

Chapter 2

Frequency Distributions: Tabulating and Displaying Data

- 2.1. A major purpose of constructing a frequency distribution with sample data is to:
- Estimate a population parameter
 - Test a research hypothesis
 - *c. Get an organized view of an entire set of scores
 - Get experience with statistical software
- 2.2. In a frequency distribution, the two key informational components are:
- *a. Score values (X), frequencies (f)
 - A horizontal (X) axis, a vertical (Y) axis
 - Frequencies (f), percentages (%)
 - Participant ID number (id), score values (X)
- 2.3. In a frequency distribution, which of the following is true?
- $\Sigma N = \%$
 - $\Sigma N = f$
 - $\Sigma f = \%$
 - *d. $\Sigma f = N$
- 2.4. In the equation $\Sigma \% = 100.0$, the symbol Σ signifies:
- A percentage
 - *b. The sum of
 - A data value
 - A frequency
- 2.5. In a frequency distribution, percentages are sometimes called:
- Proportions
 - Relative proportions
 - *c. Relative frequencies
 - Cumulative proportions
- 2.6. Data for which of the following variables is most likely to be presented in a grouped frequency distribution?
- Nursing specialty area
 - *b. Daily cholesterol intake
 - Number of abortions
 - Number of pets owned
- 2.7. The level of measurement for data appropriately presented in a bar graph is:
- Interval or ratio
 - Nominal only
 - Interval only
 - *d. Nominal or ordinal
- 2.8. In a frequency distribution graph, frequencies are typically presented on the _____ and data values are presented on the _____. (Fill in the blanks.)
- *a. Y axis, X axis

- b. *X* axis, *Y* axis
- c. *f* axis, *N* axis
- d. *N* axis, *f* axis

2.9. Which of the following sets of data is *not* unimodal?

- *a. 1, 1, 1, 2, 2, 2, 2, 2, 2, 2, 2, 3, 3, 4, 5, 5, 5, 5, 5, 5, 5
- b. 0, 0, 0, 0, 0, 0, 0, 0, 1, 1, 1, 2, 2, 2, 2, 3, 3, 3, 4, 4, 4, 4
- c. 0, 0, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 2, 2, 3, 3, 4, 5
- d. 1, 1, 2, 2, 3, 3, 4, 4, 5, 5, 5, 5, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9

2.10. Which of the following variables is most likely to be negatively skewed in a general population?

- a. Number of times arrested
- *b. Age at retirement
- c. Number of times married
- d. Age at birth

2.11. A normal distribution is *not*:

- a. Skewed
- b. Leptokurtic
- c. Platykurtic
- *d. All of the above

2.12. A wild code is:

- *a. A value that is impossible given the coding scheme
- b. An outlier or high value
- c. A code for which there is a very low frequency
- d. A code for which there is a very high frequency

The next eight questions pertain to the following table (Table 2):

Table 2

| Number of Pregnancies of Study Participants | Frequency | Percentage | Cumulative Percentage |
|---|-----------|------------|-----------------------|
| 0 | 24 | 11.1 | 11.1 |
| 1 | 29 | 13.5 | 24.6 |
| 2 | 78 | 36.3 | 60.9 |
| 3 | 46 | 21.4 | 82.3 |
| 4 | 22 | 10.2 | 92.5 |
| 5 | 11 | 5.1 | 97.6 |
| 6 | 4 | 1.9 | 99.5 |
| 7 | 1 | 0.4 | 100.0 |
| Total | 215 | 100.0 | |

2.13 In Table 2, the variable is _____ and the measurement level is _____. (Fill in the blanks.)

- a. Discrete, interval
- *b. Discrete, ratio
- c. Continuous, interval
- d. Continuous, ratio

- 2.14. Table 2 is an example of a:
- *a. Frequency distribution
 - b. Grouped frequency distribution
 - c. Class interval
 - d. Data matrix
- 2.15. In Table 2, the value of N is:
- a. 24
 - b. 100.0
 - *c. 215
 - d. 7
- 2.16. In Table 2, the cumulative relative frequency for five or fewer pregnancies is:
- a. 210
 - b. 199
 - c. 92.5
 - *d. 97.6
- 2.17. The best way to graph information in Table 2 would be to construct:
- *a. A histogram
 - b. A pie chart
 - c. A bar graph
 - d. Either a pie chart or a bar graph
- 2.18. In Table 2, the distribution of data would be described as:
- a. Symmetric
 - *b. Positively skewed
 - c. Negatively skewed
 - d. It cannot be determined.
- 2.19. In Table 2, the distribution of data would be described as:
- *a. Unimodal
 - b. Bimodal
 - c. Multimodal
 - d. It cannot be determined.
- 2.20. In Table 2, the most likely number to be an outlier is:
- a. 0
 - b. 1
 - *c. 7
 - d. 24