

STAT 270 Lecture 2
Spring 2015
11 September 2015

- We covered slides 1-36 of “Descriptive Statistics”.
- I want you to read all of Chapter 2 and the first 2 sections of Chapter 3 for next week.
- We have now covered up to Chapter 2 section 3.1
- Next class I will do Chapter 2 sections 3.2 to the end of the chapter.
- You should continue to review (and do as many as possible of) Chapter 2 questions.
- **Handwritten slides.** (Only 1 slide today.)
- Key jargon, ideas:
 - Words to describe distributions or histograms: skewed to the right or left; tail of a distribution; long tail to the right and skewed to the right mean the same; symmetric; ‘unimodal’; mode; median; quartiles; percentiles; outlier.
 - More bars gives more detailed information but makes the ‘big picture’ harder to see.
 - Too few bars throws away too much information.
 - In a histogram it is *area* of a bar which is used to represent the fraction or percentage of the data belonging in that bar.
 - If the bars all have the same width then the area is proportional to the height and we can use the raw frequencies (counts) to set the bar heights.
 - I showed income data to emphasize this point.
 - The median is *robust* but the mean is not.
 - Some measurements have nice symmetric distributions. Height is example.
 - This is more clear for homogeneous groups — only adult males for instance. Sometimes it is wise to break the data set into sub-groups for understanding.
 - Other measurements, like income, are skewed. Income is essentially always skewed to the right.