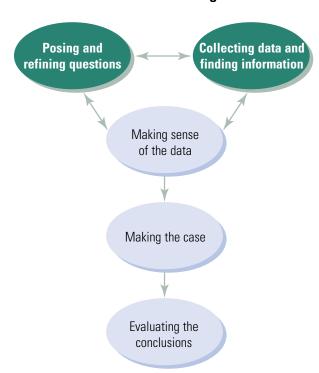
## In Search of Good Data

## Data-Driven Problem Solving



Humans are naturally curious beings. Asking questions such as *why* and *what if* ... have not only helped us to make sense of our world, but they have also led to many important discoveries.

In this chapter, you will explore your personal interests. You will then focus on one or two areas of interest and begin to brainstorm a variety of unanswered questions. One of these questions should become the purpose for your major research project. To answer any question, however, you will need a large amount of data. Subsequent sections will address both the gathering of primary and secondary data, and the issues of bias, sample size, experimental design, and data organization.

## In this chapter, you will

- search databases to locate data to answer significant questions
- use the Internet effectively as a source of information
- create database or spreadsheet templates to manipulate and retrieve data effectively
- understand the need for a variety of sampling techniques
- identify different types of bias
- organize and summarize data from secondary sources
- pose a significant problem whose solution would require the organization and analysis of a large amount of data