**MATHEMATICA
Policy Research**

THINGStoCONSIDER

Interpreting Your Results:
Measuring the depth of three buckets

> How is the certainty threshold that I select used to determine my results?

The amount shown in a given bucket represents the probability of finding the true effect of a given technology in that bucket. When using the Coach, this information will be presented as a bar chart.
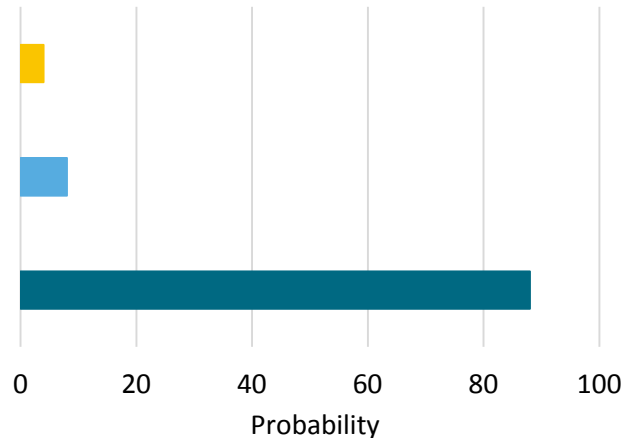

1 — Treatment group performs worse than comparison group by an amount greater than the MME.

2 — Difference in outcomes between the treatment and comparison groups is less than the MME.

3 — Treatment group performs better than comparison group by an amount greater than the MME.

Background

In an evaluation, you will only observe a small subset of all possible outcomes. The Coach will predict what the unobserved outcomes are based on the information you collect. Those unobserved outcomes will be sorted into three buckets defined by the MME that you select.

Once all of the possible outcomes have been sorted into the buckets, you must determine whether on of the buckets is full enough for you to be confident in the results. To do this, you are asked to set a threshold for how certain you want to be about the technology's likely effects. The amount in each bucket is then compared to that threshold.

75%

If the contents of a bucket exceed the threshold, then you may draw a corresponding conclusion about the effectiveness of the technology. If no bucket's contents exceed the threshold, your results are inconclusive.

For example...

If you were measuring the effect of an expensive technology on reading test scores, as measured by a 300- point assessment, you might set a MME of 10 points and a certainty threshold of 80 percent.

In this case you would conclude that the effect of the technology is between -10 and 10 points, or functionally equivalent to zero.

Negative effect is larger than -10 points

Effect is between -10 and 10 points

Positive effect is larger than 10 points

80%

Conduct your own rapid cycle evaluation at http://www.edtechrce.org.