

Documentation of Post-Stratification Weights Created for MIDUS Refresher 2 (MR2)

This document describes how post-stratification weights were calculated for the MIDUS Refresher 2 (MR2) sample. Two sets of weights were created for respondents who completed the phone interview (N=2,154) and the subsample who completed the phone interview and self-administered questionnaire (SAQ) (N=1,705). The MR2 weights described in this document were created in order to coincide with the post-stratification weights created for the MR1 sample. The MR2 weights described here use a transparent post-stratification scheme similar to that as MR1, allowing both weighted datasets to be combined, compared, and analyzed.

The sets of MR2 weights described in this document were created using a population-based adjustment called a post-stratification weight. It is a *post*-stratification weight because it is computed *after* the data are collected. The *stratification* part comes from the use of various known strata (such as age group, or sex distribution) of the population to which the new data are adjusted to better conform to the population's parameters.

In order to calculate a post-stratification weight, an auxiliary dataset is needed to which the new data are compared. MR2 used the October 2023 Current Population Survey (CPS) data derived from the Census Bureau. CPS data represent the demographic characteristics of the U.S population at a comparable time to which the MR2 data were collected. (See www.census.gov/cps/).

The MR2 weights discussed in this document can be found in the dataset titled:
MR2_P1_SURVEY_N2154_20251003.SAV

Here is a list of relevant weight variables and the strata characteristics on which they were computed.

RB1PWGHT1 = Education for Phone Survey
RB1PWGHT2 = Race for Phone Survey
RB1PWGHT3 = Age for Phone Survey
RB1PWGHT4 = Sex for Phone Survey
RB1PWGHT5 = Marital Status for Phone Survey
RB1PWGHT6 = Education x Race x Sex x Age x Marital Status for Phone Survey
RB1PWGHT7 = Sex x Education x Age for Phone Survey
RB1PWGHT8 = Race x Education x Age for Phone Survey

RB1SWGHT1 = Education for SAQ
RB1SWGHT2 = Race for SAQ
RB1SWGHT3 = Age for SAQ
RB1SWGHT4 = Sex for SAQ
RB1SWGHT5 = Marital Status for SAQ
RB1SWGHT6 = Education \times Race \times Sex \times Age \times Marital Status for SAQ
RB1SWGHT7 = Sex \times Education \times Age
RB1SWGHT8 = Race \times Education \times Age for SAQ

The first step in creating the MR2 post-stratification weights was to decide which demographic variables to correct for in the MR2 sample. For the MR2 Phone interview sample (N=2,154) and the MR2 SAQ subsample (N=1,705), the sample percentages among for the five demographic variables (Sex, Race, Age, Education, and Marital Status) were compared to the population percentages (Table 1). The largest discrepancies observed between the sample and population percentages were among Education and Age categories. For the MR2 SAQ subsample, there were also discrepancies in Sex, Marital Status, and Race. Therefore, the MR2 weights discussed in this document are multivariate post-stratification weights that simultaneously correct for Sex, Race, Age, Education, and Marital Status. Two additional multivariate weights were created. One is a multivariate weight that corrects for Sex, Age, and Education only, and the other is a multivariate weight that corrects for Race, Age, and Education.

To calculate simple univariate weights, the population proportion among strata for each demographic variable was divided by the sample proportion, resulting in five univariate weights for Sex, Race, Age, Education, and Marital Status. These univariate weights are displayed in Table 1 below.

Table 1. Comparison of MR2 Phone sample SAQ subsample with the Current Population Survey (October 2023) and constructed univariate weights.

MIDUS Refresher 2	<u>CPS (October 2023)</u> ¹	<u>Unweighted MR2 Phone data</u>	<u>Unweighted MR2 SAQ data</u>	<u>Univariate Weights MR2 Phone data</u> ²	<u>Univariate Weights MR2 SAQ data</u> ³
	(N=58,236)	(N=2,154)	(N=1,705)	(N=2,154)	(N=1,705)
	%	%	%		
SEX					
Male	47.5	46.8	46.9	1.01	1.01
Female	52.5	53.2	53.1	0.99	0.99
RACE ⁴					
White	81.3	82.0	83.1	0.99	0.98
Others	18.7	18.0	15.9	1.04	1.12
AGE ⁵					
35-44	22.7	14.4	11.7	1.58	1.94
45-54	21.1	19.4	18.0	1.09	1.17
55-64	22.4	20.7	20.7	1.08	1.08
65-74	21.8	24.8	26.9	0.88	0.81
75-84	11.9	20.7	22.8	0.57	0.52
EDUCATION					
12 years or less	35.9	19.0	19.4	1.89	1.85
13 – 15 years	26.0	27.5	26.2	0.95	0.99
16 years or more	38.1	53.5	54.4	0.71	0.70
MARITAL					
Married	63.7	62.5	63.5	1.02	1.00
Unmarried	36.3	37.5	36.5	0.97	0.99

¹ CPS data filtered by age: ≥ 35 & ≤ 84 .

² Values are based on the univariate weights: RB1PWGHT1, RB1PWGHT2, RB1PWGHT3, RB1PWGHT4, RB1PWGHT5.

³ Values are based on the univariate weights: RB1SWGHT1, RB1SWGHT2, RB1SWGHT3, RB1SWGHT4, RB1SWGHT5.

⁴ Race based on RB1PF7A-D, coded as White if RB1PF7A = 1 and RB1PF7B-D = missing.

⁵ Categories based on computed age.

To create the multivariate post-stratification weight that simultaneously adjusts for Sex, Race, Age, Education and Marital status, the population proportion for Sex, Race, Age, Education and Marital status was divided by the sample proportion. Table 2 shows the multivariate post-stratification weights for the various strata that were used for the entire MR2 Phone (N=2,154) sample (RB1PWGHT6).

Table 2. Post-stratification weights for MR2 Phone Sample created based on various strata among Sex, Race, Age, Education, and Marital Status.

Males							
Marital Status	Race	Education	Age				
			35-44	45-54	55-64	65-74	75-84
Married	White	12 years or less	6.2	2.5	3.3	1.6	0.9
		13-15 years	1.5	0.9	1.1	0.7	0.5
		16 years or more	0.9	0.6	0.8	0.5	0.4
	Other	12 years or less	2.5	1.8	4.2	7.6	2.3
		13-15 years	1.8	0.8	0.6	1.7	0.4
		16 years or more	1.6	1.1	1.3	0.4	0.2
Not Married	White	12 years or less	2.4	2.7	1.8	3.2	2.3
		13-15 years	1.4	5.1	1.0	0.9	0.5
		16 years or more	2.0	1.0	0.8	0.5	0.3
	Other	12 years or less	4.7	7.2	1.6	3.2	2.7
		13-15 years	0.8	2.2	0.8	1.0	0.4
		16 years or more	1.2	0.6	0.4	1.2	0.4
Females							
Marital Status	Race	Education	Age				
			35-44	45-54	55-64	65-74	75-84
Married	White	12 years or less	7.5	3.1	1.8	1.6	1.1
		13-15 years	1.5	1.1	1.0	1.2	0.8
		16 years or more	1.5	0.8	0.8	0.6	0.6
	Other	12 years or less	7.0	1.9	1.5	2.3	1.4
		13-15 years	0.7	0.9	0.6	1.5	1.8
		16 years or more	1.8	0.9	0.9	0.7	2.0
Not Married	White	12 years or less	4.4	5.2	1.6	1.2	0.6
		13-15 years	1.1	1.2	1.5	0.9	0.5
		16 years or more	1.2	0.6	0.8	0.6	0.3
	Other	12 years or less	2.2	1.4	1.0	1.4	1.9
		13-15 years	0.8	0.7	0.6	0.7	0.6
		16 years or more	0.6	0.5	0.4	0.4	0.7

The multivariate post-stratification weight that is described was applied to each of the demographic variables to determine how well the multivariate weight adjusted for discrepancies in sex, race, age, education, and marital status. Table 3 shows the unweighted and weighted strata distributions for the MR2 Phone (N=2,154) sample and the MR2 SAQ subsample (N=1,705).

Table 3. Comparison of un-weighted and multivariate post-stratification weighted MR2 Phone sample and MR2 SAQ subsample with the Current Population Survey (October 2023).

MIDUS Refresher 2	<u>CPS (October 2023)</u> (N=58,236)	<u>Unweighted MR2 Phone data</u> (N=2,154)	<u>Weighted MR2 Phone data</u> (N=2,154) ¹	<u>Unweighted MR2 SAQ data</u> (N=1,705)	<u>Weighted MR2 SAQ data</u> (N=1,705) ²
	%	%	%	%	%
SEX					
Male	47.5	46.8	47.5	46.9	47.3
Female	52.5	53.2	52.5	53.1	52.7
RACE					
White	81.3	82.0	81.9	84.1	82.2
Others	18.7	18.0	18.1	15.9	17.8
AGE					
35-44	22.7	14.4	22.5	11.7	22.7
45-54	21.1	19.4	21.1	17.9	21.1
55-64	22.4	20.7	22.6	20.7	22.2
65-74	21.8	24.8	22.0	26.9	22.1
75-84	11.9	20.7	11.8	22.8	11.9
EDUCATION					
12 years or less	35.9	19.0	35.5	19.4	35.1
13 – 15 years	26.0	27.5	26.2	26.2	26.2
16 years or more	38.1	53.5	38.4	54.4	38.7
MARITAL					
Married	63.6	62.5	63.6	63.5	63.6
Unmarried	36.4	37.5	36.4	36.5	36.4

¹ Values are based on the RB1PWGHT6 multivariate weight

² Values are based on the RB1SWGHT6 multivariate weight