

# Excel Workshop

URBS 3945, Fall 2015

Open the spreadsheet.

Familiarize yourself with the data.

Look at the headers, rows, and columns.

Ask yourself the following:

1. What are the variables?
2. What measures are being used (percent, number, response scale, etc.)?
3. Where is the data from? Is it a reliable source?

# Generate a hypothesis

- What do you know about the variables either from class or from your own intuition?
- What behaviors (in the data) do you expect? Can you formulate a prediction?

Now let's visualize the data!

# Line graphs

Line graphs are useful for seeing changes over time.

- a. Select the data for the graph.
- b. 'Insert' tab, 'Line' drop-down box, select the 4th (2 crossing lines with points) or click [here](#).
- c. You can [select data](#) by right clicking on the chart and choosing 'Select data...'. Now we can add the years to the x-axis.

# Format the chart.

Formatting the chart makes the information clear.

1. Format the [horizontal](#) and [vertical](#) axes.
2. Add [chart title](#) and [axis titles](#).
3. Change [chart size](#).
4. Format the [legend](#) and [plot area](#).
5. Format the [data series](#).

# Different ways of looking at data

1. Zooming in to a particular time frame  
(looking at fewer decades than the total number provided)
2. Zooming out to a larger time frame (looking at more decades when available)
3. Focusing on a subset of groups (including fewer groups in the graph)

Try one of these.

Do the data support your prediction?

# Scatter Plot

Scatter plots are useful for looking at the relationship between two variables.

For example, do the variables increase together or decrease together?

- a. 'Insert' tab, 'Scatter' drop-down box, select the 1st (a bunch of dots).
- b. You need to [select data](#) by right clicking on the chart and choosing 'Select data...'. Which variable goes on the x-axis?
- c. Don't forget to format the chart!

# Trendlines

Linear trendlines are useful for showing linear relationships between variables. They can also be used to show the macro linear trend even though the data may have lots of peaks and troughs.

- a. Select the scatter plot.
- b. 'Layout' tab in Chart Tools, 'Trendline', 'Linear' or see it [here](#).
- c. Format the trendline by right clicking on it and selecting 'Format Trendline' (also [here](#)).



# Copying & Pasting into Word

- Copying and pasting your charts into a Word document.
- Select the chart. Copy (CTRL C) & paste (CTRL V) it. Double check the formatting of your chart.
- DID THE FORMATTING CHANGE?
- Paste it as a picture in word. Right click on the Word document and under 'Paste Options' select 'Picture'.