STATISTICAL GRAPHICS FOR VISUALIZING DATA:
AN INTRODUCTION TO LATTICE GRAPHICS IN R

William G. Jacoby
Michigan State University and ICPSR

University of Illinois at Chicago Workshop
October 14-15, 2010

http://polisci.msu.edu/jacobu/uic/graphics
**Figure 1:** A unidimensional scatterplot.

**Figure 2:** A histogram.
**Figure 3:** A smoothed histogram.

![Smoothed Histogram](image1)

**Figure 4:** A scatterplot.

![Scatterplot](image2)
**Figure 5:** Histogram, with text tick labels on horizontal axis.

![Histogram with text tick labels on horizontal axis.](image)

**Figure 6:** Histogram, with two-line text tick labels on horizontal axis.

![Histogram with two-line text tick labels on horizontal axis.](image)
Figure 7: Scatterplot with a third variable encoded into the plotting symbols.

Figure 8: Scatterplot with coded plotting symbols and a key.
**Figure 9:** Scatterplot with a loess curve fitted to the data.

![Scatterplot with a loess curve](image)

**Figure 10:** Scatterplot with loess curve and OLS line fitted to the data.

![Scatterplot with loess curve and OLS line](image)
**Figure 11:** A multipanel trellis display showing policy priorities, by region.

**Figure 12:** A three-dimensional scatterplot.
Figure 13: A three-dimensional wireframe plot.

Figure 14: A Levelplot, using color to code values of a third variable.
Figure 15: Obtaining R.

A. The R-Project Web Site.

B. Selecting a CRAN Mirror for the download.
Figure 15: Obtaining R.

C. The download page.

D. After downloading, double-click on the icon for the executable file.
Figure 16: Installing packages in R

A. Within R, click on “Packages” and “Install package(s) ...”.

B. Select a CRAN mirror from which to download packages.
Figure 16: Installing packages in R

C. Select a package to download.

Figure 17: Use the “library()” function to load the lattice package.
Figure 18: Lattice graphs are rendered within a separate window.