How to Calculate a Survey Response Rate: Best Practices

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Approximately 50% of original medical education research utilizes surveys, yet many survey studies do not report a response rate, and most do not use a standard response rate definition. In broad terms, the definition of response rate is the number of people who responded divided by the total number of potential respondents, expressed simply as:

\[
\text{Response Rate} = \frac{\text{Respondents}}{\text{Nonrespondents} + \text{Respondents}}
\]

The equation becomes more complicated when we consider which nonrespondents should be included in the calculation based on whether or not they were eligible to participate in the survey.

Recommendations

- Use one of the six American Association of Public Opinion Research (AAPOR) definitions outlined in the table below.
- Two decision points determine the definition to use. One decision point has three options, and the other has two, for a total of six possible definitions.
  1. Determine the eligibility of nonrespondents for the survey. Determining eligibility of those who did not respond depends on the characteristics of the potential respondents.
  2. Determine whether or not to include partially completed surveys. Some researchers include surveys with skipped questions in the numerator of the response rate equation. Other researchers count only surveys returned with every question answered.

Report the definition used when you report the response rate, such as “47 of 100 (47%) potential respondents returned surveys, AAPOR RR6.” See example articles for each definition in Phillips et al.

<table>
<thead>
<tr>
<th>Response rate definition</th>
<th>Nonrespondent eligibility</th>
<th>Which surveys included</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Assume all nonrespondents are eligible</td>
<td>Fully completed</td>
<td>Surveys are distributed to a “physician son/daughter” group. All nonrespondents are included in the calculation based on an assumption that everyone in the group is eligible.</td>
</tr>
<tr>
<td>2</td>
<td>Fully and partially completed</td>
<td>Surveys are distributed to all medical students. Based on student application data, 40% of students have a physician parent, so only 40% of nonrespondents are included in the calculation based on an estimate that 40% would be eligible.</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Estimate the probability of nonrespondent eligibility</td>
<td>Fully completed</td>
<td>Surveys are distributed only to students who indicated on their application that they have a physician parent. All nonrespondents are included in the calculation based on known information that all survey recipients are eligible.</td>
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</tbody>
</table>

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References:

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