Calculating Divorce Rates

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<tr>
<th>Name of Course</th>
<th>Sociology of the Family – SOC 203</th>
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<td>Course Level</td>
<td>Sophomore</td>
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<td>Possible subject Areas</td>
<td>Trends in Divorce</td>
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| Quantitative concepts/skills that students will develop | Percentages, ratios and standardized rates  
The usefulness of standardizing data  
Misuse of data in the media  
Reading statistical tables  
Graphing  
Reading graphs |

Overview

This assignment acquaints students with the variety of ways to calculate the likelihood of divorce. Often the mass media and other reports tend to report divorce statistics in less useful and occasionally useless ways. There are four ways to calculate divorce rates. The first, often called the “apples and oranges” method involves calculating a ratio of the number of divorces to marriages occurring in a given year. This involves comparing two groups which have little in common as only very few divorces involve marriages formed during the same year. The second, called the crude divorce rate, involves looking at the number of divorces taking place within the entire population whether married, widowed, too young to marry or not. These are the two most commonly used statistics in the media and in official governmental data.

The final two provide a more precise measure of divorce but are used less often. The refined divorce rate is based on the number of divorces within all marriages existing at a given time and is a useful way to look at the chances of divorce occurring. The final approach follows the amount of divorce occurring among a cohort of people who marry during the same year over time. This is a useful way to track when divorce occurs after marriage and to compare the likelihood of divorce within different cohorts.
In this exercise students calculate and graph the “apples and oranges,” crude, and refined divorce rates from raw data from 1900 to the present in five and ten year intervals. They will be asked to discuss the advantages and disadvantages of each method. Finally, they will read examples of how all four rates are used in the media.

Supplemental materials include:

1. Raw data spreadsheet and spreadsheet with calculated divorce rates and chart.
2. Pre-test and post-test.
3. Two articles from the mass media that use divorce rates.
4. An article from the Council on Contemporary Families that discusses problems with estimating divorce.

Students will:
- understand the difficulty of interpreting divorce rates
- appreciate changes in the divorce rate over time
- use Excel to calculate percentages and standardized rates in a variety of ways, and to graph trends in divorce
- compare and contrast the usefulness of different standardized rates
- appreciate some fallacies in media depictions of divorce.
MAIN ACTIVITY

1. One week prior to the assignment due date:
   - Distribute the raw data for the exercise. This consists of a spreadsheet containing data from 1900 to 2000 at ten year intervals, and 2000-2004. The four variables provided to students for those years are the United States population, the number of divorces granted in that year, the number of marriages occurring in that year, and the total number of married couples in the population. The sources are various copies of the Statistical Abstract of the United States. Empty columns will be marked Divorce Rate #1, #2, and #3 respectively. The spreadsheet will also be provided on the class Blackboard site.
   - Give students a pre-test of their ability to create percentages, interpret relationships among samples of different sizes, and interpret graphical data.
   - Briefly explain the method of using Excel to calculate a percentage or rate.
   - Pass out directions for the exercise that ask students to calculate trends in three different divorce rates from the data, interpret differences in the rates, select one rate as most useful in understanding the likelihood of divorce, and graph the changes in that divorce rate from 1900 to 2004.
   - Provide links to three short articles that use various measures of divorce and an article that discusses difficulties in finding an accurate measure of divorce. These will be provided as links on the class Blackboard site.

2. Students will be expected to hand in a completed spreadsheet with three different rates calculated, a graph over time of the rate they believe is most accurate, and a brief 1-2 page paper that explains their choice and critiques the assigned articles.

3. Students will take a brief post-test that assesses their ability to create percentages, determine the most appropriate divorce rate, and correctly read a different graph than one on divorce. Also, students will be asked questions on various divorce rates on the final exam.
Describe how you plan to assess the effectiveness of this module

Effectiveness of the module will be assessed through pre and post testing of students on their ability to create and interpret percentages and read a graph. A post-test will also assess the above skills along with students’ understanding of the usefulness of various divorce rates.

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**PRE-TEST**

A. Two polls were conducted in Iowa and New Hampshire prior to determine whether Rudy Giuliani or Hillary Clinton is a more appealing candidate for the presidency. In Iowa 250 of the 400 people polled favored Giuliani, while in New Hampshire 300 of 500 voters favored Giuliani. In which state does Giuliani have more voter support and by how wide a margin?

   Correct Answer: Iowa by 2.5%. (Giuliani has 62.5% of the vote in Iowa and 60% of the vote in New Hampshire.)

B. Use the following graph to answer these questions:

   a. Which racial/ethnic group had the largest percent of children in poverty in 1993?

      Correct answer: Black (46%).

   b. What is the overall trend in child poverty between 1993 and 2001?

      Correct answer: Decline.
c. Rank the four identified racial/ethnic groups from high to low in child poverty in 2001.

Correct answer: Black (highest), Hispanic, Asian, Non-Hispanic White (lowest).