Chapter 2

*Frequency Distributions: Tabulating and Displaying Data*

2.1. A major purpose of constructing a frequency distribution with sample data is to:
   a. Estimate a population parameter
   b. Test a research hypothesis
   *c. Get an organized view of an entire set of scores
d. Get experience with statistical software

2.2. In a frequency distribution, the two key informational components are:
   *a. Score values (X), frequencies (f)
   b. A horizontal (X) axis, a vertical (Y) axis
   c. Frequencies (f), percentages (%)
   d. Participant ID number (id), score values (X)

2.3. In a frequency distribution, which of the following is true?
   a. \( \sum N = \% \)
   b. \( \sum N = f \)
   c. \( \sum f = \% \) *d. \( \sum f = N \)

2.4. In the equation \( \sum \% = 100.0 \), the symbol \( \Sigma \) signifies:
   a. A percentage
   *b. The sum of c.
   A data value
d. A frequency

2.5. In a frequency distribution, percentages are sometimes called:
   a. Proportions
   b. Relative proportions *c.
   Relative frequencies
d. Cumulative proportions

2.6. Data for which of the following variables is most likely to be presented in a grouped frequency distribution?
   a. Nursing specialty area *b.
   Daily cholesterol intake c.
   Number of abortions
d. Number of pets owned
2.7. The level of measurement for data appropriately presented in a bar graph is:  
   a. Interval or ratio
   b. Nominal only
   c. 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, 3, 3, 4, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5
   b. 0, 0, 0, 0, 0, 0, 0, 0, 1, 1, 1, 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, 1, 2, 2, 3, 3, 4, 5
   d. 1, 1, 2, 2, 3, 3, 4, 4, 4, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 6, 6, 6, 7, 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>
<thead>
<tr>
<th>Number of Pregnancies of Study Participants</th>
<th>Frequency</th>
<th>Percentage</th>
<th>Cumulative Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>24</td>
<td>11.1</td>
<td>11.1</td>
</tr>
<tr>
<td>1</td>
<td>29</td>
<td>13.5</td>
<td>24.6</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>2</td>
<td>78</td>
<td>36.3</td>
<td>60.9</td>
</tr>
<tr>
<td>3</td>
<td>46</td>
<td>21.4</td>
<td>82.3</td>
</tr>
<tr>
<td>4</td>
<td>22</td>
<td>10.2</td>
<td>92.5</td>
</tr>
<tr>
<td>5</td>
<td>11</td>
<td>5.1</td>
<td>97.6</td>
</tr>
<tr>
<td>6</td>
<td>4</td>
<td>1.9</td>
<td>99.5</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>0.4</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>215</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

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.

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