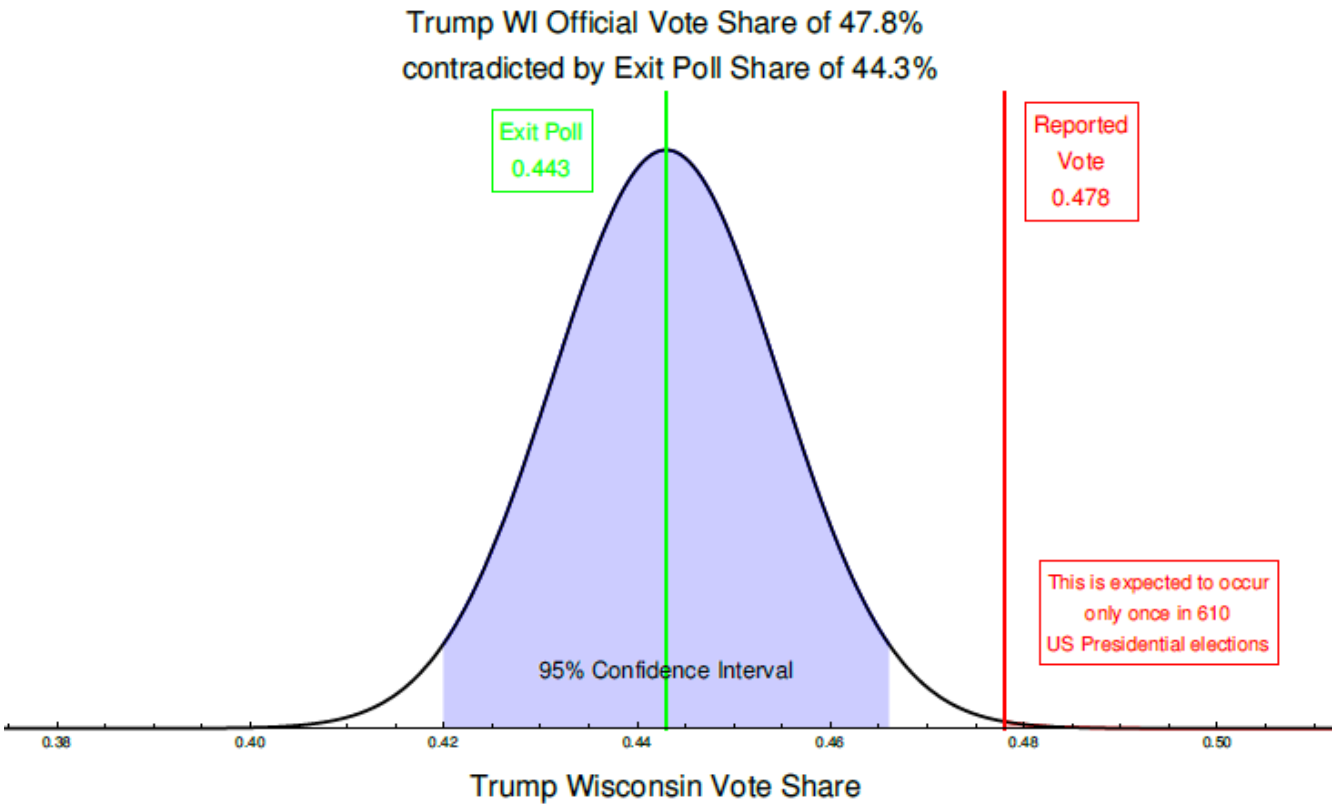

Figure Credit: Greg Kilcup, Peter Peckarsky, and Ron Baiman

Exhibit T

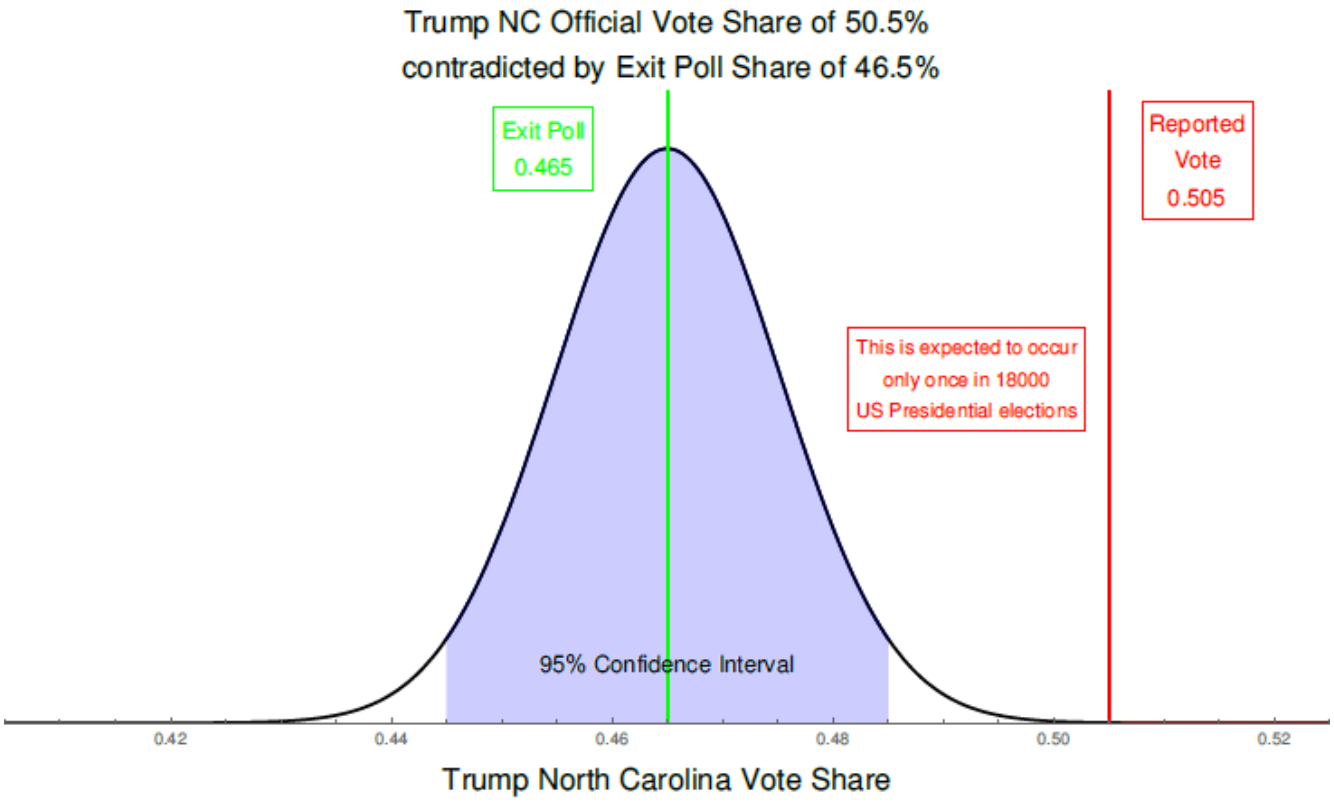

Figure Credit: Greg Kilcup, Peter Peckarsky, and Ron Baiman

Exhibit U

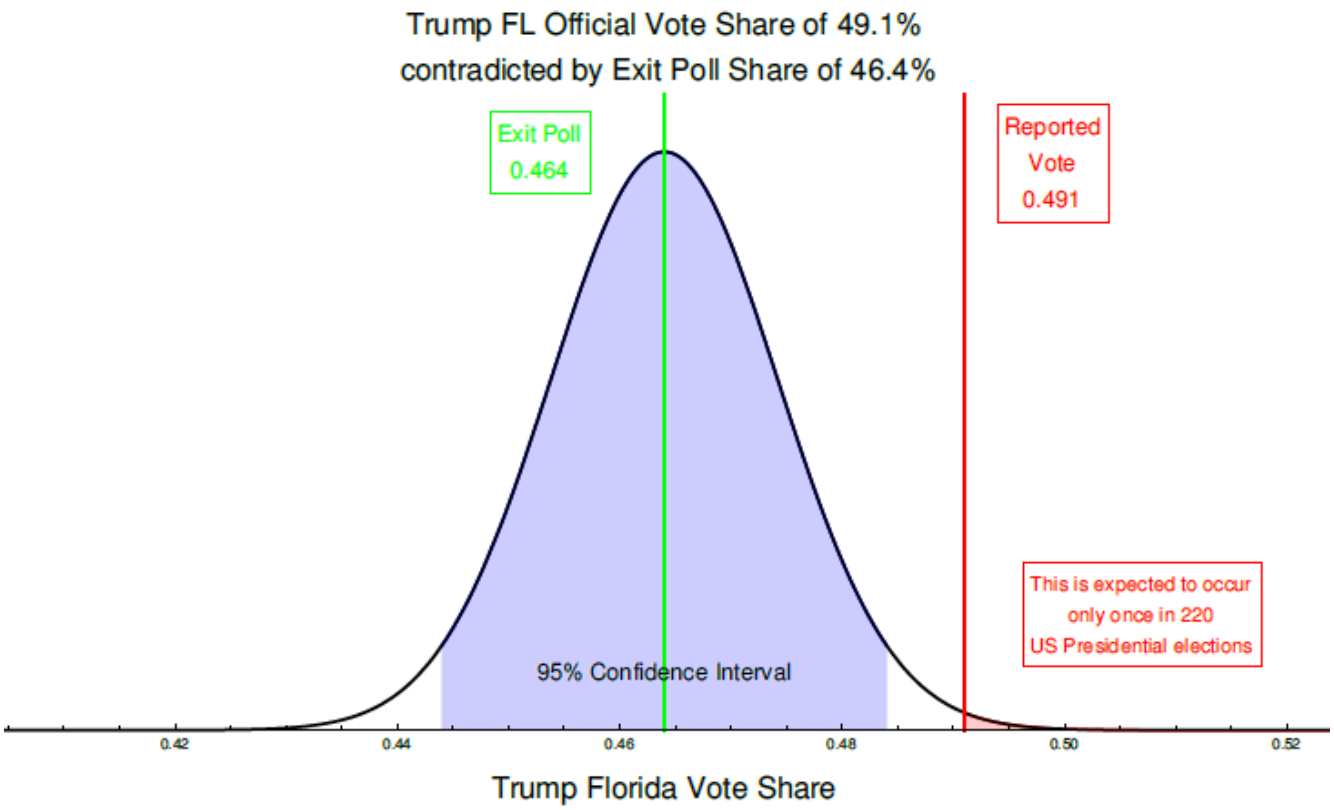

Figure Credit: Greg Kilcup, Peter Peckarsky, and Ron Baiman

Exhibit V

	A	B	C	D	E	F	G	H	I	J
2	Exhibit V: 2016 Senate Races "Red Shift" or Exit Polls versus Vote Count Margins									
3								1		
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 19 out of 21 positive red shifts if probability of one red shift is 0.5
5	OR	1117	63.6%	34.9%	28.8%	56.7%	33.6%	23.1%	6.9%	9,986
6	UT	852	34.1%	60.4%	-26.3%	27.4%	68.0%	-40.6%	6.7%	
7	MO	1589	52.3%	44.8%	7.5%	46.2%	49.4%	-3.2%	6.1%	210
8	OH	3107	42.8%	55.7%	-12.9%	36.9%	58.3%	-21.4%	5.9%	2097152
9	CO	1335	54.1%	44.5%	9.6%	49.2%	45.3%	3.9%	4.9%	0.01%
10	IA	2844	40.3%	58.7%	-18.4%	35.7%	60.2%	-24.5%	4.6%	
11	SC	820	41.2%	56.8%	-15.6%	37.0%	60.5%	-23.5%	4.2%	
12	WI	2970	50.7%	46.8%	3.9%	46.8%	50.2%	-3.4%	3.9%	
13	IL	507	58.1%	38.9%	19.1%	54.4%	40.2%	14.2%	3.7%	
14	WA	1011	62.2%	35.8%	26.4%	59.1%	40.9%	18.2%	3.1%	
15	KY	1037	45.5%	54.5%	-9.0%	42.7%	57.3%	-14.6%	2.8%	
16	PA	2535	50.0%	47.1%	2.8%	47.2%	48.9%	-1.7%	2.8%	
17	FL	3828	46.7%	50.8%	-4.1%	44.3%	52.0%	-7.7%	2.4%	
18	NH	2643	50.3%	46.8%	3.5%	48.0%	47.9%	0.1%	2.3%	
19	NC	3904	47.5%	48.0%	-0.5%	45.3%	51.1%	-5.8%	2.2%	
20	IN	1676	44.1%	49.9%	-5.9%	42.2%	52.1%	-9.9%	1.9%	
21	AZ	1726	42.6%	54.9%	-12.4%	41.1%	53.4%	-12.3%	1.5%	
22	GA	2541	41.6%	53.8%	-12.2%	40.8%	55.0%	-14.2%	0.8%	
23	NV	2390	47.6%	45.4%	2.2%	47.1%	44.7%	2.4%	0.5%	
24	NY	1220	69.3%	28.9%	40.4%	70.4%	27.4%	43.0%	-1.1%	
25	CA	1937	57.6%	40.0%	17.6%	62.4%	37.6%	24.8%	-4.8%	
	Notes and Sources:									
	1) No exit poll data was available for states not included in table									
	2) Vote count numbers from CNN downloaded 12/12/2016 9 PM CT									
	3) Exit poll shares from CNN screen shots provided by Theodore de Macedo Soares except for MO supplied by Jonathan Simon.									

Exhibit W

	A	B	C	D	E	F	G	H	I	J	K	L	M
1													
2	**Exhibit W: 2016 Senate Races Democratic Candidate Exit Polls versus Vote Count**												
3													
4	**State**	**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**	**UEP - VC Discrepancy Measured in Z-Score, or SD's from Dem UEP Share**	**One tail P value: Probabilily of Dem VC share if EP is True share**	**Odds based on Dem one tail Probablility: 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 21 times**
5	OH	3107	42.8%	36.9%	5.9%	0.9%	1.2%	5.14	0.00%	7,216,083	40.6%	45.1%	9,986
6	IA	2844	40.3%	35.7%	4.6%	0.9%	1.2%	3.85	0.01%	16,737	38.0%	42.6%	
7	MO	1589	52.3%	46.2%	6.1%	1.3%	1.6%	3.74	0.01%	11,082	49.1%	55.5%	210
8	OR	1117	63.6%	56.7%	6.9%	1.4%	1.9%	3.71	0.01%	9,615	60.0%	67.3%	2,097,152
9	WI	2970	50.7%	46.8%	3.9%	0.9%	1.2%	3.29	0.05%	1,975	48.4%	53.1%	0.01%
10	UT	852	34.1%	27.4%	6.7%	1.6%	2.1%	3.18	0.07%	1,370	30.0%	38.3%	
11	CO	1335	54.1%	49.2%	4.9%	1.4%	1.8%	2.74	0.31%	326	50.6%	57.5%	
12	FL	3828	46.7%	44.3%	2.4%	0.8%	1.0%	2.29	1.10%	91	44.6%	48.8%	
13	PA	2535	50.0%	47.2%	2.8%	1.0%	1.3%	2.13	1.66%	60	47.4%	52.5%	
14	NC	3904	47.5%	45.3%	2.2%	0.8%	1.0%	2.1	1.79%	56	45.4%	49.5%	
15	SC	820	41.2%	37.0%	4.2%	1.7%	2.2%	1.87	3.07%	33	36.8%	45.6%	
16	NH	2643	50.3%	48.0%	2.3%	1.0%	1.3%	1.8	3.57%	28	47.8%	52.8%	
17	WA	1011	62.2%	59.1%	3.1%	1.5%	2.0%	1.56	5.89%	17	58.3%	66.1%	
18	KY	1037	45.5%	42.7%	2.8%	1.6%	2.0%	1.39	8.18%	12	41.6%	49.4%	
19	IL	507	58.1%	54.4%	3.7%	2.2%	2.8%	1.29	9.82%	10	52.5%	63.7%	
20	IN	1676	44.1%	42.2%	1.9%	1.2%	1.6%	1.19	11.65%	9	41.0%	47.2%	
21	AZ	1726	42.6%	41.1%	1.5%	1.2%	1.5%	0.95	17.10%	6	39.5%	45.6%	
22	GA	2541	41.6%	40.8%	0.8%	1.0%	1.3%	0.61	26.97%	4	-343.8%	714.5%	
23	NV	2390	47.6%	47.1%	0.5%	1.0%	1.3%	0.37	35.61%	3	45.0%	50.2%	
24	NY	1220	69.3%	70.4%	-1.1%	1.3%	1.7%	-0.67	25.16%	4	65.9%	72.6%	
25	CA	1937	57.6%	62.4%	-4.8%	1.1%	1.5%	-3.32	0.05%	2,184	54.7%	60.4%	
	Notes and Sources:												
	1) No exit poll data was available for states not included in table												
	2) Vote count numbers from CNN downloaded 12/12/2016 9 PM CT												
	3) Exit poll shares from CNN screen shots provided by Theodore de Macedo Soares except for MO supplied by Jonathan Simon.												

Exhibit X

1	A	B	C	D	E	F	G	H	I	J	K	L	M
2	Exhibit X: 2016 Senate Races Republican Candidate Exit Polls versus Vote Count												
3	State	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	UEP - VC Discrepancy Measured in Z-Score, or SD's from Rep UEP Share	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: Probabilily of Rep VC share if EP is True share	Odds based on Rep one tail Probablility: one in x chance	Odds of Rep VC share being larger than EP share 16 out of 21 times
4	UT	852	60.4%	68.0%	-7.6%	1.7%	2.2%	-3.48	56.1%	64.7%	0.02%	4,060	
	NC	3904	48.0%	51.1%	-3.1%	0.8%	1.0%	-3	45.9%	50.0%	0.13%	745	103
6	MO	1589	44.8%	49.4%	-4.6%	1.3%	1.6%	-2.86	41.6%	47.9%	0.21%	474	20,349
7	WI	2970	46.8%	50.2%	-3.4%	0.9%	1.2%	-2.86	44.5%	49.1%	0.21%	467	2,097,152
8	WA	1011	35.8%	40.9%	-5.1%	1.5%	2.0%	-2.6	32.0%	39.6%	0.46%	216	0.97%
9	OH	3107	55.7%	58.3%	-2.6%	0.9%	1.2%	-2.24	53.4%	58.0%	1.24%	81	
10	SC	820	56.8%	60.5%	-3.7%	1.7%	2.2%	-1.64	52.4%	61.2%	5.09%	20	
11	KY	1037	54.5%	57.3%	-2.8%	1.6%	2.0%	-1.39	50.6%	58.4%	8.18%	12	
12	PA	2535	47.1%	48.9%	-1.8%	1.0%	1.3%	-1.39	44.6%	49.6%	8.24%	12	
13	IN	1676	49.9%	52.1%	-2.2%	1.2%	1.6%	-1.36	46.8%	53.1%	91.32%	1	
14	IA	2844	58.7%	60.2%	-1.5%	0.9%	1.2%	-1.25	56.3%	61.1%	10.57%	9	
15	FL	3828	50.8%	52.0%	-1.2%	0.8%	1.1%	-1.1	48.8%	52.9%	13.47%	7	
16	GA	2541	53.8%	55.0%	-1.2%	1.0%	1.3%	-0.92	51.3%	56.3%	17.94%	6	
17	NH	2643	46.8%	47.9%	-1.1%	1.0%	1.3%	-0.9	44.3%	49.2%	18.31%	5	
18	CO	1335	44.5%	45.3%	-0.9%	1.4%	1.8%	-0.48	41.0%	47.9%	31.53%	3	
19	IL	507	38.9%	40.2%	-1.3%	2.2%	2.8%	-0.45	33.4%	44.5%	32.72%	3	
20	NV	2390	45.4%	44.7%	0.7%	1.0%	1.3%	0.54	42.8%	48.0%	29.59%	3	
21	OR	1117	34.9%	33.6%	1.3%	1.4%	1.9%	0.69	31.2%	38.5%	24.49%	4	
22	NY	1220	28.9%	27.4%	1.5%	1.3%	1.7%	0.86	25.5%	32.2%	19.49%	5	
23	AZ	1726	54.9%	53.4%	1.5%	1.2%	1.6%	0.99	51.9%	58.0%	16.13%	6	
24	CA	1937	40.0%	37.6%	2.4%	1.1%	1.4%	1.63	37.1%	42.8%	5.14%	19	
	Notes and Sources:												
	1) No exit poll data was available for states not included in table												
	2) Vote count numbers from CNN downloaded 12/12/2016 at 9 PM CT.												
	3) Exit poll shares from from CNN screen shots provided by Theodore de Mateo Soares except for MO supplied by Jonathan Simon.												

Exhibit Y

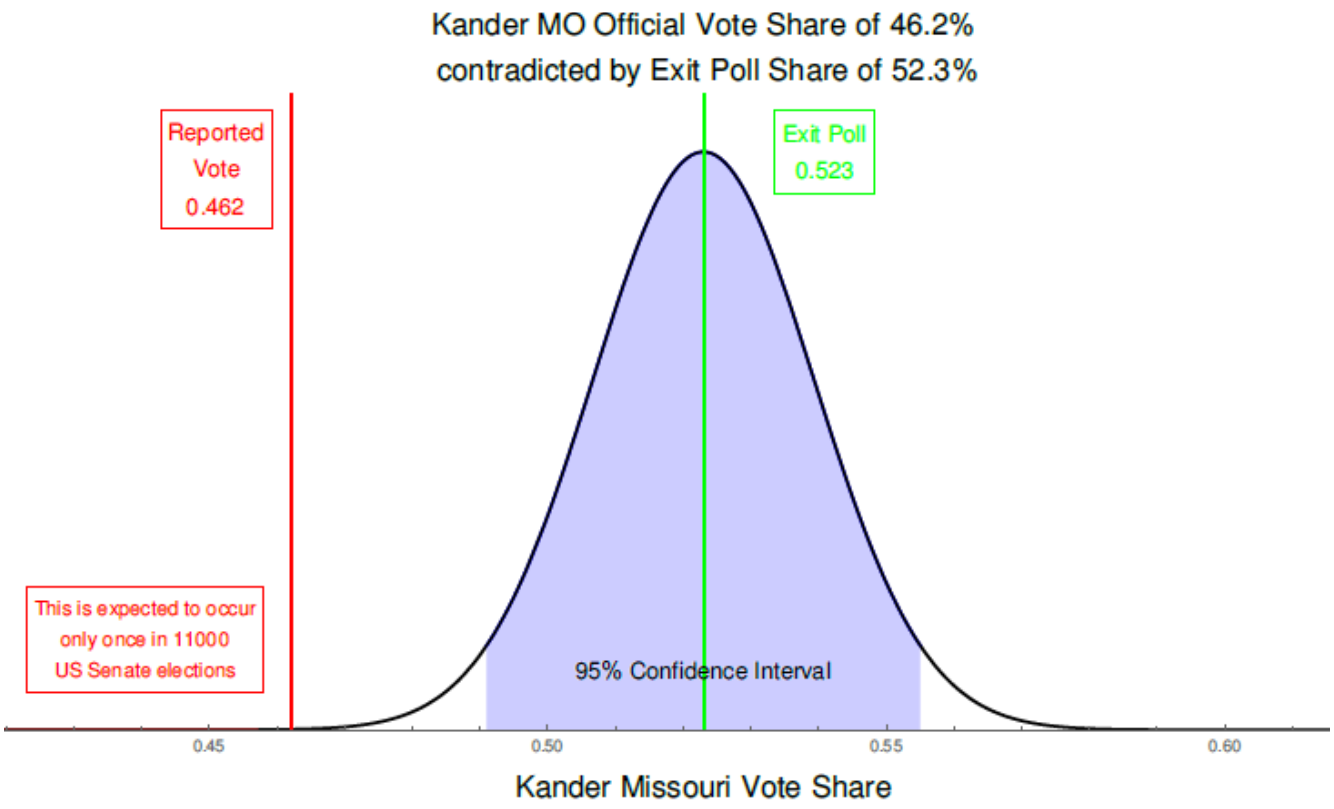

Figure Credit: Greg Kilcup, Peter Peckarsky, and Ron Baiman

Exhibit Z

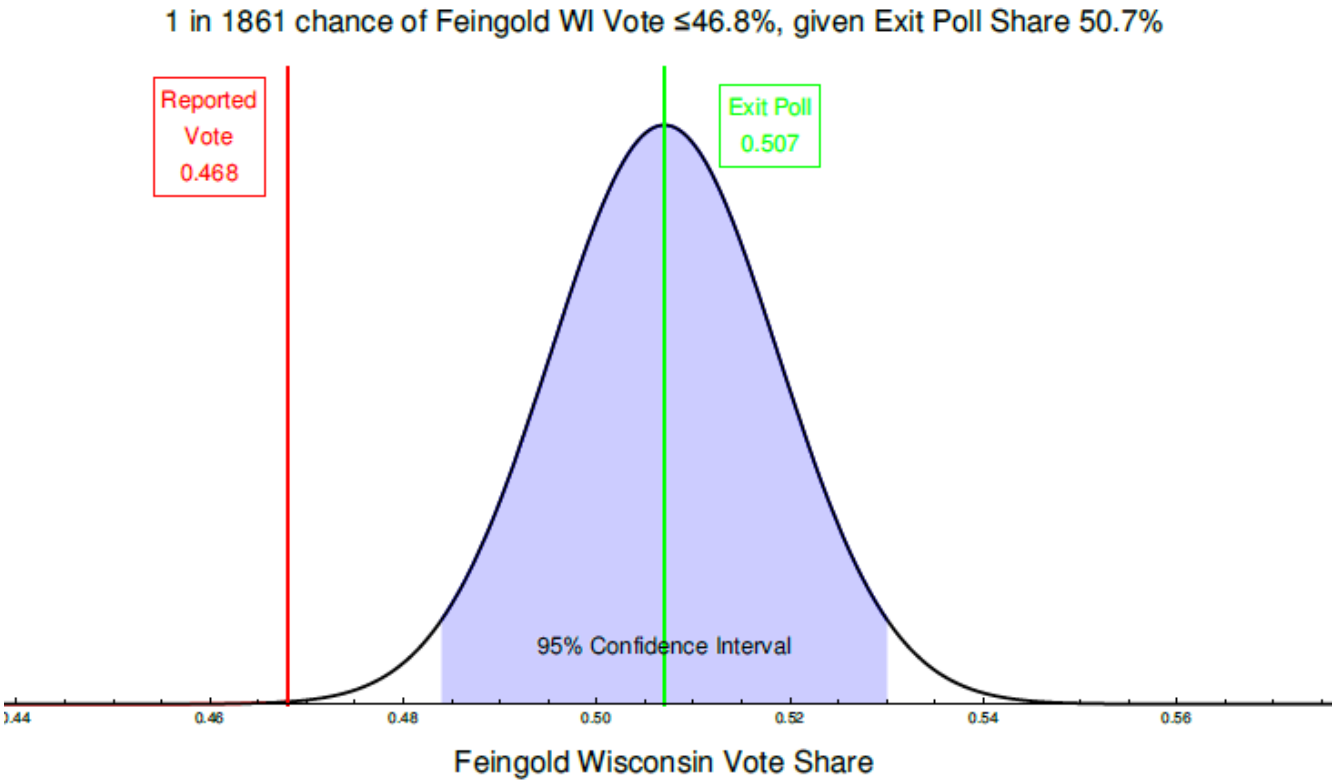

Figure Credit: Greg Kilcup, Peter Peckarsky, and Ron Baiman

Exhibit AA

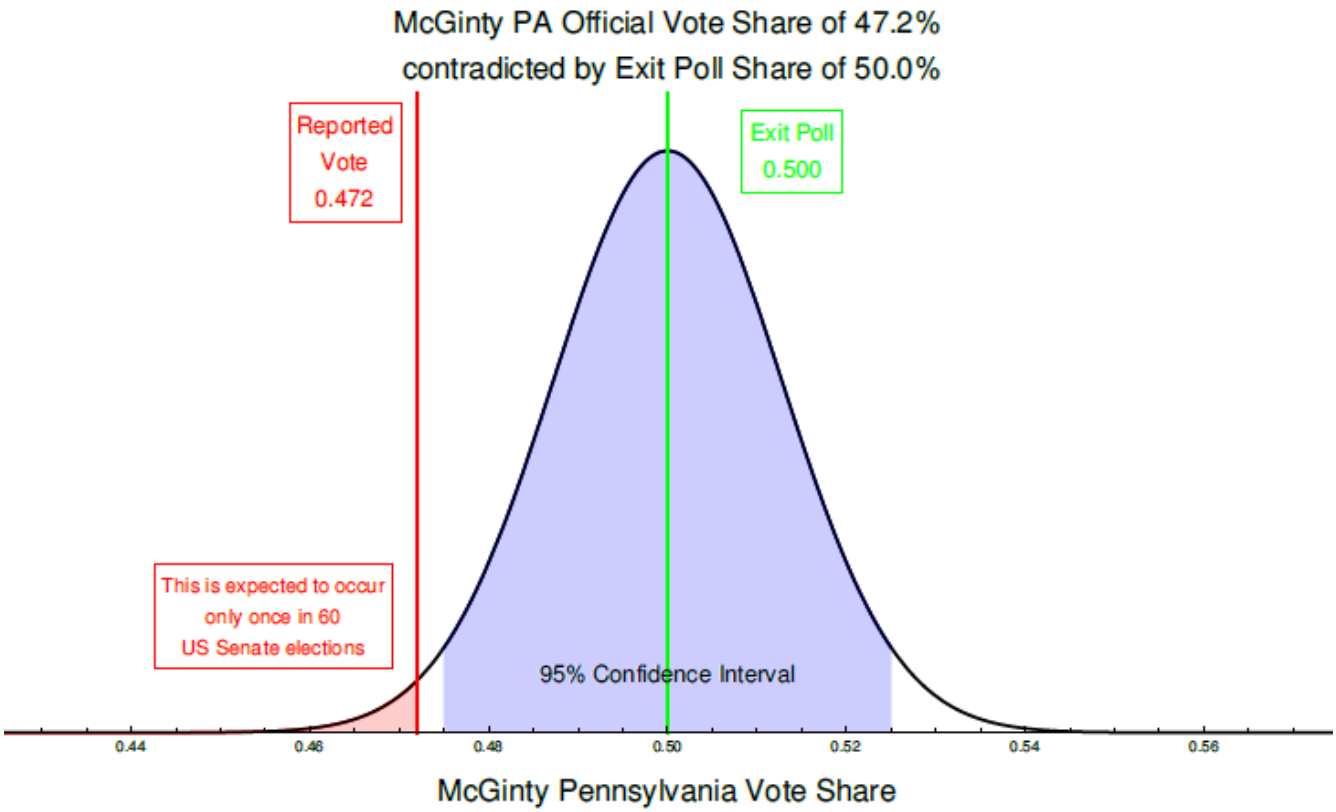

Figure Credit: Greg Kilcup, Peter Peckarsky, and Ron Baiman