(3.31, 3.39, 3.49, 3.73)

The file **SavingRate** contains the yields for a money market account, a one-year certificate of deposit (CD), and a five-year CD for 23 banks in the metropolitan New York area, as of May 28, 2009. For each type of account:

1. Compute the first quartile (Q1), the third quartile (Q3), and the interquartile range.
2. List the five –number summary.
3. Construct a boxplot and describe the shape.

The file **Tax** contains the quarterly sales tax receipts (in thousands of dollars ) submitted to the comptroller of the Village of Fair Lake for the period ending March 2009 by all 50 businesses established in the locale:

10.3 11.1 9.6 9.0 14.5

13.0 6.7 11.0 8.4 10.3

8.0 11.8 8.7 10.6 9.5

11.1 10.2 11.1 9.9 9.8

11.6 15.1 12.5 6.5 7.5

10.0 12.9 9.2 10.0 12.8

12.5 9.3 10.4 12.7 10.5

9.3 11.5 10.7 11.6 7.8

10.5 7.6 10.1 8.9 8.6

a. Compute the mean, variance, and standard deviation for this population

b. What percentage of these businesses have quarterly sales tax receipts within + 1, + 2, or + 3

standard deviations of the mean?

c. Compare your findings with what would be expected on the basis of the empirical rule. Are you surprised at the results in (b).

College football players trying out for the NFL are given the Wonderlic standardized intelligence test. The file **Wonderlic** contains the average Wonderlic score of football players trying out for the NFL and the graduation rate for football players at selected schools.

1. Compute the covariance
2. Compute the coefficient of correlation
3. Based on (a) and (b), what conclusions can you reach about the relationship between the average Wonderlic score and graduation rate?

The file **Compensation** includes the total compensation includes the total compensation (in $) of CEOs of the large public companies in 2008.

1. Compute the mean, median, first quartile, and third quartile.
2. Compute the range, interquartile range, variance, standard deviation, and coefficient of variation.
3. Construct a boxplot. Are the data skewed? Is so, how?
4. Based on the results of (a) through (c), what conclusions can you reach concerning the total compensation (in $millions) of CEOs?
5. Compute the correlation coefficient between compensation and the amount of bonus.
6. Compute the correlation coefficient between compensation and the change in stock price in 2008.
7. What conclusions can you reach from the results of (e) and (f)?