the pulse

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Trade-offs

A Natural Component of the Survey Process

It can seem amazing that by simply surveying a few hundred randomly selected individuals we can know with a high degree of confidence how millions of people feel about a particular topic or issue. The very credibility of survey research is built upon a foundation of sound sampling principles that enable precise inferences to be drawn about a population even though only a meager fraction of that population provided input.

But in spite of all the science that goes into the design and administration of a sample survey, there is a fair amount of imperfection that must be managed as well. Designing a survey means having to make decisions and balance an array of competing trade-offs. It has been said in a variety of ways that sausage is good to eat but we would not want to see how it is made. This same notion can often aptly apply to surveys too.

Whether we are considering a statewide survey or a statewide highway system, if we had unlimited supplies of money, time, and other resources, trade-offs would seldom enter into our consciousness. However, the real world places limits on these items and we are forced to decide what factors are most important. When it comes to conducting surveys, the concern is how will the various trade-off options affect survey error and the overall quality of the data. The survey process therefore becomes one of integrating the competing components of money, time, and resources in order to achieve the highest level of quality that can be attained.

Suppose survey information is urgently needed from the general population relating to a particular public policy. A telephone study is a good place to start because data can be collected in a short period of time. However, telephone surveys are among the most costly types of surveys, so a limited budget requires some consideration of other data collection methods. A web survey is another fast data collection method and has the added advantage of being inexpensive to administer. Initially, it may appear that the best solution would be to opt for the web survey. But, the dilemma faced here is that while web surveys are fast and not at all costly to administer, they do not reach everyone that we want to survey. With a tight budget and not a lot of time, the choices come down to a web survey even though there are serious problems with full coverage among the population versus a scaled back telephone survey that now fits within the budget but might have questionable data quality due to the resulting smaller sample size.

Think, too, about how one might best choose a data collection method when a very high response rate is needed. One alternative is to utilize face-to-face interviews. This form of data collection traditionally yields the highest rates of response which, in turn, minimizes non-response error and thus improves the quality of the survey data. Still, face-to-face interviewing is costly and it requires a substantial commitment of time. Mail surveys or telephone interviewing may be contemplated because they are not as demanding from a data collection standpoint. However, their response rates are typically not as high. Follow-up procedures can be implemented to boost the response rate, but this will add to the total project cost as well as extend the time necessary to complete the project.

The point of these two examples is to demonstrate how different aspects of the survey process - whether they involve time, costs, or any number of other resources - must be weighed against one another in order to result in the highest level of data quality possible. Quite often the decision to choose one alternative over another is not an easy one to make. Each option includes its own set of weaknesses that can magnify survey error and diminish the accuracy of the study.

In the end, the wisest counsel says to evaluate the magnitude of the positive qualities of each alternative and compare them to the negative characteristics. Selection of the proper path will be the one that provides the most reliable survey data.

Survey Factoid

Two of the most common trade-offs in surveys are directly related to cost. The size of the sample is frequently dictated by the level of available funds. Larger sample sizes tend to result in better data quality, but at a higher cost.

Self administered questionnaires, such as mail and web surveys, are the least expensive surveys to conduct. Still, they experience the highest levels of non-response which also affects data quality.

Surveys are sometimes a series of trade-offs between what we have to work with and what we can live with.

Did you know...

With the conclusion of the Christmas season, many young people are, no doubt, happy about their new computer consoles and games. Yet, the largest growth in the gaming market is coming from a surprising source.

TNS Worldpanel Entertainment is reporting that the largest growth in computer gaming during the past four years has been in the over-45 age group. With a growth rate of 41%, older gamers outpace the total market growth by a factor of four.

Also getting the attention of the games makers is the fact that sales of computer games to women for personal use have grown at a rate of 67% during the same four-year period. Sales growth among men has expanded by just 4% during this time.

In the console computer gaming market, men currently account for about two-thirds of all sales. Sony, with its Playstation, Microsoft and its Xbox, and Nintendo's Wii and Gameboy account for more than 90% of the gaming market.

Source: TNS Worldpanel

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