

VEST VA 2017

State: Virginia

Organization: Voting and Election Science Team (VEST)

Summary of Races included: Senate of Virginia Districts 9 and 22 [Special]

Date File Updated: 10/25/2019

Date Report Updated: 07/28/2021

RDH Validation Code (Github): <https://github.com/nonpartisan-redistricting-datahub/pdv-va>

RDH Criteria	Explanation
<p>Is all raw data available?</p> <p>Yes</p>	<p><u>Accessible files:</u></p> <ul style="list-style-type: none"> ● VA 2017 Precinct-Level Election Results <ul style="list-style-type: none"> ○ Accessed: 06/24/2021, Source: ex: Virginia Department of Elections ○ https://historical.elections.virginia.gov/ ● U.S. Census Bureau's 2020 Redistricting Data Program Phase 2 release <ul style="list-style-type: none"> ○ Accessed: 03/02/2021, Source: U.S. Census ○ https://www.census.gov/geo/partnerships/pvs/partnership20v2/st51va.html ○ Note: One can download five county VTD shapefiles at a time. These files were aggregated together as part of this analysis. ● VEST Virginia 2017 Data File <ul style="list-style-type: none"> ○ Accessed: 06/24/2021, Source: VEST on the Harvard Dataverse ○ https://dataverse.harvard.edu/file.xhtml?persistentId=doi:10.7910/DVN/VNJAB1/5DSWLQ&version=5.1 ● VEST Virginia 2017 Documentation <ul style="list-style-type: none"> ○ Accessed: 06/24/2021, Source: VEST on the Harvard Dataverse ○ https://dataverse.harvard.edu/file.xhtml?fileId=4751070&version=5.1 <p>Note: There were a handful of local municipal files that VEST describes in laying out their precinct shapefile changes. We did not attempt to locate these due to minimal direction from VEST as to where to locate these files and how exactly to use them.</p>
<p>Processing</p>	<p><u>Description of processing steps:</u></p>

<p>steps available?</p> <p>Yes</p>	<ul style="list-style-type: none"> ● VEST’s full processing steps were accessed on 06/24/2021 and can be found via the link above. VEST uses one documentation file for their three VA 2017 files. ● Description of VEST process: <ul style="list-style-type: none"> ○ VEST describes the source files for their election results and precinct shapefiles, which match those listed above. ○ For election results, VEST also mentions that: <ul style="list-style-type: none"> ■ “Absentee ballots and provisional votes were reported at the county or city level throughout the state. These were distributed by candidate to precincts based on their share of the precinct-level reported vote.” ○ For the precinct shapefiles, VEST also mentions that: <ul style="list-style-type: none"> ■ “Virginia election reports often include precinct splits that are obsolete or unused in practice. These have been omitted. In cases where voters were incorrectly assigned to the wrong district the de facto precinct split has been included for that election.” ○ Then VEST lists out the various modifications they made to the 2017 precinct boundaries. This full list can be found in their documentation file. ○ Lastly, VEST notes that “Results are divided across three files. Because precincts can be split across legislative districts, the legislative races are reported with their own geography that divides these split precincts, resulting in shapes that are assigned to exactly one district.”
<p>Able to replicate joining election data and shapefiles?</p> <p>Yes</p>	<p>147 precincts out of 148 election result precincts and 149 shapefile precincts successfully joined between the election data and shapefile.</p> <p>The one election result precinct that did not match was a zero vote precinct, and the two shapefile precincts that did not match appear to have non-substantive areas.</p> <p>VEST’s file contains 147 precincts, which we were all able to join (see below) so it appears as though VEST did not use these unjoined precincts in their final file.</p>
<p>Able to replicate joining demographic</p>	<p>There is no demographic data on the file.</p>

<p>data to block-level shapefiles?</p> <p>N/A</p>	
<p>Able to replicate joining boundary data?</p> <p>N/A</p>	<p>There is no boundary data on the file.</p>
<p>Successfully ran validation?</p> <p>No</p>	<p><u>Election results:</u> Yes</p> <ul style="list-style-type: none"> ● We validated election results at three different levels: <ul style="list-style-type: none"> ○ Multi-district-wide candidate vote totals ○ Countywide party vote totals ○ Precinct-level party votes ● At the statewide total level, the election results matched VEST's. The totals also matched Ballotpedia's election results (https://ballotpedia.org/Virginia_state_legislative_special_elections,_2017) ● At the countywide total level, the RDH election result totals matched VEST's. ● At the precinct-level, the election results matched VEST's by plus or minus one vote. This small discrepancy can be accounted for by differences in the rounding techniques employed by the RDH as compared to VEST. There are 128 precincts where the results match perfectly and 19 where the results are off by one vote. <p><u>Geographies:</u> No</p> <ul style="list-style-type: none"> ● Out of 147 total precincts: <ul style="list-style-type: none"> ○ 114 precincts w/ a difference of 0 km² ○ 12 precincts w/ a difference between 0 and 0.1 km² ○ 6 precincts w/ a difference between 0.1 and 0.5 km² ○ 6 precincts w/ a difference between 0.5 and 1 km² ○ 3 precincts w/ a difference between 1 and 2 km² ○ 6 precincts w/ a difference between 2 and 5 km² ○ 0 precincts w/ a difference greater than 5 km² ● Note that some differences are due to modifications that VEST noted in documentation that RDH did not attempt to replicate

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