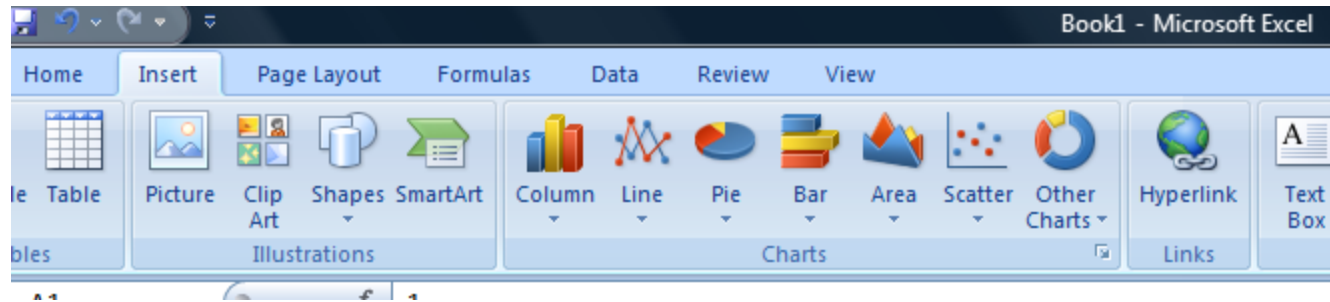# Week 2 - Lab 1: Charts and Visual Design Rules

Introduction

- Creating a chart using Chart Wizard
- Customizing a chart
- Good chart design principles

Chart Wizard (1)

- **Step 1:** In the top menu bar, select **Insert**. You should now see a group of icons labeled **Charts**

- Step 2:Select the data to be included in the chart

Chart Wizard (2)

- Step 3: Select a chart type. A drop down menu should appear showing the different types of charts available. Select one of the types available.
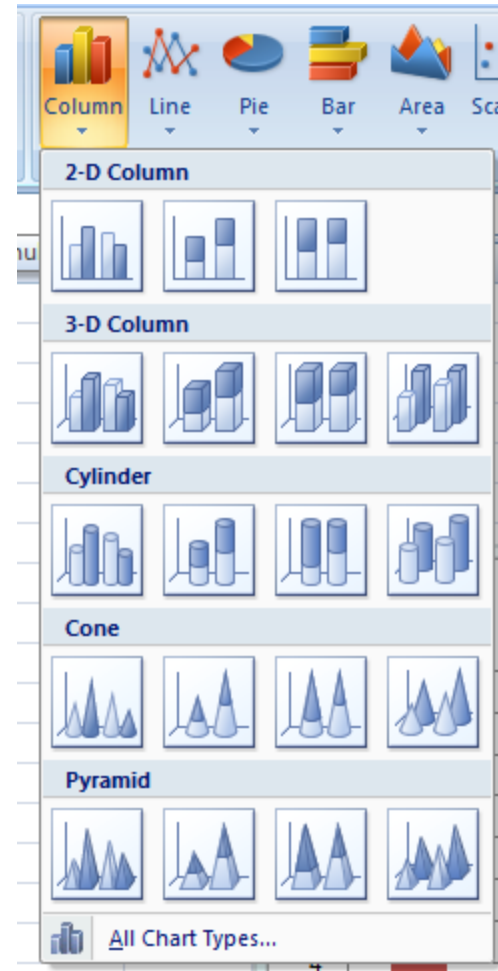
Chart Wizard (3)

- Step 4: A new chart should have been added to your current worksheet. You can move the new chart by clicking-and-dragging it to a new location in the worksheet.
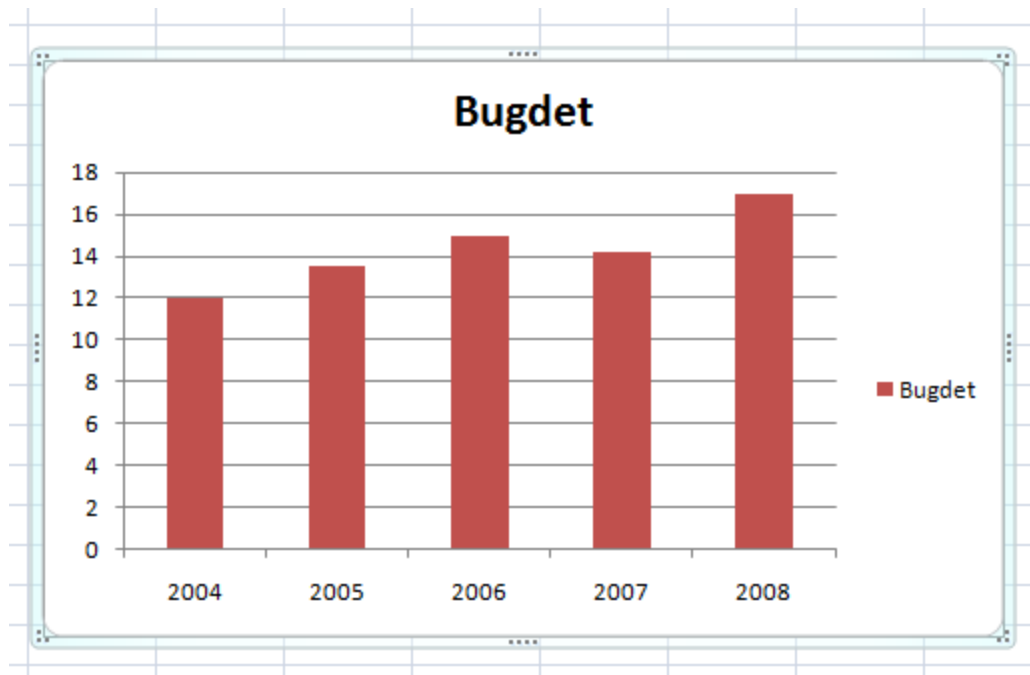
Chart Wizard (4)

- **Step 5:** Notice that new contextual menus have appeared under the main toolbar. These contextual menus allows for customization to be performed to the chart
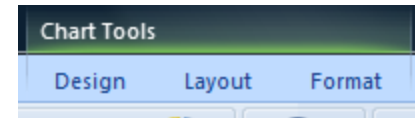
Chart Types (1)

	A	B	C	D	E
1		**Q1**	**Q2**	**Q3**	**Q4**
2	**Food**	600	650	550	700
3	**Rent**	800	700	750	900
4	**Transportation**	200	150	100	200
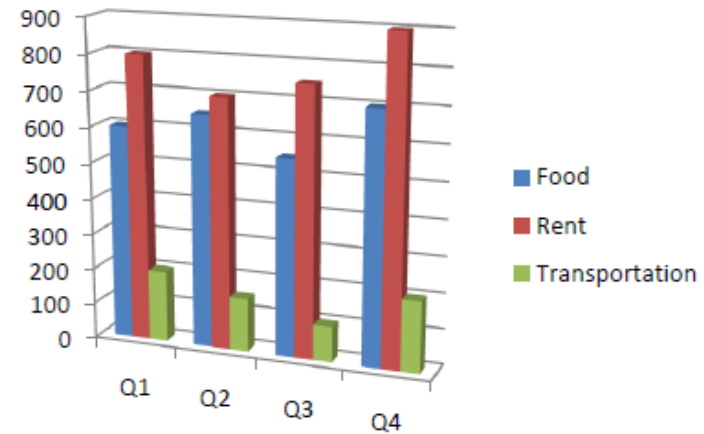
Chart Types (2)

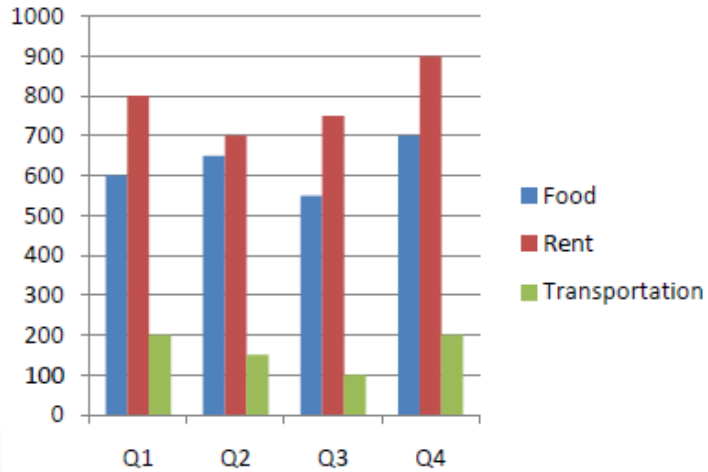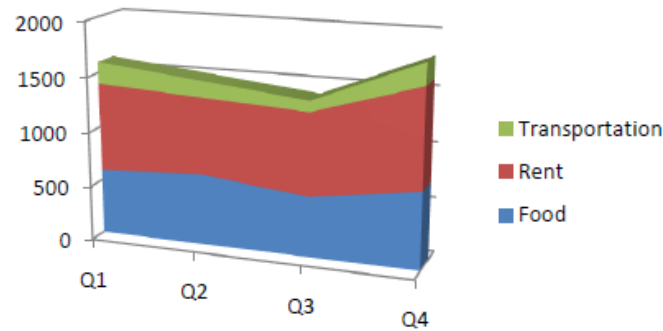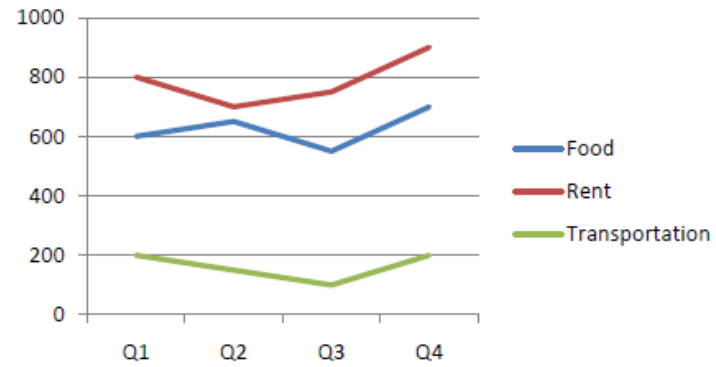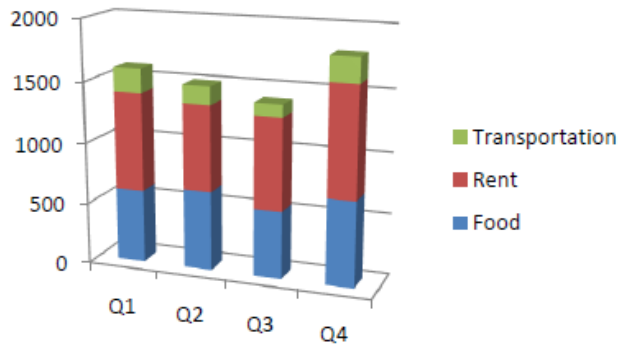# Customizing a Chart (1)

- Chart elements:
  - chart area
  - plot area
  - data source
  - horizontal/vertical axis
  - legend
  - title
  - data label

Customizing a Chart (2)

- **Step 1:** Select the chart.

- **Step 2a:** The **Chart Tools** menu is added to the menu bar with the three items: **Design**, **Layout**, and **Format**; Or

- **Step 2b:** Right-click a chart element and select **Format <element name>** from the drop down menu.

Chart Design Principals (1)

- 6 principals of visual display of information according to Edward Tufte:
  - Maximize Data Ink
  - Minimize Chart Junk
  - Use Small Multiples to deal with Complexity
  - Data Density
  - Multiple Use
  - Aesthetics

Creating Good Charts:

http://lilt.ilstu.edu/gmklass/pos138/datadisplay/sections/goodcharts.htm

Chart Design Principals (2)

Stephen Few's13 Mistakes in Dashboard Design:

- Exceeding the Boundaries of a Single Screen
- Supplying Inadequate Context for the Data
- Displaying Excessive Detail or Precision

Chart Design Principals (2)

Stephen Few's13 Mistakes in Dashboard Design:

- Choosing a Deficient Measure
- Choosing an Inappropriate Display Media
- Introducing Meaningless Variety
- Using Poorly Designed Display Media

Chart Design Principals (2)

Stephen Few's13 Mistakes in Dashboard Design:

- Encoding Quantitative Data Inaccurately

- Arranging the Data Poorly

- Highlighting Important Data Ineffectively or Not at All

- Cluttering the Display with Useless Decoration

- Misusing or Overusing Color

- Designing an Unattractive Visual Display