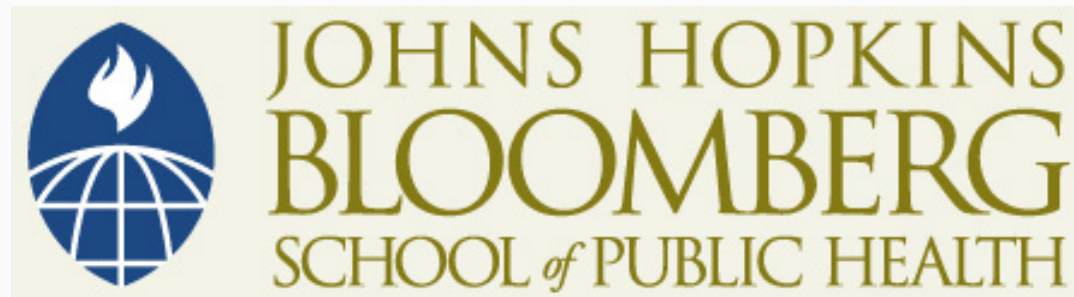


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JOHNS HOPKINS
BLOOMBERG
SCHOOL *of* PUBLIC HEALTH

Lecture 1c: Practice Problems

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Practice Problems

1. The following data is the annual income (in \$1,000s of U.S. dollars) taken from nine randomly chosen students in the Hopkins internet-based MPH program:

37 102 34 12 111 56 72 17 33

Practice Problems

- a) Calculate the sample mean income
- b) Calculate the sample median income
- c) Calculate the sample standard deviation of these incomes
- d) What population could this sample represent?
- e) Which would change by a larger amount—the mean or median—if the 34 were replaced by 17, and the 12 replaced by a 31?

Practice Problems

2. The following data shows birthweights (oz) from seven consecutive deliveries at the Johns Hopkins Hospital in April 2007

121 138 32 100 58 64 146

Practice Problems

- a) Calculate the sample mean birthweight
- b) Calculate the sample median birthweight
- c) Calculate the sample standard deviation of these birthweights
- d) What population could this sample represent?
- e) Suppose this is a representative sample of births in a given year at Johns Hopkins. Suppose, instead of a sample of seven values, we have a sample of 100 birthweights. How should the mean, median, and standard deviation of this sample compare to the same statistics for the sample of seven birthweights?