A. Reviewing

1. In a journal article in your field, find a description of univariate distributions for each of the following types of variables. Critique them, using the criteria described in chapter 9 of *Writing about Numbers*, 2nd Edition.
    a. A nominal variable.
    b. An ordinal variable.
    c. An interval or ratio variable with many possible values.
    d. Rewrite the descriptions to correct any shortcomings you find in parts a through c.

2. Refer to each of the descriptions in question A.1.
    a. Identify the criteria the author is using to choose which value to highlight. Does that value match the research question and introductory material in the article?
    b. If all values are described with equal emphasis, assess whether one or more values should be featured and why.

3. In a journal article in your field, find a description of a table or chart portraying a bivariate association between two categorical variables.
    a. Critique it, using the criteria in chapter 9 for writing about that type of association.
    b. Rewrite the description to correct any shortcomings you find.

4. Repeat question A.3 for a description of a bivariate association between a categorical predictor and a continuous outcome variable.

5. Repeat question A.3 for a description of one or more bivariate correlations among continuous variables.

6. In a journal article in your field, find a description of a table or chart portraying time trends in two or more related concepts (e.g., values of several different stocks over a few weeks, or trends in unemployment rates for two or more states or regions).
    a. Critique the description using the criteria in chapter 9 for writing about three-way associations.
    b. Rewrite it using the "generalization, example, exceptions" (GEE) approach explained on pp. 33–36, 220–24, and 349–58 of *Writing about Numbers*, 2nd Edition.

7. In a journal article in your field, find a chart depicting a three-way association such as a clustered bar chart or simple bar chart with two or more panels.
    a. Critique the description using the criteria in chapter 9 for writing about three-way associations.
    b. Rewrite it using the GEE approach.

9

WRITING ABOUT DISTRIBUTIONS AND ASSOCIATIONS

B. Applying Statistics and Writing

Hint: Use the tables or charts of univariate distributions and bivariate associations that you created based on the suggested course extensions for chapters 6 and 7.

1. Using frequency distributions on one nominal, one ordinal, and one interval or ratio variable in your data set:
    a. Write a brief description of each distribution, emphasizing the modal value using the criteria in chapter 9 of *Writing about Numbers*, 2nd Edition. Summarize the overall shape of the distribution, then report key indicators of central tendency.
    b. Write a second description of each distribution, this time highlighting a value of interest other than the mean or mode, such as a minority group, unusual value, or most recent value.

2. Write a brief description of each of the following types of bivariate associations, using the criteria in chapter 9.
    a. An association between two categorical variables.
    b. An association between a categorical predictor variable and a continuous outcome variable.
    c. Bivariate correlations among a series of continuous variables.

3. Using variables from your data set, run a three-way association among two categorical predictor variables and a continuous outcome. Write a description of that association using the GEE approach.

C. Revising

1. Evaluate descriptions of univariate statistics (distributions, central tendency) from a paper you have written previously, using the criteria in chapter 9 of *Writing about Numbers*, 2nd Edition. Revise them to rectify any shortcomings you find.

2. Evaluate descriptions of bivariate statistics (cross-tabulations, differences in means, or correlations) from the same paper. Revise them to rectify any shortcomings you find.

3. Evaluate a description of a three-way association from a results section you have written previously, using the GEE approach. Revise it to rectify any shortcomings you find.

4. Exchange drafts with a peer who is working with a different topic and data. Peer-edit each other's work and revise according to the feedback you receive.