Stat 696, Example Application of `knitr`

YOUR NAME

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The *insert reason here. e.g. skewness* of growth rate suggested a log transformation. However, growth rate contains some negative values as well as some zero values. For this reason, we used the following modified log transformation:

$$p\log(\text{growth rate}) = \begin{cases} \log(growthrate + 0.15) & \text{if growth rate} > 0 \\ -\log(-growthrate + 0.15) & \text{if growth rate} < 0. \end{cases}$$

Note that since this is a one-to-one transformation ...

In this dataset there were two measures of the size of a municipality: population and population density. Unsurprisingly, the correlation between these two measures was relatively high (0.67). In the interest of parsimony and to mitigate possible colinearity issues, we decided to consider only one of these variables to construct our model. Population density had a moderate correlation with mean income per person (0.49) whereas population had a relatively low correlation with income (0.29). To hedge against problems with colinearity, we decided to consider population for the model building process.