

## VEST AK 2020

**State:** Alaska

**Organization:** Voting and Election Science Team (VEST)

**Summary of Races included:** Presidential, U.S. Senate, House At-Large [General]

**Date File Updated:** 06/02/2021

**Date Report Updated:** 06/11/2021

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

RDH Criteria	Explanation
<p>Is all raw data available?</p> <p>Yes</p>	<p><b><u>Accessible files:</u></b></p> <ul style="list-style-type: none"> <li>● VEST, Alaska 2020 Data File <ul style="list-style-type: none"> <li>○ Accessed: 06/10/2021, Source: VEST on the Harvard Dataverse</li> <li>○ <a href="https://dataverse.harvard.edu/file.xhtml?fileId=4773530&amp;version=10.0">#</a></li> </ul> </li> <li>● VEST, Alaska 2020 Documentation <ul style="list-style-type: none"> <li>○ Accessed: 06/10/2021, Source: VEST on the Harvard Dataverse</li> <li>○ <a href="https://dataverse.harvard.edu/file.xhtml?fileId=4789405&amp;version=10.0">#</a></li> </ul> </li> <li>● Precinct Shapefile for Alaska <ul style="list-style-type: none"> <li>○ Accessed: 06/10/2021, Source: Alaska Division of Elections</li> <li>○ <a href="https://www.elections.alaska.gov/Core/districtmaps.php">#</a></li> <li>○ Note: Select “Statewide Precinct Shape files” on the page above to download the relevant file.</li> </ul> </li> <li>● Election results for Alaska, November 3, 2020: <ul style="list-style-type: none"> <li>○ Accessed, 06/10/2021, Source: Alaska Division of Elections</li> <li>○ <a href="https://www.elections.alaska.gov/results/20GENR/index.php">#</a></li> <li>○ Note: At the link above, right-click the hyperlink for “Results By Precincts (Text)” under “Statewide Summary” and click "Save File As" and you can download the txt file locally.</li> </ul> </li> </ul>
<p>Processing steps available?</p> <p>Yes</p>	<p><b><u>Description of processing steps:</u></b></p> <ul style="list-style-type: none"> <li>● VEST’s processing steps, which can be accessed at the link above, were accessed on 06/10/21.</li> </ul>

	<ul style="list-style-type: none"> <li>● The first part of their processing steps mentions the sources for their election results and precinct shapefile, which are the same as the sources listed above.</li> <li>● The second part mentions how they carried out the two different types of vote allocation:             <ul style="list-style-type: none"> <li>○ <i>Early, Absentee, and Questioned votes are only reported at the State House district level (since Alaska has portions of the state with no lower level of government, HDs serve a similar purpose as counties do in other states for the purpose of reporting votes). These votes are apportioned to precincts by candidate in the same shares that the Election Day vote was split among precincts within an HD.</i></li> <li>○ <i>Similarly, federal-only ballots that are reported at the statewide level were apportioned to precincts by candidate based on their share of the precinct-level vote.</i></li> </ul> </li> <li>● We were able to follow this step to allocate the State House district level and federal-only votes, although, as is mentioned below, our allocation resulted in minor differences of up to 4 votes in certain precincts, likely due to differences in rounding methods and possible differences in ordering in which these allocations were carried out.</li> </ul> <p><b><u>Information not in their processing steps:</u></b></p> <ul style="list-style-type: none"> <li>● VEST’s documentation is not clear as to whether they incorporated the early, absentee and questioned votes into their allocation process for federal-only ballots. They write “based on their share of the precinct-level vote” but this could mean either Election Day precinct-level vote or precinct-level vote after allocating the early, absentee and questioned votes according to their method.</li> </ul>
<p><b>Able to replicate joining election data and shapefiles?</b></p> <p><b>Yes</b></p>	<p>Yes, following VEST’s documentation we were able to fully join all 441 election data precincts to shapefiles.</p>
<p><b>Able to replicate joining demographic data to</b></p>	<p>There is no demographic data on the file.</p>

<p>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 validated election results?</p> <p>Yes</p>	<p><b><u>Election results:</u></b></p> <ul style="list-style-type: none"> <li>● We validated election results at three different levels: <ul style="list-style-type: none"> <li>○ Race totals</li> <li>○ Districts (which, as VEST mentions, effectively function as counties)</li> <li>○ Precincts</li> </ul> </li> <li>● Due to the vote allocation system described above, we checked the election results at the race total before allocating any state-wide or district-wide votes and at the district and precinct levels after allocation. Because we do not know VEST’s exact voting allocation system we expected some minor differences to be present.</li> <li>● At the race total level, the election results matched exactly before and after the voter allocation. The totals also matched those of Alaska's election summary report (<a href="https://www.elections.alaska.gov/results/20GENR/data/sovc/ElectionSummaryReportRPT24.pdf">https://www.elections.alaska.gov/results/20GENR/data/sovc/ElectionSummaryReportRPT24.pdf</a>)</li> <li>● At the State House district level, after vote allocation, there were differences present for 2 candidates, across 3 districts, although the largest difference for any particular race in one State House was 1 vote.</li> <li>● At the precinct level, after vote allocation, there are differences in 439 of the 441 precincts, although the max difference between a race’s results in one precinct is 4 votes and the average difference is 1.17 votes.</li> <li>● In summary, although there are differences in the election results at the State House district and precinct levels, since the race totals match and the differences are very small, we believe they are due to slight variations in how vote allocation was performed. The allocation differences are slightly larger than other VEST states because the two allocations build on top of each other, which serves to magnify the differences.</li> </ul>

Geographies:

- All 441 of the precincts have a difference of 0 km<sup>2</sup>.