



Margin of Error: How To Explain It

My county just completed a telephone needs assessment in conjunction with other agencies. Can you suggest a simple way to explain the concept of 'margin of error' to our extension board and county commissioners and how they need to use it when interpreting results?

Make four points. You can say the following:

1. When we sampled the population in our county, we were looking for an *approximation* of the answers that we would have collected if we had surveyed the entire population. The variations in this approximation is called the 'sampling error,' which is not so much an 'error' as an indication of how many percentage points the results might naturally be expected to fluctuate if another survey were conducted using a different sample of the same size.
2. Because we had a fairly large sample, our margin of error is $\pm$ three points; a smaller sample would have resulted in a higher margin of error.
3. Since our margin of error was three percentage points, we need to remember that the number of people in the county who favor a specific strategy for change (for example the bond issue) is three percentage points *higher* or *lower* than the number in the survey.
4. Margin of error becomes crucial when we compare results on different items within a survey, the reason for the needs assessment. In a survey such as ours with a margin of error of $\pm$ three, before we could say with confidence that more people favor one strategy (such as the bond issue) over a second strategy (higher taxes), the difference between them would have to be greater than six percentage points.

Caveat: Remember to say when discussing subgroups like older and younger residents, that the margin of error is greater because the number in the subgroups is smaller than the number in the sample as a whole.

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