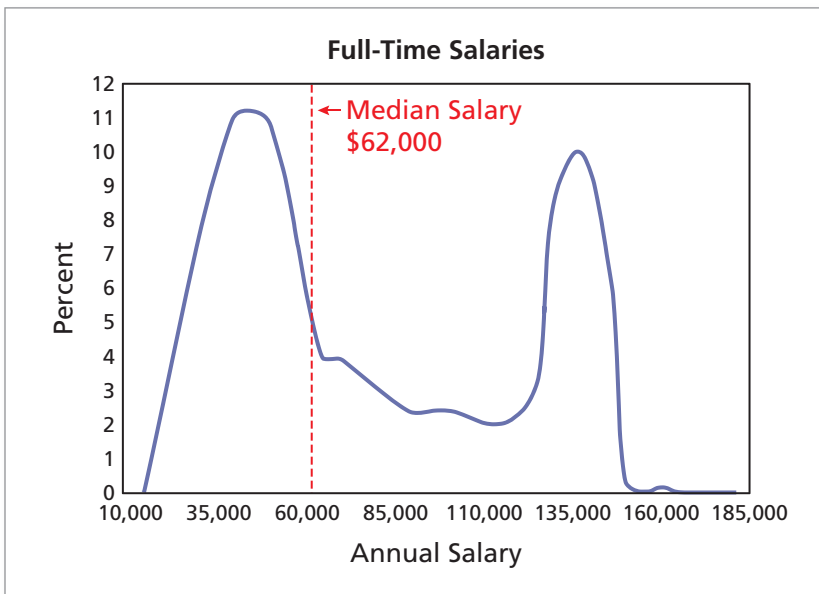EXAMPLE 6   **Analyzing Bimodal Distribution**

The graph shows the distribution of the full-time salaries of 22,665 people who graduated from law school in 2006. How would you explain the bimodal distribution?

Full-Time Salaries

Employed graduates from the law school class of 2006 took the following types of jobs: private practice (55.8%), business (14.2%), other government (10.6%), judicial clerk (9.8%), public interest (5.4%), academic (1.7%), military (1.1%), and unknown (1.3%).

SOLUTION

According to the National Association for Law Placement (NALP), 71% of employed graduates from the class of 2006 took jobs at small firms (50 or fewer lawyers) or in nonfirm settings. Only 20% took jobs at large firms (more than 100 lawyers).

   The bimodal distribution represents a cluster of lawyers at small and midsize firms earning between $40,000 and $50,000 and a cluster of lawyers at large firms earning between $135,000 and $145,000.

✓ **Checkpoint**   Help at *Math*.and**Y☻U**.com

Suppose that you combine the data from the two data sets in Example 4 into one data set. What will the histogram look like? Explain how you can discover two (or more) subpopulations within a given larger population.

Adult Male Heights   **Adult Female Heights**

Law schools are ranked each year. One of the recent rankings by *U.S. News and World Report* listed the following as the top five law schools in the United States (with full-time tuition).

1. Yale University ($50,750)
2. Harvard University ($45,450)
3. Stanford University ($46,581)
4. Columbia University ($50,428)
5. University of Chicago ($45,405)