

VEST OH 2016

State: Ohio Organization: Voting and Election Science Team (VEST) Summary of Races included: Presidential, U.S. Senate [General] Date File Updated: 04/06/2021 Date Report Updated: 09/22/2021 RDH Validation Code (Github): https://github.com/nonpartisan-redistricting-datahub/pdv-oh/tree/main/vest-oh-2016

RDH Criteria	Explanation
RDH Criteria Is all raw data available? Yes	 Explanation Accessible files: VEST OH 2016 Data File Accessed: 05/26/2021, Source: VEST on the Harvard Dataverse https://dataverse.harvard.edu/file.xhtml?fileId=4499005&datasetVersi onId=246983 VEST OH 2016 Documentation File Accessed: 05/26/2021, Source: VEST on the Harvard Dataverse https://dataverse.harvard.edu/file.xhtml?fileId=4499004&version=56. Q Election Results, SOS 2016 Accessed: 05/26/2021, Source: OH SOS https://www.sos.state.oh.us/elections/election-results-and-data/201 6-official-elections-results/ Note: selected "Results by Precinct (XLSX)" under "Court of Appeals". Precinct Shapefile, 2020 Accessed: 05/26/2021, Source: US Census https://www2.census.gov/geo/tiger/TIGER2020PL/STATE/39_OHIO/39 Note: VEST refers to their precinct shapefile source as 'the U.S.
	Census Bureau's 2020 Redistricting Data Program final release'. We believe this is the 2020 TIGER/Line VTD file. Note: VEST mentions a handful of municipal-level files used in their shapefile processing. We did not attempt to locate these.

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Processing steps available? Yes	 Description of processing steps: VEST's documentation, accessed 05/26/2021, is pasted below: Election results from the Ohio Secretary of State (https://www.sos.state.oh.us/elections/election-results-and-data/). Precinct shapefile from the U.S. Census Bureau's 2020 Redistricting Data Program final release. Note that some VTDs were relabeled to match precinct names and/or precinct codes in the November 2016 general election returns. The following counties include adjustments to account for corporate annexations that are not specified below by precinct: Adams, Allen, Athens, Auglaize, Brown, Butler, Defiance, Franklin, Fulton, Geauga, Guernsey, Holmes, Licking, Lorain, Madison, Marion, Miami, Ottawa, Pickaway, Sandusky, Shelby, Stark, Tuscarawas, Van Wert, Warren, Wayne, Wyandot. VEST also mentions specific boundary changes there were made in Adams, Ashland, Athens, Brown, Butler, Champaign, Clark, Clermont, Clinton, Columbiana, Coshocton, Crawford, Cuyahoga, Defiance, Delaware, Fairfield, Fulton, Franklin, Gallia, Greene, Hamilton, Hocking, Knox, Lake, Logan, Lorain, Lucas, Madison, Medina, Pickaway, Portage, Putnam, Richland, Stark, Summit, Union, Warren, Wood, and Wyandot counties. A full list of these can be found in the documentation. More detailed information about the shapefile processing. 	
Able to replicate joining election data and shapefiles? No	 No, given the documentation they provided we would not be able to follow their steps to complete the join. However, we were able to join 8816 precincts. 125 precinct shapefiles were not joined 79 precinct election results were not joined All 79 of the unjoined precinct election results are mentioned in VEST's documentation. 8 of the 8816 precincts we joined precincts were zero-vote precincts that were initially not present in the election results. 	
Able to replicate joining demographic data to block-level	There is no demographic data on the file.	

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shapefiles? No	
Able to replicate joining boundary data? No	There is no boundary data on the file.
Successfully ran validation? No	 Election results: Yes We validated election results at three different levels: Statewide candidate vote totals Countywide candidate vote totals Precinct-level candidate votes At the statewide total level, the election results matched VEST's. The totals also matched those of OH's election results matched VEST's. The totals also matched those of OH's election results matched VEST's. The totals also matched those of OH's county-level elections/2016/gen/countyxlsx). At the countywide total level, the election results matched VEST's. The totals also matched those of OH's county-level election summary report (https://www.sos.state.oh.us/globalassets/elections/2016/gen/countyxlsx). At the countywide total level, the election results matched VEST's. The totals also matched those of OH's county-level election summary report (https://www.sos.state.oh.us/globalassets/elections/2016/gen/countyxlsx). At the precinct-level, all 887 precincts matched exactly. There were 8 zero-vote precincts in VEST's file that were not present in the election results. These 8 were later added to the election results with zero-votes as they also appeared in the shapefile. Geographies: No Out of 8816 precincts we were able to validate (all but 79 of VEST's precincts): 8033 precincts w/ a difference of 0 km^2 500 precincts w/ a difference between 0 and 1 km^2 196 precincts w/ a difference between 1 and 2 km^2 14 precincts w/ a difference between 1 and 2 km^2 17 precincts w/ a difference between 2 and 5 km^2 19 precincts w/ a difference greater than 5 km^2 In their documentation, VEST mentions shapefile modifications in the following counties: Adams, Allen, Ashland, Athens, Auglaize, Brown, Butler,

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	 Champaign, Clark, Clermont, Clinton, Columbiana, Coshocton, Crawford, Cuyahoga, Defiance, Delaware, Fairfield, Fulton, Franklin, Gallia, Geauga, Greene, Guernsey, Hamilton, Hocking, Holmes, Knox, Lake, Licking, Logan, Lorain, Lucas, Madison, Marion, Medina, Miami, Ottawa, Pickaway, Portage, Putnam, Richland, Sandusky, Shelby, Stark, Summit, Tuscarawas, Union, Van Wert, Warren, Wayne, Wood, and Wyandot counties. The 283 precincts with differences over 1 km^2 are all located in Adams, Ashland, Brown, Butler, Clark, Clermont, Clinton, Columbiana, Coshocton, Crawford, Cuyahoga, Defiance, Delaware, Fairfield, Franklin, Fulton, Gallia, Greene, Hamilton, Hocking, Lake, Logan, Lorain, Lucas, Madison, Marion, Medina, Pickaway, Portage, Putnam, Richland, Stark, Summit, Union, Van Wert, Warren, Wayne, Wood, Wyandot which are all on the above list. VEST does not name the specific precinct shapefile modifications nor share the files they used to make the adjustments, so we are unable to verify the differences.