

## Figure 2.10. DATA ANALYSIS: An Example Involving the Location of a Distribution

The Globe and Mail, April 25, 1987, page B1

# Maple Leaf coin healthy, not underweight: Mint

BY ANDREW McINTOSH

The Globe and Mail

OTTAWA

The Royal Canadian Mint has moved to quell concerns among its coin distributors and dealers worldwide after a media report suggested that some of the mint's Maple Leaf gold coins might be slightly underweight.

The concerns were sparked by a report in the *Wall Street Journal*, which said that some American Eagle gold coins made by the U.S. Mint between last October and February are slightly underweight.

In its report on the Eagle's problems, the newspaper quoted unidentified dealers as saying that variance in the weights of gold coins of less than one ounce was "considered normal." This was said to be the case with Maple Leaf and South African Krugerrand gold coins of less than one ounce.

The reference angered the Canadian mint. "We decided that this was something we

could not afford to let go by," communications director Murray Church said.

The mint acted quickly. It has written to its 20 gold coin distributors and another 480 coin dealers around the world to reassure them that the report is untrue.

"The suggestion that the gold Maple Leaf might be underweight is untrue and inconsistent with the facts pertaining to the quality control measures and procedures regarding its production," the letter said. "All gold Maple Leaf coins, regardless of denomination, are guaranteed to contain more than the legal minimum weight and are all superior to the mint's stated claim of .9999 fineness."

The mint's director of bullion products, Jack Julien, said that not only does the Canadian mint monitor the quality of its products, its distributors – including Tanaka Kikinzou Kogyo KK, a major Japanese gold and silver bullion dealer – check weights and purity as well.

The gold Maple Leaf is sold in one-ounce, half, quarter, and one-tenth of an ounce de-

nominations and was launched in 1979.

The required legal weight of a one-tenth-ounce coin is 3.110 grams. The mint says its one-tenth-ounce Maple Leaf coins weigh at least 3.111 grams and, on average, they weigh 3.131 grams.

Mr. Church said the Canadians knew of the problems of the American Eagle before they were made public last week by Representative Frank Annunzio (D, Ill.), who is chairman of the House of Representatives' consumer affairs and coinage subcommittee.

Mr. Annunzio said that, before the U.S. mint changed its specifications to correct the problem with the Eagles, half the coins with fractional denominations were slightly underweight, adding that he was horrified that unsuspecting consumers were "shortchanged."

Eugene Essner, deputy director of the U.S. mint, said from Washington yesterday that the problem was not a serious one, was quickly corrected and that there are no plans to recall the underweight coins.

- 1 In the seventh paragraph (in the middle column), the article reprinted above states that Maple Leaf coins .... *are guaranteed to contain more than the legal minimum weight (of gold)....* What process would the Royal Canadian Mint have to go through to be *certain* this statement is true?
  - Describe briefly situations in other manufacturing industries where this same process might be necessary.
    - Do you consider this to be a cost-effective solution to such problems? Explain briefly.
- 2 There are about 31.103 grams in a Troy ounce. If the price of gold is \$385.50 U.S. dollars a Troy ounce and if the U.S. dollar is 1.1876 Canadian dollars (figures from the *Business Section* of *The Globe and Mail* on Saturday, April 12, 1989), what is the value, in Canadian dollars, of the 'excess' gold above legal requirements given away by the Mint in a manufacturing run of one million of the one-tenth-ounce Maple Leaf coins?
  - What *percentage* of the gold used in the coins does the 'excess' represent?
- 3 What *additional* information, if any, about the distribution of coin weights would you like to see provided in the fourth-last paragraph (in the right-hand column) of the article reprinted above? Explain briefly.
  - Explain briefly whether the *median* coin weight would be useful:
    - as *well* as the average;      – in *place* of the average.
- 4 In the second last paragraph, Mr. Annunzio is quoted as saying about the American Eagle coins: .... *half the coins with fractional denominations were slightly underweight....* What *statistical* issue(s) are involved in this matter?
  - In what sense was it reasonable for Mr. Annunzio to be *horrified* about this matter?
- 5 In the last paragraph, the article states that the problem with the American Eagle coins being slightly underweight .... *was quickly corrected....* Suggest how this correction was most likely made.
  - What would be the main *cost* of implementing the correction procedure you suggest?

**Blank page**