A Brief Introduction to Charts in Excel 2003

1 Pie charts
Let’s recreate the pie chart in Figure 1.3 of the text.

1. Enter the first two columns of data as given in the example on page 6.

2. Go to the menu bar at the top and select Insert→Chart.

3. Select “pie” chart and click “Next”.

4. Excel may select the data for you, but if not, make sure on the “Chart Source Data” window that you have the full set of data highlighted. You can do this by clicking the little spreadsheet icon to the right of the input bar and then clicking and dragging to highlight your source data.

5. You can give the chart a title if you want, but basically just keep clicking “Next”. Eventually you’ll have your pie chart.

2 Bar charts
Let’s do a bar chart with the same data.

1. Go to the menu bar at the top and again select Insert→Chart.

2. Select “column” chart and click “Next”. (Excel prints what they call “bar charts” horizontally rather than vertically. It’s another way to represent the data.)

3. Again, select the source data in the “Chart Source Data” window. You can do this by clicking the spreadsheet icon to the right of the input bar and then clicking and dragging to highlight your source data.

4. You can label the data, the axes, and the chart itself if you want, but keep clicking “Next” and you’ll eventually have the bar chart.

3 Histograms
Histograms are a little more involved. Let’s recreate the histogram in Figure 1.7 of the text.

1. Enter the data in Table 1.3 (page 13) of the text.

2. Now you need to define appropriate data ranges, or bins. The text uses bins of width 9, starting with 75-84. In a separate column, input the upper numbers on each bin: 84, 94, 104, 114, 124, 134, 144, 154.

3. To do a histogram, you need the data analysis toolpak installed. It’s probably not installed, so go to Tools→Add-Ins, and check the box for “Analysis Toolpak”.

4. Now you should have a new option, “Data Analysis,” under the “Tools” menu. Select Tools→Data Analysis, and select “Histogram”.
5. In the histogram window, you’re going to have to enter the input range and the bin range. Click the spreadsheet icon to the right of each of these input bars and highlight the appropriate sources.

6. Click “Output Range” and select a cell in the spreadsheet outside of the data and bin ranges where you would like the histogram to appear.

7. Click “Chart Output” so that you actually get a chart, and then click “OK”.

8. Subject to Excel’s problems printing histograms (such as labels slightly off and bars not touching), you should get something that looks like Figure 1.7.

9. Now, let’s fix some of the problems with the histogram.

   (a) First, right-click on one of the bars, select “Format Data Series,” and then the “Options” tab. Change the gap width from 150 to 0, and click “OK.” Now the histogram bars should touch.

   (b) The “More” category is a little irritating, as there’s nothing in it. Let’s remove it. Right-click on the chart, select “Source Data,” and then the “Series” tab. Click on the spreadsheet icon to the right of the “Values” input bar, and select the column of numbers under “Frequency” on the spreadsheet, leaving out the 0 in the “More” category. Hit “Enter” and click “OK.”

4 Time series

Time series are easier in Excel than histograms; you don’t need the analysis toolpak. Let’s do #34 from Section 1.1 in the text.

1. Enter the data into the spreadsheet. Go ahead and include the years (although you don’t have to; it just gives you more information).

2. Select Insert→Chart and select “line” chart.

3. Again, in the “Chart Source Data” window, make sure you have the data selected.

4. If you want to include the years on the horizontal axis, select the “Series” tab in the “Chart Source Data” window, click the spreadsheet icon to the right of the “Category (X) axis labels” input bar, and select the year data.

5. Again, you can add more labels in subsequent windows, but if you keep selecting “Next” you will eventually have your time series plot.

   You might find it worthwhile to play around with some of the other charts or other options in the Data Analysis Toolpak.