Excel 2007, Part 2

This lesson guides you through the creation of additional charts, introduced in the Introduction guide. You will continue to use the Excel spreadsheet provided in the introductory guide, named Statistics.

**Create a Totals column for each state data**

1. Click in cell M7.
2. Type in Totals - All States.
3. Click in cell M8 and use the Autosum command.
4. Make sure the selected range is B8:L8, then press the Enter key.
5. The total for that row is entered in cell M8.
6. Note that your current cell has a black border with a small black dot on the lower right corner.
7. Click on that dot until your cursor turns into a small black cross.
8. Using the Fill command, drag your cursor down the column until you end at cell M48.

**Create a line chart to compare executions in the states**

1. Select the cell range M8:M48.
2. Click the Insert tab.
3. In the Charts group, choose Line, then Line with Markers.
4. A Line chart is embedded in the spreadsheet. Click inside the chart.
5. The Chart Tools tab displays, and the Design tab is selected.
6. In the Chart Styles group, select the style you prefer.
7. In the Charts Layout group, select the third layout.
8. Click on the Series 1 box, and press the Delete key. You do not need a Legend in this chart with only one series of data.
9. Click in the Chart Title box, and replace the text with this: Persons Executed in States - Years 1996 through 2006.
10. Click on the series of numbers at the bottom of the chart. This is where your horizontal axis labels will be placed.
11. In the Data group, click the Select Data icon.
12. The Select Data Source dialog appears.
13. In the space under the words, Horizontal (Category) Axes Labels, click the Edit button.
15. Select the cell range A8:A48 (which contains the names of the states) for the X-Axis labels.
16. Click OK.
17. This type of chart illustrates the differences between the total of person executed by states that allow capital punishment between the years 1996 and 2006. It is easy to see at a glance which states executed the most persons during those years.

18. You may wish to move this chart to a chart page to allow more room for the state names.

Create a chart showing the ethnicity of persons executed

This chart will be a stacked column chart
1. On Sheet 2, select the range A53:I57.
2. In the Charts group (Insert tab), select a 2-D Stacked Column chart type.
3. On the Charts Layout group, select the Layout 1 chart.
4. Drag over your chart title text and type Ethnicity of Persons Executed.
5. Click in the numbers along the X-Axis.
6. Click the Select Data icon in the Data group, and in the Select Data Source dialog, under Horizontal (Category) Axis Labels, click the Edit button.
7. Notice that the years this data covers are the years 1996-2003.
8. In the Axis Label Range box, select the range B7:I7, then click OK.
8. The years appear along the x-axis on the chart.
9. See an illustration of this chart at right.

Note: Stacked column charts show the relationship of individual items to the whole, comparing the contribution of each value to a total across categories.

Area Chart

The last chart you will create in this lesson will be an area chart. Area charts have the following chart subtypes: 2-D area and 3-D area. Whether they are shown in 2-D or in 3-D, area charts display the trend of values over time or other category data. 3-D area charts use three axes (horizontal, vertical, and depth) that you can modify. As a general rule, you should consider using a line chart instead of a nonstacked area chart, because data from one series can be obscured by data from another series.

The area chart will show the trend of executions in the United States from the year 1930 to 2006.

1. In the Statistics Excel spreadsheet, select the range B65:B141.
2. In the Insert tab, Charts group, choose the Area Chart icon and select the 2-D chart type (the one selected in the illustration).
3. Choose the third chart layout.
4. Drag over the Chart title, and type: Total Executed in the United States Years 1930 to 2006.
5. Click on Series 1 and press the DELETE key.
6. Click to select the numbers across the bottom of the chart. This is the horizontal axis, and you will replace these numbers by the years 1930 to 2006 in the range A65:A141.
7. With your cursor in the chart, and the Chart Tools tab showing and the Design tab selected, click the Select Data icon in the Data group.
8. Under the Horizontal Axis Labels section, click the Edit button.
10. Select the range A65:A141 and click OK button.
11. Click OK again in the Select Data Source dialog.
12. In the Location group, click the Move Chart command.
14. Click the Format tab.
15. In the Size group, see the commands that allow you to adjust the chart size.
The finished area chart

This chart provides you with the trend of executions over the period of years 1930 to 2006, and illustrates at a glance the peak years and the years in which no (or very few) executions were carried out.

Go to Sheet 3 and use the fill command

1. In cells A6 and A7, see the years 1985 and 1986.
2. Select both of these cells so that the black border surrounds both cells and at the bottom right, note the black dot.
3. Place your cursor over the black dot until it becomes a small black cross.
4. Drag with your cursor to cell A26. Note that the Fill command filled in the dates with the one-year step the program noted from the first two dates (1985 to 1986).

Create a simple formula

Calculate the percentage of change

First you will calculate the percentage of change in the probation figures from 2004 to 2005. To do so, you will need to subtract the 2004 number from the 2005 number, then you will divide this by the 2004 number.

1. Click in cell B31, and type an equal sign (=). In Excel, this indicates that what follows is a formula.
2. Type a beginning parenthesis (.
3. Type the cell address of the 2005 probation figure, or click on the cell.
4. Type a minus sign - (indicating subtraction).
5. Type the cell address of the 2004 probation figure, or click on the cell.
6. Type a closing parenthesis ).
7. Type a slash / (indicating division).
8. Type the cell address of the 2004 probation figure, or click on the cell.
9. Press the Enter key.
10. Now click on the Percentage button on the Number group.
11. There is very little change. If you want to see a percentage number to two decimal places, click the first icon in the group at the right
Now, calculate the percentage of change from 1985 to 2005

1. Click on cell B32.
2. Start the formula by typing an equal sign (=).
3. Type a beginning parenthesis ( ().
4. Type the cell address of the 2005 probation figure or click on the cell B26.
5. Type a minus sign for subtraction (-).
6. Type the cell address of the 1985 probation figure (B6) or click on the cell.
7. Type the closing parenthesis ( )).
8. Type a slash for division (/).
9. Type the cell address of the 1984 probation figure (B6) or click on the cell.
10. Press the ENTER key, and then click the PERCENTAGE button on the NUMBER group.

Use the Fill command

Place the formulas under the PAROLE and INCARCERATED columns.

1. Select the cells B31 and B32.
2. Using the Fill feature, click the black dot at lower right of border.
3. Drag cursor to D column.
4. The percentage of change data has been placed under all the columns.

Print one of the sheets

1. Open the sheet you want to print.
2. Click the OFFICE button and then click the PRINT command.
3. On the PRINT dialog, under PRINT WHAT, be sure to select ACTIVE SHEET. Please be sure to do this so you do not waste paper.

Save and Close the Excel program

1. Click the OFFICE button.
2. Click the SAVE AS command.
3. In the SAVE AS TYPE box, be sure to select Excel 97-2003 format. This will allow you to use your Excel file in older Office programs and also send the file via e-mail to others who may have the older programs.
4. Click the OFFICE button.
5. Choose the CLOSE command.