Inferential Statistics

I used this opportunity to compare variables against each other in regards to how significant their presence was in determining the value of the home (exemplified by taxvaluedollarcnt in my dataset).

The first test I ran was to see if the housing price of a home with 3 or more garages was the same as a house with a hot tub/spa. I figured that both features of a home indicate wealth, so the question was are these factors the same in terms of home value. It turns out that the prices of homes with 3 or more garages are not the same as houses with a hot tub/spa at a 99% significance level. The mean housing price of a home with 3 or more garages was greater than a home with a hot tub/spa in this dataset.

The next test I ran was to see if the values of houses with multiple stories are different than houses with central air conditioning. Living in the LA region (where my dataset is from) I know that there are some nice houses that are 1 story. Also, I know that not every house has central air conditioning despite the high temperatures. Based on my analysis the data shows that houses with multiple stories and houses with central air conditioning have similar housing prices at the 99% significance level.

Following that test, I ran a statistical test to see if the mean housing price of houses with decks was statistically different from the mean housing price of houses with pools. Both are features of higher end homes, the question is does one tend to lead to higher prices than the other? Nonetheless, based on my findings, it can be said with a 99% significance level houses with pools and houses with decks have similar housing prices.

The last test I ran was to see if having more than the average number of bathrooms led to a different home valuation compared to a home having more than the average number of bedrooms. Again, we know from experience that having more bedrooms/bathrooms leads to a higher home valuation, but does one tend to lead to a higher home valuation than the other? After running my analysis, it can be said with a 99% significance level that houses with more than the average number of bathrooms have different prices than houses with more than the average number of bedrooms.