American Time Use Survey (ATUS) Data Dictionary:

2010, 2012, and 2013 Well-being Module Data

Variables collected in the ATUS Well-being Module

July 2014

The ATUS Well-being Module was sponsored by the National Institute on Aging.
The ATUS is sponsored by the Bureau of Labor Statistics and conducted by the U.S. Census Bureau.

Important notice about activity selection for the Well-Being Module

There was an error in the activity selection process for the Well-Being (WB) Module to the American Time Use Survey (ATUS). Due to a programming error in the data collection software, certain activities were less likely than others to be selected for follow-up questions in the WB Module. This error in the activity selection process was fixed on March 25, 2013. Well-being data collected prior to March 25, 2013 were affected by this error.

By design, three eligible activities from the ATUS time diary were supposed to be selected at random for follow-up questions in the WB Module. Most diary activities were eligible for the WB module questions; however, sleeping, grooming, and a few other activities were not eligible.

In 2010, 2012, and part of 2013, the last eligible activity in each respondent's time diary was incorrectly excluded from the random selection process in most cases. As a result, eligible activities that occur at or near the end of the diary are underrepresented in the WB Module data. For example, the last eligible diary activity often is a long spell of TV watching; because of the selection error, TV watching is underrepresented in the WB Module data and the average duration of activities selected for the module is shorter than the average duration of all eligible diary activities.

Well-being activity weights were adjusted to compensate for the activities that were underrepresented in the WB module because of the exclusion error in the selection process. Appendix C provides a detailed discussion of the adjustment process.

If you have questions, please contact an ATUS staff member by e-mail at atusinfo@bls.gov or by phone at 202-691-6339.

Important Information about the Well-being Module Data Dictionary

Introduction

The National Institute on Aging sponsored the Well-being (WB) Module of the American Time Use Survey (ATUS). The ATUS is sponsored by the Bureau of Labor Statistics and conducted by the U.S. Census Bureau. The purpose of this document is to provide general information about the ATUS and WB Module and detailed information about the variables available on the ATUS WB Module data files: the WB Respondent files and the WB Activity files. The WB Module data files are available for 2010, 2012, and 2013 and contain information gathered from the ATUS interviews. In addition to the single-year WB Module data files, multi-year (combining 2010, 2012, and 2013) data files also are available. All WB Module questions were asked at the end of the ATUS interview.

In the ATUS, sample cases for the survey are selected monthly, and interviews are conducted continuously throughout the year. ATUS sample households are chosen from the households that completed their eighth (final) interview for the Current Population Survey (CPS). ATUS sample households are selected to ensure that estimates will be nationally representative of the U.S. civilian noninstitutional population age 15 and over. One individual is randomly chosen from each household and is interviewed by telephone about his or her activities on the day before the interview. We refer to the list of activities as the "time diary" and the day the diary refers to as the "diary day." For more information about the ATUS, please see the ATUS User's guide (www.bls.gov/tus/atususersguide.pdf).

All ATUS respondents were selected for the WB Module. In the module, 3 activities from the diary were randomly selected[1] and 7 questions related to the quality of life were asked about each activity; a few general questions about health status were asked for each respondent. Starting in 2012, two questions were added about general life satisfaction and how the respondent's feelings compared to those on a typical day for which the respondent was being interviewed. The activities selected for the WB Module were required to meet the following criteria:

- The activity had to be at least 5 minutes in duration
- The following activities and responses were not eligible for selection:
  - Sleeping (0101xx)
  - Grooming (0102xx)
  - Personal Activities (0104xx)
  - Don't know/Can't remember (500106)
  - Refusal/None of your business (500105)

For more information about the questions asked in the WB Module and about the ATUS activity classification system, please see the WB Module questionnaire (www.bls.gov/tus/wbmquestionnaire.pdf) and the ATUS Activity Coding Lexicons (www.bls.gov/tus/lexicons.htm).

This data dictionary lists all the variables available on the single-year and multi-year WB files and their valid values. It also provides directions on how to read the data dictionary.

Two other data dictionaries describe the basic ATUS data files. The first describes the ATUS-CPS file, which contains data from the CPS files for those selected to be surveyed for ATUS and members of their households. (The information on the ATUS-CPS file was collected two to five months before the ATUS interview and may have been out of date at the time of the ATUS survey.) The second is the ATUS interview data dictionary which describes the variables available on five files: the Roster file, the Activity file, the Who file, the Eldercare Roster file (introduced in 2011), and the Respondent file. These variables were collected and assigned in the ATUS interview.

Two other data dictionaries describe additional ATUS data files. The first describes the ATUS Survey Methods data, made up of the Case History file and the Call History file. The second describes the Trips file.

[1] This description refers to the design of the WBM, however, there was an error in the software used to collect these data that affected the randomization process. For more information, see Appendix C of this document."

The trips questions were replaced by questions about eldercare in 2011; 2010 is the last year for which the Trips data dictionary was created.

Each of these additional data dictionaries describes variables from an individual year. They are available on the ATUS Web site at www.bls.gov/tus/dictionaries.htm.

ATUS WB Module Data Files

The following data files include data available from the ATUS WB module interviews. These files are available on an annual (single-year) basis and a pooled (multi-year) basis.

1. WB Respondent File

   This file contains case-specific variables collected in the WB Module (that is, variables for which there is one value for each respondent). These include, for example, general health information, how well-rested the respondent felt on his diary day (the day about which he was interviewed), and WB Module respondent-level statistical weights. There is one record for each WB Module respondent.

   Below is a simplified example. The TUCASEID identifies each household, and TULINENO identifies each individual within the household. The example contains responses from 5 individuals; note that the respondent always has TULINENO=1. (All records on the WB Respondent file have TULINENO=1 because only one person in the household responded to the ATUS.) In the example, each respondent has a corresponding statistical weight (WUFINLWGT) for use in generating estimates representative of the U.S. civilian, noninstitutional population age 15 and over. The use of the supplement weight WUFINLWGT is explained in the "ATUS and WB Module weights and estimation" section below.

   All ATUS respondents are selected to participate in the WB Module. However, if an insufficient number of questions are answered, the person is not included as a WB Module respondent. See Appendix A for a description of how these cases are determined.

   This example also demonstrates that each respondent has corresponding values denoting general health status (WEGENHTH) and how well-rested the respondent felt (WEREST). The actual WB Respondent file contains additional variables.

TUCASEID	TULINENO	WUFINLWGT	WEGENHTH	WEREST
20100101100605	1	4040229.08	5	2
20100604101229	1	1438440.99	4	1
20100807100994	1	3151945.82	2	4
20100908101868	1	1621125.07	1	3
20101211101129	1	14724370.75	3	1

2. WB Activity File

   In the WB Module, the survey randomly selects 3 activities reported by each respondent. For each selected activity, the respondents were asked 7 questions related to quality of life (5 affect questions, 1 question about how meaningful the activity was, and 1 question about whether the respondent was interacting with anyone during the activity). The order of the 5 affect questions was randomly determined for each respondent. This file includes the activity-level information collected in the WB Module, including activity number and information about how the respondent felt during the selected activities.

There is one record for each activity selected for the module. The activities must meet the following selection criteria:

- The activity must be at least 5 minutes in duration
- The following activities and responses were not eligible for selection:
  - Sleeping (0101xx)
  - Grooming (0102xx)
  - Personal Activities (0104xx)
  - Don't know/Can't remember (500106)
  - Refusal/None of your business (500105)

A simplified example of the WB Activity file appears below. This is an illustration showing information about the 3 activities selected for the WB module from one respondent's time diary. Because only one person was interviewed per household, each TUCASEID on the WB Activity file identifies a respondent. Each activity is identified by an activity number (TUACTIVITY_N). In the example, each activity has corresponding values denoting how happy the respondent felt during the activity (WUHAPPY) and whether the respondent was interacting with anyone during the activity (WUINTERACT) in addition to the annual activity-level statistical weight (WUFNACTWTC). The use of WUFNACTWTC is explained in the "ATUS and WB Module weights and estimation" section below. (The actual WB Activity file contains more variables describing the feelings associated with each selected activity.)

TUCASEID	TUACTIVITY_N	WUHAPPY	WUINTERACT	WUFNACTWTC
20100101102152	2	3	2	12059879.6
20100101102152	7	1	2	2009974.4
20100101102152	13	6	1	4019965.4

3. WB Replicate weights files

The WB Replicate Weights files contain weights necessary for generating standard errors for WB Module estimates. The WB Respondent Replicate weights file contains one record for each individual who responded to the WB Module. The WB Activity Replicate weights file contains one record for each activity selected for the WB Module. Technical information about the WB Replicate weights files can be found in the text document that is enclosed in the WB Module Replicate Weights zip files. See Chapter 7 of the ATUS User's Guide (www.bls.gov/tus/atususersguide.pdf) for guidance on calculation of standard errors using the replicate weights

ATUS and WB Module weights and estimation

ATUS final weights (TUFINLWGT)

The ATUS final weights (found on the ATUS Respondent file) need to be applied when computing estimates with the ATUS data because simple tabulations of unweighted ATUS data produce misleading results. The ATUS weights are designed to produce estimates for an average person-day. That is, estimates represent time use for an average person, on an average day. Summing the weights for all respondents in a given year yields the number of persons in the population times the number of days in the year. The ATUS weights compensate for important aspects of the sampling and data collection process. The weights ensure that each demographic group is represented in the weighted sample in proportion to its share in the population. They also ensure that each day of the week is correctly represented. For more information about the ATUS weights and their use in producing estimates with the ATUS data, please see Chapter 7 of the ATUS User's guide (www.bls.gov/tus/atususersguide.pdf)

WB Module final weights

WB respondent weights (WUFINLWGT)

The WB respondent-level final weights should be used instead of the ATUS final weights when using WB Module data to create general WB estimates for measures such as health, use of pain medication, hypertension, and general time use. Because some ATUS respondents did not complete the WB Module, the WB respondent-level final weights account for this nonresponse. Like the ATUS final weights, the WB Module respondent weights are person-day weights; summing the WB respondent final weights yields the number of persons in the population times the number of days in the period. General WB estimates (not related to activity affects) should be produced using WUFINLWGT (instead of TUFINLWGT) according to the procedures in Section 7.4 of the ATUS User's guide.

WB activity weights (WUFNACTWTC and WUFNACTWTP)

The WB Module activity weight is designed to estimate average levels of affect for the population during activities eligible for the module. They can also be used to estimate population averages for functions of affect such as "U-indexes" (Krueger 2007)[2]. The weights account for the time respondents spent doing each sampled activity and the total time they spent in activities eligible for selection in the module. They also account for differences between respondents in the probability that a specific activity was sampled. For a discussion of the construction and justification for the WB activity weights, please see Appendix B.

As an example of their use in estimation, the average level of pain that persons experienced during their eligible activities during a day ($\bar{P}$) can be estimated as

(1) $$\overline{\mathrm{P}} = \frac{\sum_{\mathrm{i}} \sum_{\mathrm{k}} \mathrm{w_{ik}} \mathrm{P_{ik}}}{\sum_{\mathrm{i}} \sum_{\mathrm{k}} \mathrm{w_{ik}}}$$

where *i* denotes respondent, *k* denotes sampled activity, *P* denotes the reported level of pain, and w_{ik} denotes the weight attached to activity *k* for respondent *i*. In general, one should use the WB Activity weights to estimate the average level of affect(s) for selected populations on an average day. For example, one can use these weights to construct and compare estimates of the average level of pain felt by persons age 65 and over and persons under age 65 on an average day, or the average level of stress felt by men and women on an average day.

The WB activity weights cannot be used to estimate how the average person in a population felt during a specific activity on an average day. This is because the ATUS collects only single-day time diaries from respondents and calculation of a person-weighted average of affect during an activity (the affect the average participant has during a minute of the activity) requires collecting more than one time diary from each respondent. For example, one cannot use the WB activity weights to estimate how happy the average person felt while shopping. As an illustration, consider two people with different preferences for shopping: Person A doesn't mind shopping and so he shops on twice as many days per year as person B, who does not like to shop. On average, the ATUS data will pick up person A's shopping twice as often as person B's shopping. Without knowledge of how frequently respondents participate in a given activity (for example, how often person A and B shop), it is not possible to adjust for this difference in behavior; such an adjustment is needed to calculate how the average person felt while shopping.

The WB activity weights are person-day based rather than time based—that is, equation (1) estimates the average affect level across the population of person-days. Accordingly, this formula cannot be applied to estimate the average level of affect during a minute of a specific type of activity--the average level of pain while working for pay, for example. Denote this time-based average as $\bar{P}^*$. An unbiased estimate of $\bar{P}^*$ can be generated by modifying WUFNACTWTC (or WUFNACTWTP) by multiplying it by the total amount of time in eligible activities (WRTELIG) and applying equation (1), restricted to observations of the activity of interest:

[2] Krueger, Alan B. 2007. "Are We Having More Fun Yet? Categorizing and Evaluating Changes in Time Allocation." Brookings Papers on Economic Activity, Vol. 2007, No. 2, pp. 193-215.

(2) $$\overline{P}^{*} = \frac{\sum_i \sum_k I_{ik} w'_{ik} P_{ik}}{\sum_i \sum_k I_{ik} w'_{ik}} = \frac{\sum_i T_i \sum_k I_{ik} w_{ik} P_{ik}}{\sum_i T_i \sum_k I_{ik} w_{ik}}$$

where *w'* denotes the modified weights, T_i denotes WRTELIG for respondent *i,* and I_{ik} is an indicator variable for the activity of interest.

For example, in 2010, the estimate for the average level of pain that employed persons experienced during all eligible activities, using the person-day average shown in equation (1), was 0.78, where 0 is no pain at all and 6 is pain as bad as it can be. Modifying the weights and calculating the average level of pain felt during the time employed persons spent working (0501), using the time-based average shown in equation (2), resulted in an estimate of 0.83. See Appendix B for an illustration of the calculation of these estimates.

Some activity weights are assigned a value of zero. If an insufficient number of questions were answered for the activity, a weight of zero was assigned. See Appendix A for a discussion of the assignment of the activity weights.

See Appendix C for more information about the underrepresentation of late night activities and the adjustment of the WB activity weights.

WB Module weights – general recommendations

1. Estimates using the general health questions (those on the WB respondent file) and not any of the WB module activity data should use WUFINLWGT.
2. Annual estimates using only the WB Module activity data should use WUFNACTWTC.
3. Annual estimates using data from the WB Module respondents in conjunction with the activity-level WB Module data should use WUFNACTWTC.
4. Pooled estimates, using 2010, 2011, and 2013 WB Module activity data, can use WUFNACTWTP or WUFNACTWTC.
5. The activity weight WUFNACTWT should *only* be used in analyses of the effects of the instrument randomization error on the data. It was developed using the original weighting plan for module activity weights and it has not been adjusted to mitigate the randomization error identified in the collection instrument. For more information about this error, see Appendix C.

WB Module Naming Conventions and Definitions

WB Module variables are named according to specified rules. Variables with a first character of "W" (for Well-being) were collected or created through the WB Module interview questions. Variables with a first character of "T" (for time use) were collected or created through the ATUS interview. Two variables created through the ATUS interview but constructed for the purpose of the WB module are an indicator of module eligibility for each activity in the ATUS diary (TRWBELIG), and an indicator of respondent participation in the WB Module (TRWBMODR). These variables are on the ATUS files. There are only three "T" variables on the WB Module files. These are the ATUS case ID (TUCASEID); the ATUS person line number (TULINENO) and the ATUS activity number (TUACTIVITY_N); these variables are used to link WB files to ATUS files.

The second and third characters of the name identify the type of variable, and the remaining characters consist of a descriptive name. The rules regarding the first two or three characters are described in the table below:

Abbreviation	Variable Type	Definition
U	Unedited Variable	An unedited variable generally is produced by the Computer Assisted Telephone Interview (CATI) instrument, either collected or assigned during the interview.
E	Edited Variable	An edited variable is one that has gone through an editing process (a process checking for consistency). Values of edited variables are almost always equal to values of the corresponding unedited variables. Data differ when a value is allocated or imputed by the processing system based on allocation rules specified in ATUS processing. Allocations are typically performed when the unedited variable contains a value of blank, "don't know," or "refused." An edited version of a variable exists only if that variable goes through an editing process. If there are no edits for a variable, then only an unedited version of that variable exists.
RT	Summary Variable	These variables summarize the amount of time respondents spent doing selected activities. For example, WRTELIG is the total time the respondent spent in all activities eligible to be selected for the WB Module,
X	Allocation Flag	Each edited variable has a corresponding allocation flag indicating the nature of the allocation. For example, if WUHBP is "don't know," WEHBP would be allocated, and this would be indicated by a WXHBP value of 42. See the section below on allocation flags for the standard list of values.

Using these rules, variables can be more readily understood based on their names. For example, the variable WEREST can be broken down as follows:

- The first character "W" indicates that this variable was collected or created through the ATUS WB Module interview questions
- The second character "E" indicates that this variable went through an editing process; it also means there will be a corresponding allocation flag, WXREST, to indicate the nature of the allocation
- The final part of the variable name, "REST," is descriptive and, in this case, refers to how well-rested the respondent felt when he woke up.

Not all WB Module variables are on the files. When there is an edited variable, the corresponding unedited variable is usually omitted from the files. If an unedited variable is included on the files, an edited version does not exist.

Allocation Flags

For every edited variable (or all "E" variables), there is a corresponding allocation flag whose second character is "X." All remaining characters of the two variables' names are the same. For example, WXGENHTH is the allocation flag for WEGENHTH.

All allocation flags have the following list of possible values:

0 Value – no change
1 Blank – no change
2 Don't know – no change
3 Refused – no change
10 Value to value
11 Blank to value
12 Don't know to value
13 Refused to value
20 Value to longitudinal value
21 Blank to longitudinal value
22 Don't know to longitudinal value
23 Refused to longitudinal value
30 Value to allocated longitudinal value (unused)
31 Blank to allocated longitudinal value (unused)
32 Don't know to allocated longitudinal value (unused)
33 Refused to allocated longitudinal value (unused)
40 Value to allocated value
41 Blank to allocated value
42 Don't know to allocated value
43 Refused to allocated value
50 Value to blank
52 Don't know to blank
53 Refused to blank

Each digit of these valid values identifies how and why edited variables were allocated.

The first digit indicates how the allocation was made to the "E" (or edited) variable.

First Digit	
0 or Blank	No change between "U" variable and "E" variable
1	"E" variable changed to a value
2	"E" variable changed to a longitudinal value (the corresponding value from the CPS data)
3	"E" variable changed to an allocated longitudinal value (the corresponding allocated value from CPS data) - unused
4	"E" variable changed to allocated value
5	"E" variable changed to a blank

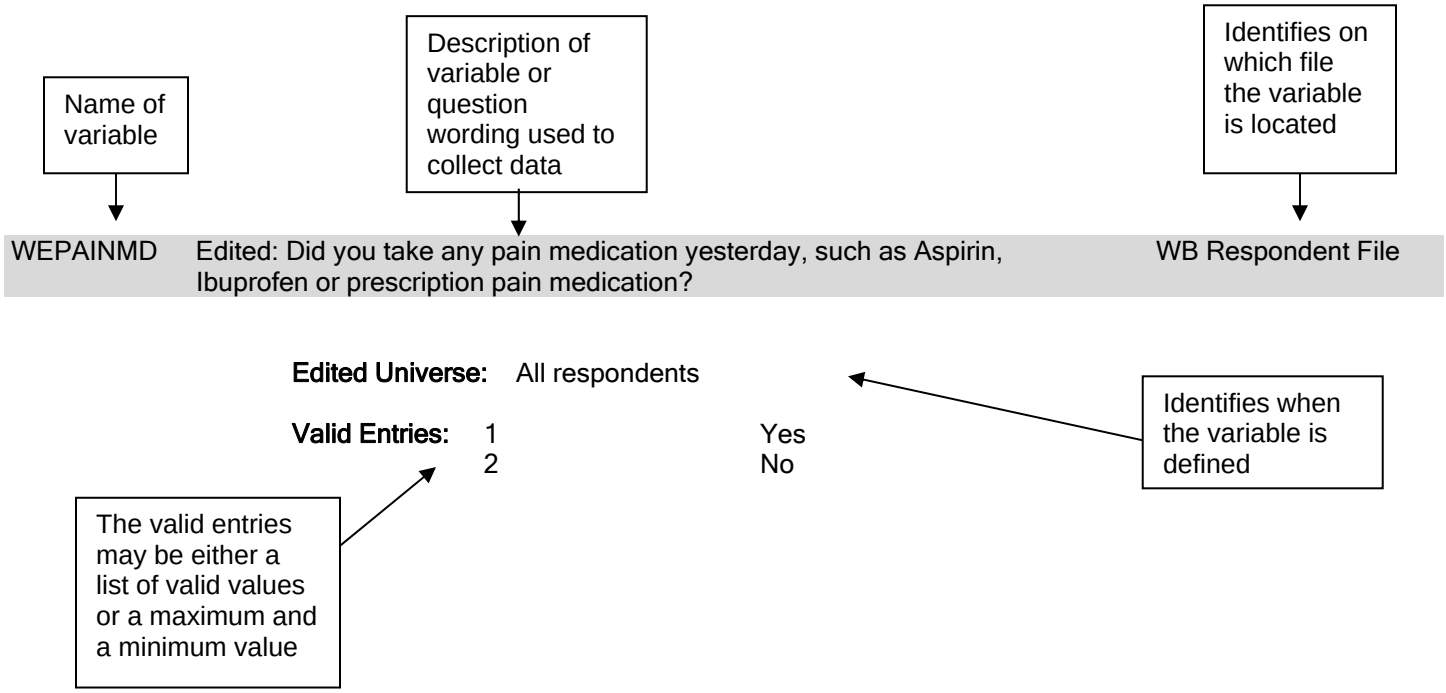
The second digit indicates why the "U" variable was allocated, whether the value was an unacceptable one, missing, don't know, or refused.

Second Digit	
0	"U" variable was equal to some value
1	"U" variable was blank (or -1)
2	"U" variable was don't know (or -2)
3	"U" variable was refused (or -3)

Organization of the Data Dictionary

Variables are listed in the data dictionary in alphabetical order.

Below is a sample entry from the ATUS Well-being Module data dictionary:



Valid Values

Each variable has a number of valid values or a range of valid values. For example, the variable WEGENHTH (general health) has five valid values: 1 for excellent, 2 for very good, 3 for good, 4 for fair, and 5 for poor. The variable WRTELIG (total time spent in all eligible activities), on the other hand, has a range of valid values – any entry between 5 and 1440 is considered valid. Individual valid values or a range of valid values are listed under each variable in the data dictionary.

Many ATUS variables have the following possible valid values:

Value	Description
-1	Blank
-2	Don't know
-3	Refused

Since so many variables have these possible values, they are not shown as valid entries for each variable.

TUCASEID, the primary identification number for ATUS, does not have either a list of valid values or a range of valid values.

Linking WB Module files to other ATUS Data Files

Each of the WB Module data files contains useful information, but in order to produce most estimates, the files must be linked to other ATUS files. All of the data files contain the variables TUCASEID, which is the ATUS identification number. Two other variables that can be used for linking in conjunction with TUCASEID are TULINENO (person line number) and TUACTIVITY_N (activity line number).

File	Linking Variables
WB Module data files	
WB Respondent file	TUCASEID TULINENO (always equal to 1 on the WB Respondent file)
WB Activity file	TUCASEID TUACTIVITY_N
WB Respondent-level Replicate Weights file	TUCASEID
WB Activity-level Replicate Weights file	TUCASEID TUACTIVITY_N
Basic ATUS data files	
Respondent file	TUCASEID TULINENO (always equal to 1 on the Respondent file)
Roster file	TUCASEID TULINENO
Activity file	TUCASEID TUACTIVITY_N
Who file	TUCASEID TUACTIVITY_N TULINENO
Eldercare Roster file (2011 and later)	TUCASEID TULINENO
ATUS-CPS file	TUCASEID TULINENO
Activity Summary file	TUCASEID
Additional ATUS data files	
Case History file	TUCASEID
Call History file	TUCASEID
Trips file (2010 and earlier)	TUCASEID
Replicate Weights file	TUCASEID

The ATUS files can also be linked to CPS files. More information is available in the ATUS-CPS data dictionary, available online at www.bls.gov/tus/dictionaries.htm.

2010, 2012, and 2013 ATUS Data Dictionary: Public Well-being module Data

Name	Description	File
TRWBELIG	Flag identifying activities eligible for the Well-being Module	Activity File
	Edited Universe: All activities	
	Valid Entries: 0 Activity not eligible for selection in the Well-being Module 1 Activity eligible for selection in the Well-being Module	
	*** Note:** Activities with codes of 0101xx, 0102xx, 0104xx, 500105, or 500106 or with durations less than 5 minutes are not eligible	
TRWBMODR	Well-being Module respondent	Respondent File
	Edited Universe: All respondents	
	Valid Entries: 0 Did not respond to Well-being Module 1 Responded to the Well-being Module	
	*** Note:** The Well-being Module was conducted in 2010, 2012 and 2013. All individuals on the Respondent file were selected to be interviewed for the Well-being Module.	
TUACTIVITY_N	Activity line number	Activity File, Who File, WB Activity File
	Valid Entries: 1 Min Value 91 Max Value	
TUCASEID	ATUS Case ID (14-digit identifier)	All Files
TULINENO	ATUS person line number	ATUS-CPS File, Respondent File, Roster File, Who File, WB Respondent File, EC Roster File
	Valid Entries: 1 Min Value 30 Max Value	
	*** Note:** The person selected to be interviewed for ATUS is always TULINENO = 1	
WECANTRIL	Edited: Please imagine a ladder with steps numbered from 0 at the bottom to 10 at the top. The top of the ladder represents the best possible life for you and the bottom of the ladder represents the worst possible life for you. If the top step is 10 and the bottom step is 0, on which step of the ladder do you feel you personally stand at the present time?	WB Respondent File
	Edited Universe: All respondents	
	Valid Entries: 0 Min Value 10 Max Value	
	*** Note:** This question was introduced in the 2012 WB Module. Therefore WECANTRIL is not on the 2010 Annual WB Respondent file. On the pooled WB Respondent file, WECANTRIL will have missing values for cases with TUYEAR=2010.	
WEGENHTH	Edited: Would you say your health in general is excellent, very good, good, fair, or poor?	WB Respondent File
	Edited Universe: All respondents	
	Valid Entries: 1 Excellent 2 Very Good 3 Good 4 Fair 5 Poor	

Name	Description	File
WEHBP	Edited: In the last five years, were you ever told by a doctor or other health professional that you have hypertension, also called high blood pressure, or borderline hypertension?	WB Respondent File
	Edited Universe: All respondents	
	Valid Entries: 1 Yes 2 No	
WEPAINMD	Edited: Did you take any pain medication yesterday, such as Aspirin, Ibuprofen or prescription pain medication?	WB Respondent File
	Edited Universe: All respondents	
	Valid Entries: 1 Yes 2 No	
WEREST	Edited: When you woke up yesterday, how well-rested did you feel? Did you feel very rested, somewhat rested, a little rested, or not at all rested?	WB Respondent File
	Edited Universe: All respondents	
	Valid Entries: 1 Very 2 Somewhat 3 A little 4 Not at all	
WETYPICAL	Edited: Thinking about yesterday as a whole, how would you say your feelings, both good and bad, compared to a typical [FILL= DAY]? Were they better than a typical [FILL=DAY], the same as a typical [FILL=DAY], or worse than a typical [FILL=DAY]?	WB Respondent File
	Edited Universe: All respondents	
	Valid Entries: 1 Better 2 The same 3 Worse	
	*** Note:** This question was introduced in the 2012 WB Module. Therefore WETYPICAL is not on the 2010 Annual WB Respondent file. On the pooled WB Respondent file, WETYPICAL will have missing values for cases with TUYEAR=2010. The FILL is the day of the week about which the respondent was being interviewed. For example, if the diary day was a Tuesday, the respondent was asked how his feelings yesterday compared to a typical Tuesday.	
WRTELIG	Total time spent in all activities eligible to be selected for Well-being module	WB Respondent File
	Edited Universe: All Well-being respondents	
	Valid Entries: 5 Min Value 1440 Max Value	
	*** Note:** Includes time spent in all activities with duration 5 minutes or more, except 0101xx, 0102xx, 0104xx, 500105, and 500106	
WUFINLWGT	Well-being module respondent weight	WB Respondent File
	Valid Entries: 0 Min Value 9999999999 Max Value	
WUFNACTWT	Well-being module original activity weight	WB Activity File
	Valid Entries: 0 Min Value 99999999999 Max Value	

Name	Description	File

*** Note:** For each activity, if the data were missing, or the respondent refused to answer or reported "don't know" to 4 or more of the affect questions (WUHAPPY, WUPAIN, WUSAD, WUSTRESS, and WUTIRED), meaningful (WUMEANING), or interaction (WUINTERACT) question, a value of 0 was assigned to the activity weight for that activity.

This weight was computed prior to implementing an adjustment to the WB activity weights. See note to WUFNACTWTC and WUFNACTWTP.

WUFNACTWTC	Well-being module adjusted annual activity weight	WB Activity File

Valid Entries: 0 Min Value
9999999999999999999 Max Value

*** Note:** For each activity, if the data were missing, or the respondent refused to answer or reported "don't know" to 4 or more of the affect questions (WUHAPPY, WUPAIN, WUSAD, WUSTRESS, and WUTIRED), meaningful (WUMEANING), or interaction (WUINTERACT) question, a value of 0 was assigned to the activity weight for that activity.

This weight includes an adjustment factor to compensate for an under sampling of late night activities. It should be used for annual estimates. See Appendix C for a more detailed discussion of these weights.

WUFNACTWTP	Well-being module adjusted pooled activity weight	WB Activity File

Valid Entries: 0 Min Value
999999999999 Max Value

*** Note:** For each activity, if the data were missing, or the respondent refused to answer or reported "don't know" to 4 or more of the affect questions (WUHAPPY, WUPAIN, WUSAD, WUSTRESS, and WUTIRED), meaningful (WUMEANING), or interaction (WUINTERACT) question, a value of 0 was assigned to the activity weight for that activity.

This weight includes a 3-year (2010, 2012, 2013) adjustment factor to compensate for an under sampling of late night activities. WUFNACTWTP is only available on the pooled Well-being activity data file. It should be used only for pooled estimates. See Appendix C for a more detailed discussion of these weights.

WUHAPORD	Order of WUHAPPY	WB Activity File

Valid Entries: 1 Min Value
5 Max Value

*** Note:** For each respondent to the Well-being module, the order of the affect questions (WUHAPPY, WUPAIN, WUSAD, WUSTRESS, and WUTIRED) was assigned randomly. For each WB respondent, the order of the affect questions was the same for each selected activity.

WUHAPPY	From 0 to 6, where a 0 means you were not happy at all and a 6 means you were very happy, how happy did you feel during this time?	WB Activity File

Valid Entries: 0 Min Value
6 Max Value

WUINTERACT	Were you interacting with anyone during this time, including over the phone?	WB Activity File

Valid Entries: 1 Yes
2 No

WUMEANING	From 0 to 6, how meaningful did you consider what you were doing? 0 means it was not meaningful at all to you and a 6 means it was very meaningful to you.	WB Activity File

Valid Entries: 0 Min Value
6 Max Value

Name	Description	File
WUPAIN	From 0 to 6, where a 0 means you did not feel any pain at all and a 6 means you were in severe pain, how much pain did you feel during this time if any?	WB Activity File
	Valid Entries: 0 Min Value 6 Max Value	
WUPNORD	Order of WUPAIN	WB Activity File
	Valid Entries: 1 Min Value 5 Max Value	
	*** Note:** For each respondent to the Well-being module, the order of the affect questions (WUHAPPY, WUPAIN, WUSAD, WUSTRESS, and WUTIRED) was assigned randomly. For each WB respondent, the order of the affect questions was the same for each selected activity.	
WUSAD	From 0 to 6, where a 0 means you were not sad at all and a 6 means you were very sad, how sad did you feel during this time?	WB Activity File
	Valid Entries: 0 Min Value 6 Max Value	
WUSADORD	Order of WUSAD	WB Activity File
	Valid Entries: 1 Min Value 5 Max Value	
	*** Note:** For each respondent to the Well-being module, the order of the affect questions (WUHAPPY, WUPAIN, WUSAD, WUSTRESS, and WUTIRED) was assigned randomly. For each WB respondent, the order of the affect questions was the same for each selected activity.	
WUSTRESS	From 0 to 6, where a 0 means you were not stressed at all and a 6 means you were very stressed, how stressed did you feel during this time?	WB Activity File
	Valid Entries: 0 Min Value 6 Max Value	
WUSTRORD	Order of WUSTRESS	WB Activity File
	Valid Entries: 1 Min Value 5 Max Value	
	*** Note:** For each respondent to the Well-being module, the order of the affect questions (WUHAPPY, WUPAIN, WUSAD, WUSTRESS, and WUTIRED) was assigned randomly. For each WB respondent, the order of the affect questions was the same for each selected activity.	
WUTIRED	From 0 to 6, where a 0 means you were not tired at all and a 6 means you were very tired, how tired did you feel during this time?	WB Activity File
	Valid Entries: 0 Min Value 6 Max Value	
WUTRDORD	Order of WUTIRED	WB Activity File
	Valid Entries: 1 Min Value 5 Max Value	
	*** Note:** For each respondent to the Well-being module, the order of the affect questions (WUHAPPY, WUPAIN, WUSAD, WUSTRESS, and WUTIRED) was assigned randomly. For each WB respondent, the order of the affect questions was the same for each selected activity.	
WXCANTRIL	WECANTRIL: allocation flag	WB Respondent File
	*** Note:** See introduction for allocation flag values. WECANTRIL was introduced in the 2012 WB Module. Therefore WXCANTRIL is not on the 2010 WB Respondent file.	
WXGENHTH	WEGENHTH: allocation flag	WB Respondent File

Name	Description	File
	*** Note:** See introduction for allocation flag values	
WXHBP	WEHBP: allocation flag	WB Respondent File
	*** Note:** See introduction for allocation flag values	
WXPAINMD	WEPAINMD: allocation flag	WB Respondent File
	*** Note:** See introduction for allocation flag values	
WXREST	WEREST: allocation flag	WB Respondent File
	*** Note:** See introduction for allocation flag values	
WXTYPICAL	WETYPICAL: allocation flag	WB Respondent File
	*** Note:** See introduction for allocation flag values. WETYPICAL was introduced in the 2012 WB Module. Therefore WXTYPICAL is not on the 2010 WB Respondent file.	

Appendix A

Determination of Well-being Module respondents

Some ATUS respondents are not counted as Well-being (WB) Module respondents. To be counted as a completed interview for the WB Module, the respondent had to meet the following criteria:

1. Answer at least 4 of the 7 questions about the activity for at least 1 of the 3 activities selected, where the 7 questions include the 5 affect, the meaningful, and the interaction questions
2. Answer at least 1 of the final 4 general health questions

For each activity, if the respondent did not provide answers for at least 4 of the 7 questions about the activity, the Well-being activity weight was assigned a value equal to 0. If all 3 activities had activity weights equal to 0, the case was not counted as a completed interview for the WB Module, and no information about the respondent was included on any of the WB Module files.

A simplified example of the Well-being activity file appears below. This illustrates the assignment of a Well-being activity weight when fewer than 4 of the 7 questions about the activity were answered. For TUCASEID equal to 20100101100605, and TUACTIVITY_N equal to 5, the only questions receiving answers were WUSAD, WUTIRED, and WUSTRESS. The remaining questions for that activity have values of -3 (Refused). Consequently, this activity received a weight (WUFNACTWTC) equal to 0. Note that the other activities for which this respondent provided answers had values for all of the 7 questions, and the activity weights have non-zero values.

Well-being Activity file

TUCASEID	TUACTIVITY_N	WUMEANING	WUINTERACT	WUHAPPY	WUSAD	WUTIRED	WUPAIN	WUSTRESS	WUFNACTWTC
20100101100605	2	6	2	3	0	0	0	0	1470923.444
20100101100605	3	6	2	0	0	0	4	0	5264193.967
20100101100605	5	-3	-3	-3	0	3	-3	0	0
20100111090591	3	6	2	6	0	6	0	5	172341.003
20100111090591	6	-3	-3	-3	0	-3	0	-3	0
20100111090591	10	-3	-3	-3	-3	-3	-3	-3	0
20101111101356	8	0	1	6	0	3	0	2	23338814.54
20101111101356	10	6	1	6	0	3	0	0	1018962.593
20101111101356	24	2	1	4	0	4	0	4	5834707.548

20101211101424	3	-2	2	6	0	0	0	0	118679.8366
20101211101424	6	-2	2	5	0	0	0	0	474715.4537
20101211101424	14	-3	-3	-3	-3	-3	-3	-3	0
20101211102463	5	-3	-3	6	0	0	-3	0	193741.6322
20101211102463	8	-3	-3	-3	-3	-3	-3	-3	0
20101211102463	9	-3	-3	-3	-3	-3	-3	-3	0

A simplified example of the Well-being respondent file is shown below for the same cases. This file includes responses to the final 4 health questions (WEPAINMD, WEGENHTH, WEHBP, WEREST), and starting in 2012, WECANTRIL and WETYPICAL. However, the file presents the edited versions of these variables only. Thus, one cannot determine with these variables whether the respondent provided an answer to at least 1 of the final 4 health questions. The values for the allocation flags (WXPAINMD, WXHBP, WXREST, and WXGENHTH are shown below) can identify which questions have original responses, and which ones were assigned allocated values (See page 9). A value of 0 indicates that no change was made to the unedited response and a value of 43 indicates that the value was changed from Refused (-3) to a value. While some of these cases show that allocations were made for some of the final 4 health questions, none of the cases had allocated values for all of the final 4 health questions. All of these cases are considered completed interviews and information about the respondent and the affects for these activities are included on the Well-being files.

Well-being Respondent file

TUCASEID	WEPAINMD	WEGENHTH	WEHBP	WEREST	WXPAINMD	WXHBP	WXREST	WXGENHTH	WUFINLWGT
20100101100605	1	5	1	2	0	43	0	0	4040229.077
20100111090591	2	2	2	2	0	0	0	0	1587197.1
20101111101356	2	3	2	2	0	0	0	0	8414713.307
20101211101424	2	3	1	3	43	43	0	43	1602012.479
20101211102463	1	5	1	1	0	0	0	0	3971670.711

Appendix B

This appendix gives more details on the construction and justification for the original activity weights *WUFNACTWT* and how they relate to average levels of affect for person-based and time-based measures of well-being. Researchers should use the adjusted weights *WUFNACTWTC* or *WUFNACTWTP* when computing estimates of average affect. Appendix C provides additional detail on the construction of the adjusted weights *WUFNACTWTC* and *WUFNACTWTP*.

The formula for *WUFNACTWT for* respondent *i* for selected activity *k* is:

$$WUFNACTWT_{ik} = WUFINLWGT_i ELIGACT_i f_{ik}$$

where $ELIGACT_i$ is the number of activities in respondent *i*'s diary eligible for the well-being module and f_{ik} is the fraction of total time in eligible activities that was spent in activity *k*. The presence of the $ELIGACT_i$ and f_{ik} terms can be explained as follows. The term $ELIGACT_i$ accounts for the probability that an activity was selected for the module's affect questions; a maximum of 3 activities were sampled from each respondent's time diary. As each eligible activity had an equal chance of being selected conditional on the respondent, $ELIGACT_i$ is proportional to the inverse probability of selection for an activity[1]. Regarding f_{ik}, taking the average level of pain as an example, note that the average level of pain respondent *i* experiences during eligible activities is

$$\bar{P}_i = \sum_{j=1}^{ELIGACT_i} P_{ij} f_{ij}$$

summing over all eligible activities. Thus the f_{ik} term is necessary to properly weight by time.

The population average is $\bar{P} = \sum_{i=1}^{N} \bar{P}_i / N$, where *N* is the population size. Note that the population $\bar{P}$ is person-day based; each person gets an equal weight regardless of the amount of time the person spent in eligible activities.

The time-based average $\bar{P}^*$ can be expressed as

$$\bar{P}^* = \frac{\sum_{i=1}^{N} \sum_{j=1}^{ELIGACT_i} P_{ij} t_{ij}}{\sum_{i=1}^{N} \sum_{j=1}^{ELIGACT_i} t_{ij}}$$

[1] Cases that had fewer than 3 eligible activities used a multiplier of 3 instead of the number of eligible activities ($ELIGACT_i$) to reflect 3 times the inverse probability of selection.

where t_{ij} is the time spent in activity *j* by person *i.* As explained earlier in the data dictionary, one would use $\bar{P}^*$ to calculate the average level of affect during a minute. It will usually make sense to restrict attention to a given activity such as paid work, so the formula becomes:

$$\bar{P}^* = \frac{\sum_{i=1}^{N} \sum_{j=1}^{ELIGACT_i} P_{ij} I_{ij} t_{ij}}{\sum_{i=1}^{N} \sum_{j=1}^{ELIGACT_i} I_{ij} t_{ij}}$$

where I_{ij} is an indicator that activity *j* for person *i* is the activity of interest. Note that each person contributes to $\bar{P}^*$ in proportion to their time spent in eligible activities, rather than equally. By construction, the estimate will represent an average minute the population spends in the activity and thus people who spend more time doing the activity will have greater representation.

There is no way to obtain from single-day diaries (as we have in the ATUS) a person-weighted average of affect during an activity (the affect the average participant has during a minute of the activity). This is because the ATUS collects only single-day time diaries from respondents and calculation of a person-weighted average of affect during an activity (the affect the average participant has during a minute of the activity) requires collecting more than one time diary from each respondent. For example, one cannot use the WB activity weights to estimate how happy the average person felt while shopping. As an illustration, consider two people with different preferences for shopping: Person A doesn't mind shopping and so he shops on twice as many days per year as person B, who does not like to shop. On average, the ATUS data will pick up person A's shopping twice as often as person B's shopping. Without knowledge of how frequently respondents participate in a given activity (for example, how often person A and B shop), it is not possible to adjust for this difference in behavior; such an adjustment is needed to calculate how the average person felt while shopping. As also explained earlier in the data dictionary, an unbiased estimate of $\bar{P}^*$ can be generated by modifying the WB activity weight by multiplying it by the total amount of time spent in eligible activities (WRTELIG).

Example - Use of Well-being activity weights

This example shows how to create estimates of the average level of pain across all activities for the following selection of employed respondents. It uses the person-day population average, equation (1) shown on page 6. The data shown here are taken from the following 2010 files: ATUS activity, Well-being respondent, and Well-being activity files. Each TUCASEID shows 3 selected activities, the level of pain experienced during those activities (WUPAIN) and the activity weight (WUFNACTWTC). The activity weight WUFNACTWTC should be used instead of WUFNACTWT, because it includes an annual adjustment factor that compensates for the error in the activity selection process mentioned in the note at the beginning of the Data Dictionary. For more information about the adjustment process, see Appendix C. The weighted level of pain for each activity is shown in the last column. The sum of these weighted pain variables appears in the Total row located at the bottom of the table. The sum of all the activity weights for these activities also appears in the Total row. The average level of pain is then calculated as the ratio of the two – the result here is 1.75. This result differs from the result shown on page 7 because data from only a few employed respondents are used here, whereas the full set of employed WB Module respondents was used to calculate the result shown on page 7.

All Activities included

TUCASEID	WRTELIG	TUACTIVITY_N	TUACTDUR24	TRTIER2	WUPAIN	WUFNACTWTC	WUFNACTWTC*WUPAIN
20100111090800	990	0	30	0202	0	2692030.67	0
20100111090800	990	0	10	1803	0	959972.47	0
20100111090800	990	0	10	1812	0	959972.47	0
20100504101233	915	0	15	1101	0	685460.85	0
20100504101233	915	0	30	1101	0	1370925.88	0
20100504101233	915	0	180	0501	0	7790556.36	0
20100504101244	1155	15778913	30	1101	3	5259637.60	15778913
20100504101244	1155	201750588	405	0501	3	67250196.04	201750588
20100504101244	1155	2629819	5	0701	3	876606.27	2629819
20100504101368	690	0	10	1102	0	984960.66	0
20100504101368	690	9111199	32	1805	2	4555599.50	9111199
20100504101368	690	0	198	0501	0	24622745.89	0
20100504101440	955	362072	5	1805	1	362072.34	362072
20100504101440	955	14059921	205	0501	1	14059920.93	14059921
20100504101440	955	16460394	240	0501	1	16460394.11	16460394
Total						148891052.04	260152906
Average level of pain							1.75

Using the same employed respondents, this example illustrates the use of the time-based average, equation (2) shown on page 7, for estimating the average level of pain during the time spent participating in a specific activity. In this case, if the activity is working (TRTIER2=0501), an indicator variable (I_{ik}) is set equal to 1 and is 0 otherwise. Multiplying the activity weights by WRTELIG, one can create estimates for the time-based average level of pain for this group of employed respondents during their time spent working. In this case, the average level of pain during this time is 2.00. This result differs from the result shown on page 7 because data from only a few employed WB Module respondents are used here.

Work only (TRTIER2 = 0501)

TUCASEID	WRTELIG	TUACTIVITY_N	TRTIER2	WUPAIN	WUFNACTWTC	WUFNACTWTC *WRTELIG	Iik	Iik*WUFNACTWTC *WRTELIG*PAIN	Iik*WUFNACTWTC *WRTELIG
20100111090800	990	3	0202	0	2692030.667	2665110360	0	0	0
20100111090800	990	8	1803	0	959972.471	950372746	0	0	0
20100111090800	990	10	1812	0	959972.471	950372746	0	0	0
20100504101233	915	3	1101	0	685460.848	627196676.3	0	0	0
20100504101233	915	6	1101	0	1370925.878	1254397179	0	0	0
20100504101233	915	7	0501	0	7790556.359	7128359068	1	0	7128359068
20100504101244	1155	5	1101	3	5259637.597	6074881424	0	0	0
20100504101244	1155	6	0501	3	67250196.042	77673976429	1	233021929286	77673976429
20100504101244	1155	10	0701	3	876606.266	1012480237	0	0	0
20100504101368	690	3	1102	0	984960.661	679622856.2	0	0	0
20100504101368	690	11	1805	2	4555599.503	3143363657	0	0	0
20100504101368	690	12	0501	0	24622745.893	16989694666	1	0	16989694666
20100504101440	955	10	1805	1	362072.341	345779085.3	0	0	0
20100504101440	955	11	0501	1	14059920.927	13427224485	1	13427224485	13427224485
20100504101440	955	16	0501	1	16460394.113	15719676378	1	15719676378	15719676378
Total								262168830149	130938931026
Average level of pain for work activities only									2.00

Appendix C

Adjustments of the WB activity weights to compensate for underrepresentation of late night activities in the WB module

Background

The WB Module collection software was supposed to randomly select 3 eligible activities from the ATUS time diary for follow-up questions about respondents' affective well-being. When there were only 3 or fewer eligible activities in the time diary then all of these activities were chosen for the WB Module. When there were more than 3 eligible diary activities, activity selection for the WB Module relied on a randomization code. From January 1, 2010 – March 24, 2013, the collection software was programmed such that if there were "n" eligible activities in the ATUS time diary and n>3, the range of values randomly generated to select activities for the WB Module was (1, n-1) rather than (1, n). The range of values should have corresponded to the number of eligible activities. Because of the programming error, late-night leisure, especially TV watching, is under-represented in the affect data and the average spell of activities selected for the WB Module is shorter than the average duration of all eligible activities.

To mitigate the randomization error described above, the WB Module activity weights have been adjusted using two different methods. One is an annual method that preserves the 2010, 2012, and 2013 data sets. Weights adjusted using a second method rely on the observed last-eligible-activity data that was collected in the last three quarters of 2013. The second method adjusts the activity weights to be used with 3 years of pooled data consisting of the 2010, 2012, and 2013 WB Module data. Both methods are described below.

Special cases:
There were some cases in which n>3 and the last-eligible diary activity was selected for the WB Module. For most of these cases, respondents reported "sleeplessness" (010102) or "personal activities" (0104xx) after the last-eligible diary activity. In these cases, the last-eligible activity was eligible for selection because the filter used to identify eligible diary activities within the collection software relied on activity precodes (interviewers are able to hardcode or "precode" a handful of straight-forward activities such as "sleeping" and "grooming" within the software). In some cases activities that were in fact ineligible, such as sleeplessness or personal activities, were not precoded, so they would have been counted as eligible for selection into the WB Module even though they technically were not eligible. (When these activities were selected for the WB Module, the interviewers skipped the affect questions.)

In the following discussion, cases in which the last-eligible diary activity actually was eligible for selection into the WBM are referred to as "special cases." This includes cases with three or fewer eligible activities and cases in which respondents reported sleeplessness or personal activities after the last-eligible diary activity. It includes cases in which the last-eligible activity was sampled into the WB Module and cases in which the last-eligible activity was eligible for the WB Module but not sampled.

Annual weights (WUFNACTWTC)

The activity weights WUFNACTWTC were created using a method that preserves the 2010, 2012, and 2013 WB Module data as annual data sets. This was done by increasing the weights associated with observed late-night affect data for each year. Ratio adjustment factors were applied to up-weight the WB activity weights associated with activities that occurred after 10:00 p.m. in the time diary. The weights associated with activities occurring earlier in the day were decreased based on how much they were overrepresented in the WB Module. The weights were adjusted using adjustment factors calculated using all ATUS activities that were eligible for selection into the WB Module. The adjustment factor for an activity, "x," is: (percent of eligible person-days in activity x)/(percent of WB Module person-days in activity x).

Ratio adjustment factors were calculated for 7 different activity groupings, and two time periods (ending 10 p.m. or earlier, and ending after 10 p.m.) These groupings are based on the degree to which different activities were underrepresented in the late night WB Module data. The table below shows the activities and the adjustment factors that were used for each of the activity groupings in 2010, 2012 and 2013. Special cases and cases occurring after the error was fixed were excluded from the process.

Annual Adjustment Factors Well-being Module Activity Weights

Group	Activity	Code	Adjustment Factors					
			2010		2012		2013	
			Before 10 pm	After 10 pm	Before 10 pm	After 10 pm	Before 10 pm	After 10 pm
1	TV watching	120303	1.18	5.26	1.17	4.79	1.15	5.17
2	Relaxing/Leisure except TV watching	1203 except 120303	0.89	2.14	0.96	2.93	1.05	2.22
3	Socializing/Arts and all other Leisure	12 except 1203	0.88	1.16	0.89	1.12	0.88	0.84
4	Housework/Care of household members	02, 03	0.87	2.19	0.86	1.79	0.91	2.97
5	Working and work-related activities	05	0.88	1.17	0.89	1.71	0.88	0.84
6	Other activities 1	01, 08, 10, 50	0.93	3.39	0.84	2.30	0.77	1.67
7	Other activities 2	04, 06, 07, 09, 11, 13, 14, 15, 16, 18	0.93	1.34	0.89	1.33	0.91	1.93

This method of adjusting the WB module activity weights to create WUFNACTWTC assumes that data on late-night activities that were not the last-eligible activities in respondents' diaries can accurately represent the omitted last-eligible-activity data. Because of the way they were adjusted, WUFNACTWTC should not be used in time-of-day analyses that focus on the late evening hours. Also note that the representativeness of affect data on tiredness was improved by this adjustment, however, it is not clear whether the adjusted data fully reflect the degree of tiredness felt by the population. BLS analysis indicates that except for tiredness, the affect data vary little during the late-night hours.

Pooled weights (WUFNACTWTP)

This method adjusts the WB Module activity weights using all 3 years of WB Module data. The error was corrected on March 25, 2013. The method for constructing the pooled activity weights increases those weights associated with the last-eligible activities collected during the period March 25 – December 31, 2013. Thus for cases whose interview was on or after March 25, 2013, activity weights for sampled last-eligible activities were up-weighted to represent last-eligible activities in all 3 years of the WB Module.

The probability of an activity's selection into the WBM was supposed to be *1/n*, where *n* indicates the number of eligible activities in the diary. The WB Module activity weights are calculated using an activity's probability of selection; thus, except for the special cases, the activity weights corresponding to data collected prior to March 25, 2013, are down-weighted slightly to reflect the fact that their probability of selection for the WB Module was *1/(n-1)* rather than *1/n*. The activity weights associated with the special cases were not adjusted because their probability of selection actually was *1/n*. The table below presents the adjustment factors for the 3-year pooled activity weights.

Pooled 3-Year Adjustment Factors Well-being Module Activity Weights

		Date of ATUS WB Module Interview:	
Special case*		**1/1/2010-3/24/2013**	**3/25/2013-12/31/2013**
Yes		1 (no change)	1 (no change)
No:			
Selected WB activity is last eligible in diary?	**Yes**	(n-1)/n	(1096/283)**
	No	(n-1)/n	1

* Special cases are ones in which the last-eligible diary activity actually was eligible for selection into the WB module. They include cases with 3 or fewer eligible diary activities, and cases in which respondents reported sleeplessness or personal activities after the last-eligible diary activity.

** This number represents the 1096 days in the 3-year period divided by the 283 days for which the last eligible activity was sampled correctly.