

**Analysis of
November, 2014
General Election
Prince William County, VA**

**By
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The following is an analysis and maps produced from final, official precinct level election returns of the November, 2014 general elections held in Prince William County, VA. The maps were presented to the County Board of Supervisors in early December, 2014 and this text analysis was added following that meeting.

The graphics follow the pattern created by the author while he was a member of the County's Task Force on Long Lines following the November, 2012 elections. That analysis can be found at http://www.pwcgov.org/government/bocs/Documents/BraceoverallPWCPresent_05082013.pdf or on the Election Data Services webpage: www.Electiondataservices.com.

Background

Voters in Prince William County were faced with a ballot containing only three contests in the November, 2014 general election: US Senate, US House of Representatives, and a statewide constitutional amendment dealing with exempting from taxes the surviving spouse of a military member killed in action. The County has parts of three Congressional Districts located within its boundaries, the 1st (represented by incumbent Robert Wittman - R), the 10th (open seat previously held by Frank Wolf - R), and the 11th (represented by incumbent Gerald Connolly - D).

According to the Census Bureau, the County currently has an estimated population of over 438,000, having grown almost 9% since the 2010 Census. Non-Hispanic Whites constitute 46.7% of the population, while Hispanics are 21.5% and African Americans are 21.4%. African Americans and a large number of Hispanics mainly reside in the eastern portion of the county, while there is also a concentration of Hispanics north of the City of Manassas. More exacting maps of the racial group's concentrations can be found in the Long Lines study analysis.

The latest Census Estimates puts the Voting Age Population (VAP, 18+) of the County at approximately 314,000 and for the November, 2014 election there were 253,808 registered voters (80.8% of VAP).

Voting – Turn-out

Slightly less than 100,000 voters turned out to vote in the November, 2014 election (95,889 to be exact). This calculates to be a turn-out rate of 37.78% of registered voters and 30.5% of the VAP. Despite the presence of what turned out to be a close US Senate contest at the top of the ballot, Prince William was well below the nationwide turnout rate of 36% of eligible VAP reported just after the election.

The first map in the attached map series shows that turn-out rates varied greatly in different parts of the county. In the eastern part of the county turnout was well below the countywide average, with a number of precincts in the 20-30% range. As evident in the other maps, this is the Democratic part of the county, and home to a large number of African Americans and Hispanics. The Long Lines study also identified these areas as more renter oriented. The other low turnout precincts are those north of the City of Manassas, that of Mullen, Westgate, Stonewall and Ashton. These are also high Hispanic areas of the County. The lowest turnout precinct (Quantico) is predominately a military base. The two highest turnout precincts (over 50% of registered voters) are in the western, more Republican part of the county: Heritage Hunt (a retirement community) and Alvey. Both of these are in the 10th Congressional District where there was a spirited contest to replace the retiring incumbent.

These differences in turnout in different parts of the county are very similar to the pattern observed in the 2012 general election, as studied in the Long Lines report and accompanying graphics.

Voting – Drop-off

While over 95,000 showed up to participate in the election, through either voting at a polling place on Election Day or casting an absentee ballot before the election, not everyone voted on all three contests on the ballot. This is not an unusual phenomena nor a new one. Previous research and studies of the author have found going back to at least World War II that nationwide approximately -1.5% of voters don't vote for President in a Presidential election year, and that this increases to -3.5% in off-year elections when US Senate or Governor contests are the top office on the ballot.

The difference between the *number of people who turned out for an election* and the *total number of votes cast for a particular office* is called drop-off by the author. Academics refer to this difference as “residual votes”, while others call this “lost votes”. It's long been the view of the author that the term “drop-off” is a better non-judgmental word used to describe this phenomena.

Drop-off calculations are not restricted to just the top office on the ballot, but instead can be calculated for every office on the ballot. Previous research has shown that generally drop-off increases as one goes down the offices on a ballot. Drop-off is usually composed of a mixture of

two issues: over-votes (where voters cast more choices in an office contest than are allowed, i.e. voting for two candidates when the office allows only a single vote) and under-votes (where a voter purposely or unintentionally does not select a choice in the office). When one can find the data, usually 90% of the drop-off is because of an under-vote and up to 10% is because of an over-vote.

For Prince William County in the 2014 general election the drop-off rates for the various contests on the ballot are as follows:

US Senate	- 0.38%
CD 1	- 0.66%
CD 10	- 0.50%
CD 11	- 0.70%
Constitutional Amendment	- 0.97%

Several observations can be made about drop-off rates in the County.

First, the impact of competitiveness in a contest can be seen in the countywide numbers. Besides being at the top of the ballot, the US Senate contest was extremely close and almost went to a recount. Therefore the US Senate drop-off was only -0.38%. In the three US Representative contests, the 10th CD contest was the most spirited of the three races (even though Comstock received 62% of the vote in the strongly Republican part of the county) and therefore the drop-off in that contest was lower than the other two districts in the county. The results for both the 1st and 11th districts were won fairly handedly and therefore more people chose not to vote in that contest. The contest for the constitutional amendment was supported by 90% of the voters, and while it was at the end of the ballot, it still had the highest drop-off rate.

Second, why is the county's drop-off rate so much lower than the nation as a whole? In all likelihood it has to do with the type of voting equipment used in the county. For at least the last decade Prince William County voters have voted on electronic voting machines (commonly called DREs for Direct Recording Equipment). DREs are programmed to prevent over-votes from being cast, thereby eliminating one of the causes of drop-off. While under-votes are still possible on DREs, the machines used in the county have a "review" screen that appears at the end of the voting process and before the vote is cast. In the review screen when an office has no votes cast in it, the office and available candidates appears in red, as opposed to other colors used when a valid vote is being reviewed. In all likelihood, this red reminder and review screen will cause some voters to go back and cast a vote in a contest they initially avoided or missed.

The differences in drop-off rates by the type of voting equipment is a phenomena that has been studied by the author nationwide for the past at least 35 years. Election Data Services, Inc. is the only entity in the nation that has compiled the kind of voting equipment used in every county nationwide since 1980. In addition, we maintain a county level election return database for each election that includes the number of voters who are registered and the number that turned out, as well as the votes for all candidates on the ballot for President, US Senator, Governor and US

Representative. As a result, we regularly calculate drop-off rates for all the offices in our database and for each county in the nation every two years and combine the voting equipment and returns databases in order to calculate drop-off rates for different voting equipment types (ie, DREs, Optical Scan, Lever Machines, Paper Ballots and Punch Cards)

Third, we have observed that drop-off rates vary across the county and this is also the case across the 92 precincts in Prince William County for the 2014 election. In the maps attached to this analysis, not only are the political leanings of each precinct shown in the familiar red-blue, Republican-Democratic coloration for each contest, but behind each outcome map is a map showing the precinct level drop-off rate for that contest.

The drop-off maps show several precincts in different contests where there was a higher number of votes cast in that contest than there were persons recorded as having turned out to vote (shown in sharp red on the maps). In each instance there is a difference of a single vote or at most two votes. How could this be the case? Having served as both a chief judge in a number of precincts in the past eight years, as well as a member of the canvassing team after each election, the author can attest to what takes place. In Prince William County the turn-out numbers are taken from the electronic poll book records that are kept as voters first appear in the precinct. The candidate votes and total votes for an office are taken from the DRE machines at the end of the day. This kind of a difference can occur when a poll worker checking-in the voters fails to go through all the computer screens needed in that check-in process. The poll worker would look up the voter, give them a “voter permit” card (which is then presented by the voter at the DREs station), and the poll worker then fails to click on the “confirm voter” screen before they take the next voter in line. When this happens the voter is not given credit as having voted in their vote history for the election, and the counter for the number of persons who turned-out is not incremented by one.

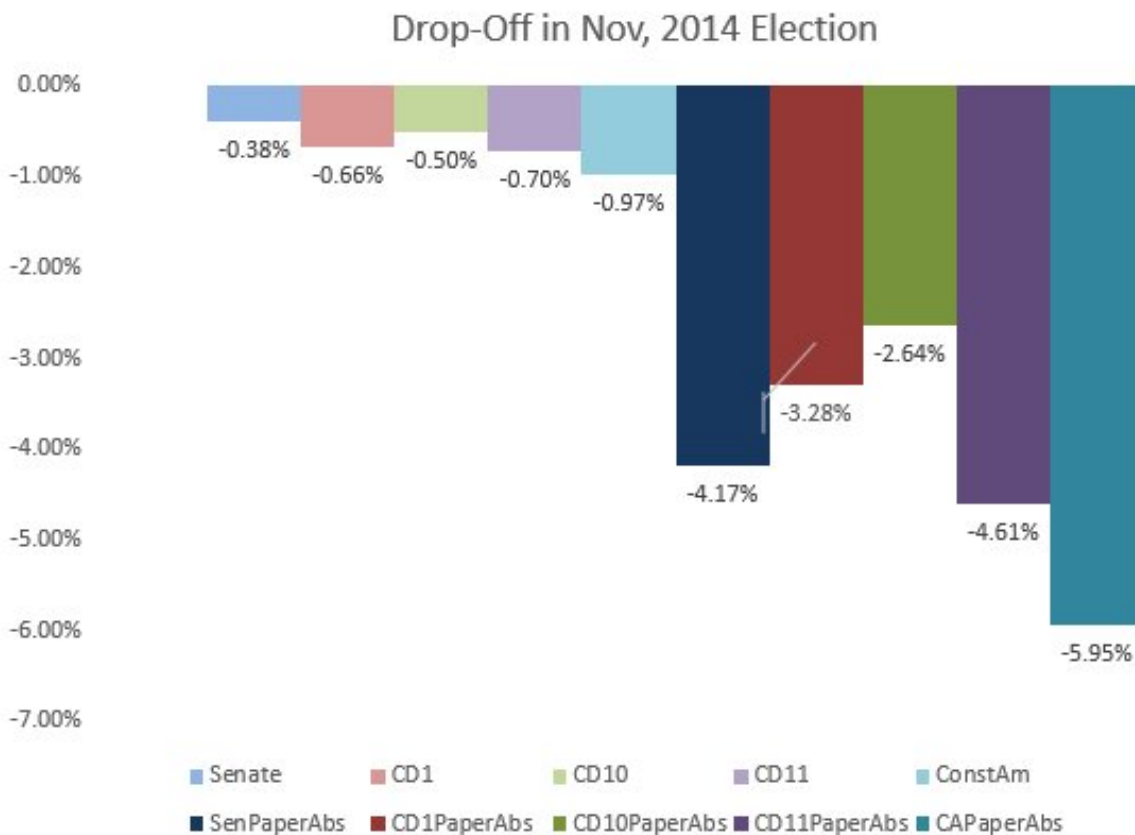
While the drop-off rates vary in different parts of the county, it seems to be the case that precincts with high drop-off rates also tend to be the precincts where there are high numbers of Hispanic population. The predominately retirement precinct of Heritage Hunt also has high or the highest drop-off rates once one moves away from the top of the ballot.

Fourth, in Prince William County all absentee ballots are tallied in a Central Absentee Precinct (CAP). There is one for each of the three congressional districts in the county. There were a total of 6,026 absentee ballots tallied in the CAP precincts, which is slightly more than 6% of all votes cast in the county for this election. Because results are reported separately for each CAP precinct (as opposed to some other states where absentee votes are merged into the individual precinct results and not kept track separately) it is possible to calculate drop-off rates for absentee voters. These are reported in text form on each of the maps, under the county-wide drop-off numbers reported above. For each of the office contests, the *drop-off rates for absentee ballots are one-and-a-half to two times higher* than the drop-off rates reported from the DRE records for Election Day voting.

Fifth, while the initial impression of this higher drop-off rate for absentee votes is because of paper ballots being cast, it turns out that for this election 4,313 votes (or over 71% of all absentee votes)

were actually cast as early in-person absentees that were voted on DREs situated at several centrally offices in the county. Luckily the county tallied and kept separate records of the votes coming from the DREs as well as separately the 1,713 paper Optical Scan ballots that were mailed into the office. The author had access to this information and was therefore able to calculate separate drop-off rates for the two different voting equipment types.

The following graph shows the drop-off rates for the five contests that were on the ballot in November, with the five lighter shaded columns on the left being the overall county wide drop-off rates and the five darker shaded columns on the right being the drop-off rates from the paper ballot mail-in absentee votes.



Instead of the 1.5 to 2 times the drop-off rate reported earlier for the CAP precincts, when dividing out the mail-in Optical Scan paper ballots from the absentee votes cast on the DREs, we find that paper ballots have five to 6.6 times the drop-off rate for most of the various offices on the ballot. Surprisingly, for the top of the ballot US Senate contest, the drop-off rate is 11 times higher for paper ballots compared to the DRE results.

This difference in drop-off rates between two different methods of voting (in this instance DREs vs Optically Scanned Paper Ballots) is consistent with the patterns observed by the author around the country and going back in time. But those nationwide studies (by the author and other academics) have a common problem of where precinct level distinctions get submerged into a

single county-wide number or where multiple types of voting systems are used in a jurisdiction and the data are not kept separate.

Conclusion

Why is this important? Because Prince William County is moving away from the DRE machines in the coming year and going to Optically Scanned Paper Ballots. As the author told the County Board of Supervisors, it is important that local election administrators recognize this problem with paper ballots and plan vigorous and extensive public education campaigns to warn all voters to “Check Your Ballot” and “Vote Your Ballot”.

In selecting the new voting system the county took into account one of the lessons learned from the 2000 Presidential Florida voting problem. It’s better to have a precinct based scanner and tallying system compared to a centrally based system. When ballots are scanned and counted in the precinct and in the presence of the voter, any error made by the voter (such as over-votes and sometimes under-votes) can be corrected by the voter if the ballot is returned to them. When ballots are counted centrally (such as mail-in absentee ballots, or where a jurisdiction just purchases a high speed scanner and brings the ballots into a central location for scanning and tallying) the voter loses the opportunity to correct their ballot.

But this problem also has a training component. Having observed Election Day operations in more than 300 counties around the nation over multiple decades, the author has seen numerous instances when poll workers or the scanning devices have provided only cryptic reasons why a ballot might be returned to the voter. Sometimes the voter is in such a hurry to “get to the office” or “go home” that they don’t want to spend more time correcting and/or re-voting their ballot. In all of these instances the voter many times fails to recognize that their votes in certain offices will not be counted. Better training of poll workers, signage, and public affairs announcements and commercials are all needed to combat this problem.

Prince William County, VA

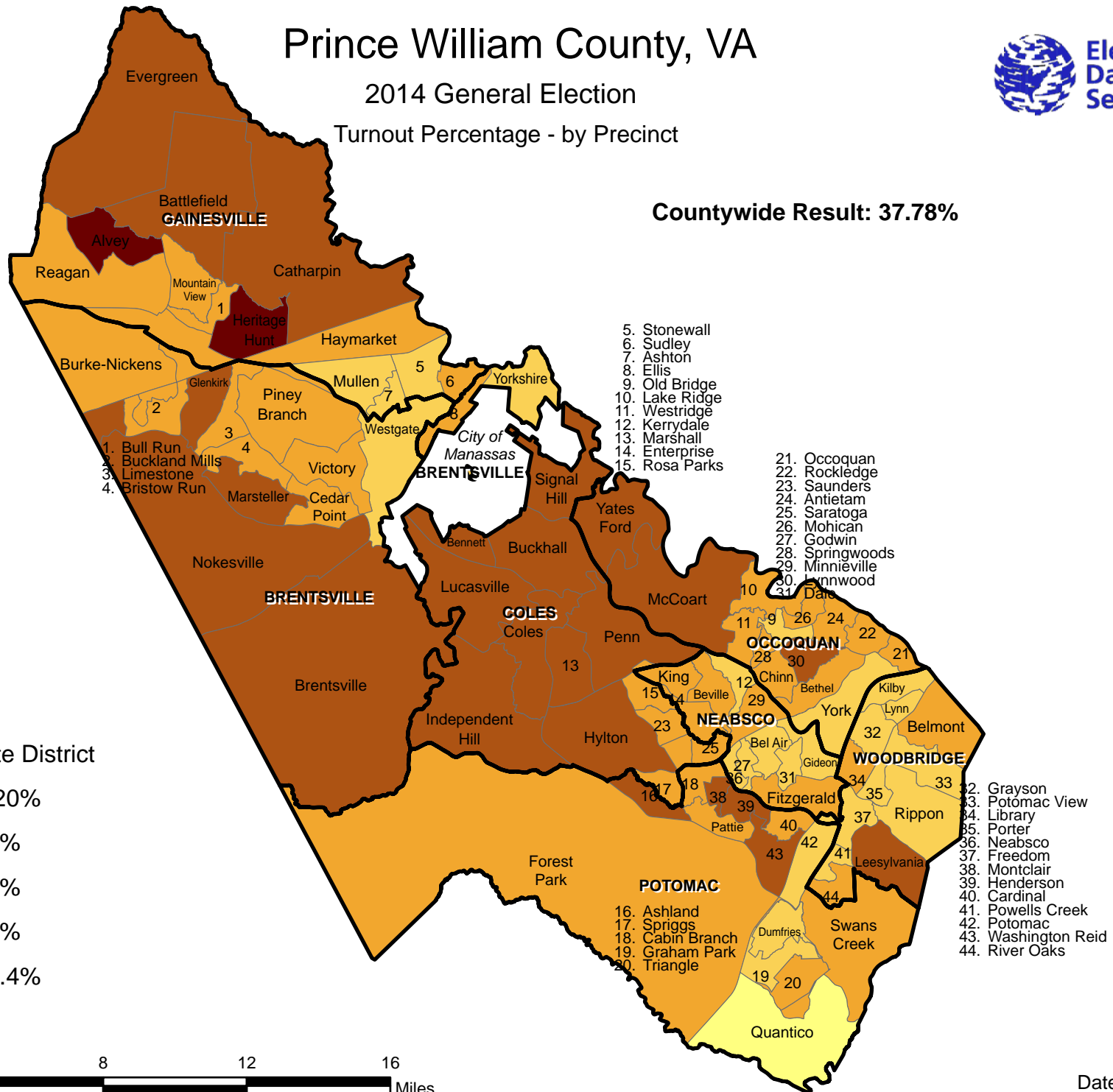
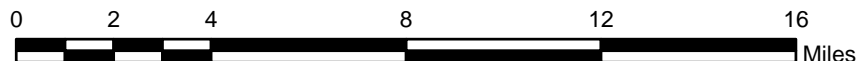
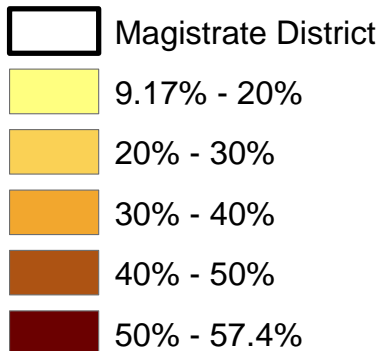
2014 General Election

Turnout Percentage - by Precinct



Countywide Result: 37.78%

Legend



Date: 12/8/2014

Prince William County, VA

2014 General Election

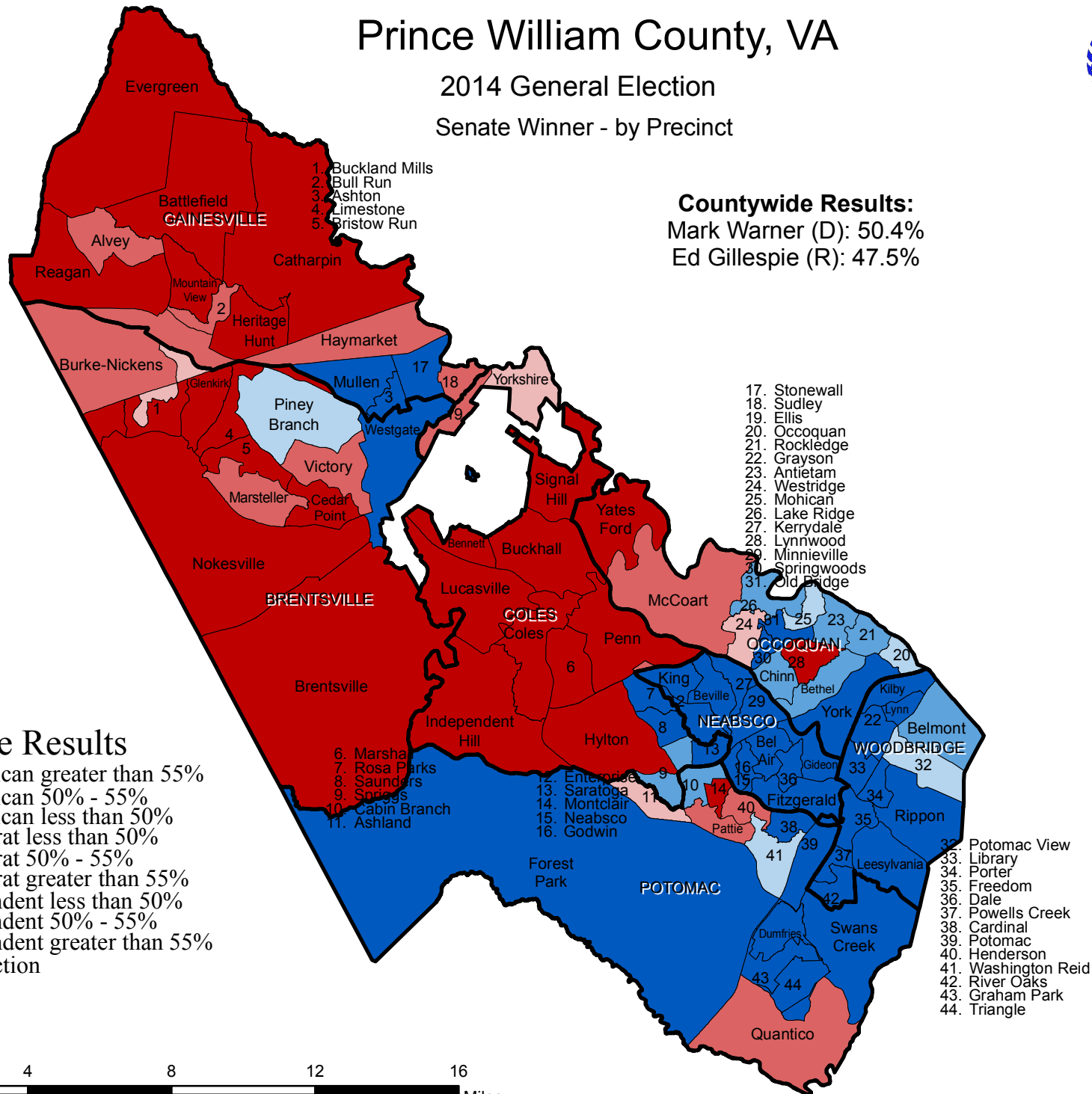
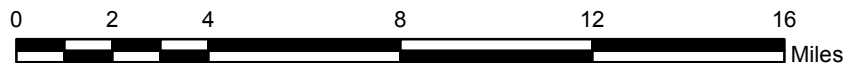
Senate Winner - by Precinct



Countywide Results:
Mark Warner (D): 50.4%
Ed Gillespie (R): 47.5%

Senate Results

- Republican greater than 55%
- Republican 50% - 55%
- Republican less than 50%
- Democrat less than 50%
- Democrat 50% - 55%
- Democrat greater than 55%
- Independent less than 50%
- Independent 50% - 55%
- Independent greater than 55%
- No Election



Date: 11/14/2014

Prince William County, VA

2014 General Election

Senate Dropoff Voting - by Precinct



Countywide Results: -0.38%

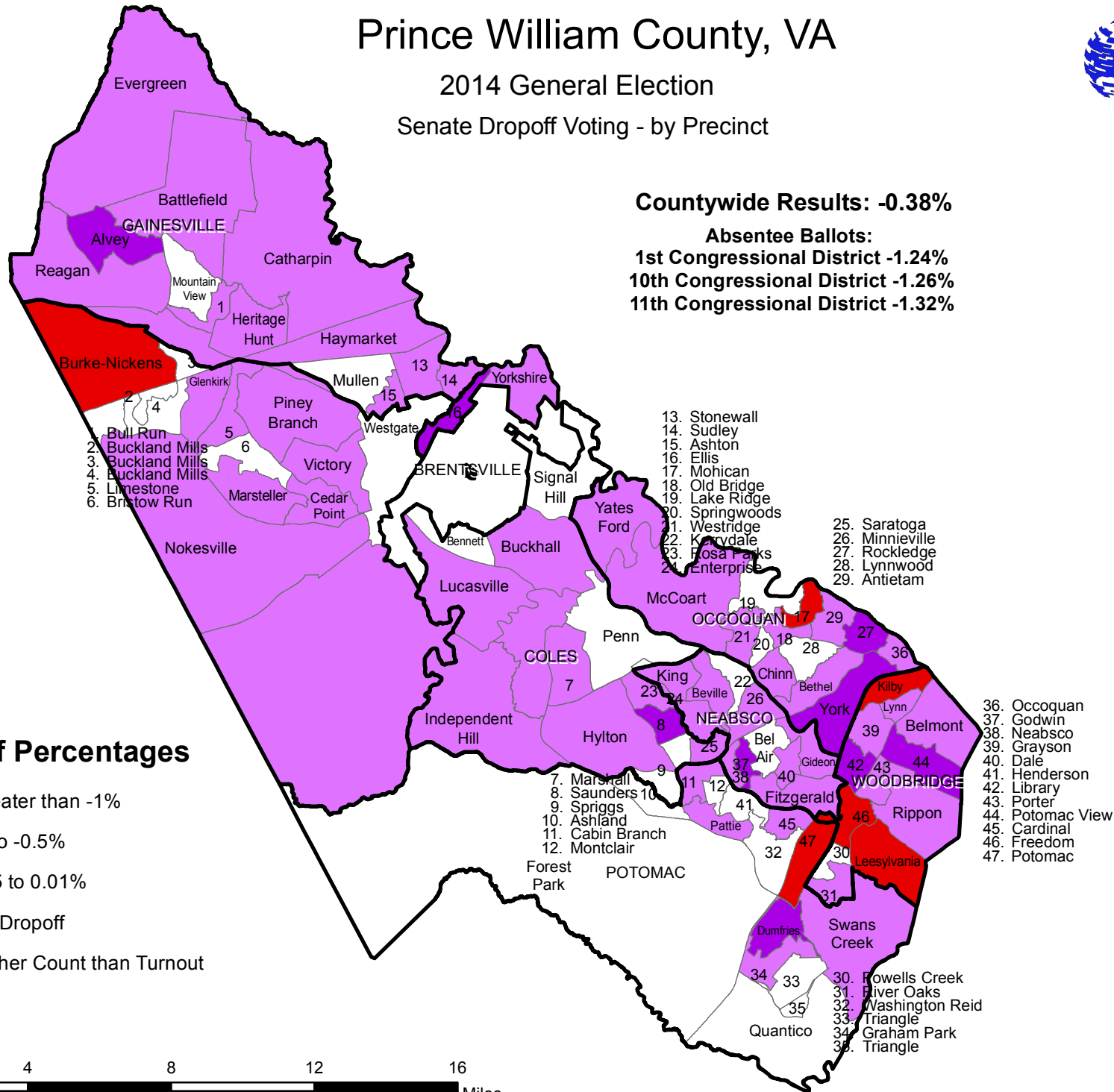
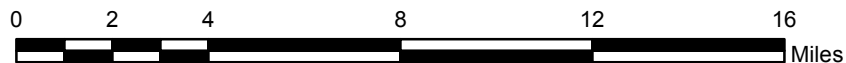
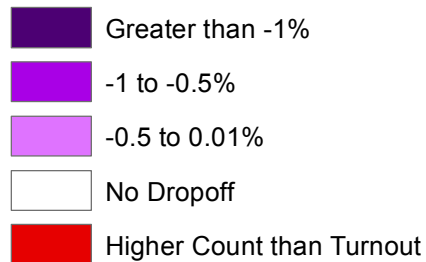
Absentee Ballots:

1st Congressional District -1.24%

10th Congressional District -1.26%

11th Congressional District -1.32%

Dropoff Percentages



Prince William County, VA

2014 General Election

Congressional Winner - House District 1 - by Precinct



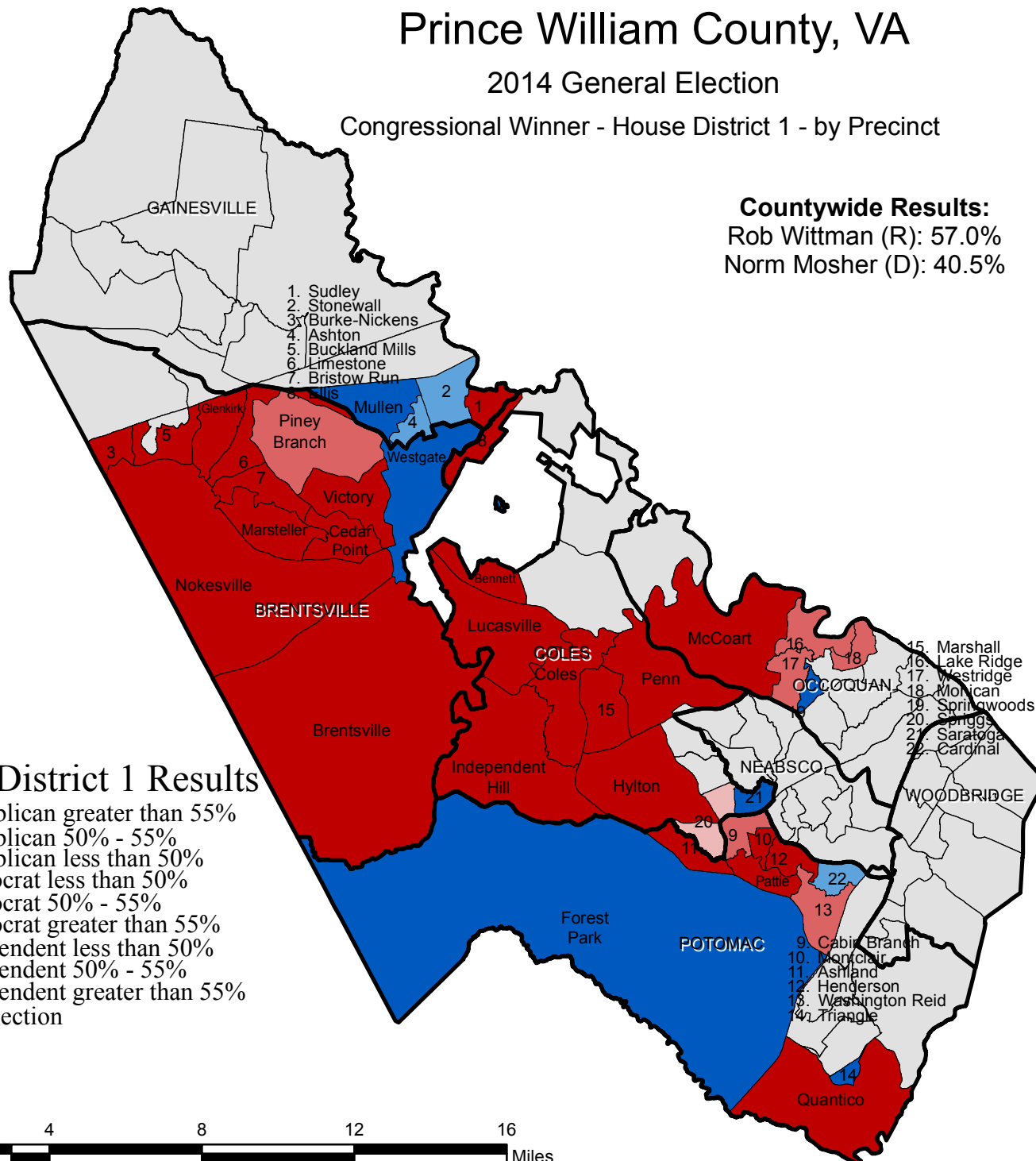
Countywide Results:

Rob Wittman (R): 57.0%

Norm Mosher (D): 40.5%

House District 1 Results

- Republican greater than 55%
- Republican 50% - 55%
- Republican less than 50%
- Democrat less than 50%
- Democrat 50% - 55%
- Democrat greater than 55%
- Independent less than 50%
- Independent 50% - 55%
- Independent greater than 55%
- No Election



Date: 11/14/2014

Prince William County, VA

2014 General Election

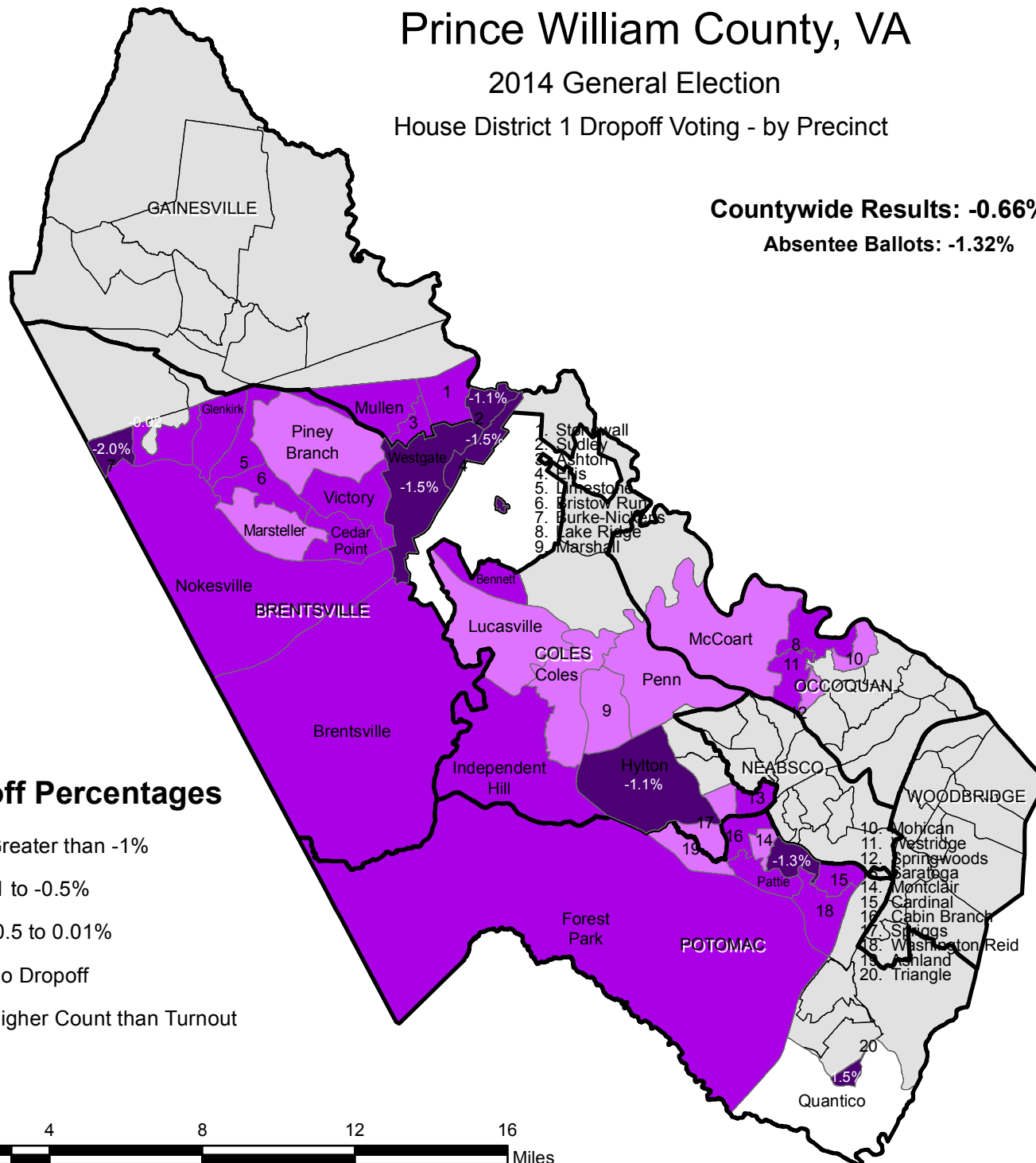
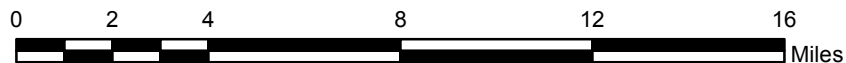
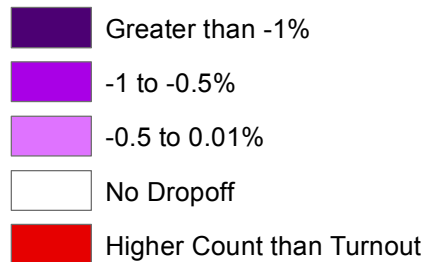
House District 1 Dropoff Voting - by Precinct



Countywide Results: -0.66%

Absentee Ballots: -1.32%

Dropoff Percentages



Prince William County, VA

2014 General Election

Congressional Winner - House District 10 - by Precinct



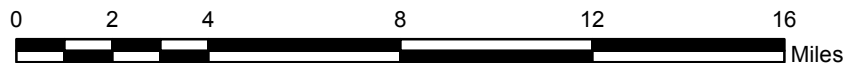
Countywide Results:

Barbara Comstock (R): 62.2%

John Foust (D): 35.0%

House District 10 Results

- Republican greater than 55%
- Republican 50% - 55%
- Republican less than 50%
- Democrat less than 50%
- Democrat 50% - 55%
- Democrat greater than 55%
- Independent less than 50%
- Independent 50% - 55%
- Independent greater than 55%
- No Election



Date: 11/14/2014

Prince William County, VA

2014 General Election

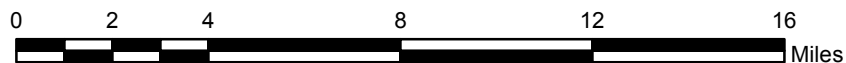
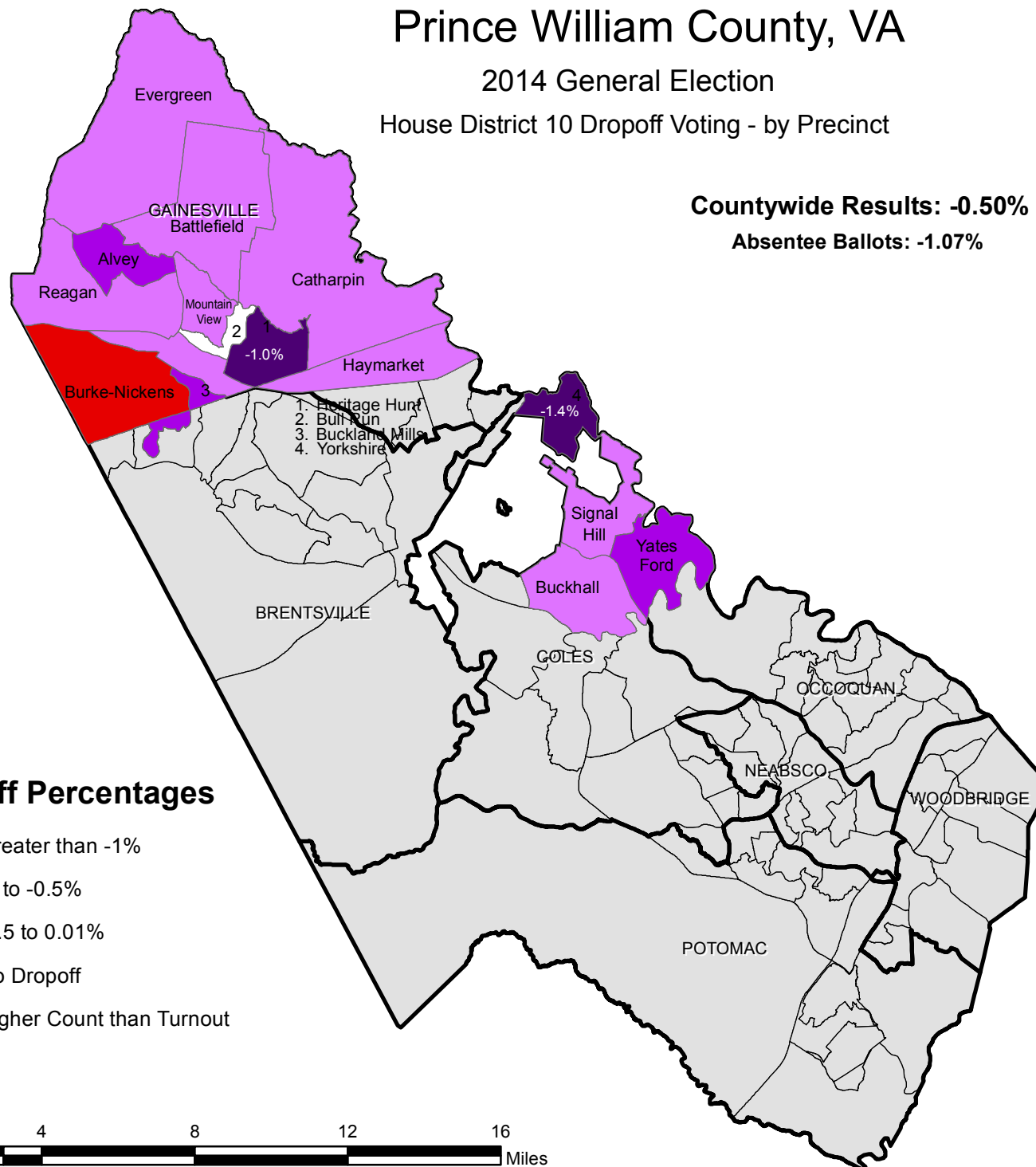
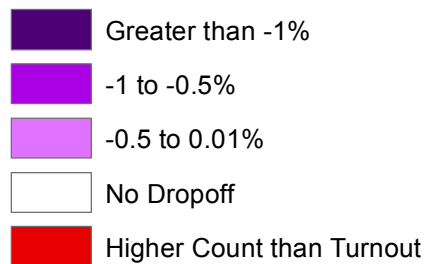
House District 10 Dropoff Voting - by Precinct



Countywide Results: -0.50%

Absentee Ballots: -1.07%

Dropoff Percentages



Date: 12/8/2014

Prince William County, VA

2014 General Election

Congressional Winner - House District 11 - by Precinct



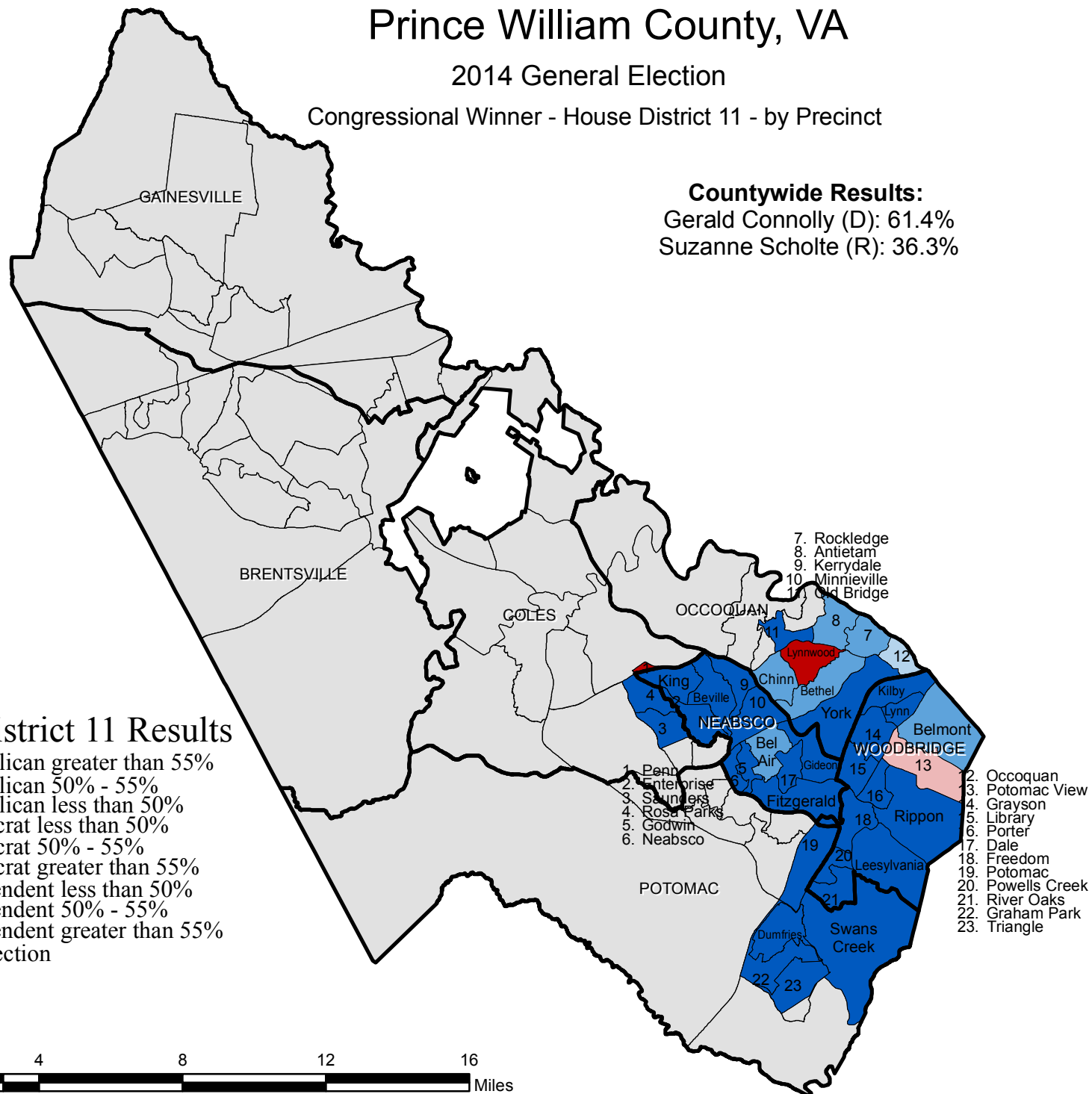
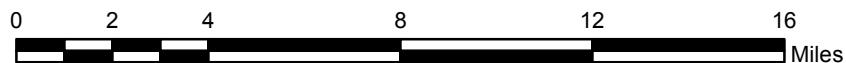
Countywide Results:

Gerald Connolly (D): 61.4%

Suzanne Scholte (R): 36.3%

House District 11 Results

- Republican greater than 55%
- Republican 50% - 55%
- Republican less than 50%
- Democrat less than 50%
- Democrat 50% - 55%
- Democrat greater than 55%
- Independent less than 50%
- Independent 50% - 55%
- Independent greater than 55%
- No Election



Date: 12/8/2014

Prince William County, VA

2014 General Election

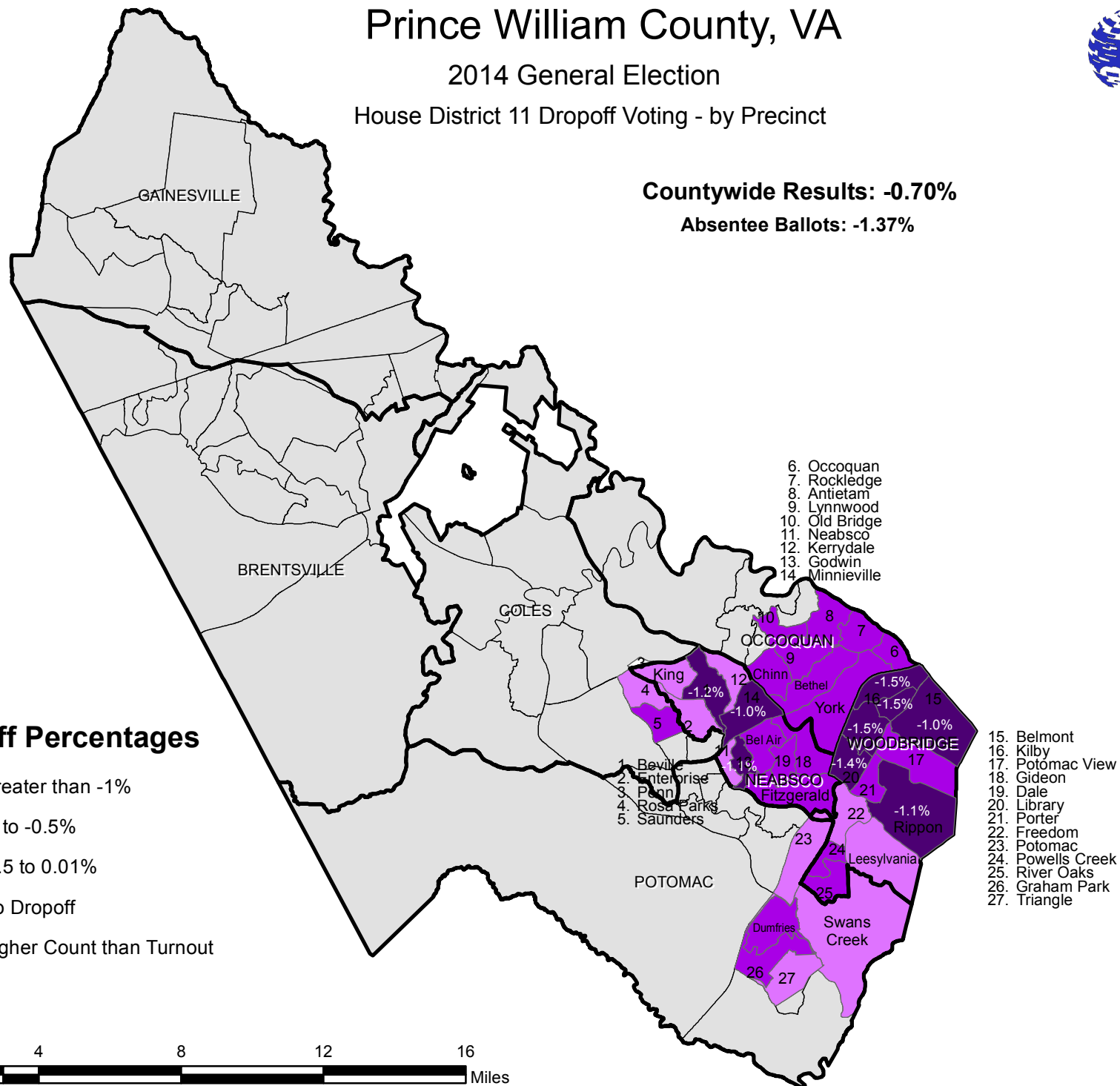
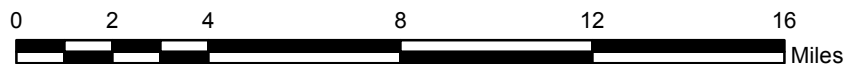
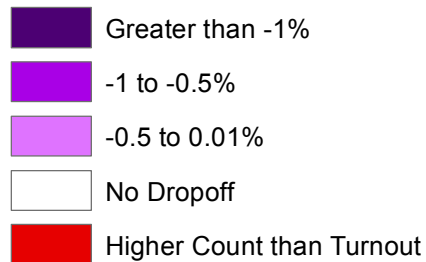
House District 11 Dropoff Voting - by Precinct



Countywide Results: -0.70%

Absentee Ballots: -1.37%

Dropoff Percentages



Date: 12/8/2014

Prince William County, VA

2014 General Election

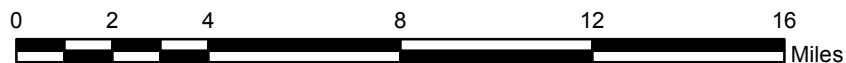
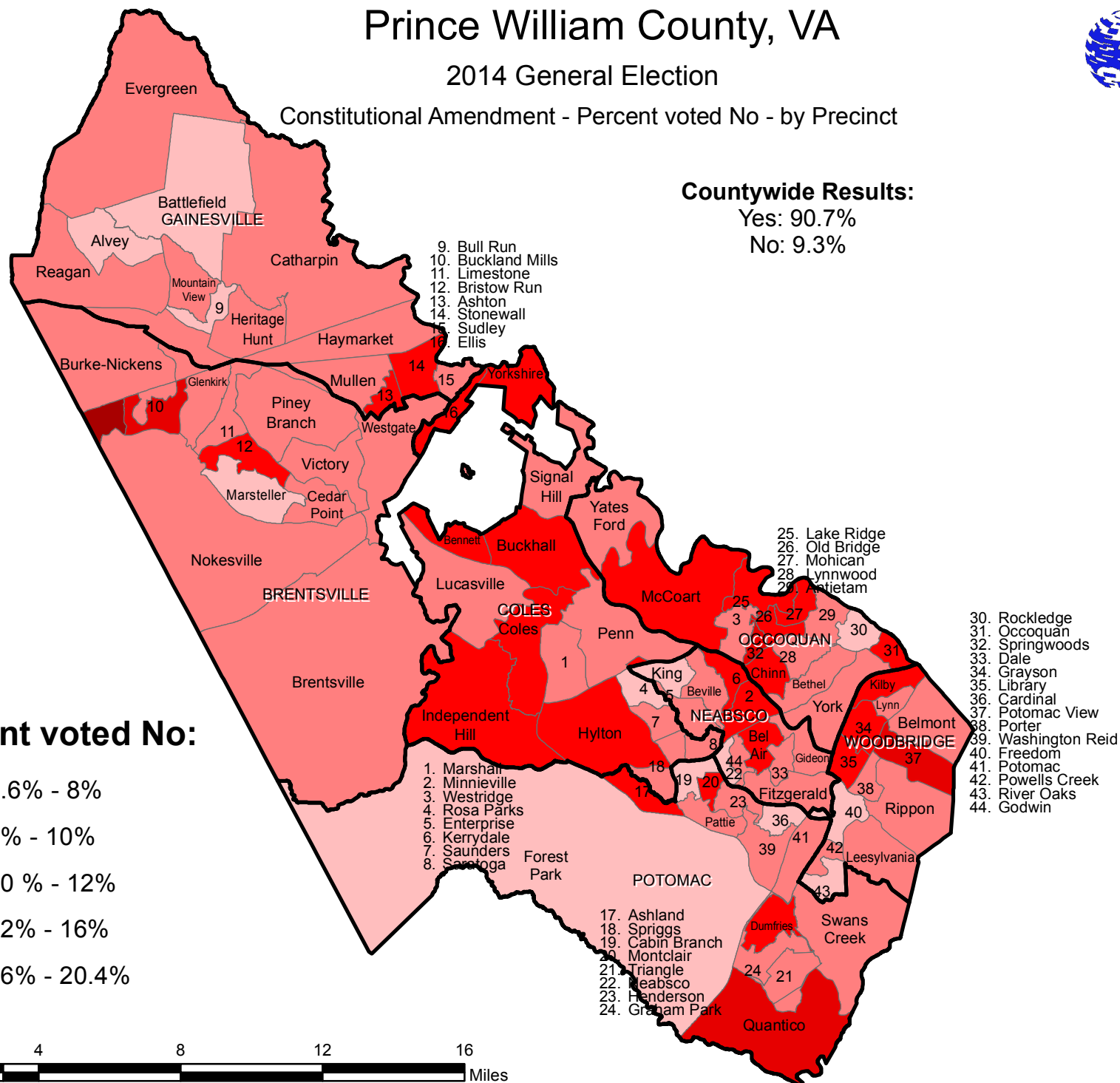
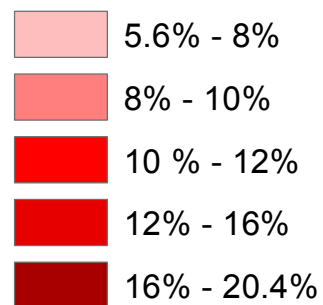
Constitutional Amendment - Percent voted No - by Precinct



Countywide Results:

Yes: 90.7%

No: 9.3%



Date: 11/14/2014

Prince William County, VA

2014 General Election



Constitutional Amendment Dropoff Voting - by Precinct

Countywide Results: -0.97%

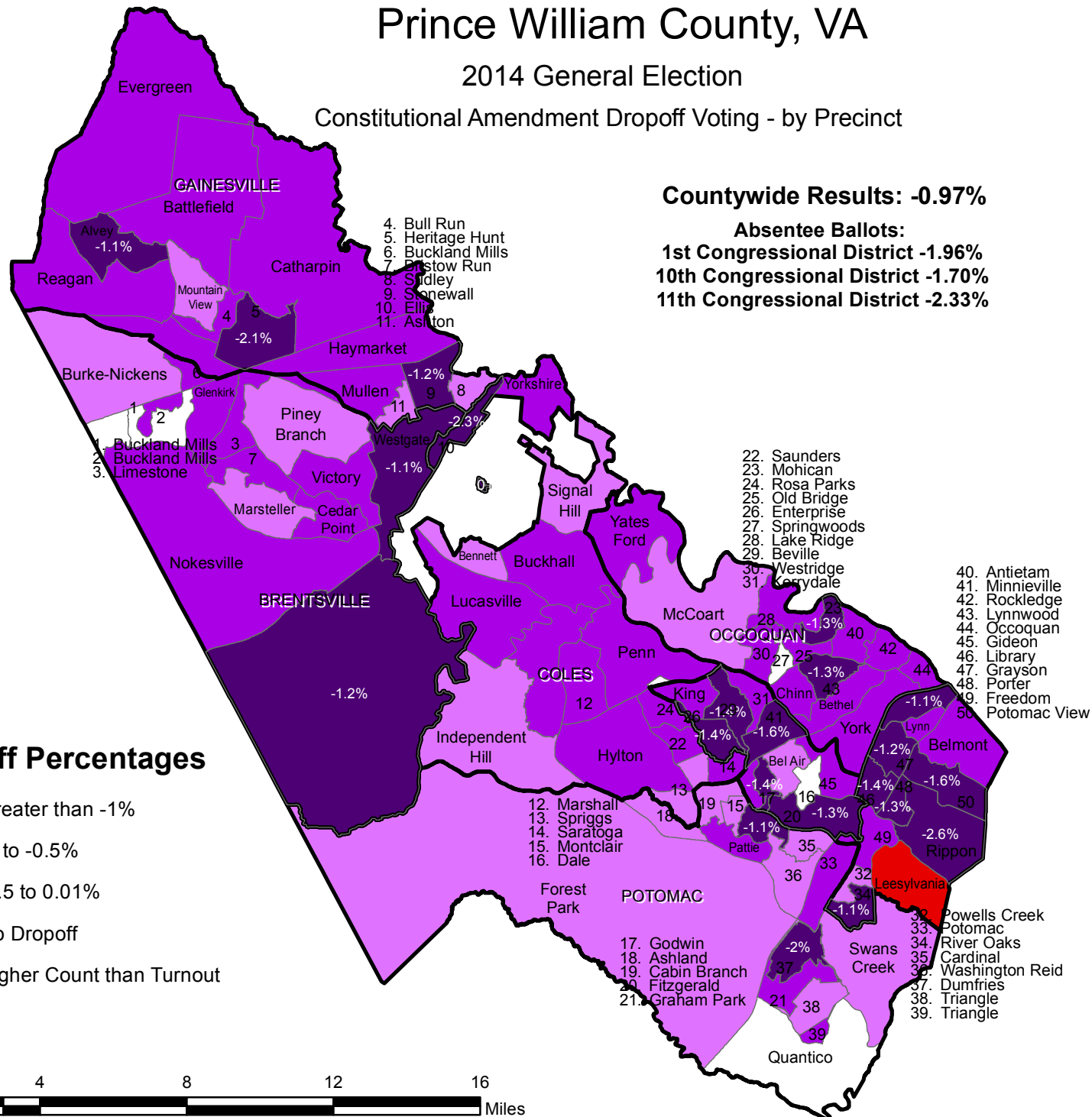
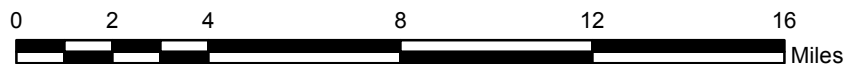
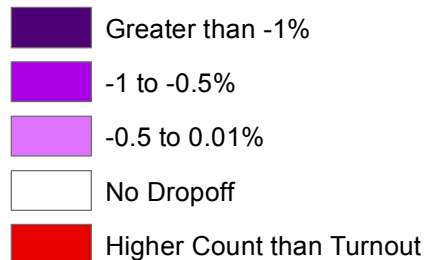
Absentee Ballots:

1st Congressional District -1.96%

10th Congressional District -1.70%

11th Congressional District -2.33%

Dropoff Percentages



Date: 11/27/2014