VEST OH 2018

State: Ohio
Organization: Voting and Election Science Team (VEST)
Summary of Races included: U.S. Senate, Governor, Attorney General, Auditor, Secretary of State, Treasurer [General]
Date File Updated: 04/06/2021
Date Report Updated: 09/21/2021
RDH Validation Code (Github):
https://github.com/nonpartisan-redistricting-datahub/pdv-oh/tree/main/vest-oh-2018

RDH Criteria	Explanation

Is all raw data available?
 	
Yes
	<u>Accessible files:</u>
	● VEST OH 2018 Data File
	    ○ Accessed: 05/24/2021, Source: VEST on the Harvard Dataverse
	    ○ https://dataverse.harvard.edu/file.xhtml?fileId=4499067&version=36.0
	● VEST OH 2018 Documentation File
	    ○ Accessed: 05/24/2021, Source: VEST on the Harvard Dataverse
	    ○ https://dataverse.harvard.edu/file.xhtml?fileId=4499066&version=36.0
	● Election Results, SOS 2018
	    ○ Accessed: 05/24/2021, Source: OH SOS
	    ○ https://www.sos.state.oh.us/elections/election-results-and-data/2018-official-elections-results/
	    ○ Note: selected "Precinct-Level Results by County - Statewide and District Offices As Amended by Miami County (XLSX)".
	● Precinct Shapefile
	    ○ 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.
Processing steps available? Yes	**Description of processing steps:** ● VEST's documentation, accessed 05/24/2021, 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 2018 general election returns. ○ The following counties include adjustments to account for corporate annexations that are not specified below by precinct: Adams, Athens, Auglaize, Brown, Butler, Defiance, Franklin, Geauga, Guernsey, Licking, Lorain, Madison, Marion, Miami, Ottawa, Pickaway, Shelby, Stark, Tuscarawas, Warren, Wayne, Wyandot. ○ This includes the amended Miami County results from January 2019, which reflect 6282 early votes that had gone uncounted. ● VEST also mentions specific boundary changes there were made in Athens, Brown, Butler, Champaign, Clark, Clermont, Coshocton, Crawford, Cuyahoga, Delaware, Fairfield, Franklin, Fulton, Greene, Hamilton, Knox, Lake, Lorain, Medina, Pickaway, Putnam, Richland, Stark, Summit, Union, Warren, Wood, and Wyandot Counties. A full list of these can be found in the documentation. **Information not in their processing steps:** ● 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 8879 precincts. ● 62 precinct shapefiles were not joined ● 33 precinct election results were not joined All of the 33 unjoined precinct election results are mentioned in VEST's documentation. 8 of the 8879 precincts we joined precincts were zero-vote precincts that were initially not present in the election results.
Able to	There is no demographic data on the file.

replicate joining demographic data to block-level shapefiles? N/A	
Able to replicate joining boundary data? N/A	There is no boundary data on the file.

Successfully ran validation?
 	
No
	<u>Election results:</u> 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 summary report (https://www.sos.state.oh.us/elections/election-results-and-data/2018-official-elections-results/?__cf_chl_jschl_tk__=pmd_pF4JhQgmB4xFFSS2bepbnYuTF8qIzoGOPGIhNeXr6UI-1632241478-0-gqNtZGzNAiWjcnBszQkR).
	● At the countywide total level, the election results matched VEST's. The totals also matched those of OH's county-level election summary report (lhttps://www.sos.state.oh.us/elections/election-results-and-data/2018-official-elections-results/?__cf_chl_jschl_tk__=pmd_pF4JhQgmB4xFFSS2bepbnYuTF8qIzoGOPGIhNeXr6UI-1632241478-0-gqNtZGzNAiWjcnBszQkR).
	● At the precinct-level, all 8904 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.
	
	<u>Geographies:</u> No
	● Out of 8879 precincts we were able to validate (all but 33 of VEST's precincts):
	    ○ 8389 precincts w/ a difference of 0 km^2

- 343 precincts w/ a difference between 0 and .1 km^2
- 104 precincts w/ a difference between .1 and .5 km^2
- 16 precincts w/ a difference between .5 and 1 km^2
- 11 precincts w/ a difference between 1 and 2 km^2
- 9 precincts w/ a difference between 2 and 5 km^2
- 7 precincts w/ a difference greater than 5 km^2

- In their documentation, VEST mentions shapefile modifications in the following counties: Adams, Athens, Auglaize, Brown, Butler, Champaign, Clark, Clermont, Coshocton, Crawford, Cuyahoga, Defiance, Delaware, Fairfield, Franklin, Fulton, Geauga, Greene, Guernsey, Hamilton, Knox, Lake, Licking, Lorain, Madison, Marion, Medina, Miami, Ottawa, Pickaway, Putnam, Richland, Shelby, Stark, Summit, Tuscarawas, Union, Warren, Wayne, Wood, and Wyandot Counties.
- The 147 precincts with differences over .1 km^2 are all located in Butler, Clark, Clermont, Coshocton, Crawford, Delaware, Fairfield, Franklin, Fulton, Greene, Hamilton, Lake, Lorain, Madison, Marion, Medina, Pickaway, Putnam, Stark, Union, Warren, Wood and Wyandot counties, 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.