Name(s) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Investigation 18: How Stressed Are You?**

**Worksheet 18.1 Directions for Student-Designed Investigation**

**Formulate a Statistical Question**

Brainstorm topics that your group is interested in that include a categorical variable and involve deciding if two proportions are significantly different.

**Statistical Question \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Collect Appropriate Data**

Describe the data collection process. This could include taking a random sample of two different groups in your school or taking a random sample from the database at the Census at School website. Include possible complications and how these might be handled.

Once the data are collected find the difference between the two proportions of interest. Design and conduct a simulation to decide if there is a significant difference between the two proportions.

**Analyze the Data**

Data analysis should include a dot plot and summary of the simulation.

**Interpret the Results**

Interpret the analysis of the data in the context of the situation. Be sure to answer the statistical question and support the answer with the data analysis.