**Choosing the Right Technique** **Statistics Workshop**

*For each of the following situations, describe the variable or variables of interest, including whether they are categorical or quantitative. Then identify the best inference technique to use.*

1. A school has 2 kindergarten classes. At the end of the year, Ms. Toodle has 21 kids of whom 17 are "pre-readers". Mrs. Grimace has 19 kids, of whom 13 are "pre-readers." Is this a significant difference?

2. *Sports Illustrated* surveyed a random sample of 757 Division I college athletes in 36 sports. One question was: "Have you ever received preferential treatment from a professor because of your status as an athlete?" Of the athletes polled, 225 said yes. How many Division I athletes received preferential treatment from their professors?

3. You collect 16 rainwater samples from the Adirondack mountains in New York state. Estimate the average pH (acidity) of rain the Adirondacks.

4. The General Social Survey asks respondents to classify their political inclination as liberal, moderate, or conservative. They also asked people whether the federal government spends too much, about right, or to little money on health care. Is there a statistically significant difference between liberals, moderates, and conservatives in their attitudes about government spending on health care?

5. A study wants to determine whether there is a significant difference in how many hours per day husbands and wives spend on household chores.