

The data are from Statlib and the authors are Joseph Kadane and John Lamberth. Does it appear that drivers of either race speed more than drivers of the other race?

White drivers: 74 77 69 71 77 69 72 75 74 72

African American drivers: 79 70 71 76 76 74 71 75 74 74

22. Parking Meter Theft Listed below are amounts (in millions of dollars) collected from parking meters by Brinks and others in New York City during similar time periods. A larger data set was used to convict five Brinks employees of grand larceny. The data were provided by the attorney for New York City, and they are listed on the DASL web site. Do the limited data listed here show evidence of stealing by Brinks employees?

Collection contractor was Brinks: 1.3 1.5 1.3 1.5 1.4 1.7 1.8 1.7 1.7 1.6

Collection contractor was not Brinks: 2.2 1.9 1.5 1.6 1.5 1.7 1.9 1.6 1.6 1.8

23. Political Contributions Listed below are contributions (in dollars) made to the two presidential candidates in a recent election. All contributions are from the same Zip code as the author, and the data are from the *Huffington Post*. Do the contributions appear to favor either candidate? What do you conclude after learning that there were 66 contributions to Obama and 20 contributions to McCain?

Obama: \$275 \$452 \$300 \$1000 \$1000 \$500 \$100 \$1061

\$1200 \$235 \$875 \$2000 \$350 \$210 \$250

McCain: \$50 \$75 \$240 \$302 \$250 \$700 \$350 \$500

\$1250 \$1500 \$500 \$500 \$40 \$221 \$400

24. Customer Waiting Times Waiting times (in minutes) of customers at the Jefferson Valley Bank (where all customers enter a single waiting line) and the Bank of Providence (where customers wait in individual lines at three different teller windows) are listed below. Determine whether there is a difference between the two data sets that is not apparent from a comparison of the measures of center. If so, what is it?

Jefferson Valley (single line): 6.5 6.6 6.7 6.8 7.1 7.3 7.4 7.7 7.7 7.7

Providence (individual lines): 4.2 5.4 5.8 6.2 6.7 7.7 7.7 8.5 9.3 10.0

Large Data Sets from Appendix B. In Exercises 25–28, refer to the indicated data set in Appendix B. Use computer software or a calculator to find the means and medians.

25. Earthquakes Use the magnitudes (Richter scale) of the earthquakes listed in Data Set 16 in Appendix B. In 1989, the San Francisco Bay Area was struck with an earthquake that measured 7.0 on the Richter scale. That earthquake occurred during the warm-up period for the third game of the baseball World Series. Is the magnitude of that World Series earthquake an *outlier* (data value that is very far away from the others) when considered in the context of the sample data given in Data Set 16? Explain.

26. Flight Data Refer to Data Set 15 in Appendix B and use the times required to taxi out for takeoff. For American Airlines, how is it helpful to find the mean?

27. Presidential Longevity Refer to Data Set 12 in Appendix B and use the numbers of years that U.S. presidents have lived after their first inauguration. What is the value of finding the mean of those numbers?

28. IQ Scores Refer to Data Set 6 in Appendix B and use the listed IQ scores. IQ tests are designed so that the mean IQ of the population is 100. Does the sample mean suggest that the sample is consistent with the population?