* 1. Analyzing Categorical Data

**Basic Definitions**

**Individual** – Objects described by a set of data. May be people, animals or things

**Variable** – any characteristic of an individual

**Categorical variable** - place individuals into one of several groups or categories (label)

**Quantitative variable** – takes numerical values for which it makes sense to find an average (measurement)

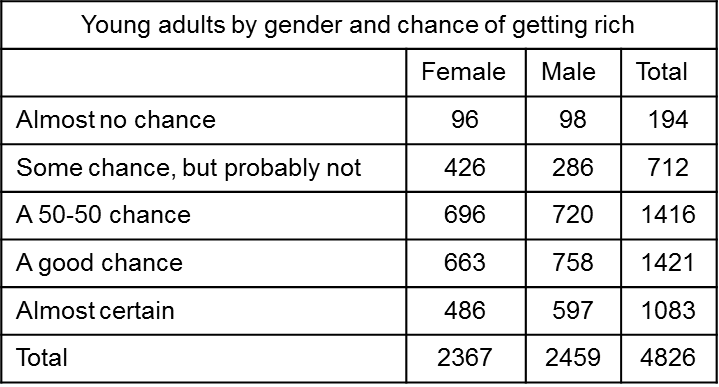
1. A *frequency* table displays…
2. A *relative frequency table* displays…
3. What type of data are *pie charts* and *bar graphs* used for?
4. Pie charts can only display \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |
| --- | --- |
| Student Housing at Union University | |
| Type of Housing | Number of Students |
| Residence Halls | 3995 |
| Fraternity/Sorority Houses | 985 |
| Off Campus Aparments | 2347 |
| Off Campus Houses | 1093 |

Draw the following for this data:

Bar graph Pie chart

1. What is a *two-way table*? describes two categorical variables, organizing counts according to a *row variable* and a *column variable*.
2. The **Marginal Distribution** of one of the categorical variables in a two-way table of counts is the distribution of values of that variable among all individuals described by the table.



1. What is the **marginal distribution** of chance of getting rich? Use a bar graph to display the data.
2. What is the **marginal distribution** of gender? Use a bar graph to display the data.