Response Rate, Representativeness, and Nonresponse Bias—They All Matter!

Response rate and **representativeness** are terms associated with many data collections, particularly surveys. Both are gauges of the completeness and accuracy of the data you collect. Obtaining high response rates from individuals who are representative of the population you are interested in is a goal for all data collections.

Response rate is a measure of the relationship between the number of actual responders and the number of possible responders. This rate is relevant whether the number of possible responders is everyone in the target population (a census) or a subgroup of the population you specially select to represent the target group (a sample). Response rate usually is presented as a percentage. For example, if you receive 150 surveys back from the 200 people to whom you sent surveys, you have a response rate of 75 percent.

Although what constitutes a high response rate is not set in stone, the higher the response rate the more likely it is that your results are representative of the group you are targeting. Your confidence in the completeness and accuracy of the results can generally go up as the response rate goes up. Your confidence might be inflated, however, if you don't consider additional information about the responders and nonresponders. Thus, in addition to knowing the proportion of possible responders who actually responded (response rate), you will want to know whether the responses you received accurately reflect the target population. That is, who responds also matters.

Representativeness is a measure of how well the proportions of specific groups of responders correspond to their proportions in the entire target population. If the responders are different from the target population in relevant characteristics, such as race, ethnicity, or income level, or in experiences, such as student placement or length of time in special education, even an 80 percent response rate may provide misleading information. That is, a high response rate can provide complete and accurate information only if the responders mirror the target population. For example, if 35 percent of the parents who responded to a district survey are parents of students with autism in a district where only 10 percent of students with disabilities have autism, the voices of those parents are overrepresented, which will keep the results from accurately reflecting the disability proportions in the school population. Similarly, if 10 percent of responders to a survey are students who are Hispanic in a district where 45 percent of the students are Hispanic, those students are underrepresented in the survey. If the response of an underrepresented population also differs from other populations on the outcome of interest in the survey (such as their post-school outcomes or their parents' ratings of parental involvement) this is referred to as **nonresponse bias**. To further expand on the previous example, in this case you have not adequately captured the perspective of students in the district who are Hispanic, and your results are not generalizable (i.e., the results don't reflect reality for the entire target population) without potentially difficult statistical adjustments.

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Fortunately, even a relatively low response rate can provide results that do reflect the target population if relevant characteristics and experiences of responders are quite similar to characteristics and experiences of the target population. That is, the data from a survey with a 40 percent response rate may be highly accurate if those who responded are much like the total population. Thus, planning a systematic and persistent data collection, with ongoing attention to who is responding, is the most important strategy for obtaining results that truly reflect the population of interest.

IDC explores these topics in more detail in many of our resources, including the *Parent Involvement Data: How to Measure and Improve Representativeness for Part B Indicator 8* and *Nonresponse Bias Analysis Application—NRBA App*. You can also reach out to your IDC State Liaison for more information or assistance.