

Chapter 9 Section 1

MA1020 Quantitative Literacy

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Populations and Samples

- Population
- Elements
- Variable
- Census
- Sample

Exercise #2

Identify the population being studied, the sample that is actually observed, and the variable.

Divers recover a chest of 1000 gold coins from a sunken Spanish galleon found off the coast of Panama. The archaeologist working on the salvage project take 20 coins from the top of the chest and test them to see if they are pure gold.

Data

- Quantitative
- Qualitative
- Ordinal
- Nominal

Bias

- Representative sample
- Statistical inference
- Bias

Common Sources of Bias in Surveys

- Faulty Sampling
- Faulty Questions
- Faulty Interviewing
- Lack of Understanding or Knowledge
- False Answers

Exercise #14

Identify and discuss any sources of bias in the sampling method.

A magazine devoted to exercise, vitamins, and healthy living is interested in the habits of older adults related to exercise and nutritional supplements. The current issue includes an article on the subject and a questionnaire for readers to fill out and mail in.

Simple Random Samples

- Simple random sample
- Random-number generator

Exercise #28

Professional baseball has 16 National League player representatives, one for each of the National League teams. The 2004 player representatives are listed in the following table. These players serve as representatives in labor negotiations. Suppose union leaders randomly select a special committee of 6 players from the 16 player representatives.

National League	
Player	Team
Craig Counsell	Arizona Diamondbacks
Mike Remlinger	Atlanta Braves
Joe Girardi	Chicago Cubs
Aaron Boone	Cincinnati Reds
Todd Zeile	Colorado Rockies
Charles Johnson	Florida Marlins
Gregg Zaun	Houston Astros
Paul Lo Duca	Los Angeles Dodgers
Ray King	Milwaukee Brewers
Michael Barrett	Montreal Expos
Al Leiter	New York Mets