

Kia Rio, and Kia Spectra. Which car appears to be safest? Based on these limited results, do small cars appear to have about the same risk of head injury in a crash?

371 356 393 544 326 520 501

8. Tests of Child Booster Seats The National Highway Traffic Safety Administration conducted crash tests of child booster seats for cars. Listed below are results from those tests, with the measurements given in “hic,” which is a measurement of a standard “head injury criterion.” According to the safety requirement, the hic measurement should be less than 1000 hic. Do the results suggest that all child booster seats meet the specified requirement?

774 649 1210 546 431 612

9. Harry Potter Listed below are the gross amounts (in millions of dollars) earned in box office receipts for the movie *Harry Potter and the Half-Blood Prince*. The movie opened on a Wednesday, and the amounts are listed in order for the first 14 days of the movie’s release. What important feature of the data is not revealed through the different measures of center? What is an explanation for the fact that the three highest amounts are the first, third, and fourth values listed?

58 22 27 29 21 10 10 8 7 9 11 9 4 4

10. Florida Manatee Deaths Listed below are the numbers of manatee deaths caused each year by collisions with watercraft. Manatees, also called “sea cows,” are large mammals that live underwater, often in or near waterways. The data are listed in order for each year of the past decade. The data are from the Florida Fish and Wildlife Conservation Commission. What important feature of the data is not revealed through the different measures of center?

78 81 95 73 69 79 92 73 90 97

11. Ghost Prices Listed below are the prices listed for Norton Ghost 14.0 software from these vendors: Newegg, Dell, Buycheapsoftware.com, PC Connection, Walmart, and Overstock.com. For this collection of data values, are any of the measures of center the most important statistic? Is there a different statistic that is most relevant here? If so, which one?

\$55.99 \$69.99 \$48.95 \$48.92 \$71.77 \$59.68

12. CEO Compensation Listed below are recent annual compensation amounts for these chief executive officers: Mulally (Ford), Jobs (Apple), Kent (Coca-Cola), Otellini (Intel), and McNerney (Boeing). The data are from the Associated Press. What is particularly notable about these compensation amounts?

\$17,688,241 \$1 \$19,628,585 \$12,407,800 \$14,765,410

13. Lead in Medicine Listed below are the lead concentrations (in $\mu\text{g/g}$) measured in different Ayurveda medicines. Ayurveda is a traditional medical system commonly used in India. The lead concentrations listed here are from medicines manufactured in the United States. The data are based on the article “Lead, Mercury, and Arsenic in US and Indian Manufactured Ayurvedic Medicines Sold via the Internet,” by Saper et al., *Journal of the American Medical Association*, Vol. 300, No. 8. What do the results suggest about the safety of these medicines? What do the decimal values of the listed amounts suggest about the precision of the measurements?

3.0 6.5 6.0 5.5 20.5 7.5 12.0 20.5 11.5 17.5

14. Mercury in Sushi Listed below are the amounts of mercury (in parts per million, or ppm) found in tuna sushi sampled at different stores in New York City. The study was sponsored by the *New York Times* and the stores (in order) are D’Agostino, Eli’s Manhattan, Fairway, Food Emporium, Gourmet Garage, Grace’s Marketplace, and Whole Foods. Which store has the healthiest tuna? Does it appear that the different stores get their tuna from the same supplier?

0.56 0.75 0.10 0.95 1.25 0.54 0.88