

STA304 A1 Q3

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- (a) The survey released in Sep 2019 by Desjardins Insurance found that 53 percent Canadian drivers admit to using their phone while driving. This survey is conducted through online survey and polled 3,050 people across Canada. Also, this survey also concern what is the comparison between this year phone distraction result and last year.

- (b) Target population: all drivers in Canada
Sampling population: Canadian drivers who can potentially access to this online survey during the survey period.
Sampling frame: online survey
sampling unit and observation unit: the person who did the online survey.
sampling unit is same as observation unit in this case.

- (c) People safety driving awareness is decreasing which is supported by following:
 - 1. 53 percent drivers admitted to driving while using their phone at least once in the first 3 months of 2019. Only 38 percent of respondents said the same thing last year.
 - 2. 93 percent of drivers surveyed said they never or rarely drive distracted, though 84 per cent said they always or often see others driving with their phones in hand.
 - 3. Only 32 per cent of drivers surveyed said they considered distracted driving dangerous.

At the end of the article, Sgt. Brett Moore from the Toronto Police Traffic Services Unit said that ticketing is often the only way to convince drivers to put their phones down.

(d) There may exist biases from the online survey sampling approach.

1. Voluntary response bias: Since the survey is conducted by Desjardins Insurance, the drivers who are not related to Desjardins Insurance are less likely to access this survey, which could bring bias to the survey result. In other words, the respondents can not represent the all Canadian drivers population since it is not random sampling.

Possible solution: it would be better for Google to do the same survey since all people are free to access Google so that the sampling is more random. If it is too late to make the change, we can still reduce the bias by trying more survey methods. For instance, the company can add more off-line ways to get respondents who can not access to internet, such as posting QR codes in street or mailing paper survey.

2. Response bias: People are likely to hide their true opinion about driving behavior if they face an insurance company. They may ask the question like will they increase my insurance fee if I say something dangerous, like using phone when driving?

Possible solution: It would be better to remove the brand name when the survey is conducted. So that people are willing to write down what they are really thinking about.

Appendix :

<https://www.thestar.com/news/gta/2019/09/24/half-of-canadians-admit-to-using-their-phone-while-driving-survey-finds.html>