

# Stat 201: Statistics I

## Week 4 StatCrunch



# Week 4

## Examining and Summarizing Data

## Section 4.1

# Summarizing and Plotting Data Distributions

# Histograms in StatCrunch

- Graph → Histogram
- Select column that contains data for histogram
- Optional: Select type of histogram. This will adjust y-axis scale.
- Optional: Set “Bin: Width”. This will determine number of bars displayed.
- Click “Compute!”

## Note

StatCrunch expects raw data for generating histograms. It won't work with data in frequency tables. To approximate a histogram using a frequency table, use a bar graph (see next section).

## Section 4.2

### Summary Statistics

# Measures of center in StatCrunch

- Stat → Summary Stats → Columns
- Select the column (or columns) which contains the data
- Under “Statistics” select statistics to calculate (ctrl-click to select multiple statistics)
- For measures of center select “Mean:”, “Median”, “Min”, “Max” and “Mode”
- Click “Compute!”
- Mean, median and mode will be displayed
- Midrange must be calculated by hand using min and max

## Note

Mode will display “No mode”, “Multiple modes” or the mode if exactly one exists. If there are multiple modes, you must identify them yourself.

# Measures of variation in StatCrunch

- Stat → Summary Stats → Columns
- Select the column (or columns) which contains the data
- Under “Statistics” select statistics to calculate (ctrl-click to select multiple statistics)
- For measures of variation select “Variance”, “Std. Dev.” and “Range”
- Click “Compute!”
- The statistics will be displayed

## Section 4.3

# Summarizing Data with Graphs



# Categorical Graphs in StatCrunch

## Bar plots and pie charts

- Graph → Bar Plot or Pie Chart → With Summary
- Select the column containing category names
- Select the column containing category counts
- Click “Compute!”

## Pareto charts

Follow steps for bar chart, except...

- Under “Order by” select “Count descending”

# Paired Data Graphs in StatCrunch

## Scatterplots and time series plots

- Graph → Scatter plot
- Select column that contains the data for the x-axis (time variable for time series plots)
- Select column that contains the data for the y-axis
- For time series plots, under “Display” select lines (shift-click to select both points and lines)
- Click “Compute!”