

1. We would choose to use the median tool to calculate given the population data. The reason is that there is a big impact on the information derived from the mean calculation in relation to the standard deviation when there are a few counts with very large values. Furthermore, there are a few features that have a much higher count and therefore have a much larger impact on the mean calculation. Therefore, the data calculated by using the mean won't be as accurate and therefore it's better to use the median tool in order to calculate more accurate information based on the given data.

2. Holiday: Yes, it can be seen that there is a big difference in the usage of bikes depending on the weather during the holiday. When the weather is over 13 degrees, the usage of bikes is more than double. Stdv change on the usage of bikes in regards to the temperature is also quite large.

Weekday: There is no substantial change in the bicycle count. The results don't differ much in the mean and STDV when calculating the usage of bikes in accordance to the temperature. Therefore, it's difficult to conclude that there is a conclusive connection with the weekday records in regards to the usage of bikes to the temperature change.

3. It is problematic to look at the covariance relationship between the temperature and season because we chose to represent seasons as an arbitrary discrete number of values (from 0 to 3). Seasons are cyclic, therefore the information we get from calculating the mean of these values doesn't tell us much. The relationship between the different variables is not linear, so using the covariance tool will not yield useful data. We can also see this by the result we get, the result is a small negative number which shows us that there isn't much of a correlation between the season and temperature in regards to the covariance relationship.