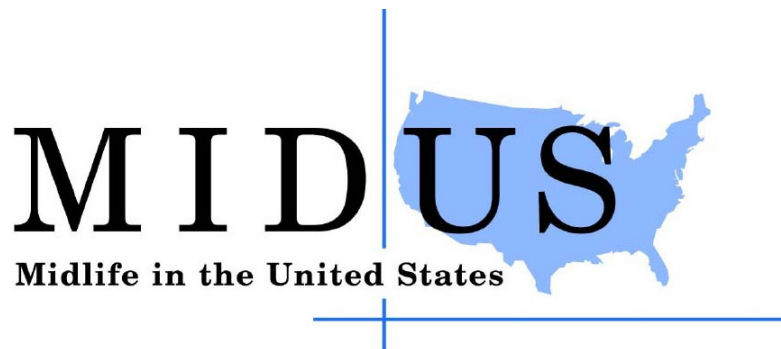

MIDUS 3 PROJECT 7
Retention and Early Warning Project (REW):

README
General Introduction to the REW Cognitive Test Battery

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This document serves as a general introduction for the reader to the cognitive test data in the MIDUS 3 REW project. Cognitive testing was carried out using a reduced version of the Brief Test of Adult Cognition by Telephone (BTACT) with 5 subtests. Data collected via the BTACT interview are included in the aggregate REW dataset: M3_P7_REW_N651_20200914

For more information about the BTACT instrument see:

- Lifespan Lab Website:
<http://www.brandeis.edu/departments/psych/lachman/instruments/index.html>
- Monitoring cognitive functioning: Psychometric properties of the Brief Test of Adult Cognition by Telephone (published article; doi: 10.1177/1073191113508807)
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4050038/>
[and Change in Cognitive Performance from Midlife into Old Age: Findings from the Midlife in the United States \(MIDUS\) Study.](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4050038/) doi: [10.1017/S1355617718000425](https://doi.org/10.1017/S1355617718000425)
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A. Notes about the sample

1. Note that the data file contains the case id numbers for all participants who completed any of the cognitive subtests, even if they did not have complete data for all subtests. Thus, the total N may vary slightly from subtest to subtest.

2. The following cases terminated the telephone interview during the cognitive testing. We have included them in the dataset to provide the largest possible sample for each specific subtest. If you would like to analyze the sample for those who completed the cognitive interview, you should omit the following cases from your analyses: 15579, 10224, 14504, 17502, 16172, 18128, 12434, 16951, 14961, 14940.

B. Notes about the BTACT data subtests

The REW BTACT includes 5 subtests that provide an index of cognitive function in domains of key importance in cognitive aging. The Digit Span Backwards and the Stop and Go Switch Task were not given to the REW sample.

The five BTACT subtests provide accuracy data (i.e., number of correct answers). The cognitive battery was developed, processed, cleaned, and scored by Project 3 staff. The battery was administered in a telephone interview. The data are labeled with “C7” which corresponds to MIDUS 3/ Project 7 (REW sample).

1. Immediate word list recall (*tests episodic verbal memory*)

Although participants hear only 15 words, the data fields for the immediate and delayed word recall tests each include 26 variables to allow for 15 list words and up to 11 possible repetitions (reporting a list item more than once) and intrusions (reporting non-list items). We use ‘90’ as a code for intrusions (a measure of interest) to distinguish these from inapplicable responses. We measure total number of unique responses up to 15 (C7TWLITU), as well as total number of repetitions (C7TWLITR) and intrusions (C7TWLITI).

2. Category fluency (*tests verbal ability and speed and executive functioning*)

The primary measure of interest is total number of unique responses (C7TCTFLU).

3. Number series (*tests fluid intelligence/ reasoning*)

We give the actual number of the answer given for each of the 5 items (C7TNS1, C7TNS2, C7TNS3, C7TNS4, C7TNS5), the accuracy of each response (C7TNS1C, C7TNS2C, C7TNS3C, C7TNS4C, C7TNS5C), as well as total correct (C7TNSTOT).

4. Backward counting (*tests speed of processing*)

The primary measure of interest is the number of items correctly reported (C7TBKTOT). This is derived from the last number reached (C7BKCT), taking off points for errors (numbers

omitted or reported erroneously, out of the correct sequence; C7BKERR). The total correct is calculated as $C7TBKTOT = (100 - (C7BKCT + C7BKERR))$.

5. Delayed word list recall (*tests episodic verbal memory/forgetting*)

This is given as the last subtest. As with immediate recall there are 26 fields to allow for repetitions and intrusions. Measures of interest are total number of unique items recalled up to 15 (C7TWLDTU), as well as repetitions (C7TWLDTR) and intrusions (C7TWLDTI).

C. Naming conventions for BTACT variables

For the MIDUS REW Cognitive the first character of each variable name will be “C”.

Otherwise, the same naming conventions developed for MIDUS 3 apply.

- a) 1st letter – “C,” to indicate MIDUS 3
- b) 2nd letter – indicates REW project number 7
- c) 3rd letter – indicates type of test: T= BTACT cognitive tests
- d) 4th, 5th, 6th, 7th, 8th letters – indicates either:
 - i. The individual test:
 - WLI: Word List Recall – Immediate (Note: Columns 7 & 8 indicate response number; 1-26 possible responses)
 - CTFL: Category Fluency (also CTF)
 - NS: Number Series (Note: Column 6 indicates trial number 1-5)
 - BK: Backward Counting
 - WLD: Word List Recall – Delayed (Note: Columns 7 & 8 indicate response number; 1-26 possible responses)
 - iii. A flag variable: Variables with “FP” as their 7th and 8th characters serve as flag variables for potentially problematic cases. This variable indicates, by test, which cases were identified at Brandeis by our data cleaning as being problematic due to test disruption, interview equipment failures, or other problems. We recommend users exclude these tests for these specific cases.

Note: **Bold** variable names below indicate composite or total scale scores.

VARIABLE NAME	VARIABLE LABEL	VALUES
Word List Recall: Immediate		
C7TWLIFP	Word List Immediate flagged problematic?	1=YES 2=NO 8=REFUSED/MISSING
C7TWLI1 ... C7TWLI26	Word List Immediate: Recalled #1 ... #26 (allows for max 15 correct responses + up to 11 intrusions/repetitions)	1=Word#1 2= Word#2 3= Word#3 4= Word#4 5= Word#5 6= Word#6 7= Word#7 8= Word#8 9= Word#9 10= Word#10 11= Word#11 12= Word#12 13= Word#13 14= Word#14 15= Word#15 90=NON-LIST INTRUSION 98=REFUSED/MISSING
C7TWLITU	Word List Immediate: Tot Unique Items	Range: 0 to 15; Sum of all correct, unique responses from C7TWLI1 to C7TWLI26 98=REFUSED/MISSING
C7TWLITR	Word List Immediate: Tot # Repetitions	Sum of all repeated responses from C7TWLI1 to C7TWLI26 98=REFUSED/MISSING
C7TWLITI	Word List Immediate: Tot # Intrusions	Sum of all non-list intrusions from C7TWLI1 to C7TWLI26 98=REFUSED/MISSING

Category Fluency		
C7TCTFFP	Category Fluency flagged problematic?	1=YES 2=NO 8=REFUSED/MISSING
C7TCTFLU	Category Fluency: Tot Unique Items	Sum of all in-category, unique items named 98=REFUSED/MISSING
C7TCTFLR	Category Fluency: Tot # Repetitions	Sum of repeated items named in-category 98=REFUSED/MISSING
C7TCTFLI	Category Fluency: Tot # Intrusions	Sum of all non-category intrusions 98=REFUSED/MISSING
Number Series		
C7TNSFP	Number Series flagged problematic?	1=YES 2=NO 8=REFUSED/MISSING
C7TNS1 ... C7TNS5	Number Series: #1...#5 (number reported)	997=DON'T KNOW 998=REFUSED/MISSING
C7TNS1C... C7TNS5C	Number Series #1...#5: correct?	1=YES, CORRECT 2=NO, INCORRECT 8=REFUSED/MISSING
C7TNSTOT	Number Series: Tot Correct	Range: 0 to 5; 8=REFUSED/MISSING
Backward Counting		
C7TBKFP	Backward Counting flagged problematic?	1=YES 2=NO 8=REFUSED/MISSING
C7TBKCT	Backward Counting: last # reached	998=REFUSED/MISSING
C7TBKERR	Backward Counting: # of errors	998=REFUSED/MISSING
C7TBKTOT	BK: (100-(C7TBKCT + C7TBKERR))	Total correct #s produced 998=REFUSED/MISSING

Word List Recall-Delayed		
C7TWLDFP	Word List Delayed flagged problematic?	1=YES 2=NO 8=REFUSED/MISSING
C7TWLD1... C7TWLD26	Word List Delayed: Recalled #1...#26 (allows for max 15 correct responses + up to 11 intrusions/repetitions)	1=Word#1 2= Word#2 3= Word#3 4= Word#4 5= Word#5 6= Word#6 7= Word#7 8= Word#8 9= Word#9 10= Word#10 11= Word#11 12= Word#12 13= Word#13 14= Word#14 15= Word#15 90=NON-LIST INTRUSION 98=REFUSED/MISSING
C7TWLDTU	Word List Delayed: Tot Unique Items	Range: 0 to 15; Sum of all correct, unique responses from C7TWLD1 to C7TWLD26 98=REFUSED/MISSING
C7TWLDTR	Word List Delayed: Tot # Repetitions	Sum of all repeated responses from C7TWLD1 to C7TWLD26 98=REFUSED/MISSING
C7TWLDTI	Word List Delayed: Tot # Intrusions	Sum of all non-list intrusions from C7TWLD1 to C7TWLD26 98=REFUSED/MISSING

Note that the REW version of the BTACT includes 5 subtests. It does not include the digit span backwards or the Stop and Go Switch Task.