VEST WA 2018

State: WA

Organization: VEST

Date Updated: Report Date: 4/9/21, File Date: 3/17/21

1. Is all raw data available

Yes
- Accessible files:
    - VEST Precinct-Level Shapefile with Election Results for 2018
        - Date accessed: 04/01/21
        - https://dataverse.harvard.edu/dataverse/electionscience
        - Source: Harvard Dataverse
    - WA 2018 Precinct Shapefile
        - Date accessed: 04/01/2021
        - https://www.sos.wa.gov/elections/research/election-results-and-voters-pamphlets.aspx
            - In order to download the data, navigate to 2018 Elections then click on Results within the General tab, select Export Results on the new page, right click on .csv icon within All County Precincts (participating counties) to save.
        - Source: Washington Secretary of State
        - Notes: Contained precinct boundary files, but did not contain all relevant election information at the precinct level. Primarily contained information on ballot statuses and county-wide election results.
    - 2018 General Election Results by Precinct
        - Date accessed: 04/01/2021
        - https://results.vote.wa.gov/results/20181106/export/20181106_allcounties.csv
            - In order to download the data, navigate to 2018 Elections then click on Results within the General tab, select Export Results on the new page, right click on .csv icon within All County Precincts (participating counties) and "Save as..." .csv

- ■ Source: Washington Secretary of State
- ■ Notes: Contained election results at the precinct level and the county level. Some precinct results were intentionally obfuscated for voter protection, as such the precinct-level vote totals are missing 1,381 votes when compared to state reported totals. However, the countywide totals align with the state reported totals
  - ○ 2018 King County Election Results
    - ■ Date accessed: 04/01/2021
    - ■ https://data.kingcounty.gov/Voting-Elections/2018-General-Election-eCanvass/ghxg-x8xz
      - ● In order to download the data, click on the Export tab, and then click on CSV
    - ■ Source: King County Board of Elections
    - ■ Notes: The General Election results file only contained county-wide votes for King County
  - ○ 2018 WA Yakima County Election Results
    - ■ Date Accessed: 04/01/21
    - ■ https://results.vote.wa.gov/results/20181106/yakima/
      - ● In order to download the data, right click on the Precinct CSV tab under Export Results tab and save as .csv
  - ○ King County Precinct Name Conversion
    - ■ Last accessed 04/01/21
    - ■ https://gis-kingcounty.opendata.arcgis.com/datasets/2018-voting-districts-for-king-county-votdst-area-2018/data?geometry=-122.297%2C47.651%2C-121.858%2C47.732
      - ● In order to download the data, click on the Download tab and select Spreadsheet under Full Dataset. The file will be saved as 2018_Voting_Districts_for_King_County___votdst_area_2018.csv
    - ■ Occasionally the site is down - check again next day
  - ○
- ● Inaccessible files:
  - ○ N/A

2. Processing steps available?

Yes, there are some processing steps available.

Elections data with processing steps:
- ● Distribution of votes in King County
  - ○ VEST describes that a dozen votes were reported county wide at the "Elections office", 10 for the democratic candidate and 1 for the republican candidate. Because there were fewer unassigned votes than precincts, then 10 precincts with the most democratic vote

totals were selected to receive one additional democratic vote, and the precinct with the most reported republican votes received the extra republican vote.

- Obfuscation of precinct results
  - As previously stated, the voting totals of some precincts with low numbers of votes were intentionally obfuscated and set to 0 in the general election data file. Such counties were marked with an asterisk, "(*)", following the "CountyName" column.
  - Countywide results were still reported in these obfuscated counties, and the VEST precinct data was not obfuscated in the same way. It's possible that the general election results were obfuscated after VEST acquired the data, or that VEST was able to find county-level precinct data independently through each county. However, this second possibility seems less likely, as independent county data for Thurston county was obfuscated in the same manner as the state-wide election data when viewed on March 15th, 2021: https://results.vote.wa.gov/results/20181106/thurston/precincts-2.html

Shapefile edits missing processing steps:
- Okanogan county
  - VEST merged a handful of precincts in Okanogan county, the vote totals remain balance and reflect the sum of the precincts combined. The decision to merge certain precincts is not clear.
- Snohomish, Grant, Walla Walla, Benton, Yakima, and Lewis counties have additional precincts that list 0 votes received and are not present in the SoS's shapefiles
- VEST and waterways
  - VEST trims the SoS's precinct shapefiles to not extend through internal rivers and lakes and more closely hug coastlines
  - List of counties affected: Clallam, Clark ,Cowlitz, Grays Harbor, Jefferson, King, Kitsap, Mason, Pacific, Pierce, Skagit, Skamania, Thurston, Wahkiakum, and Whitman county.

3. <u>Able to replicate joining election data and shapefiles?</u>

Yes

- VEST merged precincts in Okanogan county and gave the merged precincts a unique county identifier, "OKC", differing from the original "OK"
  - OKC0000017, OKC0000025, OKC0000179, OKC0000187, OKC0000200, OKC0000225 were merged to form OKC0000004
- Otherwise, a few county precinct names needed to be changed between the election data and shapefile before the two could be merged
  - Franklin, Thurston, Grays Harbor, county precinct codes needed to be right-shifted to length 3 with 0s as padding
  - Kitsap county precinct codes needed leading 1s and 0s stripped
  - Pierce county needing a dash added after the first two characters in the precinct name

4. Able to replicate joining demographic data to block-level shapefiles?

N/A, no demographic data.

5. Able to replicate joining boundary data?

N/A, no boundary data.
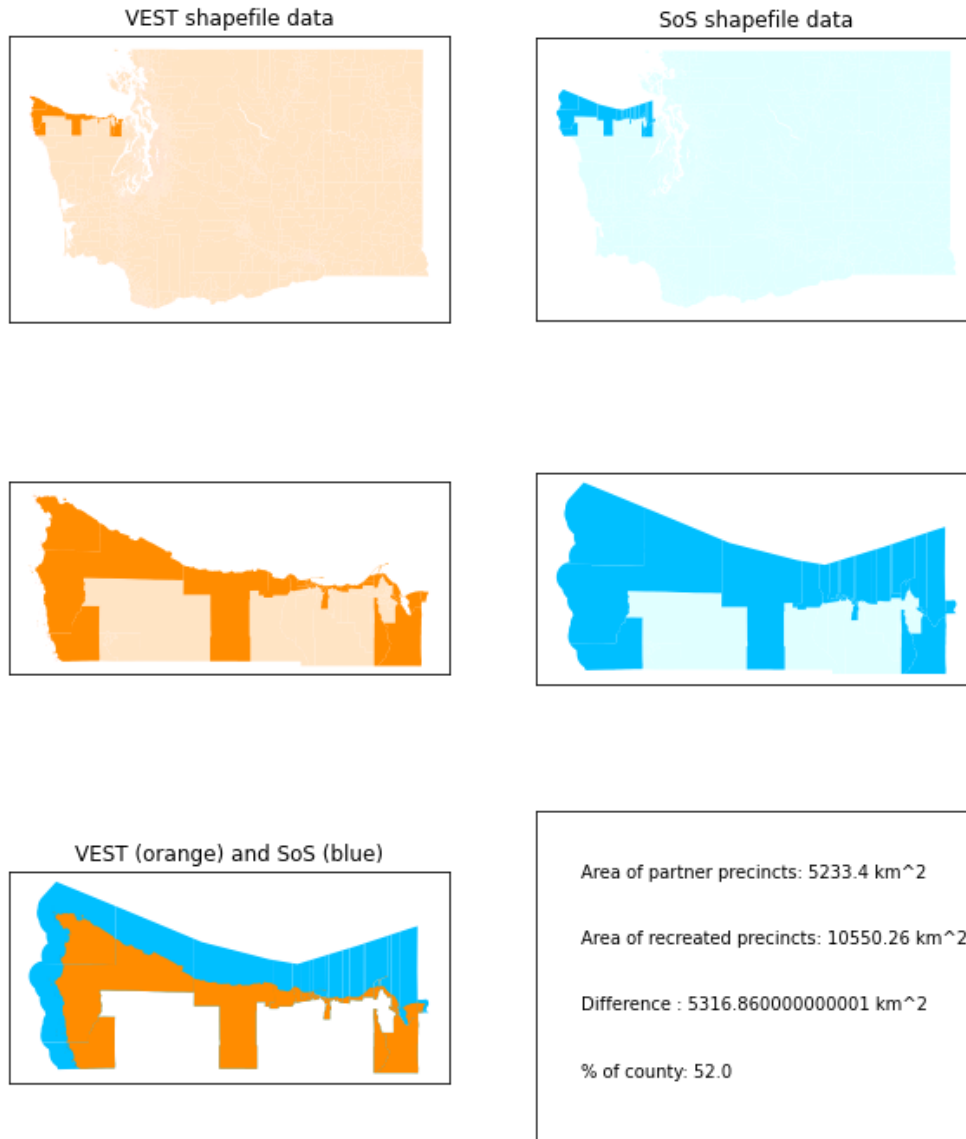
6. Successfully ran validation?

Yes

Election counts:
- All VEST precincts had matching vote counts to the SoS data
- For precincts whose vote totals were obfuscated in the SoS data, but present in the VEST data, the additional vote totals in the VEST data always equals the difference between the countywide-reported vote totals and precinct-level vote totals for each county in the SoS data. To summarize, *while we are not currently able to directly validate the exact vote counts for obfuscated precincts, we can validate that VEST allocated the correct amount of "missing" votes to each county.*

Precinct shapefiles:
- VEST shapefiles matched that of the SoS datafile, with two important exceptions/qualifications
  - First, many VEST precincts had geographies that were water removed from the district. These VEST precinct shapefiles are considered valid. An example of this is shown below:

County CM

VEST shapefile data

SoS shapefile data

VEST (orange) and SoS (blue)

Area of partner precincts: 5233.4 km^2

Area of recreated precincts: 10550.26 km^2

Difference : 5316.860000000001 km^2

% of county: 52.0

- ○ Then, VEST about 20 small precincts with no reported vote that were not present in the SoS data. These precincts could have arisen from updated precinct drawings to signify business districts or other non-residential areas. Because these additional precincts were quite small within each county and contained zero votes, we do not think they significantly alter VEST's data, or any subsequent use of it.