USING STATISTICS

Statistics are numerical data collected in a population. For instance, women make up 50.9 percent of the U.S. population. This statistic comes from the U.S. Census 2000 website at http://www.census.gov/main/www/cen2000.html. Is the U.S. Census a reputable source for this kind of information? Yes, but this data may have some shortcomings because it is hard to count everyone reliably, and the data are updated only every 10 years.

The U.S. Census is not the only place to find statistics. Many organizations assemble them. The Internet Public Library's Finding Statistics guide is a valuable resource: http://www.ipl.org/div/pf/entry/48530.

Ibiblio.org also contains an extensive set of statistics-finding links: http://www.ibiblio.org/slanews/conferences/sla2000/car/webstats.htm

What types of arguments might statistics support? Here are a few arguments that the "50.9 percent of the U.S. population are women" statistic could support:

- Politicians should pay more attention to women voters.
- We need increased medical research on women-specific diseases.
- The explosion of women-centered TV networks (WE, Oxygen, and the many Lifetimes) is justified.

Statistics seem straightforward, so what is the danger in using them? Consider the following example: Some years ago, the chief of police in an East Coast city used this statistic in a press conference about illegal drugs in his city: 89 percent of the drug dealers in his city were African-American. This statistic was not untrue, but do you see a problem with it? Many people found it to be racist, but if the statistic was true, how could it be?

Consider the other ways this group might have been characterized, instead of racially. What about gender? What percentage were men? Or age? What percentage were 18 to 29 years old? What are your guesses? Let's say that the police chief had said 89 percent of the drug dealers were men or that 89 percent were 18 to 29 years old; what would this have made you think about the criminal tendencies of men or of young adults? Here's an important statistic that was missing: What percentage of African-Americans in that city were drug dealers? Think about it -- what's your answer?

If you said 89 percent, you're wrong, but it's a common mistake. The answer is that we don't know from this. Let's say this was an average-sized city (100,000 people). Let's say 20,000 African-Americans were in that city. Do you think all 20,000 were drug dealers? Of course not, but that's what the statistic implies. Probably a pretty low percentage of African-Americans in that city were drug dealers, right? Let's find out. Let's assume there were 200 drug dealers. What we know from this statistic is 89 percent of the drug dealers were African-American. That means that 178 African-Americans were drug dealers. Now, let's return to the second question -- what percentage of African-Americans in that city were drug dealers? With 20,000 African-Americans, 178 of whom are drug dealers, 0.01 percent of African-Americans in that city were drug dealers.

The problem with the police chief's use of that statistic is that while it was supposedly true, it left his audience believing NOT that drug dealers were African-Americans, but that African-Americans were drug dealers. See the big and important difference?

Stereotypes do this. Do African-American criminals, dumb blondes, and Italian mobsters exist? Yes. What percentage of blondes are dumb, Italians are mobsters, etc.? A really low percentage, as demonstrated in the African-American example above, which makes these stereotypes really misleading to use. They do not reflect reality. This issue is incredibly important because often people think that just because a statistic is true it's okay to use it. You need to question the motivation of dividing groups that way.