

Scoring Instructions for NIH Toolbox[®] Emotion Measures: Raw Score to T-Score Conversion Tables

October 5, 2018



Table of Contents

Scoring Instructions

NIH Toolbox Anger Bank Ages 18+ v2.0

NIH Toolbox Anger – Affect Fixed Form Ages 8-17 v2.0

NIH Toolbox Anger Fixed Form Ages 18+ v2.0

NIH Toolbox Anger – Hostility Fixed Form Ages 18+ v2.0

NIH Toolbox Parent Report Anger Bank/Fixed Form Ages 8-12 v2.0

NIH Toolbox Parent Report Anger Fixed Form Ages 3-7 v2.0

NIH Toolbox Anger – Physical Aggression Fixed Form Ages 18+ v2.0

NIH Toolbox Apathy Fixed Form Ages 18+ v2.0

NIH Toolbox Emotional Support Bank/Fixed Form Ages 8-17 v2.0

NIH Toolbox Emotional Support Fixed Form Ages 8-17 v2.0

NIH Toolbox Emotional Support Fixed Form Ages 18+ v2.0

NIH Toolbox Parent Report Empathic Behaviors Bank/Fixed Form Ages 3-12 v2.0

NIH Toolbox Parent Report Fear – Over Anxious Fixed Form Ages 3-7 v2.0

NIH Toolbox Fear – Affect Bank Ages 18+ v2.0

NIH Toolbox Fear Fixed Form Ages 8-17 v2.0

NIH Toolbox Fear – Affect Fixed Form Ages 18+ v2.0

NIH Toolbox Parent Report Fear Bank/Fixed Form Ages 8-12 v2.0

NIH Toolbox Parent Report Fear – Separation Anxiety Fixed Form Ages 3-7 v2.0

NIH Toolbox Fear – Somatic Arousal Fixed Form Ages 18+ v2.0

NIH Toolbox Friendship Fixed Form Ages 8-17 v2.0

NIH Toolbox Friendship Fixed Form Ages 18+ v2.0

NIH Toolbox General Life Satisfaction Bank/Fixed Form Ages 13-17 v2.0

NIH Toolbox General Life Satisfaction Fixed Form Ages 8-12 v2.0

NIH Toolbox General Life Satisfaction Fixed Form A Ages 18+ v2.0

NIH Toolbox General Life Satisfaction Fixed Form B Ages 18+ v2.0

NIH Toolbox Instrumental Support Fixed Form Ages 18+ v2.0

NIH Toolbox Loneliness Fixed Form Ages 8-17 v2.0

NIH Toolbox Loneliness Fixed Form Ages 18+ v2.0

NIH Toolbox Meaning and Purpose Bank Ages 18+ v2.0

NIH Toolbox Meaning and Purpose Fixed Form Ages 18+ v2.0

NIH Toolbox Perceived Hostility Fixed Form Ages 8-17 v2.0

NIH Toolbox Perceived Stress Bank/Fixed Form Ages 13-17 v2.0
NIH Toolbox Parent Report Perceived Stress Bank/Fixed Form Ages 8-12 v2.0
NIH Toolbox Perceived Hostility Fixed Form Ages 18+ v2.0
NIH Toolbox Perceived Rejection Fixed Form Ages 8-17 v2.0
NIH Toolbox Perceived Rejection Fixed Form Ages 18+ v2.0
NIH Toolbox Perceived Stress Bank/Fixed Form Ages 18+ v2.0
NIH Toolbox Positive Affect Bank Ages 13-17 v2.0
NIH Toolbox Positive Affect Bank Ages 18+ v2.0
NIH Toolbox Positive Affect Fixed Form Ages 8-12 v2.0
NIH Toolbox Positive Affect Fixed Form Ages 18+ v2.0
NIH Toolbox Parent Report Positive Affect Bank Ages 8-12 v2.0
NIH Toolbox Positive Affect Fixed Form Ages 13-17 v2.0
NIH Toolbox Parent Report Positive Affect Ages 3-7 v2.0
NIH Toolbox Parent Report Positive Affect Fixed Form Ages 8-12 v2.0
NIH Toolbox Sadness Bank Ages 18+ v2.0
NIH Toolbox Sadness Fixed Form Ages 8-17 v2.0
NIH Toolbox Sadness Fixed Form Ages 18+ v2.0
NIH Toolbox Parent Report Sadness Bank/Fixed Form Ages 8-12 v2.0
NIH Toolbox Parent Report Sadness Fixed Form Ages 3-7 v2.0
NIH Toolbox Self-Efficacy Bank/Fixed Form Ages 8-12 v2.0
NIH Toolbox Self-Efficacy Bank/Fixed Form Ages 13-17 v2.0
NIH Toolbox Self-Efficacy Bank/Fixed Form Ages 18+ v2.0
NIH Toolbox Parent Report Self-Efficacy Bank/Fixed Form Ages 8-12 v2.0

Instructions for Using Raw Score to T-score Conversion Tables for NIH Toolbox® Emotion Instruments

NIH Toolbox Uses T-scores

All analyses using NIH Toolbox Emotion measures should be conducted with T-scores. T-scores are standard scores in which 50 represents the mean of the US general population (based on the 2010 Census) and 10 represents the general population standard deviation. We call this T-score “uncorrected” because it has not been corrected for any particular demographic category, such as gender. Age- and gender-corrected norms for child and parent-report measures are available through the NIH Toolbox iPad app.

Types of NIH Toolbox Emotion Measures

NIH Toolbox Emotion measures can be administered as a CAT (tailored selection and administration of items from an item bank) or as a fixed length form. There is a table below for all emotion fixed length forms. These are titled “Fixed Form” or “FF”. Sometimes, a table is available if all items within an item bank were administered. These are labeled “Bank”. If all items in an item bank are included in a fixed form, the table is labeled “Bank/Fixed Form”.

Scoring Instructions

Below are tables to convert raw summed scores into T-scores. Some electronic delivery systems (e.g., the NIH Toolbox iPad app, Assessment Center, Healthmeasures API) automatically provide normative scoring. If you are administering fixed forms on paper or outside of one of these systems, you will need to convert the raw summed score to the uncorrected T-score with the tables below.

First, find the table labeled with the name of the measure you wish to score. Then, follow these steps:

1. To obtain a summed score, add up the numbers assigned to each item’s response category, which are indicated on the PDF forms (obtained from <http://www.healthmeasures.net/search-view-measures>). For example:

		Not at all	A little bit	Somewhat	Quite a bit	Very much
PA001	I felt cheerful	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
PA002	I felt attentive.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

Note that the lowest number that may be assigned to any single item is always 1. So, the lowest score a participant may obtain, for example, on an 8-item fixed form is therefore 8. The sum of these scores for any one instrument is the **Raw Summed Score**.

2. Using the appropriate table below, find the row that corresponds to the raw summed score you calculated in step 1. Then, find the equivalent **Uncorrected T-score** in the same row. Use this number for reporting of summary results (e.g., group means).

Missing Item Responses

If an item is not answered by a given participant, you may substitute the mean score of the answered items (e.g., 3.5) as a substitute for the missing item. To do this, take the sum of the scores for the items answered, and divide this by the number of items the participant completed. We caution, however, that this should only be done when relatively few items are missing (e.g., less than 20%), for relatively few participants (less than 10%), and if your study aims to report group-level (not individual) scores. For additional scoring options when data are missing and for further consultation, please contact help@healthmeasures.net