# How Unusual Was 2016? Flipping Counties, Flipping Voters, and the Education–Party Correlation since 1952

Michael W. Sances

Many explanations of the 2016 election result, a seemingly anomalous macrolevel phenomenon, have centered on two seemingly anomalous microlevel phenomena: many counties and citizens who had voted for Obama in 2008 and 2012 flipped and voted for Trump, and low-education whites gave more of their votes to Trump than to Clinton. In this article, I first assess the novelty of these phenomena by placing them in the context of past elections. Compared to past presidential elections, the number of flips in 2016 was not unusually large, even in the Midwestern states. In contrast, the partisan divide by education was the highest ever in 2016. Using a series of counterfactual analyses, I then assess whether these factors were pivotal. If the flipping counties had not flipped, Clinton would have won the electoral college by 3 votes, and if the lowest-educated 20% of counties voted as they did in 2012, she would have won the electoral college by about 30 votes.

arge, surprising events at the national level naturally lead us to search for lower-level anomalies. In the wake of Donald Trump's shocking victory, many scholars and journalists began searching through geographic and individual-level election data for anomalous microlevel patterns that might help explain the anomalous aggregate result. In journalistic accounts, blog posts by political scientists, and academic research, two apparently anomalous microlevel patterns have been consistently highlighted as key to explaining 2016: an extraordinary large number of counties and voters who had voted for Barack Obama in 2008 and 2012 then flipped and voted for Trump in 2016, and low-education voters were attracted to Trump's candidacy in a major departure from past voting patterns.

\*Data replication sets are available in Harvard Dataverse at: https://doi.org/10.7910/DVN/ZECDW0

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In this article, I assess these two claims. Although certainly not the only unusual aspects of 2016, they are two of the most prominent in journalistic and scholarly interpretations, and for good reason. In a polarized political system with an increasingly sorted electorate, sharp changes in voting patterns should be rare, given that most voters identify with a major party and will simply vote for their party's nominee. As such, major shifts in party voting among certain geographic or demographic groups may signal a political realignment. Additionally, the specific types of alleged shift - geographically concentrated in the "rust belt" and among working-class white voters - could speak to the importance of identity politics, globalization, and economic distress in driving systemic changes in U.S. politics. Thus, whether these two claims are valid could tell us a great deal about the 2016 election in particular and U.S. politics in general.

Of course, that some voters and areas shifted their vote from 2012 and that Trump received more support than Clinton from low-education voters are basic facts of the 2016 election. What I primarily explore here is just how abnormal these patterns were, relative to past presidential elections. I argue that, to be fairly characterized as anomalous or indicative of something new, it should be the case that a large number of counties and voters flipped in 2016 and that there was a strong education–vote choice correlation, relative to what typically happens in presidential elections. To test whether this is the case, I analyze countyand individual-level voting behavior since 1952.

I begin with an analysis of vote switching at the county and individual level. I find that the occurrence of counties flipping is not unusual in presidential elections; indeed the number of counties that flipped was unusually low in 2016 relative to other years. This is true whether we consider all counties nationwide or focus on the five key states of Iowa, Michigan, Ohio, Pennsylvania, and Wisconsin. Moreover, whether a county flips in one year tells us very little about that county's past or future voting behavior. Individual voters also frequently shift their vote from one election to the next, and the number of such voters was low in 2016 relative to earlier years.

Turning to education, there was a strong link between education and vote choice in the 2016 election, with more educated areas and voters being more likely to vote for the Democratic candidate, and less educated areas and voters more likely to vote for the Republican candidate. Indeed, the voting gap between high- and low-education voters and areas was the highest ever in 2016. In the five key states in particular, the departure from past voting behavior was dramatic.

I next consider whether these facts, anomalous or not, made the key difference in the overall election outcome. To answer this question, I perform a series of counterfactual analyses in which I assign counties alternative vote tallies and then recalculate the electoral college result based on these new totals. This analysis shows that if all counties that flipped in 2016 had instead shifted as much as they had in 2012, Clinton would have won the electoral college by three votes. Alternatively, if the least-educated 20% of counties reverted to how they voted in 2012, Clinton would have won by about 30 electoral votes. In contrast, reverting the highesteducation counties to their 2012 behavior would have made essentially no difference.

Thus, in 2016, the number of flippers was not unusually large, but the tendency of low-education voters to vote Republican was. However, both of these factors were decisive in their own right. In the conclusion, I consider how these results can inform future research into 2016 and other elections.

## **Anomalous Voting Behavior in 2016?**

Almost a year after the 2016 election, journalist Nate Cohn opened a piece on the *New York Times* "UpShot" blog by declaring that Trump's shock victory had now been wholly accounted for by a simple story:

The story of the 2016 presidential election is simple. Donald J. Trump made huge gains among white voters without a college degree. His gains were large enough to cancel out considerable losses among well-educated white voters and a decade of demographic shifts.

There are questions and details still up for debate: whether Democrats can win back these voters, and how to think about and frame the decline in black turnout. But postelection surveys, pre-election surveys, voter file data and the actual results all support the main story: The voters who switched from President Obama to Mr. Trump were decisive. (Cohn 2017) Among the results supporting the story of "huge" changes, Cohn likely had in mind the many analyses of 2016 county-level election returns that were first reported as early as November 9, 2016, in a *Washington Post* article titled "These Former Obama Strongholds Sealed the Election for Trump." As the authors of that article explain,

Across swing states and others previously thought to be safe for Democrats Trump colored dozens of counties red that hadn't gone Republican in decades.

Of the nearly 700 counties that twice sent Obama to the White House, a stunning one-third flipped to support Trump....

By contrast, of those 2,200 counties that never supported Obama, Clinton was only able to win six. That's just 0.3 percent crossover to the Democratic side. (Uhrmacher, Schaul, and Keating 2016)

A week later, the Washington Post's "The Fix" column reiterated that Trump "flipped a number of counties that had voted Democratic in 2012. In total, Trump flipped 217 counties that had voted Democratic in the last election," while "Clinton flipped only 30 counties that voted for Romney in 2012." The 200 or so flipping counties in 2016 was especially surprising, according to this account, because "for the most part, counties don't flip that often" (Bump 2016). A headline on National Public Radio's website that week declared, "Lots of People Voted for Obama and Trump," presenting as evidence a similar county-level analysis. This article surmises that "on Election Night, it was clear the surveys had missed a massive surge in some places and shifts in others of white, working-class voters in Iowa, Ohio, Michigan, Wisconsin and Pennsylvania that helped Donald Trump pull off the upset" (Taylor 2016).

Reiterations and extensions of this account continued into 2017. Writing on the London School of Economics *American Politics and Policy* blog, sociologist Michael McQuarrie (2016) concluded, "Trump is president because of a regional revolt," a revolt from which "many important questions emerge":

How do voters get from Obama to Trump? What role did racism and misogyny play in flipping people from the Democratic to Republican columns? These are important. But the character of the communities that flipped must be grappled with.... And unless we are attentive to the economic factors involved, as well as the social and attitudinal ones, we leave open the path for future demagogues to exploit the same set of circumstances in the name of securing political power.

As the editors of the blog summarize, "To truly appreciate why Donald Trump was elected ... we must look beyond distortionary exit polling and come to appreciate the thoroughly regional nature of his victory. Only this can explain Trump's win" (McQuarrie 2016). Likewise, the Brookings Institution's William Galston interprets the 2016 election as part of a broader trend in liberal democracies, in which "divisions among citizens based on geography, formal-education levels, and value systems are growing sharper" (2018, 8). And with a similarly regional and forward-looking perspective, the editors of the website Ballotpedia assert, "The political shift in these counties [that flipped from Obama to Trump] could have a broad impact on elections at every level of government for the next four years" (Ballotpedia Editors 2017).

Perhaps the most granular analysis of all comes from an article by *Cook Political Report* editor David Wasserman. Writing on the website FiveThirtyEight, Wasserman (2017) set out to

get at the heart of why so many people who cast a ballot for former president Barack Obama in 2008 and 2012 and who saw Trump as unqualified to be president nonetheless voted for him. Although its far from a microcosm of the nation, there's one place that I believe illustrates what happened in 2016 better than anything else.

In a nation increasingly composed of landslide counties places that voted for one side or the other by at least 20 percentage points Howard County, Iowa (population 9,332), stands out as the only one of Americas 3,141 counties that voted by more than 20 percentage points for Obama in 2012 and Trump in 2016.<sup>1</sup>

And so Wasserman visited Howard County and spoke with voters living there.

Notably, some of this microlevel analysis is explicitly framed in opposition to a counternarrative of the 2016 election results as not being that unusual. Cohn (2017), for instance, is prompted to reiterate the simple story by Washington Post columnist Dana Milbank, who cites national-level polling showing the number of individuals who voted for Obama and then Trump was relatively small. As Cohn explains, Milbank's focus on national-level results caused him to miss the important microlevel trends. According to Cohn, were we to simply look at the national results, the 2016 election would rightly be seen as "one of the least interesting in history. Hillary Clinton would be the president if the national tallies counted, and the shift from Mr. Obamas 51.9 percent of the two-party popular vote to Mrs. Clintons 51.1 percent was the smallest change in major party vote share since 1888." Instead, Cohn implores Milbank and others to look beneath the surface for surprising, and perhaps prophetic, geographic and demographic shifts.

A similar contrast can be seen in the observations of two political scientists. In a *Monkey Cage* blog post whose title provocatively proclaims that "2016 Was an Ordinary Election, Not a Realignment," Larry Bartels (2016) notes, "Most *state* election outcomes were also surprisingly consistent with past voting patterns," lamenting that "as usual, pundits are trotting out visions of realignment" (emphasis in original). A year later, Seth Masket (2017), though not directly referencing Bartels, asks whether 2016 was "actually a political realignment" and reaches a very different answer. Although he highlights the same consistency of state-level results noted by Bartels, Masket goes on to note "more substantial variation *within* several states" that could indeed signal a realignment (emphasis in original). In particular, low-education counties in Michigan were more likely to shift away from the Democrats in 2016 than in 2012, whereas high-education counties were more likely to shift in the opposite direction.

In summary, faced with the unusual election outcome in 2016, many observers focus on the counties and voters who flipped from supporting Obama to supporting Trump, as well as on particular counties and voters with low levels of education and located in key "rust belt" states. These microlevel shifts are characterized as "huge" and "unusual" (Cohn 2017), "stunning" (Uhrmacher, Schaul, and Keating 2017), "massive" and "whopping" (Taylor 2016), and a "surprise" given "counties don't flip that often" (Bump 2016). It is a puzzle that "so many people who cast a ballot for former president Barack Obama in 2008 and 2012" voted for Trump (Wasserman 2017), and the magnitude of the shift is likened to an explosion, with the Midwest as "ground zero" (McQuarrie 2016).

Notably lacking from all of these accounts, however, is an actual comparison of voting behavior in 2016 to that of earlier U.S. presidential elections. Although there is no doubt that Trump received votes from counties and voters who changed their minds, without any comparison to the past it is unclear whether these shifts were, in fact, unusually large. In the next section, I provide some context using historical election data.

# How Often Do Counties and Voters Flip?

I begin my analysis by looking at county-level presidential election returns since 1952. For each of the roughly 3,000 counties in all 50 states, I calculate the percent of the two-party vote received by the Democratic candidate in each of 17 presidential elections.<sup>2</sup> Following the convention used by the sources cited earlier, I code a county as flipping from Democratic to Republican if it gave a majority of its two-party vote to the Republican candidate in the current election after giving a majority to the Democratic candidate in the prior two elections (DDR). Similarly, I code a county as flipping from Republican to Democratic if it gave a majority of its votes to the Democratic candidate in the current election after giving a majority to the Republican candidate in the current election after giving a majority to the Republican candidate in the prior two elections for two elections (RRD).

Figure 1 plots the proportion of counties flipping from one party to another by election year (the series starts in 1960, because the definition of flipping requires two elections worth of prior data). The gray boxes connected by dashed lines represent counties that shifted from voting Republican twice to voting Democrat, and the black circles connected by solid lines represent counties flipping from Democrat to Republican, as was highlighted in analyses of 2016. For instance, at the farthest point to the right, we see the roughly 7% of counties that shifted from voting for Obama twice to voting for Trump in  $2016.^3$ 

Figure 1 shows that the share of flippers in 2016 was indeed much higher than in 2012, but was not unusual compared to the 2008 election. In that year, 9% of all counties shifted from voting twice for George W. Bush to then voting for Barack Obama. Yet in one respect, the share of flippers in 2016 was unusual compared to earlier elections: it was unusually small. In 2000, 23% of counties shifted from having voted twice for Bill Clinton to voting for George W. Bush, whereas in 1992 a similar share voted for Bill Clinton after voting Republican in the previous two elections.<sup>4</sup> Similar proportions flipped in the 1984, 1976, and 1972 elections; by far the biggest shift occurred in the landslide 1964 election, when more than 40% of counties flipped from Republican to Democrat. In general, we see the highest number of flips when a party that has held two or more terms leaves office, as in 2016, 2008, 2000, and 1992.

A drawback of county-level data is that even if we study the same counties over time, the voters within those counties can change, whether because of generational replacement or migration (Gimpel and Schuknecht 2001; 2009). These factors may make counties more politically homogeneous over time (Bishop 2009; Tam et al. 2013),

# Figure 1 Flipping counties in presidential elections, 1960–2016.



Note: This figure plots the proportion of all US counties voting for the Democratic candidate in a given election, after having voter for the Republican candidate in the preceding two elections (gray boxes connected by dashed lines), and the proportion of counties voting for the Republican candidate, after having voted Democrat for two elections (black circles connected by solid lines

limiting our ability to detect vote switching at the aggregate level. However, additional evidence can be found in individual-level data from the cumulative American National Election Study (ANES) cross-sectional surveys. These surveys include items asking respondents who they voted for in the previous election and who they voted for in the current election. Although these items rely on recall and so could understate the degree of flipping, they also only ask about the most recent past election, and not the preceding two elections, which should overstate the degree of flipping. Nonetheless, the factors that bias these self-reports should be relatively constant over time, and it is the over-time variation that is most relevant.<sup>5</sup>

In Figure 2, I plot the share of ANES respondents saying they voted for the Democrat in the current election, after having voted for the Republican in the prior election, as gray boxes connected by dashed lines. I plot the corresponding share flipping to the Republican candidate as black circles connected by solid lines. The pattern is similar to that seen at the county level: in general, when there are a large number of counties that flip, there are also a large number of voters who flip. Again, what stands out is just how small the share of flipping voters was in 2016 compared to prior years. In 2016, the share flipping from Obama to Trump was about equal to the share flipping from Bush to Obama in 2008, whereas considerably more voters reported flipping in the elections of the 1960s–1990s relative to both 2008 and 2016.

#### Figure 2 Flipping at the individual level in the American National Election Study.



Note: This figure plots the proportion of all white ANES respondents voting for the Democratic candidate in a given election, after having voter for the Republican candidate in the preceding election (gray boxes connected by dashed lines), and the proportion of respondents voting for the Republican candidate, after having voted Democrat (black circles connected by solid lines). Results areadjusted using post-stratification weights.





Note: This figure repeats the analysis shown in Figure 1 for five key states. Panel (a) plots the raw number of flipping counties in each state, while panel (b) divides the raw number by the total number of flipping counties nationwide in that election year. Panel (c) shows the total votes cast by flipping counties as a proportion of the total votes cast in the state.

Although the overall number of flipping counties was small in 2016, perhaps where those flips occurred was unusual. In particular, many accounts have focused on the "rust belt" states of Iowa, Michigan, Ohio, Pennsylvania, and Wisconsin. In Figures 3a–c I reproduce versions of Figure 1 for these five key states. In Figure 3a, I show the raw number of flipping counties by year for each state: for none of these states is this number unusually large in 2016. For instance, in Iowa, 31 counties flipped to the Republicans in 2016, but 36 did so in 2000; in Michigan, there were only 12 flips to Trump in 2016 compared to 21 for Obama in 2008, which is itself smaller than the 27 flips to Bush in 2000. As shown in the final panel of Figure 3a, the combined number of flips in these five states was larger in 2008, 2000, 1992, 1988, and 1964.<sup>6</sup>

Alternatively, it may be that these states played an outsized role in the overall number of flips in 2016. In Figure 3b, I plot the number of flippers in each state as a proportion of the total number of flips nationwide in that year. For example, in 1988, Iowa's 59 flipping counties accounted for 20% of the 287 flippers nationwide that year. In general, these shares were not much higher in 2016 than in prior elections in these states. The same is true when looking at the combined shares in the final panel: whereas these five states accounted for 38% of all flips in 2016, they accounted for 32% four years earlier and 30% four years before that.<sup>7</sup>

Perhaps the flipping counties in 2016 were especially influential for the total vote in their respective states. Figure 3c plots the total votes cast in flipping counties as a proportion of the total votes cast in the state. Again, 2016 does not stand out as unusual. For instance, in Michigan, the flipping counties represented 20% of the total votes cast in 2016, which was very similar to the percentage in 2008, 2004, 1996, and 1992.

Although the raw number of flippers was small in 2016, perhaps those counties that did flip tell us something important about the future. In other words, are counties that flip especially different from those that do not? Is a flip in one year informative about voting in subsequent years? To explore these questions, in Figure 4, I generate "spaghetti plots" where, for each of eight high-flipping election years, I plot the Democratic share of the vote over time, with a separate line for each county. For instance, in 1964, I plot Democratic vote share against time for all the counties that flipped from Republican to Democrat in 1964, for 1972 I plot the Democratic vote share against time for all the counties that flipped from Democrat to Republican in 1972, and so on.

Focusing first on 2016 in the bottom-right panel, there is a great deal of variability in the earliest elections, a convergence toward rough partisan parity by 2012, and then a dip in the 2016 election. Thus, what distinguishes the flipping counties in 2016, based on this graph, is their competitiveness in the 2012 election. Although they voted Democratic in 2008 and 2012, they did so just barely, for the most part: the average Democratic vote share in 2012 was 38% for counties that did not flip in 2016, but it was 54% for those that did. They could have easily gone the other way in 2012, and in 2016, they did.

The panels for the previous years tell a similar story regarding the distinctiveness of flippers in a given election. For the most part, counties that flip for one party are those that just barely voted for the other party in the preceding election. It is then intuitive that a flip in one year is uninformative about what happens in subsequent years. For instance, of those counties that flipped to the Democrats in 1964, many flipped right back to the Republicans in 1968. In general, within a few elections of 1964, the distribution of Democratic vote share among 1964 flippers was highly variable, with some counties becoming much more Democratic and others becoming much more Republican. And so it is with the remaining panels: the period prior to a flip is one of convergence, whereas the period after is one of divergence, as counties again become more or less Democratic. Given that past county-level shifts have been uninformative about the county's electoral future, such flips in 2016 are likely uninformative about the nation's electoral future.

### Education and Party Support, 1952– 2016

I next turn to whether the relationship between college education and vote choice changed appreciably in 2016, beginning with a county-level analysis. An immediate question is how to differentiate counties based on their educational status. For instance, Masket (2017) classifies a county as highly educated in 2016 if at least 25% of its residents have a four-year college degree or higher. Because I am examining trends over time, however, it is important to account for the fact that a strict cutoff such as 25% will mean different things in different years. Indeed, the meaning of a college degree itself has changed dramatically over time, and given secular trends in educational attainment, fewer counties will meet this cutoff the more we go back in time.<sup>8</sup>

To address this issue, I first standardize a county's share of college attainment within states and years. For each state and for each year, I rescale the attainment variable such that the county with the lowest college attainment in a given state and year is given a value of zero, a county with the highest attainment in a given state and year is given a value of one, and the remaining counties receive values between zero and one proportional to their original value. Second, I estimate the gap between the most and least educated counties using a regression of Democratic vote share on the rescaled education variable, with separate regressions for each election. The intercepts in these regressions represent the estimated average Democratic vote among the least educated counties, the intercepts plus the slopes represent the estimated average Democratic vote for the most educated counties, and the slopes themselves represent the voting gap between high- and low-education counties in each year.

Figure 5a plots the estimated Democratic vote share for the least educated counties as black circles, and the



# Figure 4 Past flips do not predict future voting behavior.

Note: For a given election year, each panel plots the Democratic vote share against time for all counties that flipped in that election year.

Figure 5 Education and Democratic presidential vote, 1972-2016.



Note: Panel (a) plots the average Democratic vote share among high education counties (those with the highest level of college attainment that year) as gray squares connected by dashed lines, and the average Democratic vote among low-education counties (those with the lowest level of attainment) as black circles connected by solid lines. Panel (b) replicates the first panel for five key states. Results are weighted by county population 25 and older.

estimated Democratic vote share for the most educated counties as gray squares. Consistent with many existing accounts, it confirms a massive gap of about 28 points between high- and low-education counties in terms of Democratic vote percent in 2016. Although there has been a gap favoring Democrats since 1996, it was just 16 points in 2012, so that the growth in the education-voting gap between 2012 and 2016 was unusually large. Figure 5b shows that the patterns in the five Midwestern states are similar, but with the change in 2016 being more pronounced. In Iowa, Ohio, and Pennsylvania, there is a stark drop in Democratic vote share among the least educated counties between 2012 and 2016, a shift that for all five states is larger than that of any other year.

Similar patterns can be seen at the individual level. In Figure 6, I plot the proportion of ANES respondents voting for the Democratic presidential candidate by year for those with at least a four-year college degree versus those without a four-year college degree.<sup>10</sup> Again, in 2016 there is a wide gap between those with a college education or higher, of which about 56% voted for the Democratic candidate, and those without a college education, who gave Clinton about 34% of their vote. Indeed, 2016 is the only year that sees an appreciable gap between more and less educated voters in this direction, and it is also the only year that a majority of college-educated white respondents voted for the Democratic candidate.

# Figure 6 Education and individual-level vote choice, 1952–2016.



Note: This figure plots the proportion of white ANES respondents with no college education voting for the Democratic candidate as black circles connected by solid lines, and the proportion with a college degree or higher voting Democrat as gray squares connected by dashed lines. Results are adjusted using poststratification weights.

#### Were Flippers Pivotal?

Anomalous or not, did these voting patterns make the difference in 2016? Shortly after the 2016 election, Uhrmacher, Schaul, and Keating (2016) argued that the flipping counties in particular were, in fact, decisive: "The Obama-Trump counties were critical in delivering electoral victories for Trump. Many of them fall in states that supported Obama in 2012, but Trump in 2016. In all, these flipped states accounted for 83 electoral votes."

According to the final tally in 2016, Hillary Clinton received 227 votes in the Electoral College compared to Donald Trump's 304: given the required 270-vote threshold, Clinton would have had to receive an additional 43 electoral votes for the overall election result to have flipped. If the counties that flipped in 2016 had not done so and had instead remained as supportive of Clinton as they were of Barack Obama, would Clinton have received the requisite number of additional Electoral College votes? Although Uhrmacher and colleagues are correct when they note that many flipping counties are located in pivotal states, such as Ohio, it does not necessarily follow that there were enough flipping counties in Ohio to change the statewide result and thus change the winner of Ohio's electoral votes.

Assessing pivotality requires assigning a counterfactual election outcome to each of the flipping counties, seeing which state outcomes flip as a result, and then recalculating the final Electoral College tally based on the new state outcomes. The first step, determining the county-level counterfactuals, faces several challenges. For one, it is

#### Figure 7 Flipping counties and electoral college results, 1960–2016.



Note: This figure plots actual (gray line) and counterfactual (black line) Democratic Electoral College margins for each election year. See the text for details on how the counterfactual margins are determined.

implausible that the electoral outcome would change in 200 or so counties, while the remaining 2,800 counties would have stayed the same. Unfortunately, such an assumption seems unavoidable in this type of counterfactual analysis. For another, even if we just consider the more than 200 flipping counties, it also seems implausible that they would not have changed at all in their electoral support from 2012 to 2016. Nonetheless, for this analysis I simply assume that counties that flipped in 2016 would have instead voted just as they did in 2012, with no impact on the other counties.

Figure 7 plots both the Democratic candidate's actual Electoral College margin (gray line) and the counterfactual margin assuming that all flipping counties stood still compared to the previous election (black line). The horizontal dashed line marks zero, showing the elections in which such counterfactual county-level outcomes would have added up to a different national result. I include the counterfactual Democratic margin as a marker on the counterfactual series and denote pivotal years where the simulated county results flip the national result with an asterisk.

Figure 7 shows that in most years, flipping counties are not consequential, as the ultimate winner of the Electoral College would have remained the same even in the extreme counterfactual scenario. The exceptions are 1960, 1976, 2000, and 2016. Had the 200 counties that flipped from Obama to Trump in 2016 stayed put, Clinton would have gone from losing the Electoral College with 227 votes to just barely winning with 273 votes.<sup>11</sup>

It is interesting to compare this counterfactual margin of three electoral votes to some other prominent counterfactuals. The 83 additional electoral votes that Uhrmacher and colleagues attribute to flipping counties would have put Clinton's total at 310 (a margin of 40 votes). That figure is about halfway between the forecasted margin by the website FiveThirtyEight, which predicted Clinton would receive 302 votes (margin of 32 votes), and that of the UpShot, which predicted she would receive 322 votes (margin of 52 votes). If the magnitude of the surprise in 2016 could be said to be reflected in the difference between this expected margin and what actually happened, then the flipping counties themselves only explain about half of the surprise: even if all the flipping counties had stayed put, there would still be 49 electoral votes unaccounted for. Those additional votes were, according to forecasters, expected to come from the states of Florida, North Carolina, and (UpShot only) Ohio. Although counties did flip in these states, this counterfactual analysis shows that, even had they not flipped, the outcomes in these states would not have changed.

### Were Low-Education Voters Decisive?

Were the votes of low-education voters decisive in 2016? As in the preceding analysis, one might answer this question by simply retabulating the electoral college under the assumption that low-education counties voted just as they did in 2012. This returns us to the question of how to define "low education." Although comparing the votes among the mostand least-educated counties is useful for plotting trends over time, flipping only those counties at the minimum level of college attainment would probably not change much.

Another way to address this question is to denote counties lower than the mean or median as low education

#### Figure 8 Clinton's 2016 electoral college margin if low- or high-education counties voted as in 2012.



Note: Each hollow circle represents a counterfactual Clinton electoral college margin assuming that some counties reverted back to their 2012 behavior. The left panel simulates outcomes if counties less than a given percentile of college attainment reverted; the right panel simulates outcomes if counties above a given percentile reverted.

and reassign their vote share. The mean share of county residents with a college degree in 2016 was 18%, and the median was 19%. If we were to define low-education counties as simply those with a college attainment share less than the median, then the counterfactual analysis would assume 50% of counties stuck with their 2012 voting behavior in 2016. This would seem to stack the deck in favor of finding decisiveness, given that 2012 was a better year for the Democrats, so we might instead define low-education as those at the fifth, tenth, or some other percentile. Additionally, we could probe the relative importance of high- versus low-education counties by assuming that counties above some threshold of college attainment reverted to their 2012 behavior.

Rather than choose a single threshold, Figure 8a simulates Clinton's 2016 electoral college outcome, assuming that all counties below some percentile of college attainment reverted to their 2012 voting behavior. The first point shows Clinton's actual margin of -43, whereas the remaining points show the counterfactual outcomes. For instance, if all counties below the fifth percentile of college attainment (that is, a county where 9% of its residents have at least a college degree) voted as they had in 2012, then Clinton still would have lost, but her margin would have been -30. If all counties below the tenth percentile of college attainment (that is, 10.4% of residents have a college degree or higher) voted as they had in 2012, then Clinton and Trump would have tied; the same is true of all counties below the fifteenth percentile (11.8% with college or more). Indeed, Figure 8a shows that, for Clinton to win, all the counties below the twentieth percentile of college attainment (12.9%) would have to revert to their 2012 voting behavior, in which case her margin would have been 29 votes. Moving to the final point in Figure 8a, if all counties below the median of educational attainment flipped back to their 2012 behavior, Clinton would have won by 68 electoral votes.

What if, instead, the low-education counties voted as they did in 2016, but the higher-education counties reverted? Figure 8b shows the results of these simulations. For instance, the first point shows what Clinton's margin would have been had those counties at or above the 95th percentile of college attainment (29% with college or higher) reverted to how they voted in 2012. In this scenario, Clinton does worse than in reality, losing by 56 votes instead of the actual 43. The rest of this plot shows little variation across percentiles. For instance, even if the entire top half of the college attainment distribution reverted to 2012 (the last point in the plot), Clinton would still have lost by 46 votes, which is about the same as the actual outcome.

Together, these two plots illustrate the relative influence of the low-education counties in 2016. If the bottom 10% of counties, sorted according to their college attainment, had voted as they had in 2012, the electoral college outcome would have been a tie; if the bottom 20% had reverted, Clinton would have won decisively. In contrast, flipping back the high-education counties never alters the outcome; even in the extreme case where the most-educated 50% of counties revert to how they voted in 2012, the electoral college outcome barely changes.<sup>12</sup>

## Conclusion

The 2016 election outcome was a surprise. An outsider candidate with only lukewarm institutional support from his own party, with no political experience, and with a history of making impolitic and bigoted statements won, despite widespread expectations that included seemingly precise quantitative forecasts that Hillary Clinton would be victorious. To understand how this national surprise could have happened, many have looked for what else might have been surprising at the microlevel. Two prominent claims emerging from this search were that an abnormally large number of counties "flipped" from voting twice for Obama and then voting for Trump and that low-education counties and voters went for Trump in a major departure from the past.

In this article, I examined these claims by placing them in the context of past presidential elections. First, I assessed whether these facts were in themselves abnormal. Compared to earlier elections, the number of flipping counties and voters in 2016 was smaller, not larger. In contrast, the gap in voting between voters of differing educational attainment was the largest it has ever been, especially in five key states.

Second, I evaluated whether these facts were decisive. Although the amount of flipping in 2016 was not unusual, it was, in fact, decisive: had the 200 or so flipping counties stayed put, Clinton would have just barely won the electoral college. Similarly, had the leasteducated 20% of counties voted as they had in 2012, Clinton would have won the electoral college by about 30 votes.

To the degree that the 2016 election outcome can be attributed to microlevel voting patterns, the analyses presented here suggest the causes are partly banal and partly unusual. In any given presidential election, usually a substantial share of the electorate switches its vote to a different party. In 2016, that share, if anything, was particularly small. Viewed one way, this makes the shifts in voting by education even more unusual. With so few voters changing their minds between 2012 and 2016, the dramatic shifts seen by education level, particularly in the five states examined here, are all the more impressive.

With the historical context in mind, we can also make an educated guess as to whether the results seen in 2016 will persist. One finding in this article, which is certainly consistent with other research, is that fewer voters are up for grabs in each successive election: the number of flippers has generally declined since 1952. Another result is that the gap in voting by education has generally expanded over the same period. Thus, we are likely to continue to see very close presidential elections, with education becoming an increasingly important factor in vote choice.

# Notes

- 1 According to the *New York Times* data linked to from Wasserman's piece, Howard County's "enormous 41point swing" (in Wasserman's words) was in fact closer to a 20-point swing. Masket (2017) also makes specific reference to Howard County, but accurately describes it as a 22-point swing.
- 2 For elections before 2016, I obtained these data from *Congressional Quarterly*'s election database. For 2016, I obtained the results from Pettigrew (2016), supplementing results for Kansas, Mississippi, and Virginia using secretary of state websites.
- 3 The results in Figure 1 are very similar when weighting by county population.
- 4 If third-party candidate Ross Perot siphoned votes from Republican George H. W. Bush in 1992, then this might inflate the share of counties coded as flipping from the Republicans in 1984 and 1988 to the Democrats in 1992. It might also affect the proportion of flipping in 2000, given that Perotheavy counties would be coded Democratic in 1992, but would be flipping back by 2000. Perot's impact on the 1992 elections continues to be debated (see, e.g., https://fivethirtyeight.com/the/the-ross-perotmyth/). If we allocate all of Perot's votes to the Republicans, the share of DDR counties in 1992 is reduced from 23% to 3%. If we allocate Perot's votes to the Democrats, the share of DDR flips is 61%. Not reallocating Perot's votes is equivalent to assuming they would have been evenly distributed between Clinton and Bush. In exit polls in 1992, 38% of Perot voters said Bush was their second choice; the same percentage said Clinton was their second choice (Kornacki 2015).
- 5 For this analysis, I focused on white voters only, because these are the voters on whom almost all of the accounts of 2016 focused; however, the results are similar if all voters are included. I also adjust the data using poststratification weights supplied by the ANES.
- 6 The raw number of flippers in 2016 did not rank in the top three election years for any of these states, except Wisconsin.
- 7 Indeed, it is not unusual for these five states to account for more than 30% of the nation's flips, and in half the years they account for more than 25%.
- 8 For instance, no county in the state of Ohio was "highly educated" by this standard until the 2000 election.

- 9 For this analysis, I used county-level education data from the decennial U.S. Census, from which I was able to obtain educational attainment information beginning in 1970. I also weighted counties by the population age 25 and older, which is the denominator in the educational attainment share; however, weighting by total population gives nearly identical results.
- 10 As before, I restricted the analysis to white voters, and I adjusted the data using poststratification weights.
- 11 Note that this difference of 46 votes is much smaller than the 83 votes that Uhrmacher and colleagues attributed to the flipping counties, because those authors incorrectly assumed that, for instance, the nine flipping counties in Ohio were important enough to have altered the overall Ohio result, and similarly for flipping counties in Iowa and Florida. In my analysis, I found that only the statewide results in Michigan, Pennsylvania, and Wisconsin would have changed had all the flipping counties stayed put.
- 12 When performing this analysis using only the five key states, results are substantively the same, except that Clinton does not win outright until counties below the thirtieth percentile on college attainment revert to how they voted in 2012.

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