Introduction to Graphics in Stata: Exercises

This Version: April 7, 2010

HINT: Use 'cd' (change directory) command to go to the directory with files and avoid typing paths to data (Answers to exercises assume that you are in correct directory). For instance:

```
cd C:\files
```

exercise 1: stata graph basics

1. Use auto data set

   ```
   sysuse auto
   ```

2. Explore the relationship between mpg weight and price using scatterplots

3. Produce a twoway graph showing the relationship between price (y) and mpg (x) as regression line overlaid on scatterplot. Have two graphs next to each other: One for foreign and one for domestic cars.

exercise 2: descriptive statistics

1. Use auto data set

   ```
   sysuse auto
   ```

2. Produce a histogram and a horizontal boxplot of price by foreign.

3. Produce a horizontal bar graph using

   ```
   gr hbar
   ```

   of median price by repair record (rep78) and by foreign.

exercise 3: postestimation graphs

1. Use auto data set

   sysuse auto

2. Show regression fit of price on mpg by foreign using

   postgr3

exercise 1 solution : stata graph basics

1. Use auto data set

   sysuse auto

2. Explore the relationship between mpg weight and price using scatterplots

   d
   sum
   gr matrix mpg weight price, half

3. Produce a twoway graph showing the relationship between price (y) and mpg (x) as regression line overlaid on scatterplot. Have two graphs next to each other: One for foreign and one for domestic cars.

   codebook foreign

   tw(scatter price mpg if foreign==0) (lfit price mpg if foreign==0), ti(Domestic) saving(g0, replace)
   tw(scatter price mpg if foreign==1) (lfit price mpg if foreign==1), ti(Foreign) saving(g1, replace)
   gr combine g0.gph g1.gph

exercise 2 solution : descriptive statistics

1. Use auto data set

   sysuse auto

2. Produce a histogram and a horizontal boxplot of price by foreign.

   d
   sum
   hist price, by foreign
   gr hbox price, by foreign

3. Produce a horizontal bar graph

   gr hbar

   of median price by repair record (rep78) and by foreign.

gr hbar (median) price, over(rep78) over(foreign)

exercise 3 solution : postestimation graphs

1. Use auto data set

   sysuse auto

2. Show regression fit of price on mpg by foreign using

   postgr3

   reg price mpg foreign
   postgr3 mpg, by(foreign)