

Business Statistics and Analysis

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- Consider only 'Single Family Housing'.
TYPE = 1 and STRUCTURETYPE = 1

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Some more cleansing of data

- The VALUE variable may have a negative or very low value.
- For our analysis we will delete all housing units which have a market value of less than 1,000\$.
- This would also delete all data on housing units which are rental units, OWNRENT = '2'

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- ❑ Choose only those housing units that have a market value which is 1000 dollars or greater, that is, $VALUE \geq \$1000$.
- ❑ Choose only the 'Single Family Units', that is, $STRUCTURETYPE = 1$ and $TYPE = 1$.



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After data cleaning...

- ❑ Calculate various descriptive statistics for the VALUE variable.
- ❑ Visualize the empirical distribution of VALUE.
 - Plot a histogram of VALUE.
 - Plot a histogram of $\text{Ln}(\text{VALUE})$.

Which of these two histograms more closely resemble a Bell curve?

- ❑ Select your set of independent variables or the X variables.

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Some tips for selecting “X” variables...

1. Number of “X” variables need to be less than 16.
2. You need to appropriately code the categorical variables.

- Collapsing categories.

METRO3: ‘1’ → Central city area

‘2’, ‘3’, ‘4’ or ‘5’ → *Not a* Central city area

3. You may try out the natural logarithmic or other transformation of variables.
4. Think about appropriateness of using the various “X” variables in the model.

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Your report should cover the following...

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2. The estimated regression model along with explanation of any variable transformations you have done.
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