



# Reverse Scoring Validation Scenarios for Organizations Not Using the Data Entry and Reports Template

**Note:** The information presented here is designed to provide a quick validity check of reverse scoring. System computation methods should not be based upon this document alone; for complete scoring documentation refer to the Outcomes Procedural Manual, Outcomes Data Flow Guide and other detailed documents available on the Outcomes Web Site. <http://www.mh.state.oh.us/initiatives/outcomes/outcomes.html>

## Reverse Scoring

Some items on Adult Consumer Form A and Adult Consumer Form B are worded such that a given response (e.g., “never”) represents a desirable or positive response for one question, but a less desirable response for another. In order to compare items or combine items into a numeric subscale, certain items need to be “reverse scored” for consistency. When reverse scoring an item, the highest and lowest numerical values are substituted for each other, the next highest and next lowest values are substituted for each other, and so on. The following table illustrates the process.

Four-Point Scale			Five-Point Scale		
Original Score (Checked on Form)		Reverse Score (Stored in System)	Original Score (Checked on Form)		Reverse Score (Stored in System)
1	↔	4	1	↔	5
2	↔	3	2	↔	4
3	↔	2	3	↔	3
4	↔	1	4	↔	2
			5	↔	1

Items that represent non-scaled values (e.g., missing, not-applicable) should not be included in either reverse scoring or computation of subscales.

Reverse scored items on the Adult Consumer Form A include items 13, 16, 34, 35, 36, 38, 39, 42, 44, 45, 46, 47, 48, 51, 52, 53, 57, 58, 59, 60, and 61.

Reverse scored items on the Adult Consumer Form B include items 13 and 16.<sup>1</sup>

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<sup>1</sup> Items 13 and 16 are “stand-alone” measurements of individual outcomes related to Safety and Health; no inter-item comparisons or relationships (e.g., sums, averages) are appropriate. Even though the individual items should not be combined with each other, for consistency purposes, you should reverse score items 13 and 16 so that the most “positive” response carries the highest value.

## Testing Your Reverse Scoring Methodology

The Data Entry and Reports Template will automatically reverse score all appropriate items. If you're not using the Data Entry and Reports Template, you can check to see if your reverse scoring methodology is correct by running some sample instruments through your system and seeing if you get correct subscale scores. Two scenarios with expected values are outlined below.<sup>2</sup>

### Scenario 1:

Complete sample copies of Adult Consumer Form A and Adult Consumer Form B with the first box checked for all questions on the instruments, as in the example below.

13. How often does your physical condition interfere with your day-to-day functioning?

- Never
- Seldom/rarely
- Sometimes
- Often
- Always

Now, enter the sample instruments into whatever electronic system you are using to score and store the Outcomes data. Then check to see what scores actually ended up in your system. In Scenario 1, the following values should get written into your database:

Item or Subscale	Form A Score	Form B Score
13	5	5
16	5	5
Self/Esteem/Self Efficacy	4.00	—
Power/Powerlessness	1.00	—
Community Activism and Autonomy	4.00	—
Optimism and Control Over the Future	4.00	—
Righteous Anger	1.75	—
Overall Empowerment	3.04	—

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<sup>2</sup> Both scenarios are based upon the traditional "paper and pencil" versions of the Adult Consumer Forms A and B printed in the Outcomes System Procedural Manual. The Procedural Manual and the individual forms can be downloaded from the Outcomes Initiative Web Site referenced above.

## Scenario 2:

Complete sample copies of Adult Consumer Form A and Adult Consumer Form B with the last box checked for all questions on the instruments, as in the example below.

13. How often does your physical condition interfere with your day-to-day functioning?

- Never*
- Seldom/rarely*
- Sometimes*
- Often*
- Always*

Now, as before, enter the sample instruments into whatever electronic system you are using to score and store the Outcomes data. Then check to see what scores actually ended up in your system. In Scenario 2, the following values should get written into your database:

Item or Subscale	Form A Score	Form B Score
13	1	1
16	1	1
Self/Esteem/Self Efficacy	1.00	—
Power/Powerlessness	4.00	—
Community Activism and Autonomy	1.00	—
Optimism and Control Over the Future	1.00	—
Righteous Anger	3.25	—
Overall Empowerment	1.96	—

## Now What?

If your system computed the correct values involving reverse-scored items, you're finished — everything appears to be fine. However, if you ended up with values that are different than those shown in the tables (other than insignificant rounding differences on a second decimal), there appears to be a problem with the way your system computes reverse scores, and you'll need to find out what's wrong.