Stat 201: Statistics I
StatCrunch: Chapter 7

Metropolitan State University

Chapter 7
Estimating Parameters and Determining Samples Sizes

Section 7.1
Estimating a Population Proportion

Confidence intervals of proportions in StatCrunch

- Stat → Proportion Stats → One Sample → With Summary
- Enter "# of successes" and "# of observations"
- Select "Confidence interval for p"
- Enter confidence level if different than 0.95.
- Click "Compute!"
- The confidence interval is found in "L. Limit" and "U. Limit"

Find needed sample size with StatCrunch

- Stat $\rightarrow$ Proportion Stats $\rightarrow$ One Sample $\rightarrow$ Width/Sample Size
- Enter "Confidence level" if different than 0.95.
- Enter estimated $\hat{p}$ as "Target Proportion"
- Enter twice desired margin of error as "Width"
- Click "Compute!"
- The needed sample size is found in "Sample size"

Section 7.2
Estimating a Population Mean

Confidence intervals of means in StatCrunch

- Stat $\rightarrow$ Z Stats **or** T Stats $\rightarrow$ One Sample $\rightarrow$ With Summary **or** T Stats $\rightarrow$ One Sample $\rightarrow$ With Data
- For known population standard deviation (Z Stats): Enter "Sample mean", "Standard deviation" and "Sample Size"
- For unknown population standard deviation (T Stats): Enter "Sample mean", "Sample std. dev." and "Sample Size" (not degrees of freedom)
- For data set (T Stat with Data): Select column which contains data
- Select "Confidence interval for μ"
- Enter confidence level if different than 0.95.
- Click "Compute!"
- The confidence interval is found in "L. Limit" and "U. Limit"

Find needed sample size with StatCrunch

- Stat $\rightarrow$ Z Stats $\rightarrow$ One Sample $\rightarrow$ Width/Sample Size
- Enter "Confidence level" if different than 0.95.
- Enter estimated or given standard deviation as "Std. dev."
- Enter twice desired margin of error as "Width"
- Click "Compute!"
- The needed sample size is found in "Sample size"