



Statistics Data Organization - Sampling Details to Bias Explanation

<p>1</p> <p>Why does this sampling approach introduce bias?</p> <p>Goal: Percentage of students who walk to school Sampling approach: Survey students arriving through the front entrance</p> <p>A Students entering through the front entrance may remember their route to school more accurately than other students.</p> <p>B Students arriving through other entrances or by bus may be underrepresented.</p>	<p>2</p> <p>Why does this sampling approach introduce bias?</p> <p>Goal: Public support for a proposed tax increase Sampling approach: Ask, "Do you support this unfair tax increase?"</p> <p>A People answering the survey may interpret the word "unfair" differently from one another.</p> <p>B The wording of the question may discourage support for the proposal.</p>
<p>3</p> <p>Why does this sampling approach introduce bias?</p> <p>Goal: Average household electricity use Sampling approach: Survey households that recently installed solar panels</p> <p>A Households with solar panels may use electricity differently than typical households.</p> <p>B Households with solar panels may know their monthly electricity bill more accurately than other households.</p>	<p>4</p> <p>Why does this sampling approach introduce bias?</p> <p>Goal: How many hours employees work from home each week Sampling approach: Survey only employees who have company laptops</p> <p>A Employees with company laptops may answer work-from-home questions more quickly than other employees.</p> <p>B Employees without company laptops may have different work-from-home patterns.</p>
<p>5</p> <p>Why does this sampling approach introduce bias?</p> <p>Goal: Opinion on a restaurant's service Sampling approach: Collect ratings only from customers who scan a receipt QR code</p> <p>A Customers scanning the QR code may spend more time writing detailed comments than other customers.</p> <p>B Customers with especially positive or negative experiences may be more likely to respond.</p>	<p>6</p> <p>Why does this sampling approach introduce bias?</p> <p>Goal: Public opinion on a new city bike lane Sampling approach: Post an online poll on a cycling advocacy website</p> <p>A Readers of the website may answer surveys more quickly because they are familiar with online polls.</p> <p>B People with strong opinions about cycling are more likely to respond.</p>
<p>7</p> <p>Why does this sampling approach introduce bias?</p> <p>Goal: Percentage of people who exercise weekly Sampling approach: Survey people leaving a gym</p> <p>A Gym visitors may exercise more frequently than the general population.</p> <p>B Gym visitors may estimate their exercise time more accurately than other people.</p>	<p>8</p> <p>Why does this sampling approach introduce bias?</p> <p>Goal: Average number of books read by adults in a year Sampling approach: Survey members of a local book club</p> <p>A Book club members may read more books than the average adult.</p> <p>B Book club members may remember book titles more accurately than other adults.</p>