

## **2015 SURVEY AND DIARY OF CONSUMER PAYMENT CHOICE**

### ***WEIGHTING PROCEDURE***

(Marco Angrisani, USC, 2/1/2016)

#### **1. Sample Selection**

The UAS is a panel of US households recruited through Address Based Sampling (ABS). Eligible individuals are all adults in the contacted household aged 18 and older. The UAS also includes a special purpose sample of Native Americans, recruited through ABS, targeting zip-codes with a higher proportion of Native Americans. In this case, eligible individuals are all adults in the contacted household aged 18 and older, whose ethnicity is Native American. Another special purpose sample includes families with young children in Los Angeles County.

For the 2015 Survey of Consumer Payment Choice (SCPC) and Diary of Consumer Payment Choice (DCPC), all UAS members were selected with the exception of those belonging to the special purpose sample of families with young children in Los Angeles County. The selection procedure was carried out in two steps. In the first step, panel members were asked about their willingness to participate in a two-phase study consisting of the SCPC and the DCPC. In the second step, those who consented were invited to take the SCPC first and then the DCPC at designated dates. The SCPC was fielded on October 6, 2015. The fielding period for the DCPC was defined accordingly to run from October 13, 2015 to December 17, 2015.

The number of UAS members available at the time of the sample selection (October 2015) was 2,264, of which 2,140 were part of the Nationally Representative core sample (NR) and 124 were part of the Native American special purpose sample (NA). The consent form was filled in by 1,482 respondents, of which 1,291 (1,211 NR; 80 NA) consented to participate in the two-phase study and 191 (179 NR; 12 NA) did not. Hence, the overall response rate for the consent form was 65%, with an overall consent rate of 57%. Among the 1,291 who were willing to participate in the two-phase study, 1,264 (1,184 NR; 80 NA) took the SCPC and 1,248 (1,168 NR; 80 NA) completed the survey. Among the 1,264 who took the SCPC, 1,132 (1,064 NR; 68 NA) also took the DCPC. On November 23, 2015, we invited another 701 UAS members from the NR core sample who had not answered the consent form to take the SCPC. Upon completion of the SCPC, these respondents were asked whether they would be willing to take a 3-day diary. Among these UAS members, 165

answered the SCPC (159 completed the survey) and 23 took the DCPC on designated dates.<sup>1</sup> Overall, 1,429 UAS members took the SCPC (1,349 NR; 80 NA) and 1,155 (1,087 NR; 68 NA) took the DCPC.

Upon completion of the DCPC, a sample of 652 UAS members was invited to take a second diary. This sample was selected to be nationally represented along the gender, race, age and household income dimensions.<sup>2</sup> The fielding period for the second DCPC was determined to run from November 15, 2015 to December 17, 2015 and a minimum gap of two weeks between the first and the second DCPC was required for each respondent. Out of the 652 UAS selected respondents, 516 took the second DCPC. Hence, the total number of diaries from UAS members was 1,671 (1,586 NR; 85 NA).

The SCPC/DCPC sample was complemented with respondents from Qualtrics and GfK. Specifically, 253 Qualtrics members were invited to participate in the two-phase study. Of these, 105 answered the SCPC (98 completed the survey) and 85 took the DCPC.

A total of 818 GfK members were invited to participate in the two-phase study. Of these, 504 answered the SCPC (450 completed the survey) and 357 took the DCPC. The GfK sample received the SCPC on November 25, 2015. As a result, the DCPC fielding period for the GfK was determined to run from December 4, 2015 to December 17, 2015. Table 1 below summarizes the sample compositions for the 2015 SCPC and DCPC.

**Table 1: 2015 SCPC and DCPC sample composition**

	<b>2015 SCPC</b>	<b>2015 DCPC</b>	
	<i># respondents</i>	<i># respondents</i>	<i># diaries</i>
<i>UAS (Nationally Representative)</i>	1,349	1,087	1,586
<i>UAS (Native Americans)</i>	80	68	85
<i>Qualtrics</i>	105	85	85
<i>GfK</i>	504	1,597	357
<b>Total</b>	<b>2,038</b>	<b>1,597</b>	<b>2,113</b>

<sup>1</sup> Since DCPC assignment was conditional on completion of the SCPC and these respondents answered the SCPC in late November/early December, it was only possible (for logistic reasons) to give the DCPC to 28 respondents who consented.

<sup>2</sup> We created 24 strata defined by the interaction of gender, race (white/non-white), age (18-39; 40-55; 56+) and household income (less than \$60,000; \$60,000 or more). The sample was selected so that the proportions of these strata in the sample would match their population counterparts taken from the 2015 Current Population Survey.

## 2. Weighting Procedure

Sample weights are constructed in two steps. In a first step, a *base weight* is assigned to each survey respondent in order to compensate for the disproportionate sampling of Native Americans in the UAS. In a second step, *post-stratification weights* are generated to bring the final survey sample in line with the reference population as far as the distribution of key variables of interest is concerned. Different sets of weights are produced for different combinations of samples: UAS + Qualtrics + GfK, UAS only, UAS + GfK, GfK only.

### 2.1. Categorization and imputation of variables

As far as the UAS sample is concerned, we use demographic information taken from the most recent “My Household” survey, which is answered by the respondent every quarter. Qualtrics respondents were administered the “My Household” survey before taking the SCPC/DCPC. With the exception of age and number of household members, all other socio-demographic variables in the “My Household” survey are categorical and some, such as education and income, take values in a relatively large set. We recode all the variables used in the weighting procedure into new categorical variables with no more than 5 categories. The aim of limiting the categories is to prevent these variables from forming strata containing a very small fraction of the sample (less than 4-5%), which may cause sample weights to exhibit considerable variability. The categorization of variables used for the weighting procedure follows the same definitions adopted for the 2014 SCPC, in order to ensure comparability across years. The list of recoded categorical variables used in the weighting procedure is reported in Table 2.

**Table 2: List of Recoded Categorical Variables Used within the Weighting Procedure**

<b>Recoded Variable</b>	<b>Categories</b>
<i>gender</i>	1. Male; 2. Female
<i>age_cat</i>	1. 18-34; 2. 35-44; 3. 45-54; 4. 55-64; 5. 65+
<i>age_cat2</i>	1. 18-44; 2. 45-64; 3. 65+
<i>bornus</i>	0. No; 1. Yes
<i>citizenus</i>	0. No; 1. Yes
<i>marital_cat</i>	1. Married; 2. Separated/Divorced/Widowed; 3. Never Married

<i>education_cat</i>	1. High School or Less; 2. Some College/Assoc. Degree; 3. Bachelor or More
<i>hisplatino</i>	0. No; 1. Yes
<i>race_cat</i>	1. White; 2. Non-White
<i>work_cat</i>	1. Working; 2. Unemployed; 3. Retired; 4. On leave, Disabled, Other
<i>hhmembers_cat</i>	1. One Member; 2. Two Members; 3. Three or More Members
<i>hhincome_cat</i>	1. <\$30,000; 2. \$30,000-\$59,999; 3. \$60,000-\$99,999; 4. \$100,000+
<i>hhincome_cat2</i>	1. <\$35,000; 2. \$35,000-74,999; 3. \$75,000+

Before implementing the weighting procedure, we employ the following imputation scheme to replace missing values of recoded socio-demographic variables.

- We do not impute gender. Hence, respondents with missing gender are not assigned a sample weight. No respondent in the 2015 SCPC and DCPC samples has missing gender.
- When actual age is missing, the variable *agerange*, available in the “My Household” survey, is used to impute *age\_cat*. If *agerange* is also missing, the variable *age\_cat* is assigned the mode for males or females, depending on the respondent’s gender.
- For binary indicators, such as *bornus*, *citizenus*, and *hisplatino*, missing values are imputed using a logistic regression.
- For ordered categorical variables, such as *education\_cat*, *hhmembers\_cat*, *hhincome\_cat* and *hhincome\_cat2*, missing values are imputed using an ordered logistic regression.
- For non-ordered categorical variables, such as *marital\_cat*, *race\_cat* and *work\_cat*, missing values are imputed using a multinomial logistic regression.

Imputations are performed sequentially. That is, once *age\_cat* has been imputed (if missing), the variable with the smallest number of missing values is the first one to be imputed by means of a regression featuring *gender* and *age\_cat* as regressors. This newly imputed variable is then added to the set of regressors to impute the variable with the second smallest number of missing values. The procedure continues in this fashion until the variable with the most missing values (typically household income) is imputed using information on all other socio-demographic variables.

The final 2015 SCPC and DCPC data sets contain a binary variable, *imputation\_flag*, indicating whether any of the recoded socio-economic variables listed in Table 2 has been imputed.

As far as the GfK sample is concerned, the following demographic variables were directly provided by GfK and no value was imputed: gender, age, race, ethnicity, education, number of household members and household income.

## 2.2. Step 1: Base Weights

In this first step, a base weight is assigned to each respondent to adjust for the disproportionate stratification of Native Americans in the UAS and, therefore, in the entire SCPC and DCPC samples. Let  $f_{non-native}^S$  and  $f_{native}^S$ , be the relative frequencies of non-Native Americans and Native Americans in the survey sample, respectively, and  $f_{non-native}^P$  and  $f_{native}^P$ , the relative frequencies of non-Native Americans and Native Americans in the Census population, respectively. For a respondent  $i$ , the base weight is defined as:

$$w_{i,base} = \begin{cases} \frac{f_{non-native}^P}{f_{non-native}^S} & \text{if } i \text{ is not Native American} \\ \frac{f_{native}^P}{f_{native}^S} & \text{if } i \text{ is Native American} \end{cases}$$

The final SCPC and DCPC data sets include base weights relative to their sample mean. That is:

$$relw_{i,base} = \frac{w_{i,base}}{\left(\frac{1}{N} \sum_{i=1}^N w_{i,base}\right)},$$

where  $N$  is the survey sample size.

These relative base weights, average to 1 and sum to the survey sample size  $N$ . Base weights are not produced whenever sample weights refer to the GfK sample only.

## 2.3. Step 2: Post-stratification Weights

The execution of the sampling process for a survey is typically less than perfect. Even if the sample of panel members invited to take a survey is representative of the population along a series of dimensions, the sample of actual respondents may exhibit discrepancies because of differences in response rates across groups and/or other issues related to the fielding time and content of the survey. A second layer of weighting is therefore needed to align the final survey sample to the reference population as far as the distribution of key variables is concerned. In this second step, we perform **iterative marginal weighting** and assign survey respondents weights such that the

weighted distributions of specific socio-demographic variables in the survey sample match their population counterparts (benchmark or target distributions).

The benchmark distributions against which the 2015 SCPC and DCPC are weighted are derived from the Current Population Survey (CPS) Annual Social and Economic Supplement (ASEC) administered in March of 2015. The reference population is the U.S. population of those aged 18 and older, excluding institutionalized individuals and military personnel.

We adopt a **raking algorithm** to generate post-stratification weights. This procedure involves the comparison of target population relative frequencies and actually achieved sample relative frequencies on a number of socio-demographic variables independently and sequentially. More precisely, starting from the base weights as described in section 2.2, at each iteration of the algorithm weights are proportionally adjusted so that the distance between survey and population marginal distributions of each selected socio-demographic variable (or raking factor) decreases. The algorithm stops when survey and population distributions are perfectly aligned. A maximum of 50 iterations is allowed for perfect alignment of survey and population distributions to be achieved. If the process does not converge within 50 iterations, no sample weights are returned and attempts using different raking factors are made.

#### 2.4. Trimming

Our raking algorithm trims extreme weights in order to limit variability and improve efficiency of estimators. We follow the general weight trimming and redistribution procedure described by Valliant, Dever and Kreuter (2013). Specifically, indicating with  $w_{i,raking}$  the raking weight for respondent  $i$  and with  $\bar{w}_{raking} = \frac{1}{N} \sum_{i=1}^N w_{i,raking}$  the sample average of raking weights,

- I. We set the lower and upper bounds on weights equal to  $L = 0.25\bar{w}_{raking}$  and  $U = 4\bar{w}_{raking}$ , respectively. While these values are arbitrary, they are in line with those described in the literature and followed by other surveys (Izrael, Battaglia and Frankel, 2009).
- II. We reset any weights smaller than the lower bound to  $L$  and any weights greater than the upper bound to  $U$ :

$$w_{i,trim} = \begin{cases} L & w_{i,raking} \leq L \\ w_{i,raking} & L < w_{i,raking} < U \\ U & w_{i,raking} \geq U \end{cases}$$

- III. We compute the amount of weight lost by trimming as  $w_{lost} = \sum_{i=1}^N w_{i,raking} - w_{i,trim}$  and distribute it evenly among the respondents whose weights are not trimmed.

While raking weights can match population distributions of selected variables, trimmed weights typically do not. We therefore iterate the raking algorithm and the trimming procedure until a set of post-stratification weights is obtained that respect the weight bounds and align sample and population distributions of selected variables. This procedure stops after 50 iterations if an exact alignment respecting the weight bounds cannot be achieved. In this case, the trimmed weights will ensure the exact match between survey and population relative frequencies, but may take values outside the interval defined by the pre-specified lower and upper bounds.

### 2.5. Final Post-stratification Weights

Indicate with  $w_{i,post}$  the post-stratification weight for respondent  $i$ , obtained by applying the raking algorithm to the base weights and after iterating the raking algorithm and the trimming procedure as described above in section 2.4.

The final 2015 SCPC and DCPC data sets include post-stratification weights relative to their sample mean. That is:

$$relw_{i,post} = \frac{w_{i,post}}{\left(\frac{1}{N} \sum_{i=1}^N w_{i,post}\right)},$$

where  $N$  is the survey sample size.

These relative post-stratification weights, average to 1 and sum to the survey sample size  $N$ .

## 3. Produced Sample Weights

We produce different sets of weights, depending on the sub-samples considered within the SCPC and DCPC as well as on the reference period (e.g., the entire fielding period, a specific month, diary days).

With the exception of daily weights for the DCPC, all weights for the 2015 SCPC and DCPC are generated using the following set of raking factors:

- ❖ *gender x race\_cat*
- ❖ *gender x age\_cat*
- ❖ *gender x education\_cat*
- ❖ *hhmembers\_cat x hhincome\_cat*

The same set of raking factors was adopted to produce sample weights for the 2014 SCPC. Under this specification, both the raking and the trimming algorithms converge within the maximum number of allowed (50) iterations.

Because of the limited number of respondents taking the diary at specific days, daily weights for the DCPC are generated using a reduced set of raking factors, namely:

- ❖ *gender x age\_cat2*
- ❖ *education\_cat*
- ❖ *hhincome\_cat2*

Under this specification, the raking algorithm converges within the maximum number of allowed (50) iterations. We do not apply trimming to daily weights.

The complete list of weights and auxiliary variables provided with the final 2015 SCPC and DCPC data sets is reported below.

### **2015 SCPC:**

- *survey variables and background demographics*

Please refer to the UAS website (<https://uasdata.usc.edu/content/Standard-variables>) for the complete list of survey variables and background demographics. Note that the education and ethnicity information provided by GfK did not allow to match the definitions of the UAS variables “*education*” and “*hisplatino\_group*.” The variables “*education\_gfk*” and “*hisplatino\_group\_gfk*” contain the categorizations provided by GfK.



- *imputation\_flag*  
A binary variable indicating whether any of the variables listed in Table 2 has been imputed.
- *rb\_w\_all*  
Relative base weights for the entire sample (UAS+Qualtrics+GfK).
- *rps\_w\_all*  
Relative post-stratification weights for the entire sample (UAS+Qualtrics+GfK).
- *rb\_w\_uas*  
Relative base weights for the UAS sub-sample only.
- *rps\_w\_uas*  
Relative post-stratification weights for the UAS sub-sample only.
- *rb\_w\_uasgfk*  
Relative base weights for the UAS and GfK sub-samples (excluding Qualtrics).
- *rps\_w\_uasgfk*  
Relative post-stratification weights for the UAS and GfK sub-samples (excluding Qualtrics).
- *rps\_w\_gfk*  
Relative post-stratification weights for the GfK sub-sample only.

## **2015 DCPC:**

**(note: the DCPC data set is in “long form” with 4 diary days (day 0-3) for each respondent)**

- *diary*  
Indicator taking value 1 for the first diary and value 2 for the second diary.
- *diary\_day*  
Variable taking values 0, 1, 2 and 3 for diary days 0, 1, 2, and 3, respectively.
- *diarydate*  
String variable recording the date of each diary day.
- *diarydate\_num*  
Numeric variable recording the date of each diary day.
- *survey\_start*  
Date and time when the online survey for each diary day started.

- *survey\_end*  
Date and time when the online survey for each diary day ended.
- *month\_a*  
Variable taking value 1 for the first month of the fielding period and 2 for the second month of the fielding period. Only “full” days when diary days 1-3 were reported are considered. Hence, the first month of the fielding period goes from October 16, 2015 to November 15, 2015, while the second goes from November 16, 2105 to December 15, 2015.
- *month\_b*  
Variable taking value 1 for the first month of the fielding period and 2 for the second month of the fielding period. Only “full” days when diary days 0-3 were reported are considered. Hence, the first month of the fielding period goes from October 16, 2015 to November 15, 2015, while the second goes from November 16, 2105 to December 14, 2015.
- *october\_a*  
Binary variable taking value 1 for the month of October, “full” diary days 1-3 (from October 16, 2015 to October 31, 2015).
- *october\_b*  
Binary variable taking value 1 for the month of October, “full” diary days 0-3 (from October 16, 2015 to October 31, 2015).
- *november\_a*  
Binary variable taking value 1 for the month of November, “full” diary days 1-3 (from November 1, 2015 to November 30, 2015).
- *november\_b*  
Binary variable taking value 1 for the month of November, “full” diary days 0-3 (from November 1, 2015 to November 30, 2015).
- *december\_a*  
Binary variable taking value 1 for the month of December, “full” diary days 1-3 (from December 1, 2015 to December 15, 2015).
- *december\_b*  
Binary variable taking value 1 for the month of December, “full” diary days 0-3 (from December 1, 2015 to December 14, 2015).

- *scpc\_completed*  
A binary variable indicating whether the respondent completed the 2015 SCPC.
- *imputation\_flag*  
A binary variable indicating whether any of the variables listed in Table 2 has been imputed.
- *rb\_w\_all*  
Relative base weights for the entire sample (UAS+Qualtrics+GfK).
- *rps\_w\_all*  
Relative post-stratification weights for the entire sample (UAS+Qualtrics+GfK).
- *rb\_w\_uas*  
Relative base weights for the UAS sub-sample only.
- *rps\_w\_uas*  
Relative post-stratification weights for the UAS sub-sample only.
- *rb\_w\_uasgfk*  
Relative base weights for the UAS and GfK sub-samples (excluding Qualtrics).
- *rps\_w\_uasgfk*  
Relative post-stratification weights for the UAS and GfK sub-samples (excluding Qualtrics).
- *rps\_w\_gfk*  
Relative post-stratification weights for the GfK sub-sample only.
- *rb\_w\_m1a\_all*  
Relative base weights for the entire sample and *month\_a=1* (UAS+Qualtrics).
- *rps\_w\_m1a\_all*  
Relative post-stratification weights for the entire sample and *month\_a=1* (UAS+Qualtrics).
- *rb\_w\_m1a\_uas*  
Relative base weights for the UAS sub-sample only and *month\_a=1*.
- *rps\_w\_m1a\_uas*  
Relative post-stratification weights for the UAS sub-sample only and *month\_a=1*.
- *rb\_w\_m1b\_all*  
Relative base weights for the entire sample and *month\_b=1* (UAS+Qualtrics).

- *rps\_w\_m1b\_all*  
Relative post-stratification weights for the entire sample and *month\_b=1* (UAS+Qualtrics).
- *rb\_w\_m1b\_uas*  
Relative base weights for the UAS sub-sample only and *month\_b=1*.
- *rps\_w\_m1b\_uas*  
Relative post-stratification weights for the UAS sub-sample only and *month\_b=1*.
- *rb\_w\_m2a\_all*  
Relative base weights for the entire sample and *month\_a=2* (UAS+Qualtrics+GfK).
- *rps\_w\_m2a\_all*  
Relative post-stratification weights for the entire sample and *month\_a=2* (UAS+Qualtrics+GfK).
- *rb\_w\_m2a\_uas*  
Relative base weights for the UAS sub-sample only and *month\_a=2*.
- *rps\_w\_m2a\_uas*  
Relative post-stratification weights for the UAS sub-sample only and *month\_a=2*.
- *rb\_w\_m2a\_uasgfk*  
Relative base weights for the UAS and GfK sub-samples only (excluding Qualtrics) and *month\_a=2*.
- *rps\_w\_m2a\_uasgfk*  
Relative post-stratification weights for the UAS and GfK sub-samples only (excluding Qualtrics) and *month\_a=2*.
- *rps\_w\_m2a\_gfk*  
Relative post-stratification weights for the GfK sub-sample and *month\_a=2*.
- *rb\_w\_m2b\_all*  
Relative base weights for the entire sample and *month\_b=2* (UAS+Qualtrics+GfK).
- *rps\_w\_m2b\_all*  
Relative post-stratification weights for the entire sample and *month\_b=2* (UAS+Qualtrics+GfK).
- *rb\_w\_m2b\_uas*  
Relative base weights for the UAS sub-sample only and *month\_b=2*.

- *rps\_w\_m2b\_uas*  
Relative post-stratification weights for the UAS sub-sample only and *month\_b=2*.
- *rb\_w\_m2b\_uasgfk*  
Relative base weights for the UAS and GfK sub-samples only (excluding Qualtrics) and *month\_b=2*.
- *rps\_w\_m2b\_uasgfk*  
Relative post-stratification weights for the UAS and GfK sub-samples only (excluding Qualtrics) and *month\_b=2*.
- *rps\_w\_m2b\_gfk*  
Relative post-stratification weights for the GfK sub-sample and *month\_b=2*.
- *rb\_w\_oct\_a\_all*  
Relative base weights for the entire sample and *october\_a=1* (UAS+Qualtrics).
- *rps\_w\_oct\_a\_all*  
Relative post-stratification weights for the entire sample and *october\_a=1* (UAS+Qualtrics).
- *rb\_w\_oct\_a\_uas*  
Relative base weights for the UAS sub-sample only and *october\_a=1*.
- *rps\_w\_oct\_a\_uas*  
Relative post-stratification weights for the UAS sub-sample only and *october\_a=1*.
- *rb\_w\_oct\_b\_all*  
Relative base weights for the entire sample and *october\_b=1* (UAS+Qualtrics).
- *rps\_w\_oct\_b\_all*  
Relative post-stratification weights for the entire sample and *october\_b=1* (UAS+Qualtrics).
- *rb\_w\_oct\_b\_uas*  
Relative base weights for the UAS sub-sample only and *october\_b=1*.
- *rps\_w\_oct\_b\_uas*  
Relative post-stratification weights for the UAS sub-sample only and *october\_b=1*.
- *rb\_w\_nov\_a\_all*  
Relative base weights for the entire sample and *november\_a=1* (UAS+Qualtrics).

- *rps\_w\_nov\_a\_all*  
Relative post-stratification weights for the entire sample and *november\_a=1* (UAS+Qualtrics).
- *rb\_w\_nov\_a\_uas*  
Relative base weights for the UAS sub-sample only and *november\_a=1*.
- *rps\_w\_nov\_a\_uas*  
Relative post-stratification weights for the UAS sub-sample only and *november\_a=1*.
- *rb\_w\_nov\_b\_all*  
Relative base weights for the entire sample and *november\_b=1* (UAS+Qualtrics).
- *rps\_w\_nov\_b\_all*  
Relative post-stratification weights for the entire sample and *november\_b=1* (UAS+Qualtrics).
- *rb\_w\_nov\_b\_uas*  
Relative base weights for the UAS sub-sample only and *november\_b=1*.
- *rps\_w\_nov\_b\_uas*  
Relative post-stratification weights for the UAS sub-sample only and *november\_b=1*.
- *rb\_w\_dec\_a\_all*  
Relative base weights for the entire sample and *december\_a=1* (UAS+Qualtrics+GfK).
- *rps\_w\_dec\_a\_all*  
Relative post-stratification weights for the entire sample and *december\_a=1* (UAS+Qualtrics+GfK).
- *rb\_w\_dec\_a\_uas*  
Relative base weights for the UAS sub-sample only and *december\_a=1*.
- *rps\_w\_dec\_a\_uas*  
Relative post-stratification weights for the UAS sub-sample only and *december\_a=1*.
- *rb\_w\_dec\_a\_uasgfk*  
Relative base weights for the UAS and GfK sub-samples only (excluding Qualtrics) and *december\_a=1*.
- *rps\_w\_dec\_a\_uasgfk*  
Relative post-stratification weights for the UAS and GfK sub-samples only (excluding Qualtrics) and *december\_a=1*.

- *rps\_w\_dec\_a\_gfk*  
Relative post-stratification weights for the GfK sub-sample only and *december\_a=1*.
- *rb\_w\_dec\_b\_all*  
Relative base weights for the entire sample and *december\_b=1* (UAS+Qualtrics+GfK).
- *rps\_w\_dec\_b\_all*  
Relative post-stratification weights for the entire sample and *december\_b=1* (UAS+Qualtrics+GfK).
- *rb\_w\_dec\_b\_uas*  
Relative base weights for the UAS sub-sample only and *december\_b=1*.
- *rps\_w\_dec\_b\_uas*  
Relative post-stratification weights for the UAS sub-sample only and *december\_b=1*.
- *rb\_w\_dec\_b\_uasgfk*  
Relative base weights for the UAS and GfK sub-samples only (excluding Qualtrics) and *december\_b=1*.
- *rps\_w\_dec\_b\_uasgfk*  
Relative post-stratification weights for the UAS and GfK sub-samples only (excluding Qualtrics) and *december\_b=1*.
- *rps\_w\_dec\_b\_gfk*  
Relative post-stratification weights for the GfK sub-sample only and *december\_b=1*.
- *rb\_w\_day\_a\_all*  
Relative base daily weights for the entire sample (UAS+Qualtrics+GfK) and “full” diary days 1-3.
- *rps\_w\_day\_a\_all*  
Relative post-stratification daily weights for the entire sample (UAS+Qualtrics+GfK) and “full” diary days 1-3.
- *rb\_w\_day\_a\_uasgfk*  
Relative base daily weights for the UAS and GfK sub-samples only (excluding Qualtrics) and “full” diary days 1-3.
- *rps\_w\_day\_a\_uasgfk*  
Relative post-stratification daily weights for the UAS and GfK sub-samples only (excluding Qualtrics) and “full” diary days 1-3.

- *rb\_w\_day\_b\_all*  
Relative base daily weights for the entire sample (UAS+Qualtrics+GfK) and “full” diary days 0-3.
- *rps\_w\_day\_b\_all*  
Relative post-stratification daily weights for the entire sample (UAS+Qualtrics+GfK) and “full” diary days 0-3.
- *rb\_w\_day\_b\_uasgfk*  
Relative base daily weights for the UAS and GfK sub-samples only (excluding Qualtrics) and “full” diary days 0-3.
- *rps\_w\_day\_b\_uasgfk*  
Relative post-stratification daily weights for the UAS and GfK sub-samples only (excluding Qualtrics) and “full” diary days 0-3.