

# Investigative Task 2

Don't forget to write and sign the Academic Honesty Statement Due on Monday 10/02/2017

Last year was an exciting (or discouraging, depending on your viewpoint) year to be an American voter. I was just wondering if there was any difference in the way Republican voters were supporting Donald Trump between the Red States and Blue States. Below is the data , by state color of the percentage of Republican Primary voters who supported Trump Source <[link](#)>

Blue State	Percentage of Republican Vote	Color	Red State	Percentage of Republican Vote	Color	Neutral State	Percentage of Republican Vote	Color
Massachusetts	52.03	Blue	New Hampshire	48.15	Red	Iowa	31.61	Neutral
Vermont	35.52	Blue	South Carolina	38.27	Red	Nevada	48.46	Neutral
Hawaii	42.92	Blue	Alabama	49.56	Red	Georgia	41.98	Neutral
District of Columbia	13.91	Blue	Alaska	37.62	Red	Minnesota	23.02	Neutral
Illinois	39.82	Blue	Arkansas	35.66	Red	Virginia	37.36	Neutral
New York	60.41	Blue	Oklahoma	30.68	Red	Kentucky	36.55	Neutral
Connecticut	59.08	Blue	Tennessee	43.2	Red	Louisiana	42.76	Neutral
Maryland	56.11	Blue	Texas	28.92	Red	Maine	33.02	Neutral
Rhode Island	64.28	Blue	Kansas	23.61	Red	Michigan	38.42	Neutral
Oregon	66.61	Blue	Idaho	29.02	Red	Florida North Carolina	47.31	Neutral
			Mississippi	48.5	Red	Ohio	41.31	Neutral
			Missouri	41.9	Red	Arizona	36.17	Neutral
			Utah	14.03	Red	Wisconsin	49.42	Neutral
			Indiana	54.38	Red	Delaware	35.66	Neutral
			Nebraska West Virginia	64.72	Red	Pennsylvania	62.07	Neutral
				81.79	Red		57.61	Neutral

Google Sheet <[link](#)>

Using this data, write a report describing any differences between the States in how Republican voters are supporting Donald Trump. A complete report will include an *appropriate* graphical display accompanied by *appropriate* measures of shape, center and spread. A well written description of distribution of the voter support (in *context* of course) must also be included. See attached Rubric

**Investigative Task 2**

	<b>Components</b>	<b>Comments</b>
Think	Demonstrates clear understanding of statistical concepts, vocabulary, and procedures in analyzing and describing these data.	
Show	<b>Visual/Numerical:</b> <ul style="list-style-type: none"> <li>○ 2 or more Comparative Graphs</li> <li>○ well-labeled</li> <li>○ correctly constructed</li> <li>○ summary statistics correct</li> </ul>	
Tell	<b>Verbal:</b> Describes the distribution of Trump supporters <i>in context</i> , including... <ul style="list-style-type: none"> <li>○ shapes</li> <li>○ Summary Statistics and Uses Median/IQR</li> <li>○ Addresses Red State outlier</li> </ul> The written analysis... <ul style="list-style-type: none"> <li>○ also interprets at least one quartile, or the max or min <i>in context</i> <ul style="list-style-type: none"> <li>○ Looks for outliers</li> <li>○ identifies the W's</li> <li>○ uses statistical vocabulary correctly</li> <li>○ avoids speculation</li> </ul> </li> </ul>	

Components are scored as **Essentially correct**, **Partially correct**, or **Incorrect**

**1: Visual/Numerical**

E – Has all 4 features

P – Has only 3 of the 4 features, but attempts an appropriate graph (ex: histogram)

I – Graph is not appropriate (ex: bar chart), has many errors, or is missing

**2: Shape**

E – Identifies skewness to the right for Red States and compares to at least one other category

P – Mis-identifies skewness OR overlooks shape differences

I – Description of shape is missing or incorrect

**3: Center and Spread**

E – Correctly interprets median and IQR in context

P – Correctly interprets only one of median/IQR OR lacks context OR uses mean and SD

I – Has more than one of the three shortcomings described in “P”

**4: Written Analysis**

E – Has all 4 listed properties.

P – Has only 2 or 3 of the listed properties.

I – Has fewer than of the properties.

**Scoring**

E's count 1 point, P's are 1/2

**Grade:** sum of 4 components; rounding based on overall communication quality \*25

**Name** \_\_\_\_\_ **Grade** \_\_\_\_\_