

**Note:** This handout was prepared for use with Excel 2016 for Windows. The descriptions here may not correspond well with other versions of Excel, as the Charts feature of Excel has changed markedly over the past few years.

## Charts & Graphs

### Purpose of a Chart:

- Conveys numeric data efficiently and dramatically
  - Especially effective for comparisons
- Adds visual appeal to documents and reports

### Main Types:

- Column Charts
- Pie Charts
- Line Charts
- Bar Charts
- Scatter Charts

### Special Types

- Hierarchy Charts
- Statistic Charts
- Waterfall Charts
- Combo Charts
- Surface Charts
- Map Charts

### Chart Parts

- **Chart Area:** the whole chart
- **Chart Title**
- **Vertical (Value) Axis**
- **Plot Area:** where data points are displayed
- **Major Gridlines**
- **Data Series:** a set of Data Points (columns or bars)
- **Data Point:** a single point
- **Legend:** shows which color matches a given label
- **Horizontal (Category) Axis**

### General Procedure

- Select data, including labels
  - Include details or totals, but not both
- Click **Insert** tab
- Choose chart type
- Adjust chart style
- Add/delete elements
- Add annotations
- Format elements

### Chart Tools Tabs

When you create or select a chart, a set of tabs appears:

- Design
- Format

Older versions of Excel also had a Layout tab

### Chart Buttons

This set of buttons appears at the right of a selected chart



- Chart Elements
- Chart Styles
- Chart Filters

## Procedures

### Move to New Sheet

Moves a chart to its own worksheet

- Click the **Design** tab
- Click: **Move Chart**
- Click option button: **New sheet**
- Enter name of sheet

### Switch Rows & Columns

Moves row labels to the Legend and column labels to the Horizontal Axis or vice versa.

- Click the **Design** tab
- Click: **Switch Row/Column**

### Add a Chart Title

- Click the **Chart Elements** button
- Check: **Chart Title**
- Type the title
- Press **Enter**

### Add Axis Labels

- Click the **Chart Elements** button
- Check: **Axis Titles**
- Click one of the Axis Title boxes
- Enter a suitable title

### Add Data Labels

Instead of using a Legend, you can apply Data Labels directly to data points.

- Click the **Chart Elements** button
- Click the arrow to the right of **Data Labels**
- Choose: **More Options...**
- Adjust settings as desired

### Add an Annotation

- Click the **Insert** tab
- Click: **Illustrations**
- Click: **Shapes**
- Click a suitable shape
- Click and drag to create the shape at a desired location and size
- Type to add text to the shape

### Format the Plot Area

- Click the Plot Area to select it
- Click the **Format** tab
- Click: **Shape Fill**
- Choose a suitable option

### Format a Data Series

- Click a Data Point (column, bar, or point) to select a Data Series
- Click the **Format** tab
- Click: **Shape Fill**
- Choose a suitable option

### Format a Data Point

- Click a Data Point (column, bar, or point) to select a Data Series
- Click the Data Point again to select only that point
- Click the **Format** tab
- Click: **Shape Fill**
- Choose a suitable option