

Chapter 3

33. Movie lengths 2010 The histogram shows the running times in minutes of the 150 top-grossing feature films released in 2010.

- You plan to see a movie this weekend. Based on these movies, how long do you expect a typical movie to run?
- Would you be surprised to find that your movie ran for 2.5 hours (150 minutes)? (To be answered soon)
- Which would you expect to be higher: the mean or the median run time for all movies? Why?

47. Hurricanes 2010 The following data give the number of hurricanes classified as major hurricanes in the Atlantic Ocean each year from 1944 through 2010, as reported by NOAA (www.nhc.noaa.gov):

3, 3, 1, 2, 4, 3, 8, 5, 3, 4, 2, 6, 2, 2, 5, 2, 2, 7, 1, 2, 6, 1, 3, 1, 0, 5, 2, 1, 0, 1, 2, 3, 2, 1, 2, 2, 2, 3, 1, 1, 1, 3, 0, 1, 3, 2, 1, 2, 1, 1, 0, 5, 6, 1, 3, 5, 3, 4, 2, 3, 6, 7, 2, 2, 5, 2, 5

- Create a dotplot of these data.
- Describe the distribution.

37. Movie earnings The histogram shows total gross earnings (in millions of dollars) of major release movies in 2011. An industry publication reports that the average movie makes 41.7 million, but a watchdog group concerned with rising ticket prices says that the average earnings are 66.9 million. What statistic do you think each group is using? Explain.

23. Summaries Here are costs of nine compact refrigerators rated very good or excellent by *Consumer Reports* on their website www.consumerreports.org. \$150 150 160 180 150 140 120 130 120

Find these statistics by *hand* (no calculator!):

- mean
- median and quartiles
- range and IQR

15. Sugar in cereals The histogram displays the sugar content (as a percent of weight) of 49 brands of breakfast cereals.

- Describe this distribution.
- What do you think might account for this shape?