and 1971. Here are boxplots of the data for each month (over the 46 years), lined up in order (January=1):

- In what month was the highest ozone level ever recorded?
- Which month has the largest IQR?
- Which month has the smallest range?
- Write a brief comparison of the ozone levels in January and June.
- Write a report on the annual patterns you see in the ozone levels.

27. Wild-card Summer Olympics. Seventy-one swimmers finished the qualifying first day of the men's 100-m swim in the 2000 Olympics in Sydney. The average time was 52.65 seconds, with a standard deviation of 7.66 seconds. The median time was 51.34 seconds and the IQR was 2.58 seconds.

- Without looking at a graphical display, what shape would you expect the distributions of times to have?
- What might account for the difference between these two sets of statistics?
- Here is the histogram of the actual times. Write a couple of sentences summarizing what you see. 

28. Unemployment. In May of 2001, the U.S. Bureau of Labor Statistics (BLS) issued a news release that said,

In April, 223 metropolitan areas recorded unemployment rates below the U.S. average of 4.2 percent (not seasonally adjusted), while 99 areas registered higher rates.

Sketch what the distribution of unemployment rates for the 322 metropolitan areas reported on by BLS probably looks like.

29. Test scores. Three Statistics classes all took the same test. Histograms of the scores for each class are shown below.

- Which class had the highest mean score?
- Which class had the highest median score?
- For which class are the mean and median most different? Which is higher? Why?
- Which class had the smallest standard deviation?
- Which class had the smallest IQR?

30. Test scores. Look again at the histograms of test scores for the three Statistics classes in Exercise 29.

- Overall, which class do you think performed best on the test? Why?
- How would you describe the shape of each distribution?
- Match each class with the corresponding boxplot below.