



Evaluate sampling methods for bias

1

Population: All students at a university

A

600 students randomly selected from all academic programs

B

600 students enrolled in first-year courses

2

Sample: 2,500 households subscribed to fibre internet service

A

Households with high-speed fibre internet

B

All Canadian households with internet access

3

Population: All pet owners in Canada Sample: 1,200 pet owners randomly selected from across Canada

A

Yes, it is representative of the population

B

No, it is not representative of the population

4

Goal: Percentage of residents who use public parks Sampling approach: Survey people currently walking in a park

A

Response bias

B

Measurement bias

C

Voluntary response bias

D

Selection bias

5

Goal: Public support for a proposed tax increase Sampling approach: Ask, "Do you support this unfair tax increase?"

A

The wording of the question may discourage support for the proposal.

B

People answering the survey may interpret the word "unfair" differently from one another.

6

Goal: Average homework time for students at a high school Sampling approach: Survey students in the library after school

A

Students in the library after school may complete homework more accurately than other students.

B

Students in the library after school may study more than the typical student.

7

Goal: Public opinion on a new city bike lane Sampling approach: Post an online poll on a cycling advocacy website

A

People with strong opinions about cycling are more likely to respond.

B

Readers of the website may answer surveys more quickly because they are familiar with online polls.

8

Goal: Percentage of people who exercise weekly Sampling approach: Survey people leaving a gym

A

Gym visitors may exercise more frequently than the general population.

B

Gym visitors may estimate their exercise time more accurately than other people.



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9

Goal: Percentage of households with pets Sampling approach: Survey customers at a veterinary clinic

A

Veterinary clinic customers may own pets more often than the average household.

B

Veterinary clinic customers may know their pets' ages more accurately than other pet owners.

10

Goal: Average commute time for workers in a city Sampling approach: Survey passengers on commuter trains during weekday rush hour

A

Rush-hour commuters may estimate their commute times more accurately than other commuters.

B

Workers who drive, bike, walk, or work remotely may be excluded from the sample.

11

Goal: Support for a political candidate Sampling approach: Survey people attending that candidate's campaign rally

A

Campaign attendees may be more willing to complete surveys than other voters.

B

Campaign attendees may support the candidate more strongly than the average voter.

12

Goal: How many hours employees work from home each week Sampling approach: Survey only employees who have company laptops

A

Employees without company laptops may have different work-from-home patterns.

B

Employees with company laptops may answer work-from-home questions more quickly than other employees.