# Data Visualization

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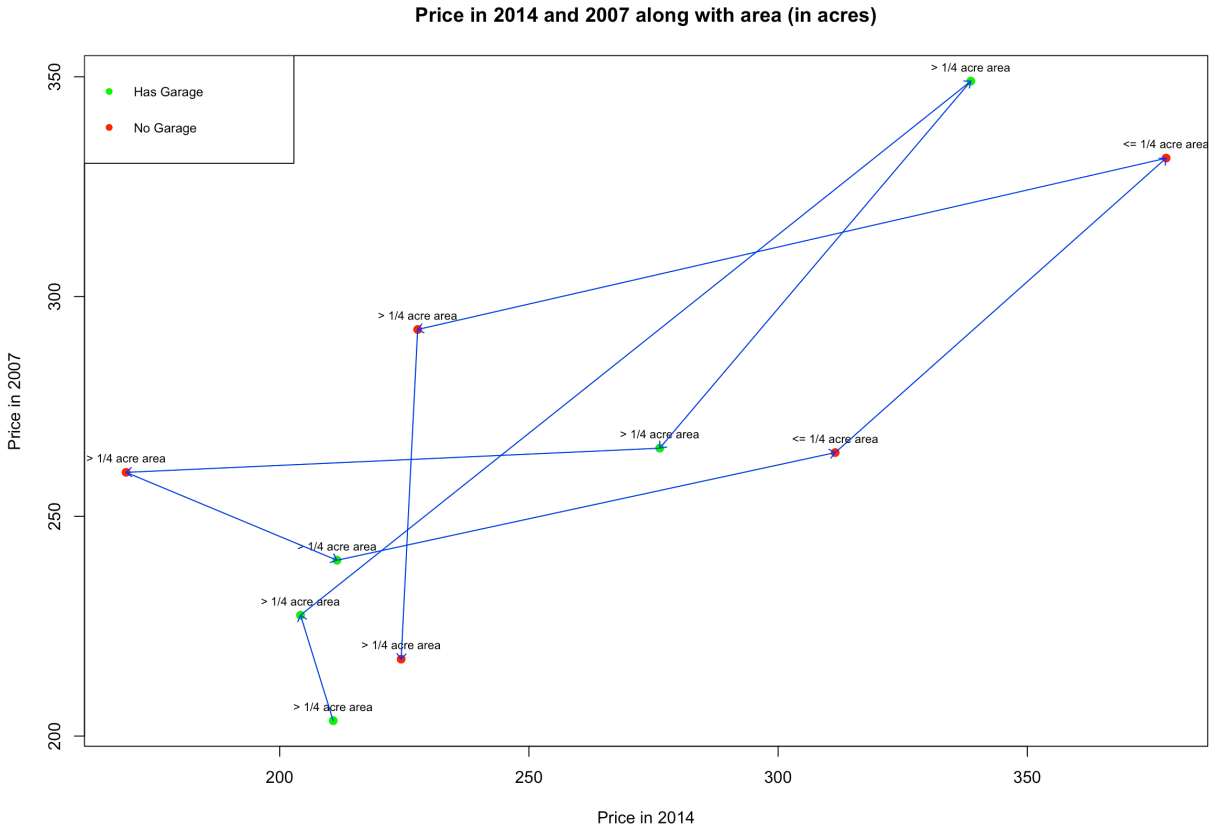
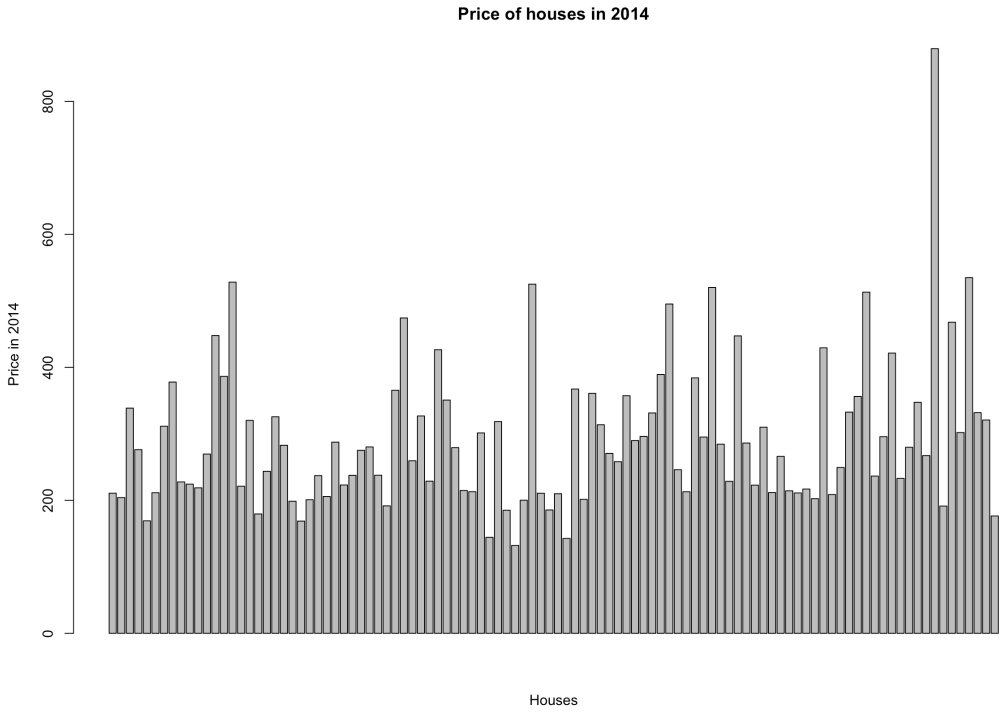
**Dataset - housing_price.csv**

a. Charts created using basic graphics functions:

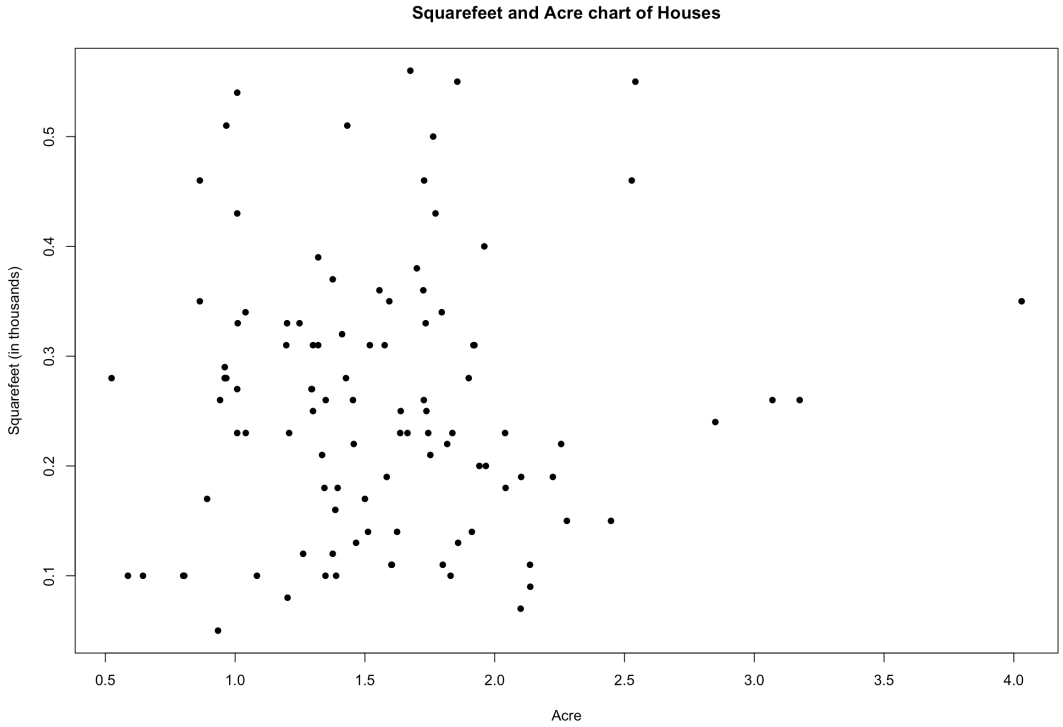



The above plot only has a subset of data points from the dataset. I took the subset of the dataset so that the chart doesn't look cluttered with all the arrows, lines and texts.
This chart has **text** (the acre is displayed next to each data points using text function), **baseline** (the purple line drawn using abline function), **arrows** (blue colored arrows connecting data points drawn using arrows function), **legend** (on the top right corner displaying if the houses has/does not have garage).

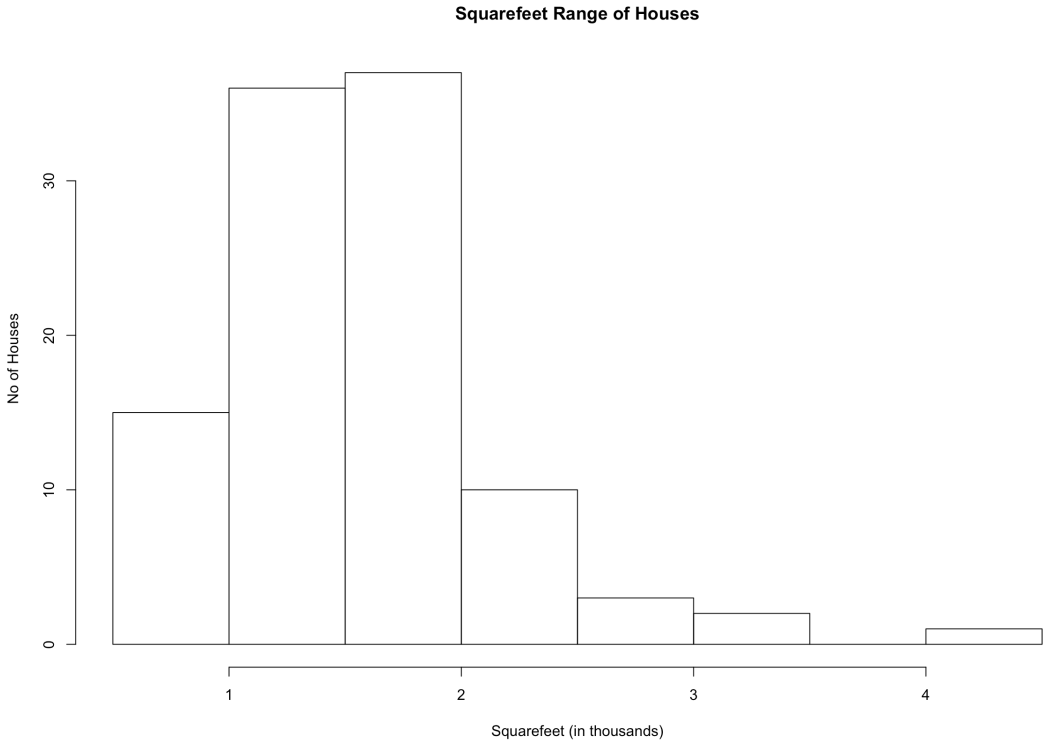
Below chart is a barplot of prices in 2014.




Below chart is a plot of squarefeet and acre of all the houses.

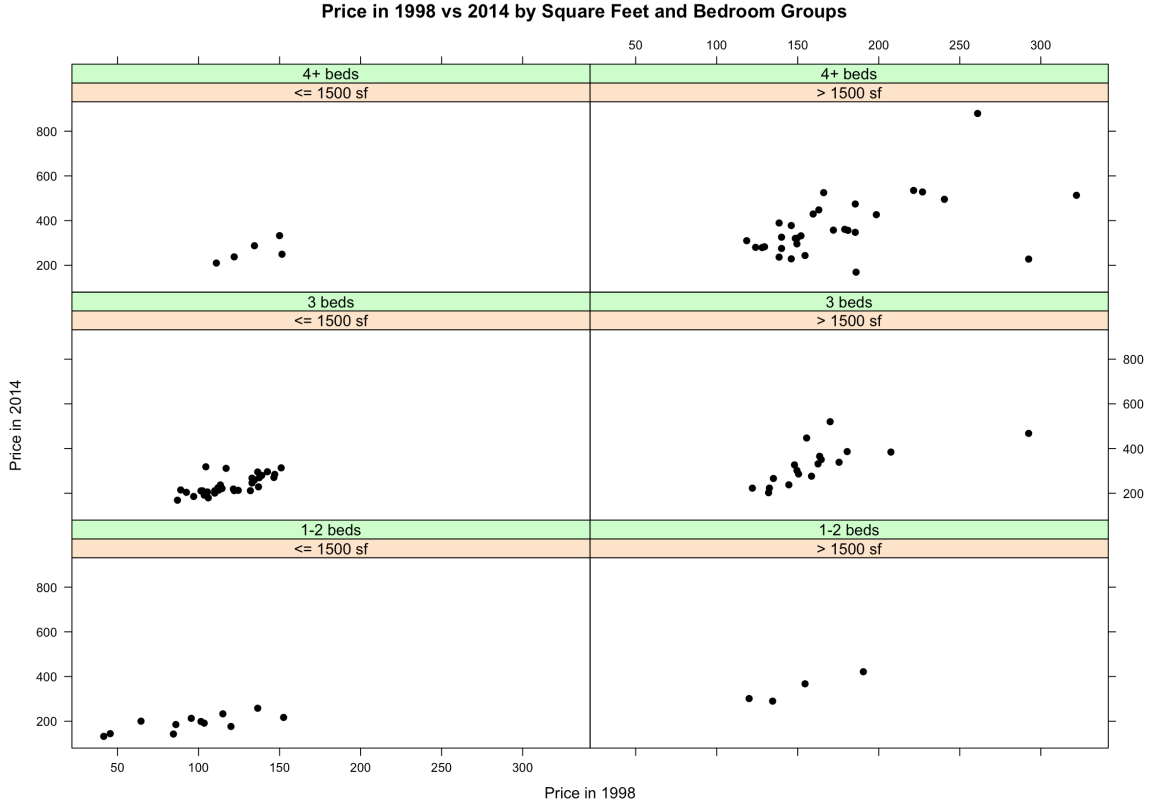



Below chart is a histogram of the squarefeet range of houses.

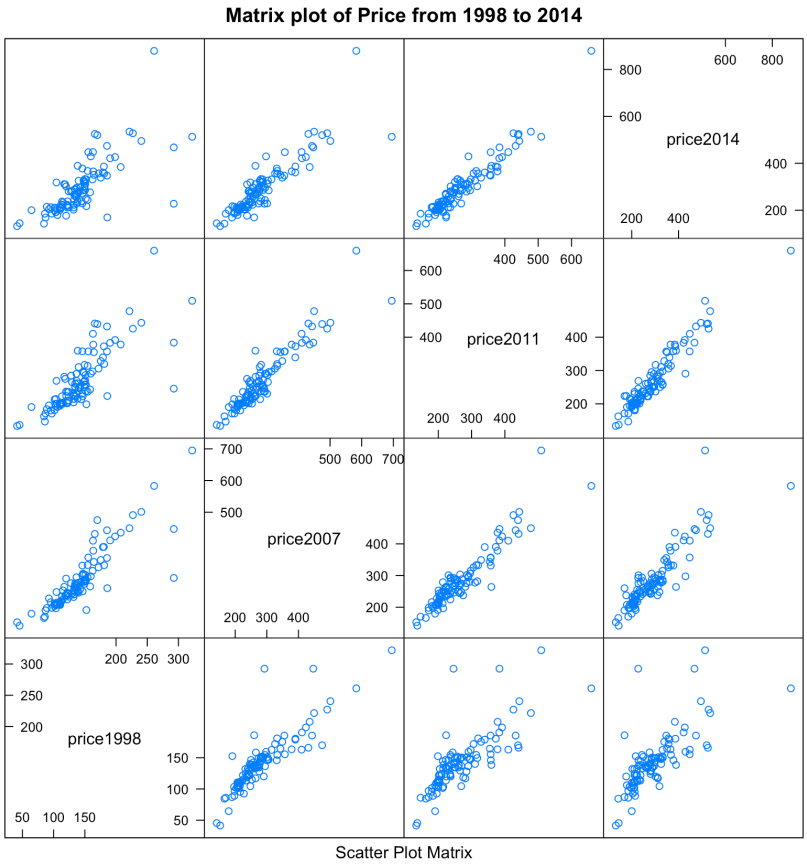



b. Charts created using lattice package

Below chart is the price of houses in 1998 versus 2014 grouped by square feet and bedrooms.

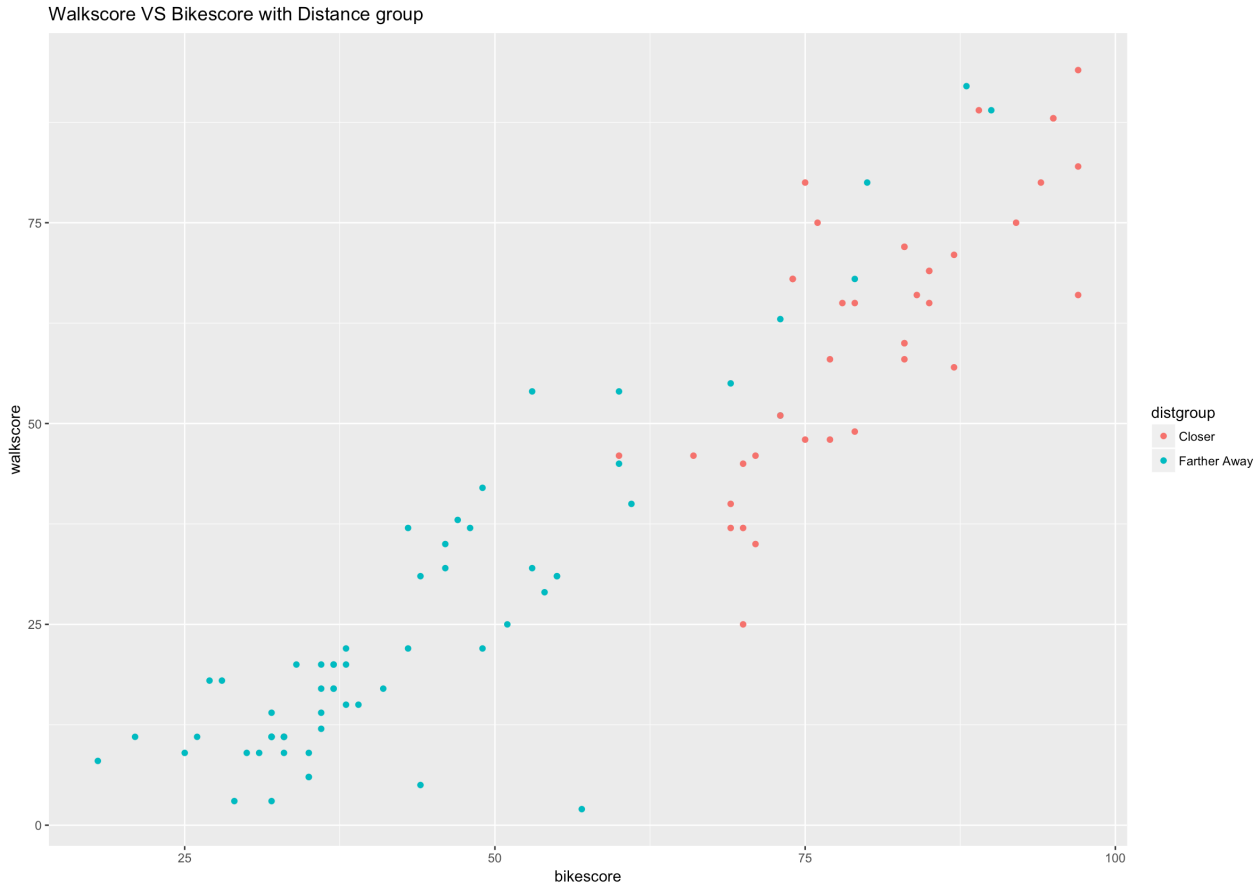


Below chart is a plot matrix of prices of houses in 1998, 2007, 2011 and 2014.



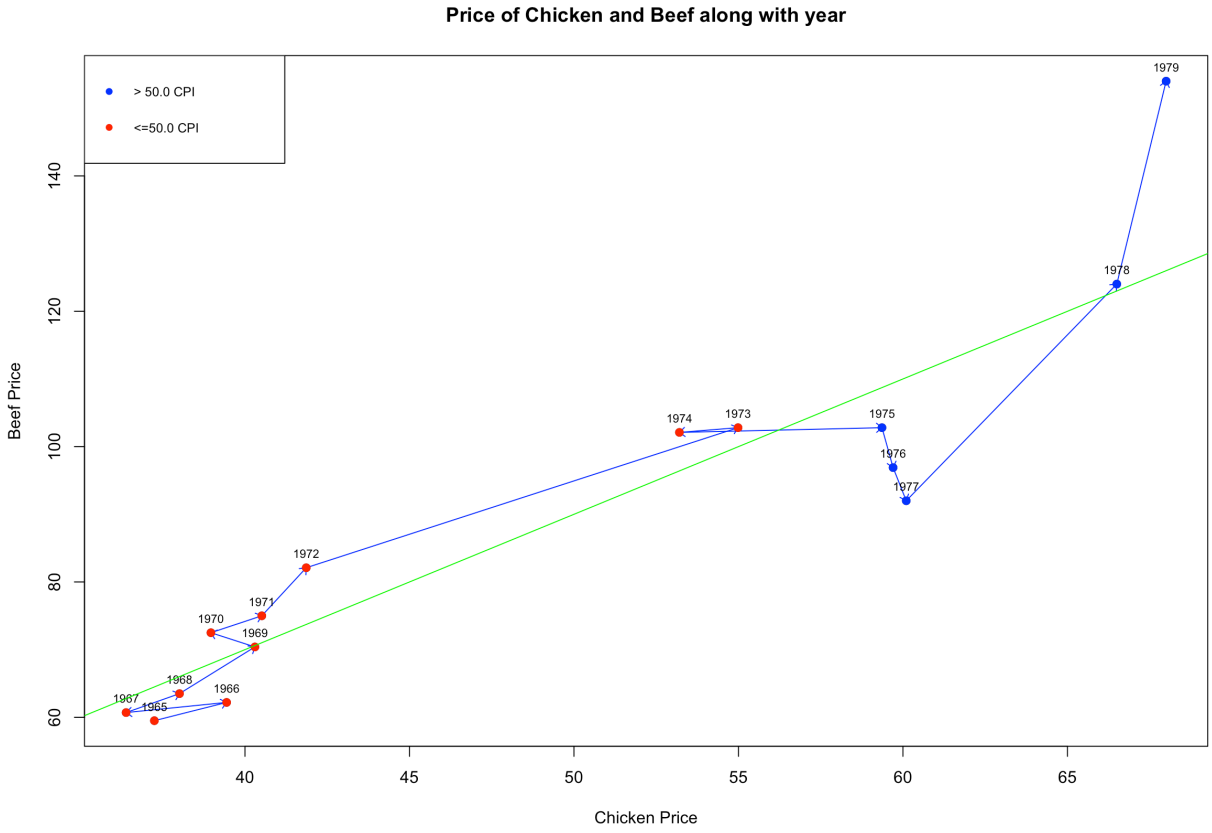
c. Chart using ggplot2 package

Below chart displays the walkscore vs bikescore of all the houses with the distance group.



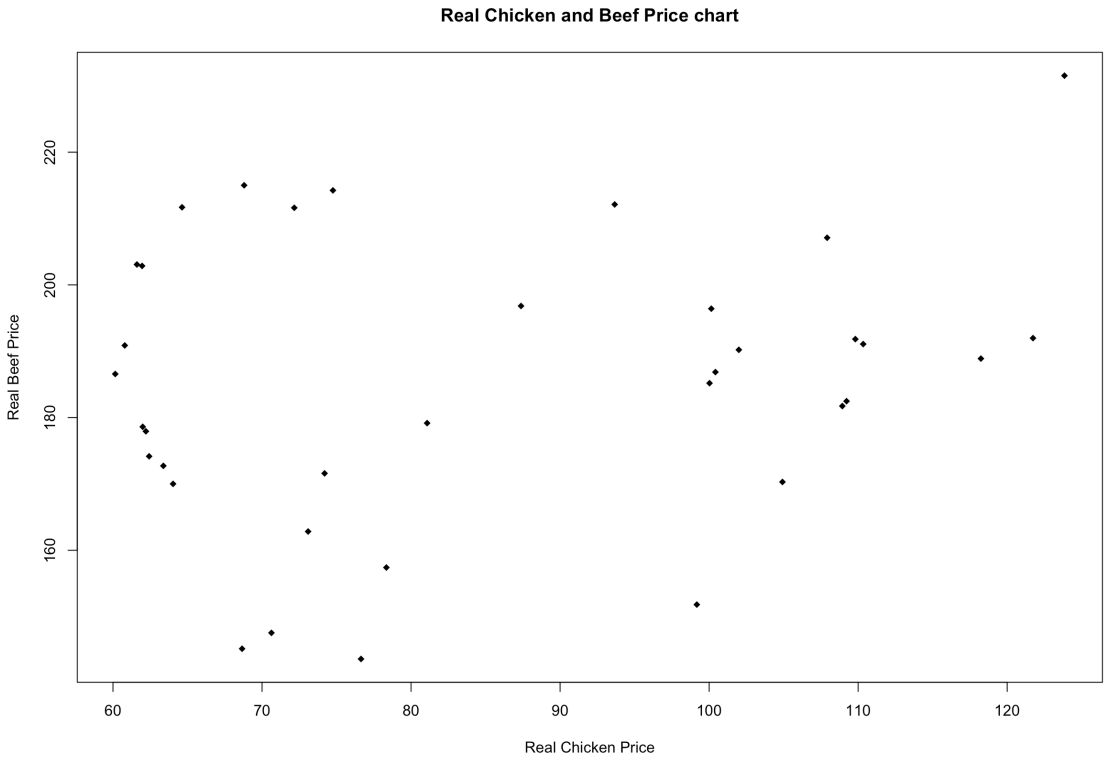
**Dataset: BeefData.csv**

a. Charts created using basic graphics functions:

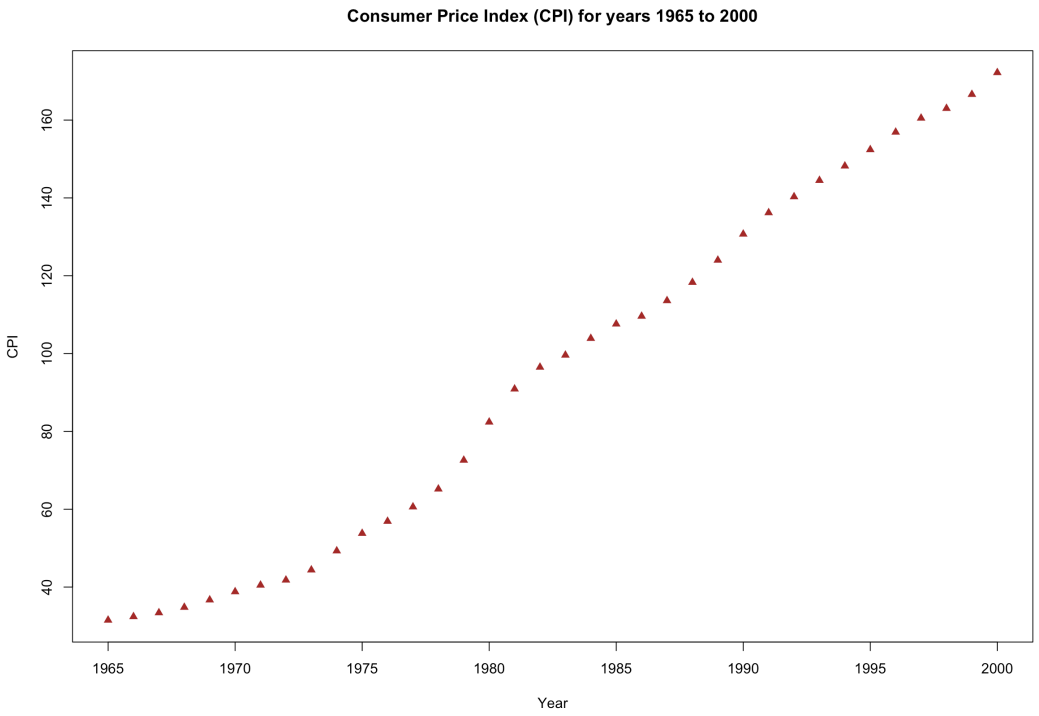



The above plot only has a subset of data points from the dataset. I took the subset of the dataset so that the chart doesn't look cluttered with all the arrows, lines and texts.
This chart has **text** (the year is displayed next to each data points using text function), **baseline** (the green line drawn using abline function), **arrows** (blue colored arrows connecting data points drawn using arrows function), **legend** (on the top right corner displaying if Consumer Price Index (CPI) is >50 or <= 50).

Below chart displays the real chicken and real beef prices for years 1965 to 2000.

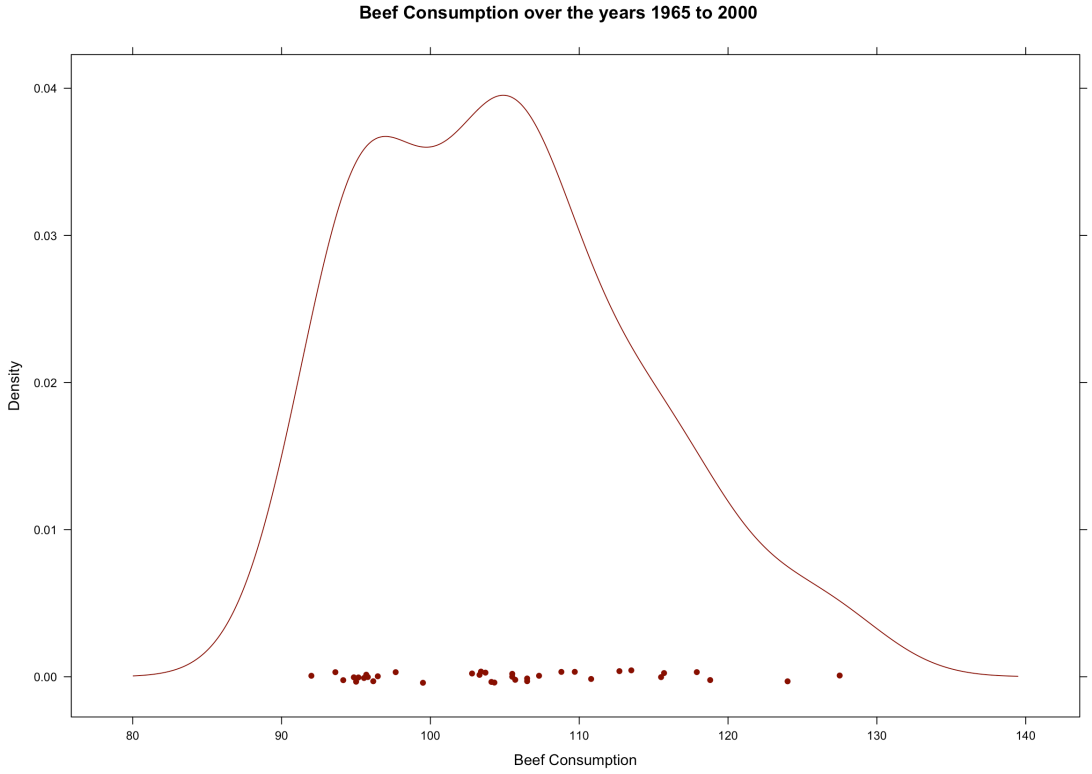



Below chart is a qqplot of Consumer Price Index (CPI) over the years 1965 to 2000.



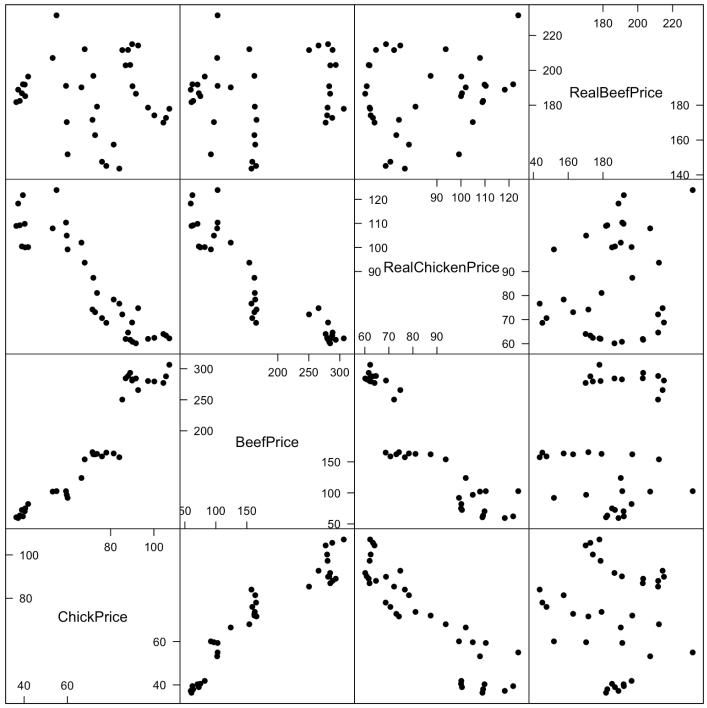

b. Charts using lattice package

Below chart is a density plot showing beef consumption over the years 1965 to 2000.



Below chart is a matrix plot of Chicken price, beef price, DPI adjusted chicken price and DPI adjusted beef price.

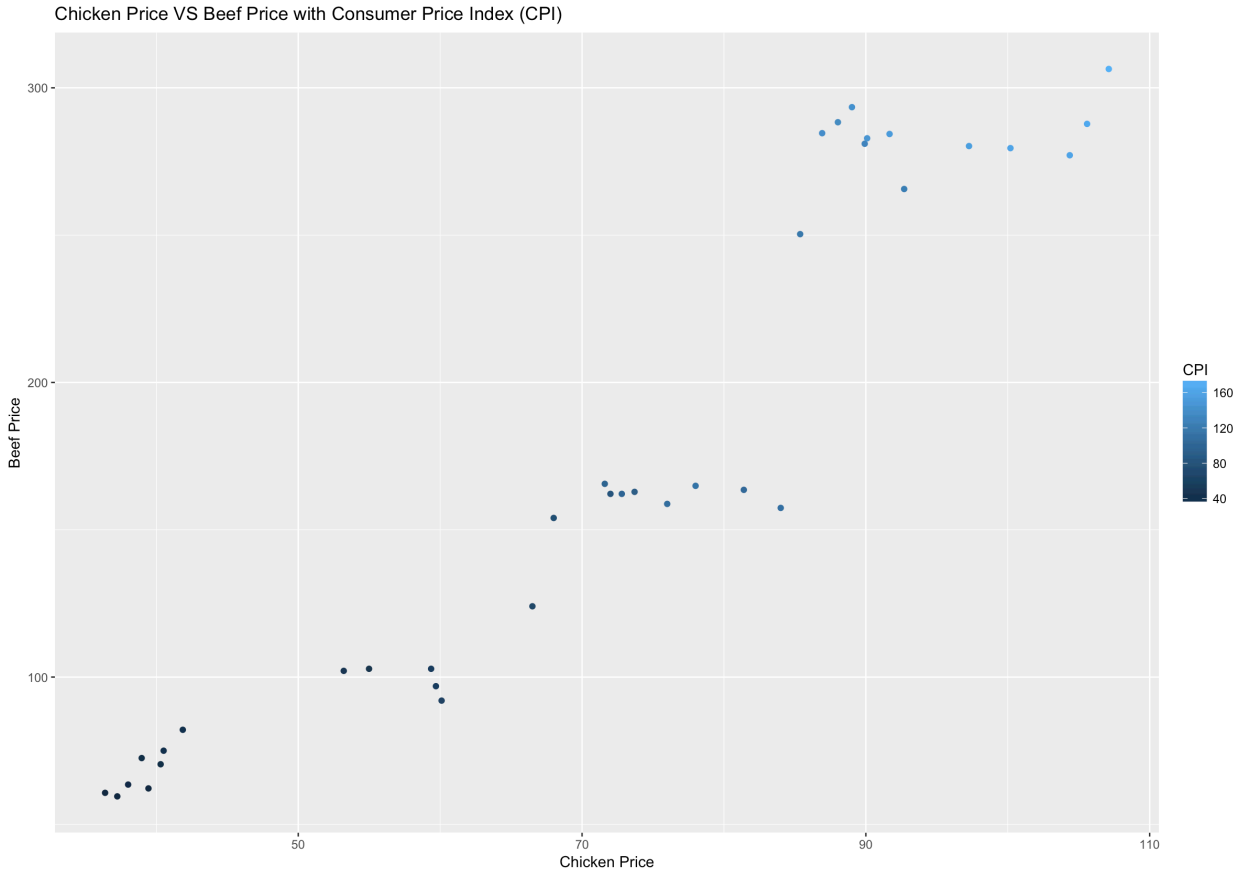
**Matrix plot of Chicken price, Beef Price, DPI adjusted Chicken Price and DPI adjusted Beef Price**




Scatter Plot Matrix

c. Chart using ggplot2 package:

Below chart shows the chicken price vs beef price with CPI during the years 1965 to 2000.


Chicken Price VS Beef Price with Consumer Price Index (CPI)
Beef Price
300
200
100
50
70
90
110
Chicken Price
CPI
160
120
80
40