Scatter Plot Using R and SAS

Shu Guo

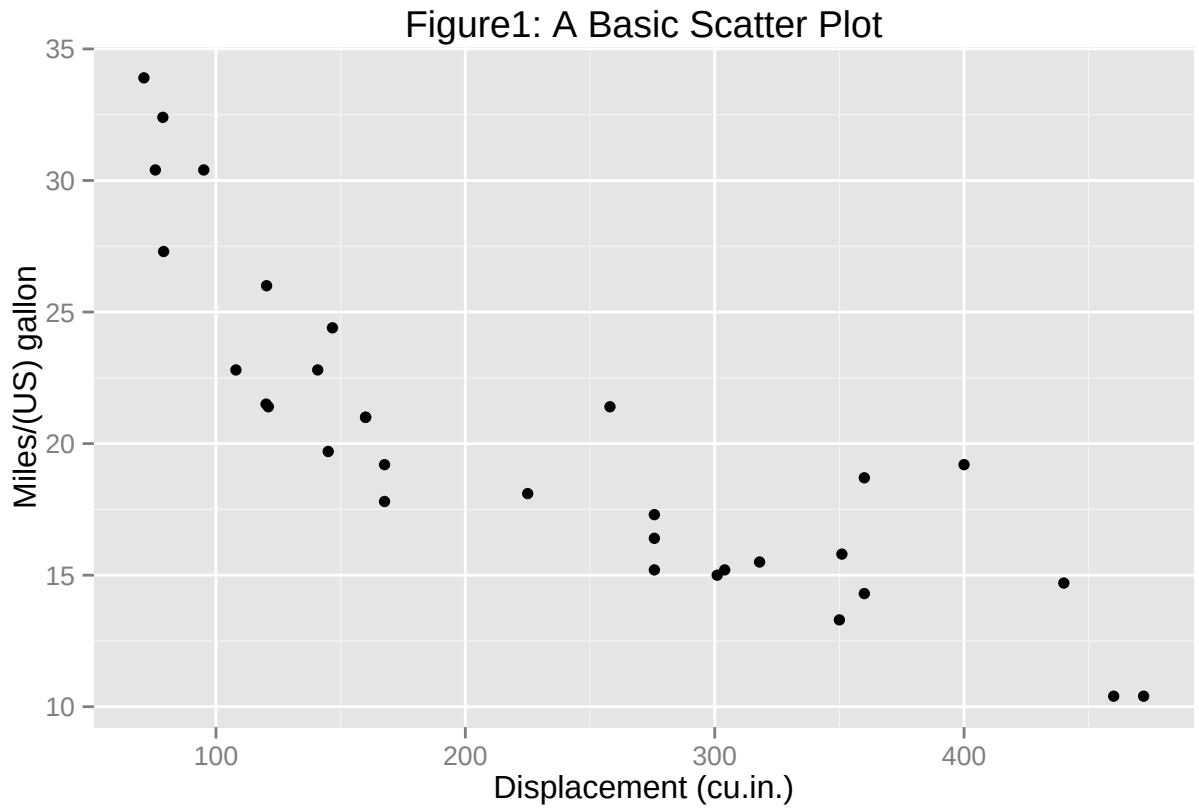
Saturday, February 07, 2015

Introduction

Scatter plots are used to display the relationship between two variables. From the scatter plots we can see if the two variables are (positive or negative) linearly related, and whether the relationship is strong or weak.

Making Scatter Plots

```
## Load the data
data(mtcars)
library(ggplot2)
ggplot(mtcars, aes(x = disp, y = mpg)) + geom_point() +
    labs(title = "Figure1: A Basic Scatter Plot",
    x = "Displacement (cu.in.)", y = "Miles/(US) gallon")
```




```
# SAS Code to create the same scatter plot
#** Read the data;
```

```
#Data mtars;
#    INFILE 'C:\Books\GitHub\SAS_and_R_Graphics\Data\mtcars.txt' FIRSTOBS = 2 DLM =',' DSD;
#    INPUT Name $ mpg cyl disp hp drat wt qsec vs am gear carb;
#RUN;

# Make the plot using PROC SGPLOT.
#PROC SGPLOT DATA = mtars  ;
#    TITLE "Figure1: A Basic Scatter Plot";
#    SCATTER y = mpg x = wt / markerattrs=(symbol=circlefilled color=black);
#    XAXIS LABEL = "Displacement (cu.in.)";
#    YAXIS LABEL = "Miles/(US) gallon";
#RUN;

# Make the same plot using PROC TEMPALTE AND PROC SGRENDER
#PROC TEMPLATE;
#    DEFINE STATGRAPH Classscatter;
#        BEGINGRAPH;
#            ENTRYTITLE "Figure1: A Basic Scatter Plot";
#            LAYOUT OVERLAY /
#                XAXISOPTS = (LABEL = "Displacement (cu.in.)")
#                YAXISOPTS = (LABEL = "Miles/(US) gallon");
#                SCATTERPLOT y = mpg x =wt /
#                                markerattrs= (symbol=circlefilled color=black);
#            ENDLAYOUT;
#        ENDGRAPH;
#    END;
#RUN;
#PROC SGRENDER DATA = mtars TEMPLATE = Classscatter;
#RUN;
```