

## 15-2 Projects

**Key Concept** Every statistics course can benefit greatly from a final capstone project. This activity is a fun, valuable, and rewarding experience for students as well as professors. A final project provides students with the opportunity to use principles of statistics in a real and interesting application. This section provides a suggested format for such a project.

### Group Project vs. Individual Project

Although different topics could be assigned to individuals, group projects are more effective because they help develop the interpersonal skills that are so necessary in today's working environment. One study showed that the "inability to get along with others" is the main reason for firing employees, so a group project can be very helpful in preparing students for their future work environments. Groups of three, four, or five students work well. The professor should select groups with consideration given to relevant factors such as past class performance and attendance.

**Oral Report** A 10- to 15-minute class presentation should involve all group members in a coordinated effort to clearly describe the important results of the study. Students typically have some reluctance to speak in public, so a brief oral report can be very helpful in building confidence. The oral report is an activity that can better prepare students for future professional activities.

**Written Report** The goal of the final capstone project is not to produce a written document equivalent to a term paper. However, a brief written report should be submitted, and it should include the following components:

1. List of data collected along with a description of how the data were obtained.
2. Description of the method of analysis.
3. Relevant graphs and/or statistics, including displays from technology.
4. Statement of conclusions.
5. Reasons why the results might not be correct, along with a description of ways in which the study could be improved. (It may not be practical for students to use a sound sampling method. Practical considerations may require that they use a convenience sample, and stress that this is perfectly acceptable as long as they explain how their sampling method is flawed and how it could have been improved with sufficient resources of time, money, and effort.)

**Large Classes or Online Classes: Posters or PowerPoint** Some classes are too large for individual or group projects. Online classes are not able to meet as a group. For such classes, reports of individual or small group projects can be presented through posters similar to those found at conference poster sessions. Posters or PowerPoint presentations summarizing important elements of a project can be submitted to professors for evaluation.

**Project Topics** The "Cooperative Group Activities" listed near the end of each chapter include more than 100 suggestions for projects.