Documentation of Post-Stratification Weights
Created for MIDUS 3

This document describes how the MIDUS 3 (M3) post-stratification weights were created. Weights were only calculated for cases from Main RDD sample that completed the M3 telephone interview.

M3 weights use the same weighting procedure as the M2 weights. Because no sampling was conducted for the 2nd and 3rd wave follow-up studies, only population-based adjustments were created for M2 and M3. The M3 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 that contains the population socio-demographic characteristics is needed to which the sample data are compared. M3 used the October 2013 Current Population Survey (CPS) data derived from the Census Bureau. CPS data show the demographic characteristics of the U.S population at a comparable time to which the M3 data were collected (See www.census.gov/cps/).

The M3 weights discussed in this document are included in the aggregate survey dataset titled:

M3_P1_SURVEY_N3294_20251029.sav

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

C1PWGHT1 = Region x Age x Education
C1PWGHT2 = Gender x Age x Education
C1PWGHT3 = Race x Age x Education
C1PWGHT4 = Region
C1PWGHT5 = Gender
C1PWGHT6 = Age
C1PWGHT7 = Education
C1PWGHT8 = Race
C1PWGHT9 = Marital Status
C1PWGHT10 = Race x Age x Education x Gender

The first step in creating the M3 post-stratification weights was to decide which demographic variables to correct for in the M3 sample. For the M3 RDD Phone (N= 1,414) sample the percentages among for the six demographic variables (Region, 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 Region, Race, Education, and Age categories. Therefore, the M3 weights discussed in this document are six simple univariate weights and four multivariate post-stratification

weights that simultaneously correct multiple sociodemographic characteristics. This is a similar weighting scheme to that used with the M2 RDD Phone sample.

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

Table 1. Comparison of M3 Phone sample with the Current Population Survey (October, 2013) and constructed univariate weights.			
	CPS (October 2013) [1]	Unweighted M3 Phone data	Univariate Weights M3 Phone data[2]
MIDUS 3	(N=56,383)	(N=1,414)	(N=1,414)
	%	%	
REGION[3]			
Northeast	21.4	17.3	1.24
Midwest	23.1	29.3	0.79
South	31.6	32.7	0.97
West	23.8	20.7	1.15
SEX			
Male	46.9	47.3	0.99
Female	53.1	52.7	1.01
RACE			
White	84.1	88.1	0.95
Black	9.4	4.2	2.21
Others	6.6	7.6	0.86
AGE			
45-54	33.1	24.3	1.36
55-64	30.9	28.4	1.09
65-74	20.7	27.2	0.76
75-84	11.0	16.2	0.68
85-94	4.4	3.9	1.13
EDUCATION			
12 years or less	44.3	29.7	1.50
13 – 15 years	26.0	29.7	0.87
16 years or more	29.7	40.6	0.73
MARITAL			
Married	63.3	64.2	0.99
Not married	36.7	35.8	1.03

[1] CPS data filtered by age: >/= 45

[2] Values are based on the univariate weights: = C1PWGHT4, C1PWGHT5, C1PWGHT6, C1PWGHT7, C1PWGHT8, C1PWGHT9

[3] Note that while Census Region is used to compute post-stratification weights, it is not released in the publicly available datasets.

In addition to the six univariate weights, four multivariate weights were created to adjust for multiple sociodemographic characteristics. Table 2 and 3 illustrate the distributions of two of these weights. Note that the larger weights indicate groups that are under-represented in MIDUS 3. Because the 4-strata weights presented in Table 3 contain 90 cells, some cell counts amounted to zero. These tended to be among the oldest minorities, groups which we know are under-represented in MIDUS. These cells are indicated by **bolded 'n/a'** in Table 3.

Some cases may not have complete demographic information from which to create a post-stratification weight. We have chosen to assign a weight of "1" to these cases. If the post-stratification weights are centered around unity (1) so that the N of the weighted dataset equals the unweighted sample size, then assigning such "missing" cases a weight of 1 essentially imputes the average weight to that case. We believe this is a relatively conservative action; applying the average of the weight variable's distribution ensures the case can be included in analysis, maximizing the analytic N while reducing the standard error and not unduly influencing the over- or under-representativeness of the sample.

Table 2. Post-stratification weights created using Region, Education, and Age strata (C1PWGHT1).						
Education	**Region**	**Age**				
		45-54	55-64	65-74	75-84	85-94
12 years or less	Northeast	2.46	2.14	1.23	1.39	2.82
	Midwest	1.49	1.16	0.91	0.66	0.83
	South	2.33	1.76	0.94	0.94	2.97
	West	3.97	3.33	2.06	1.19	2.16
13-15 years	Northeast	1.37	1.16	0.88	0.54	1.18
	Midwest	1.24	0.64	0.72	0.49	0.29
	South	1.20	1.02	0.72	0.41	3.46
	West	1.31	1.02	0.59	0.70	0.99
16 years or more	Northeast	1.37	1.20	0.62	0.58	0.59
	Midwest	0.80	0.62	0.42	0.49	1.04
	South	0.80	0.67	0.55	0.44	0.47
	West	1.00	1.09	0.57	0.46	1.63

Table 3. Post-stratification weights created using Gender, Race, Education, and Age strata (C1PWGHT10).							
Gender	**Education**	**Race**	**Age**				
			45-54	55-64	65-74	75-84	85-94
Male	12 years	White	2.92	1.59	1.14	1.00	1.04
		Black	3.64	4.79	20.7	2.43	**n/a**
		Others	1.13	1.02	0.83	1.68	0.41
	13-15 years	White	1.35	0.94	0.62	0.57	0.78
		Black	2.97	5.04	2.46	**n/a**	**n/a**
		Others	0.62	0.85	0.39	**n/a**	**n/a**
	16 Years or more	White	0.79	0.81	0.46	0.45	0.47
		Black	2.12	3.43	0.89	0.38	**n/a**
		Others	1.50	0.78	**n/a**	0.34	0.33
Female	12 years	White	1.80	1.79	0.98	0.87	3.65
		Black	6.14	3.78	4.07	1.23	2.38
		Others	1.52	1.70	0.70	0.70	0.41
	13-15 years	White	1.17	0.85	0.73	0.42	0.63
		Black	1.47	0.85	3.03	**n/a**	**n/a**
		Others	1.57	0.52	0.63	0.32	**n/a**
	16 Years or more	White	0.96	0.82	0.58	0.53	1.65
		Black	2.43	0.76	1.42	1.03	**n/a**
		Others	0.92	0.77	0.40	0.53	**n/a**

Table 4 below shows the results of applying multivariate weight adjustments (C1PWGHT1, C1PWGHT10) to the Main RDD sample. Notice that the weighted frequencies are comparable to the CPS proportions, especially for the three variables used in the adjustment C1PWGHT1: Region, Age, and Education.

Table 4. Comparison of MIDUS 3 Marginals and the Current Population Survey				
	CPS (October 2013)	**Unweighted M3 Phone data**	**Weighted M3 data (C1PWGHT1)[4]**	**Weighted M3 data (C1PWGHT10)[5]**
MIDUS 3	(N=56,383)	(N=1,414)	(N=1,414)	(N=1,414)
	%	%	%	%
REGION				
Northeast	21.4	17.3	21.4	17.2
Midwest	23.1	29.3	23.1	31.0
South	31.6	32.7	31.6	33.7
West	23.8	20.7	23.9	18.1
SEX				
Male	46.9	47.3	46.4	46.8
Female	53.1	52.7	53.6	53.2
RACE				
White	84.1	88.1	86.2	84.7
Black	9.4	4.2	4.7	9.0
Others	6.6	7.6	9.0	6.3
AGE				
45-54	33.1	24.3	33.0	33.2
55-64	30.9	28.4	30.9	31.1
65-74	20.7	27.2	20.7	20.6
75-84	11.0	16.2	11.0	10.9
85-94	4.4	3.9	4.4	4.2
EDUCATION				
12 years or less	44.3	29.7	44.3	44.5
13 – 15 years	26.0	29.7	26.0	25.8
16 years or more	29.7	40.6	29.7	29.6
MARITAL				
Married	63.3	64.2	63.6	62.8
Not married	36.7	35.8	36.4	37.2

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[4] C1PWGHT1 = Multivariate post-stratification weight based on Region, Age, and Education
[5] C1PWGHT10 = Multivariate post-stratification weight based on Age, Gender, Race, and Education