SPSS/Excel Operating Instructions

Calculating Descriptive Statistics in SPSS

1. Open a new **Output** window
2. Identify the variable to be analyzed
3. Open the **Statistics** menu and select **Summarize/Frequencies**
4. Select "**Statistics"**
5. Select the following options:
    - Quartiles
    - Std. Deviation
    - Variance
    - Range
    - Minimum
    - Maximum
    - Mean
    - Median
    - Mode
6. Select Continue
7. Select variable(s) to be analyzed, uncheck "**Display Frequency Tables"** and select **OK**.
8. Open the **Output** window to view results

Export Data to Excel

The easiest way to export data to excel from SPSS is simply by copying and pasting the relevant data cells, as described below

1. In SPSS, deselect **Value Labels** in the View menu
2. Select cells to be exported by dragging the pointer
3. Select **Copy** from the **Edit** menu
4. Open Excel
5. Type in the Name of the variable being exported in the top cell of your target column.
6. Click on the next cell down in the sane column and select **Paste** from the Edit menu.
7. Repeat as necessary for additional variables

If you are generating a histogram using values with alphabetical labels:

1. In SPSS, select Value Labels in the View menu.
2. Repeat steps 2 through 7 above.

Calculating Descriptive Statistics in Excel

1. Select **Data Analysis** from the **Tools** menu.
    - Note: if Data Analysis does not appear in the menu, then select **add-Ins** from the **Tools** menu and Click on Analysis **Toolpak** in the list, then click **OK**.
2. Select **Descriptive Statistics** from the **Analysis Tools** list and click **OK.**
3. In the **Descriptive Statistics** dialog box:
    - Type in the range of cells containing the data you want to analyze (e.g., A1:A51) or just highlight the data with the pointer.
    - Select **Grouped by Columns.**
    - Select **Labels in First Row** (assuming there are labels in the first row).
    - Under **Output Options,** select **New Worksheet Ply** (type a name in the adjoining text box and click **Summary Statistics).**
4. Click **OK**.
5. Results should look like:

Sample Data

income	*taxes*
2313	225
2135	205
1957	185
1779	165
1601	145
1423	125
1245	105
1067	85
889	65
711	45

Descriptive Statistics of Income

Column1	
Mean	1512
Standard Error	170.4220252
Median	1512
Mode	#N/A
Standard Deviation	538.921763
Sample Variance	290436.6667
Kurtosis	-1.2
Skewness	1.23358E-16
Range	1602
Minimum	711
Maximum	2313
Sum	15120
Count	10

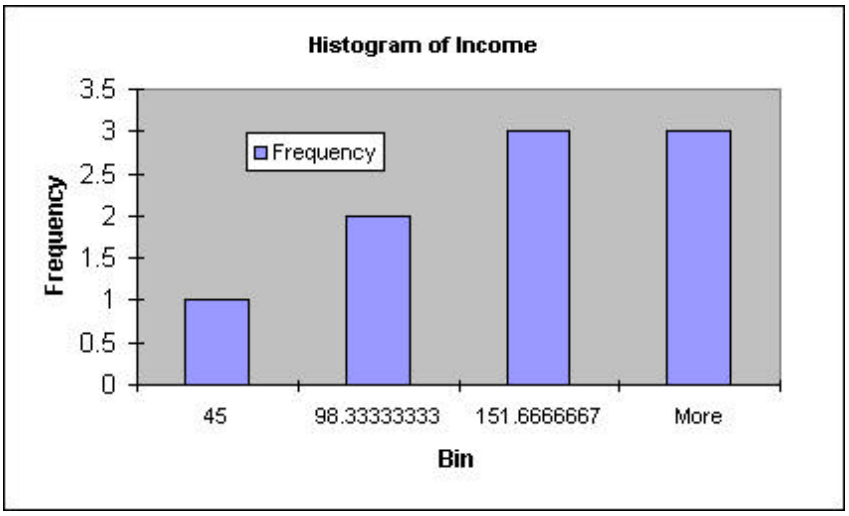
Creating Histograms in Excel

If you are charting interval/ratio data:

1. Select Data analysis from the Tools menu.
2. Select Histogram from the Analysis Tools list and click OK
3. In the Histogram dialog box, type in the range of cells containing the data you want to analyze (e.g., A1:A51).
4. Select Labels
5. Select **New Worksheet Ply** and type "Histograms" in the adjoining text box.
6. Select **Chart Output**.
7. Click **OK**.

Excel will automatically generate a bin range (placing incomes within a range and calculating the number of times a observation falls within that range). The results will look like:

Bin	*Frequency*
45	1
98.33333	2
151.6667	3
More	3



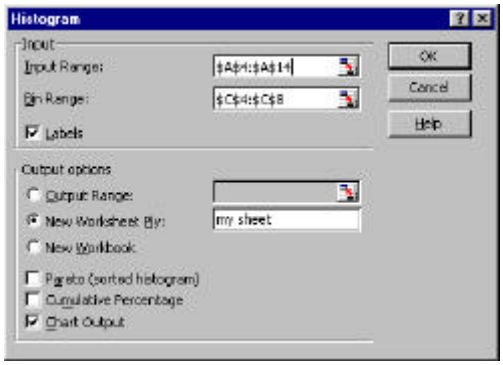
Alternatively, you can set your own bins.

1. To do this you need to create a new column called bin.
2. Type in values that divide your data.
   - For example, 1000 represents all those incomes below $1,000, $1,500 represents those between $1,000 and $1,500, etc… So the data table should look like this:

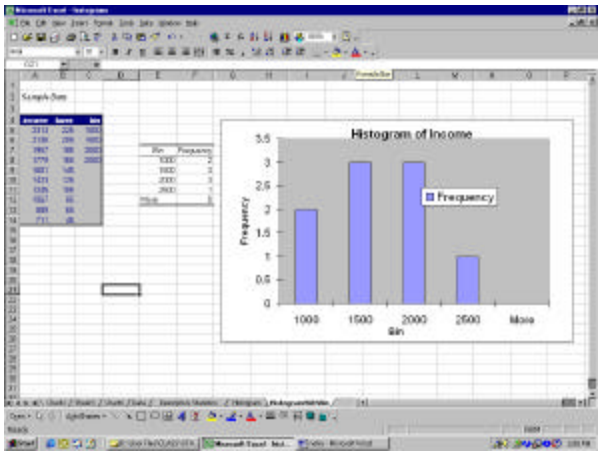
Sample Data

income	taxes	
2313	225	1000
2135	205	1500
1957	185	2000
1779	165	2500
1601	145	
1423	125	
1245	105	
1067	85	
889	65	
711	45	

3. Follow Steps 1 to 3, but this time fill in the bin range by highlighting the values in the worksheet. For example:



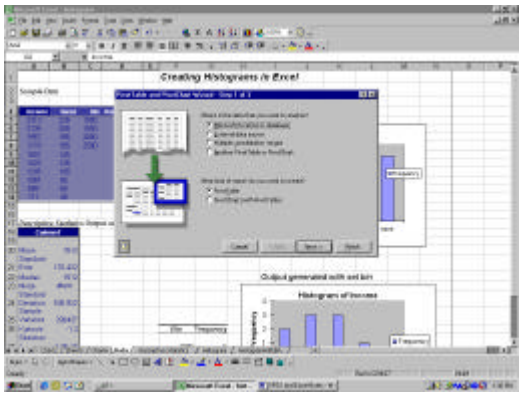
4. Complete steps 4 through 7 to obtain the following results.



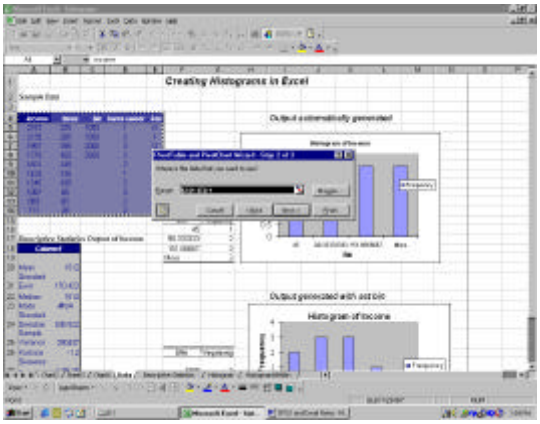
Creating Pivot Tables

Pivot Tables and Pivot Charts are useful for summarizing and charting ordinal or nominal data:

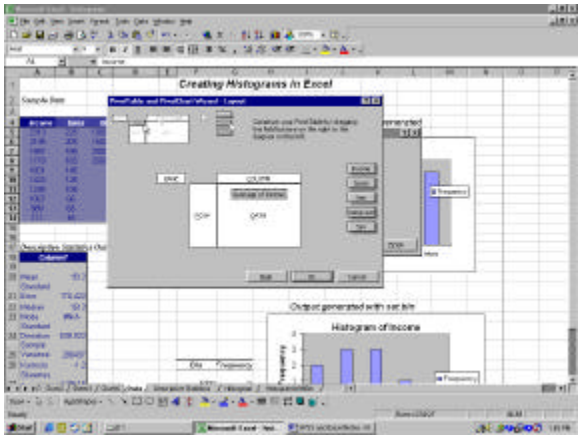
1. Activate the Data worksheet and highlight cells A4 to E14.
2. Select **PivotTable and PivotChart Report** from the Data menu to open the PivotTable and PivotChart Wizard
    a. Step 1 of 3: **Select Microsoft Excel List or Database** on the top half of the screen and **PivotTable** on the bottom half, and then click on **Next**.



    b. Step 2 of 3: $A$4:$E$14 should appear as the selected range; then click on **Next**.



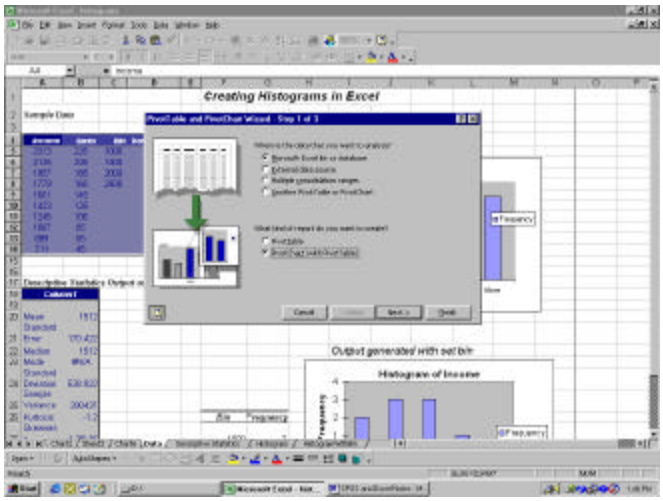
Step 3 of 3: Click on the **Layout…** button on the bottom left of the window



- Drag the home owner button to **ROW** box.
- Drag the income button to the **DATA** box (the button should then read "sum of income").
- Double click this button again and change Sum to Average, then click **OK**
- Click **OK** one more time
- Click on **Finish.**

Creating Pivot Charts

Pivot Charts are useful for charting ordinal or nominal data. Follow steps 1 though 4 above, except in step 1 select **Pivot Chart (with PivotTable)** on the bottom half of the screen.



3. You should now have a graph of average income for each level of home ownership.
    - Take a few minutes to play around with this graph, dragging and dropping different variables in the spaces provided on the graph. We will work with pivot tables again later when we study cross-tabs.