UnderStandingAmericaStudy

UAS 490: PSU MOBILE MEASUREMENT OF COGNITIVE CHANGE (M2C2) EMA CONSENT

Survey author(s): PSU Mobile Measurement of Cognitive Change

Fielded January 30, 2023 - May 23, 2024

Contents

1 Introduction **3**
- 1.1 Topics . . . 3
- 1.2 Experiments . . . 3
- 1.3 Citation . . . 3

2 Survey Response And Data **4**
- 2.1 Sample selection and response rate . . . 4
- 2.2 Timings . . . 4
- 2.3 Sample & Weighting . . . 5

3 Standard Variables **6**

4 Demographics **11**

5 Missing Data Conventions **19**

6 Routing Syntax **20**

7 Survey with Routing **21**
- Intro . . . 21
- Consent . . . 23

1 INTRODUCTION

This UAS panel survey, titled ”UAS 490: M2C2 Consent”, asks respondents if they are interested in participating in a new project regarding Mobile Measurement of Cognitive Change. This survey is no longer in the field. Respondents were paid $3 to complete the survey.
Related survey: UAS 491 (Feedback). Related surveys: UAS 626 (Consent for 2024 round 1 Android users) and UAS 491 (Feedback survey)

1.1 Topics

This survey contains questions (among others) on the following topics: . A complete survey topic categorization for the UAS can be found here.

1.2 Experiments

This survey did not include any experiments. A complete survey experiment categorization for the UAS can be found here.

1.3 Citation

Each publication, press release or other document that cites results from this survey must include an acknowledgment of UAS as the data source and a disclaimer such as, ‘The project described in this paper relies on data from survey(s) administered by the Understanding America Study, which is maintained by the Center for Economic and Social Research (CESR) at the University of Southern California. The content of this paper is solely the responsibility of the authors and does not necessarily represent the official views of USC or UAS.’ For any questions or more information about the UAS, contact Tania Gutsche, Project and Panel Manager, Center for Economic and Social Research, University of Southern California, at tgutsche@usc.edu.

2 SURVEY RESPONSE AND DATA

2.1 Sample selection and response rate

The sample selection for this survey was:

Custom selection. English speakers, 20 years or older.

As such, this survey was made available to 610 UAS participants. Of those 610 participants, 534 completed the survey and are counted as respondents. Of those who are not counted as respondents, 3 started the survey without completing and 73 did not start the survey. The overall response rate was 87.54%.

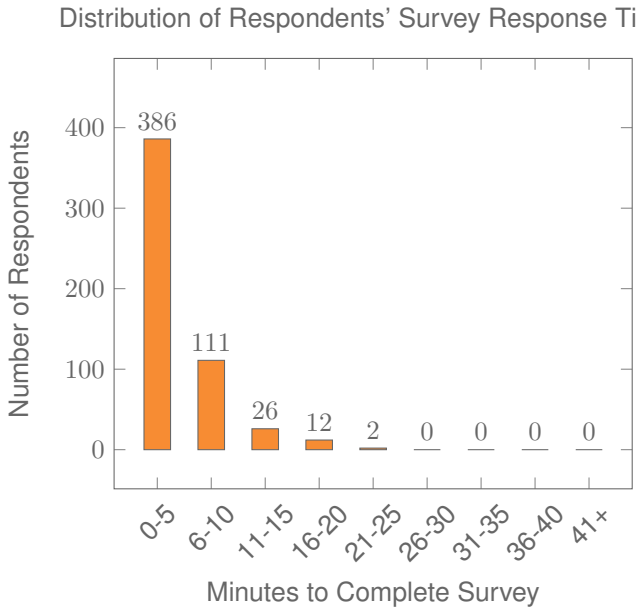
Note: We are unable to provide sample weights for a small number of UAS members (see the Sample and weighting section below for details). If they completed the survey, these members are included in the data set with a weight of zero, but accounted for in the computation of total sample size and survey response rate.%.

The detailed survey response rate is as follows:

UAS490 - Response Overview	
Size of selected sample	610
Completed the survey	534
Started but did not complete the survey	3
Did not start the survey	73
Response rate	87.54%

2.2 Timings

The survey took respondents an average of 4 minutes, and the full distribution of survey response times is available in the figure below. Times per question are available upon request.



2.3 Sample & Weighting

Sample weights for this survey are computed following the general UAS Weighting Procedure. Specifically, we use a two-step process where we first compute base weights, which correct for unequal probabilities of sampling UAS members, and then generate final, post-stratification weights, which align the sample to the reference population along certain socio-economic dimensions. These are gender (male/female), race and ethnicity (White/Black/Other/Hispanic/Native American), age (18-39/40-49/50/59/60+), education (High school or less/Some college/Bachelor or more), Census regions (Northeast/Midwest//West, excl. CA/CA, excl. LAC, LAC). Benchmark distributions for these variables are derived from the 6 most recent available Current Population Survey (CPS) Basic Monthly Survey with respect to the survey's completion date. The reference population considered for the weights is the U.S. population of adults age 18 and older.

This survey dataset may contain respondents with a weight of zero. These respondents belong to a small group of UAS members for whom sample weights cannot be computed due to non-probability recruitment for special projects. Hence, while they are accounted for in the total number of survey respondents, they do not contribute to any statistics using sample weights. More information is available from the UAS Weighting Procedure. Please contact UAS staff with any questions.

3 STANDARD VARIABLES

Each Understanding America Study data set contains a series of standard variables, consisting of individual, household and sample identifiers, language indicator, time stamps and a rating by the respondent of how much he or she liked the survey. These variables are based on the questions asked quarterly in the My Household survey after the application of a cleaning process (https://uasdata.usc.edu/page/Data+Cleaning+Process). They are the following:

- **uasid**: the identifier of the respondent. This identifier is assigned to a respondent at recruitment and stays with the respondent throughout each and every survey he/she participates in. When analyzing data from multiple surveys, the 'uasid' can be used to merge data sets.
- **uashhid**: the household identifier of the respondent. Every member is assigned a household identifier, stored in the variable ¡em¿uashhid¡/em¿. For the primary respondent this identifier is his or her 'uasid'. All other eligible members of the primary respondent's household (everyone who is 18 or older in the household) who become UAS respondents receive the uasid of the primary respondent as their household identifier. The uashhid remains constant over time for all respondents. Thus it is always possible to find the original UAS household of an UAS panel member (even after they, for example, have moved out to form another household).
- **uashhid_current**: the current household identifier of the respondent. Uniquely identifies the household a UAS panel member belongs to in a given survey INDEPENDENT of the exact composition of the household in terms of who else in the household are UAS members. Missing (.n) for respondents who are in a single-UAS member household at the time of survey start. Available on request in data sets prior to September 3, 2025.
- **survhhid**: uniquely identifies the household a UAS panel member belongs to in a given survey DEPENDENT on the exact composition of the household in terms of who else in the household are UAS members. Is set to missing (.n) if no other household members are UAS panel members at the time of the survey. Is set to unknown (.u) for respondents who last participated in the My Household survey prior to January 21, 2015.
- **uasmembers**: is the number of other household members who are also UAS panel members at the time of the survey. Since individuals can answer the same survey at different points in time (which can be relatively far apart is the survey is kept in the field for a prolonged time), it may be possible that, within the same data set, the primary respondent of a household has a value of '0', whereas the second UAS household respondent has a value of '1'. Therefore 'uasmembers' should be interpreted as the number of household and UAS panel members at the time the respondent answers the survey. Note: in the My Household survey 'uasmembers' is set to unknown (.u)

for respondents who last participated in the My Household survey prior to January 21, 2015.

- **sampleframe**: indicates the sampling frame from which the household of the respondent was recruited. All UAS recruitment is done through address based sampling (ABS) in which samples are acquired based on postal records. Currently, the variable 'sampleframe' takes on four values reflecting four distinct sample frames used by the UAS over the year (in future data sets the number of sample frames used for recruitment may increase if additional specific populations are targeted in future recruitment batches):

  1. U.S. National Territory: recruited through ABS within the entire U.S.
  2. Areas high concentration Nat Ame: recruited through ABS in areas with a high concentration of Native Americans in the zip-code. Within these batches, individuals who are not Native Americans are not invited to join the UAS.
  3. Los Angeles County: recruited through ABS within Los Angeles County.
  4. California: recruited through ABS within California.

  Note: prior to March 6, 2024 this variable was called sampletype and had the following value labels for the above list in UAS data sets:

  1. Nationally Representative Sample: recruited through ABS within the entire U.S.
  2. Native Americans: recruited through ABS in areas with a high concentration of Native Americans. Within these batches, individuals who are not Native Americans are not invited to join the UAS.
  3. LA County: recruited through ABS within Los Angeles County.
  4. California: recruited through ABS within California.

- **batch**: indicates the batch from which the respondent was recruited. Currently, this variable takes the following values (in future data sets the number of batches may increase as new recruitment batches are added to the UAS):

  1. ASDE 2014/01
  2. ASDE 2014/01
  3. ASDE 2014/01
  4. Public records 2015/05
  5. MSG 2015/07
  6. MSG 2016/01
  7. MSG 2016/01
  8. MSG 2016/01
  9. MSG 2016/02
  10. MSG 2016/03

11. MSG 2016/04
12. MSG 2016/05
13. MSG 2016/08
14. MSG 2017/03
15. MSG 2017/11
16. MSG 2018/02
17. MSG 2018/08
18. MSG 2019/04
19. MSG 2019/05
20. MSG 2019/11
21. MSG 2020/08
22. MSG 2020/10
23. MSG 2021/02
24. MSG 2021/08
25. MSG 2021/08
26. MSG 2022/02
27. MSG 2022/02
28. MSG 2022/08
29. MSG 2022/11
30. MSG 2022/11
31. MSG 2023/01
32. MSG 2023/06
33. MSG 2023/09
34. MSG 2023/10
35. MSG 2025/02
36. MSG 2025/09
37. MSG 2026/06

Note: prior to March 6, 2024 this variable had the following value labels for the above list in UAS data sets:

1. ASDE 2014/01 Nat.Rep.
2. ASDE 2014/01 Native Am.
3. ASDE 2014/11 Native Am.
4. LA County 2015/05 List Sample
5. MSG 2015/07 Nat.Rep.

6. MSG 2016/01 Nat.Rep. Batch 2
7. MSG 2016/01 Nat.Rep. Batch 3
8. MSG 2016/01 Nat.Rep. Batch 4
9. MSG 2016/02 Nat.Rep. Batch 5
10. MSG 2016/03 Nat.Rep. Batch 6
11. MSG 2016/04 Nat.Rep. Batch 7
12. MSG 2016/05 Nat.Rep. Batch 8
13. MSG 2016/08 LA County Batch 2
14. MSG 2017/03 LA County Batch 3
15. MSG 2017/11 California Batch 1
16. MSG 2018/02 California Batch 2
17. MSG 2018/08 Nat.Rep. Batch 9
18. MSG 2019/04 LA County Batch 4
19. MSG 2019/05 LA County Batch 5
20. MSG 2019/11 Nat. Rep. Batch 10
21. MSG 2020/08 Nat. Rep. Batch 11
22. MSG 2020/10 Nat. Rep. Batch 12
23. MSG 2021/02 Nat. Rep. Batch 13
24. MSG 2021/08 Nat. Rep. Batch 15
25. MSG 2021/08 Nat. Rep. Batch 16
26. MSG 2022/02 Nat. Rep. Batch 17 (priority)
27. MSG 2022/02 Nat. Rep. Batch 17 (regular)
28. MSG 2022/08 Nat. Rep. Batch 18
29. MSG 2022/11 LA County Batch 6
30. MSG 2022/11 Nat. Rep. Batch 20
31. MSG 2023/01 Nat. Rep. Batch 21
32. MSG 2023/06 Nat. Rep. Batch 22
33. MSG 2023-09 Native Am. Batch 3
34. MSG 2023-10 Nat. Rep. Batch 23

- **primary_respondent**: indicates if the respondent was the first person within the household (i.e. to become a member or whether s/he was added as a subsequent member. A household in this regard is broadly defined as anyone living together with the primary respondent. That is, a household comprises individuals who live together, e.g. as part of a family relationship (like a spouse/child/parent) or in context of some other relationship (like a roommate or tenant).

- **hardware**: indicates whether the respondent ever received hardware or not. Note: this variable should not be used to determine whether a respondent received hardware at a given point in time and/or whether s/he used the hardware to participate in a survey. Rather, it indicates whether hardware was ever provided:

    1. None
    2. Tablet (includes Internet)

- **language**: the language in which the survey was conducted. This variable takes a value of 1 for English and a value of 2 for Spanish.

- **start_date (start_year, start_month, start_day, start_hour, start_min, start_sec)**: indicates the time at which the respondent started the survey.

- **end_date (end_year, end_month, end_day, end_hour, end_min, end_sec)**: indicates the time at which the respondent completed the survey.

- **cs_001**: indicates how interesting the respondent found the survey.

4 DEMOGRAPHICS

Every UAS survey data set also includes demographic variables, which provide background information about the respondent and their household. Demographic information such as age, ethnicity, education, marital status, work status, state of residence, family structure is elicited every quarter through the ‘‘My Household’’ survey. The demographic variables provided with each survey are taken from the most recent ‘MyHousehold’ survey answered by the respondent. If at the time of a survey, the information in ‘‘My Household’’ is more than three months old, a respondent is required to check and update his or her information before being able to take the survey.

The demographic variables are based on the questions taken from the My Household survey after the application of the cleaning process.

The following variables are available in survey data sets after October 8, 2025:

- **sex**: indicates the sex of the respondent as assigned at birth. Is set to gender if the respondent has not filled out My Household after October 8, 2025.
- **genderid**: indicates the current gender of the respondent. Is set to missing (”.v”) if the respondent has not filled out My Household after October 8, 2025. Available in data sets after October 8, 2025.
- **dateofbirth_year**: indicates the year of birth of the respondent.
- **age**: indicates the age of the respondent at the start of the survey.
- **agerange**: if the respondent’s age cannot be calculate due to missing information, ‘agerange’ indicates the approximate age. Should a value for both the ‘age’ and ‘agerange’ be present, then ‘age’ takes precedence over ‘agerange’.
- **citizenus**: indicates whether the respondent is a U.S. citizen.
- **bornus**: indicates whether the respondent was born in the U.S.
- **stateborn**: indicates the state in which the respondent was born. Is set to missing (.) if the respondent was not born in the U.S.
- **countryborn**: indicates the country in which the respondent was born. Is set to missing (.) if the respondent was born in the U.S.
- **statereside**: indicates the state in which the respondent is living.
- **immigration_status**: indicates whether the respondent is an immigrant. It takes one of the following values: 0 Non-immigrant, 1 First generation immigrant (immigrant who migrated to the U.S), 2 Second generation immigrant (U.S.-born children of at least one foreign-born parent), 3 Third generation immigrant (U.S.-born children of at least

one U.S.-born parent, where at least one grandparent is foreign-born), or 4 Unknown immigrant status.

- **maritalstatus**: indicates the marital status of the respondent.
- **livewithpartner**: indicates whether the respondent lives with a partner.
- **education**: indicates the highest level of education attained by the respondent.
- **white**: indicates whether the respondent identifies him or herself as white (Caucasian).
- **black**: indicates whether the respondent identifies him or herself as black (African-American).
- **nativeamer**: indicates whether the respondent identifies him or herself as Native American (American Indian or Alaska Native).
- **asian**: indicates whether the respondent identifies him or herself as Asian (Asian-American).
- **pacific**: indicates whether the respondent identifies him or herself as Native Hawaiian or Other Pacific Islander.
- **race**: indicates the race of the respondent as singular (e.g., '1 White' or '2 Black') or as mixed (in case the respondent identifies with two or more races). The value '6 Mixed' that the respondent answered 'Yes' to at least two of the single race categories. This variable is generated based on the values of the different race variables (white, black, nativeamer, asian, pacific). This composite measure is not conditional on hisplatino, so an individual may identify as Hispanic or Latino, and also as a member of one or more racial groups.
- **race_identify**: indicates the race the respondent identifies with most (if mixed). Is set to missing (".v") if the respondent has not filled out My Household after October 8, 2025.
- **hisplatino**: indicates whether the respondent identifies him or herself as being Hispanic or Latino. This variable is asked separately from race.
- **mena**: indicates whether the respondent identifies as being of Middle Eastern or North African ancestry. Is set to missing (".v") if the respondent has not filled out My Household after October 8, 2025.
- **working**: indicates whether the respondent is working for pay.
- **sick_leave**: indicates whether the respondent is not working because sick or on leave.
- **unemp_layoff**: indicates whether the respondent is unemployed or on lay off.
- **unemp_look**: indicates whether the respondent is unemployed and looking for a job.

- **retired**: indicates whether the respondent is retired.
- **disabled**: indicates whether the respondent has a disability.
- **workemployer**: indicates whether the respondent works for an employer. Is set to missing (".e") if no answer for laborstatus was given by the respondent. Is set to missing (".v") if the respondent has not filled out My Household after October 8, 2025.
- **workself**: indicates whether the respondent is self-employed. Is set to missing (".e") if no answer for laborstatus was given by the respondent. Is set to missing (".v") if the respondent has not filled out My Household after October 8, 2025.
- **homemaker**: indicates whether the respondent is a homemaker. Is set to missing (".e") if no answer for laborstatus was given by the respondent. Is set to missing (".v") if the respondent has not filled out My Household after October 8, 2025.
- **student**: indicates whether the respondent is a student. Is set to missing (".e") if no answer for laborstatus was given by the respondent. Is set to missing (".v") if the respondent has not filled out My Household after October 8, 2025.
- **notworking**: indicates whether the respondent is not working and not looking for work. Is set to missing (".e") if no answer for laborstatus was given by the respondent. Is set to missing (".v") if the respondent has not filled out My Household after October 8, 2025.
- **lf_other**: indicates whether the respondent has another labor force status.
- **laborstatus**: indicates the labor force status of the respondent as singular (e.g., '1 Working for pay' or '2 On sick or other leave') or as mixed (in case the respondent selects two or more labor statuses). The value '8 Mixed' indicates that the respondent answered 'Yes' to at least two of the single labor force status variables. This variable is generated based on the values of the different labor status variables (working, sick_leave, unempl_layoff, unempl_look, retired, disabled, lf_other).
- **hourswork**: indicates the number of hours the respondent works per week. Is set to missing (.) if the respondent is not currently working or currently on sick or other leave.
- **hhincome**: indicates the total combined income of all members of the respondent's household (living in their household) during the past 12 months.
- **anyhhmember**: indicates whether there were any members in the respondent's household at the time he/she answered the survey as reported by the respondent. Based on the hhmemberin variables if the respondent has not filled out My Household after October 8, 2025. Based on hhcomp_total if the respondent has filled out My Household after October 8, 2025.
- **hhmembernumber**: indicates the number of household members in the respondent's household at the time of the survey as reported by the respondent. It may

be that ‘anyhhmember’ is ‘Yes’, but ‘hhmembernumber’ is missing if the respondent did not provide the number of household members at the time of the survey. Based on the hhmemberin variables if the respondent has not filled out My Household after October 8, 2025. Based on hhcomp_total if the respondent has filled out My Household after October 8, 2025.

- **hhcomp_male_0_3**: indicates the number of male children ages 0 through 4 who are living in the respondent’s household right now (even if they only live with the respondent part-time or temporarily). Is set to missing (”.v”) if the respondent has not filled out My Household after October 8, 2025.
- **hhcomp_female_0_3**: indicates the number of female children ages 0 through 4 who are living in the respondent’s household right now (even if they only live with the respondent part-time or temporarily). Is set to missing (”.v”) if the respondent has not filled out My Household after October 8, 2025.
- **hhcomp_other_0_3**: indicates the number of other-gendered children ages 0 through 4 who are living in the respondent’s household right now (even if they only live with the respondent part-time or temporarily). Is set to missing (”.v”) if the respondent has not filled out My Household after October 8, 2025.¡/li¿
- **hhcomp_male_4_12**: indicates the number of male children ages 5 through 12 who are living in the respondent’s household right now (even if they only live with the respondent part-time or temporarily). Is set to missing (”.v”) if the respondent has not filled out My Household after October 8, 2025.
- **hhcomp_female_4_12**: indicates the number of female children ages 5 through 12 who are living in the respondent’s household right now (even if they only live with the respondent part-time or temporarily). Is set to missing (”.v”) if the respondent has not filled out My Household after October 8, 2025.
- **hhcomp_other_4_12**: indicates the number of other-gendered children ages 5 through 12 who are living in the respondent’s household right now (even if they only live with the respondent part-time or temporarily). Is set to missing (”.v”) if the respondent has not filled out My Household after October 8, 2025.
- **hhcomp_male_13_17**: indicates the number of male children ages 13 through 17 who are living in the respondent’s household right now (even if they only live with the respondent part-time or temporarily). Is set to missing (”.v”) if the respondent has not filled out My Household after October 8, 2025.
- **hhcomp_female_13_17**: indicates the number of female children ages 13 through 17 who are living in the respondent’s household right now (even if they only live with the respondent part-time or temporarily). Is set to missing (”.v”) if the respondent has not filled out My Household after October 8, 2025.
- **hhcomp_other_13_17**: indicates the number of other-gendered children ages 13 through 17 who are living in the respondent’s household right now (even if they only

live with the respondent part-time or temporarily). Is set to missing (".v") if the respondent has not filled out My Household after October 8, 2025.

- **hhcomp_male_18_64**: indicates the number of male adults ages 18 through 64 who are living in the respondent's household right now (even if they only live with the respondent part-time or temporarily). Is set to missing (".v") if the respondent has not filled out My Household after October 8, 2025.
- **hhcomp_female_18_64**: indicates the number of female adults ages 18 through 64 who are living in the respondent's household right now (even if they only live with the respondent part-time or temporarily). Is set to missing (".v") if the respondent has not filled out My Household after October 8, 2025.
- **hhcomp_other_18_64**: indicates the number of other-gendered adults ages 18 through 64 who are living in the respondent's household right now (even if they only live with the respondent part-time or temporarily). Is set to missing (".v") if the respondent has not filled out My Household after October 8, 2025.
- **hhcomp_male_65plus**: indicates the number of male adults ages 65 or older who are living in the respondent's household right now (even if they only live with the respondent part-time or temporarily). Is set to missing (".v") if the respondent has not filled out My Household after October 8, 2025.
- **hhcomp_female_65plus**: indicates the number of female adults ages 65 or older who are living in the respondent's household right now (even if they only live with the respondent part-time or temporarily). Is set to missing (".v") if the respondent has not filled out My Household after October 8, 2025.
- **hhcomp_other_65plus**: indicates the number of other-gendered adults ages 65 or older who are living in the respondent's household right now (even if they only live with the respondent part-time or temporarily). Is set to missing (".v") if the respondent has not filled out My Household after October 8, 2025.
- **hhcomp_total_18_64**: indicates the total number of adults 18 through 64 who are living in the respondent's household right now (even if they only live with the respondent part-time or temporarily). Is set to missing (".v") if the respondent has not filled out My Household after October 8, 2025.
- **hhcomp_total_65plus**: indicates the total number of adults 65 or older who are living in the respondent's household right now (even if they only live with the respondent part-time or temporarily). Is set to missing (".v") if the respondent has not filled out My Household after October 8, 2025.
- **hhcomp_total_adults**: indicates the total number of adults who are living in the respondent's household right now (even if they only live with the respondent part-time or temporarily). Is set to missing (".v") if the respondent has not filled out My Household after October 8, 2025.

- **hhcomp_total_children**: indicates the total number of children who are living in the respondent's household right now (even if they only live with the respondent part-time or temporarily). Is set to missing (".v") if the respondent has not filled out My Household after October 8, 2025.
- **hhcomp_total**: indicates the total number of people who are living in the respondent's household right now (even if they only live with the respondent part-time or temporarily). Is set to missing (".v") if the respondent has not filled out My Household after October 8, 2025.
- **parent_guardian_a**: indicates whether the respondent is the parent or guardian of one or more children ages 0 to 4 in the respondent's household. Is set to missing (".a") if hhcomp_total_children is not greater than 0. Is set to missing (".v") if the respondent has not filled out My Household after October 8, 2025.
- **parent_guardian_b**: indicates whether the respondent is the parent or guardian of one or more children ages 5 to 12 in the respondent's household. Is set to missing (".a") if hhcomp_total_children is not greater than 0. Is set to missing (".v") if the respondent has not filled out My Household after October 8, 2025.
- **parent_guardian_c**: indicates whether the respondent is the parent or guardian of one or more children ages 13 to 17 in the respondent's household. Is set to missing (".a") if hhcomp_total_children is not greater than 0. Is set to missing (".v") if the respondent has not filled out My Household after October 8, 2025.

The following variables were provided up until October 8, 2025. Several remain available in data sets created after October 8, 2025 on request.

- **gender**: indicates the gender of the respondent. Available in data sets before October 9, 2025.
- **countryborn_other**: indicates the country of birth if that country is not on the drop down list of countries shown to the respondent'.
- **hisplatinogroup**: indicates which Hispanic or Latino group a respondent identifies him or herself with. Is set to missing (.) if the respondent does not identify him or herself as being Hispanic or Latino. Available in data sets after October 8, 2025 on request.
- **employmenttype**: indicates the employment type of the respondent (employed by the government, by a private company, a nonprofit organization, or self-employed). Is set to missing (.) if the respondent is not currently working or currently on sick or other leave. Available in data sets before October 9, 2025.
- **workfullpart**: indicates whether the respondent works full or part-time. Is set to missing (.) if the respondent is not currently working or currently on sick or other leave. Available in data sets before October 9, 2025.

- **hhmemberin_#**: indicates whether a household member is currently in the household as reported by the respondent. Household members are never removed from the stored household roster and their information is always included in survey data sets. The order of the roster is the same order in which household members were specified by the respondent in the 'MyHousehold' survey. The order is identified by the suffix _# (e.g., _1 indicates the first household member, _2 the second household member, etc.).

  As an example, if the first household member is in the household at the time of the survey, 'hhmemberin_1' is set to '1 HH Member 1 is in the HH'; if he/she has moved out, 'hhmemberin_1' is set to '0 HH member 1 is no longer in the HH'. Since information of other household members (stored in the variables listed below) is always included in survey data sets, information about 'hhmemberin_1' is available whether this person is still in the household or has moved out. Available in data sets before October 9, 2025. Available in data sets after October 8, 2025 on request.

- **hhmembergen_#**: indicates the gender of the household member as reported by the respondent. Available in data sets before October 9, 2025. Available in data sets after October 8, 2025 on request.

- **hhmemberage_#**: indicates the age of the household member. The age is derived from the month and year of birth of the household member as reported by the respondent. Available in data sets before October 9, 2025. Available in data sets after October 8, 2025 on request.

- **hhmemberrel_#**: indicates the relationship of the respondent to the household member as reported by the respondent. Available in data sets before October 9, 2025. Available in data sets after October 8, 2025 on request.

- **hhmemberuasid_#**: indicates the 'uasid' of the household member if this person is also a UAS panel member. It is set to missing (.) if this person is not a UAS panel member at the time of the survey. Since this identifier is directly reported by the respondent (chosen from a preloaded list), it may differ from the actual (correct) 'uasid' of the UAS member it refers to because of reporting error. Also, this variable should not be used to identify UAS members in a given household at the time of the survey. This is because the variables 'hhmemberuasid_#' are taken from the most recent 'My Household' and changes in household composition involving UAS members may have occurred between the time of the respondent answered 'My Household' and the time the respondent answers the survey. To follow UAS members of a given household, it is advised to use the identifiers 'uashhid' and 'survhhid'. Available in data sets before October 9, 2025. Available in data sets after October 8, 2025 on request.

Lastly, data sets created after May 8, 2025 include an urbanicity variable. It is based on panel members' current census tract of residence and the 2010 Rural-Urban Commuting Area (RUCA) codes released by the US Department of Agriculture's Economic Research Service. To preserve confidentiality, the UAS collapses the 10 primary RUCA codes to 4

levels: Metropolitan, Micropolitan, Small/Rural, and Unknown. The Metropolitan level corresponds to primary RUCA codes 1-3, the Micropolitian level corresponds to RUCA codes 4-6, and the Small/Rural UAS classification corresponds to RUCA codes 7-10.

For detailed information and definitions of the 10 primary RUCA codes, please visit the USDA ERS Rural-Urban Commuting Area Codes site. Surveys conducted completely prior to May 8, 2025 will have an urbanicity data variable available on request. Data sets created after February 6, 2026 contain two urbanicity variables (urbanicity2010 and urbanicity2020, based on the 2010 and 2020 RUCA codes respectively). Information regarding differences between the 2010 and 2020 codes is located here.

5 MISSING DATA CONVENTIONS

Data files provide so-called clean data, that is, answers given to questions that are not applicable anymore at survey completion (for example because a respondent went back in the survey and skipped over a previously answered question) are treated as if the questions were never asked. In the data files all questions that were asked, but not answered by the respondent are marked with (.e). All questions never seen by the respondent (or any dirty data) are marked with (.a). The latter may mean that a respondent did not view the question because s/he skipped over it; or alternatively that s/he never reached that question due to a break off. If a respondent did not complete a survey, the variables representing survey end date and time are marked with (.c). Household member variables are marked with (.m) if the respondent has less household members (e.g. if the number of household members is 2, any variables for household member 3 and up are marked with (.m).

UAS provides data in STATA and CSV format. Stata data sets come with include variable labels that are not available in the CSV files. Value labels are provided for single-response answer option. In STATA these labels will include the labels 'Not asked' and 'Not answered' for (.a) and (.e), and will show in tabulations such as 'tab q1, missing'. For multiple-response questions a binary variable is created for each answer option indicating whether the option was selected or not. A summary variable is also provided in string format reflecting which options were selected and in which order. For example, if a question asked about favorite animals with options cat, dog, and horse, then if a respondent selected horse and then cat, the binary variables for horse and cat will be set to yes, while the overall variable would have a string value of '3-1'. If no answer was given, all binary variables and the summary variable will be marked with '.e'.

Questions that are asked multiple times are often implemented as so-called array questions. Supposing the name of such question was Q1 and it was asked in 6 different instances, your data set would contain the variables Q1_1_ to Q1_6_. To illustrate, if a survey asked the names of all children, then child_1_ would contain the name of the first child the respondent named and so on.

More information about the UAS data in general can be found on the UAS Data Pages web site.

6 ROUTING SYNTAX

The survey with routing presented in the next section includes all of the questions that make up this survey, the question answers when choices were provided, and the question routing. The routing includes descriptions of when questions are grouped, conditional logic that determines when questions are presented to the respondent, randomization of questions and answers, and fills of answers from one question to another.

If you are unfamiliar with conditional logic statements, they are typically formatted so that ***if*** the respondent fulfills some condition (e.g. they have a cellphone or a checking account), ***then*** they are presented with some other question or the value of some variable is changed. If the respondent does not fulfill the condition (e.g. they are not a cellphone adopter or they do not have a checking account), something ***else*** happens such as skipping the next question or changing the variable to some other value. Some of the logic involved in the randomization of questions or answers being presented to the respondent is quite complex, and in these instances there is documentation to clarify the process being represented by the routing.

Because logic syntax standards vary, here is a brief introduction to our syntax standards. The syntax used in the conditional statements is as follows: '=' is equal to, '$<$' is less than, '$>$' is greater than, and '!=' is used for does not equal. When a variable is set to some number N, the statement looks like 'variable := N'.

The formatting of the questions and routing are designed to make it easier to interpret what is occurring at any given point in the survey. Question ID is the bold text at the top of a question block, followed by the question text and the answer selections. When a question or variable has associated data, the name links to the appropriate data page, so you can easily get directly to the data. Text color is used to indicate the routing: red is conditional logic, gold is question grouping, green is looping, and orange is used to document randomization and other complex conditional logic processes. The routing is written for a computer to parse rather than a human to read, so when the routing diverges significantly from what is displayed to the respondent, a screenshot of what the respondent saw is included.

The name of the randomization variables are defined in proximity to where they are put into play, and like the question ID the names of the randomization variables can be used to link directly to the associated data page.

7 SURVEY WITH ROUTING

Start of section **Intro**

studyphone := 0

GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

whatphone (what phone does R have in section Intro)
In this survey, we are inviting you to take part in a new UAS research study that will help researchers understand how often certain information needs to be collected. Please answer the following questions to find out if you are eligible to participate in this study.

Which of the following mobile phones do you currently own or have for personal use? Only answer about phones that are working, and have a cell plan, or are wifi-enabled.

I own or have for personal use:
1 An Android smartphone
2 An Apple iPhone
3 Another type of internet-connected phone
4 A mobile phone that can only make calls or send text messages
5 No working mobile phone of any kind

whatphone_other (what phone OTHER in section Intro)
STRING

END OF GROUP

IF 3 IN whatphone OR 4 IN whatphone OR 5 IN whatphone THEN

noteligible (not eligible phone plan in section Intro)
Thank you for answering these questions. The project requires people to have an Android or Apple smartphone. We very much appreciate your being a part of the Understanding America Study and we will contact you again when there are more UAS surveys to be completed.

Exit the survey

END OF IF

damagephone (phone have any damage in section Intro)
Does your phone screen have any cracks or physical damage affecting its use?
1 Yes
2 No

IF damagephone = 1 THEN

damageinterferencephone (cracks interfere in section Intro)
Do the cracks or physical damage interfere with your use to see items or register a response or cause a safety hazard?
1 Yes
2 No

IF damageinterferencephone = 1 THEN

noteligible (not eligible phone plan in section Intro)
Thank you for answering these questions. The project requires people to have an Android or Apple smartphone. We very much appreciate your being a part of the Understanding America Study and we will contact you again when there are more UAS surveys to be completed.

Exit the survey

END OF IF

END OF IF

planphone (what phone plan in section Intro)
Which of the following best describes your phone plan?
1 A contract for phone and data with a carrier such as Verizon, TMobile, Sprint, AT&T, etc. in which you are billed for the use of the phone on a monthly basis
2 Pay as you go plan, where you purchase a number of minutes in advance that are used up as you use the phone, and replenished as needed
3 Pre-paid plan, where the cell phone comes with a pre-paid number of minutes. When those minutes are used up, you can buy more, or you can stop using the phone
4 I am not sure what kind of plan I have for my smartphone

IF planphone = 1 THEN

protectorphone (has screen protector in section Intro)
One more question about your phone... do you have a screen protector on your phone?
1 Yes
2 No

ELSE

noteligiblephoneplan (not eligible phone plan in section Intro)
Thank you for answering these questions. The project requires people to have an Android or Apple smartphone with specific kinds of phone plans that will work with a UAS phone app. We very much appreciate your being a part of the Understanding America Study and we will contact you again when there are more UAS surveys to be completed.

Exit the survey

END OF IF

End of section **Intro**

Start of section **Consent**

keyinfo (key information in section Consent)
Thank you for answering these questions. You are qualified to join the study. The following is a short summary of the key information about this new project. We will go over all of this again later in more detail, so you can learn more about each part before you decide.

1. **What is the purpose of this study?** This study is part of a larger project that is intended to help doctors and researchers understand how to measure changes in thinking and memory and whether changes need to be checked more than once a year.

2. **Do I have to participate?** No. Joining this research study is completely voluntary. If you decide not to do this study, we will continue to invite you to do UAS surveys as usual!

3. **Why am I being invited?** Because you are a member of the Understanding America Study who is age 20 or older and who has a smartphone. A total of 1200 UAS members from across the country will participate in the study.

4. **How much time would it take for me to participate? What would I be doing?** The study initially takes place over nine consecutive days. It is repeated after six months and then again six months later. Days 1 through 8, you will answer about 15 minutes' worth of questions on your phone, spread over three sessions of 5 minutes each. On the 9th day, you will answer a 10-minute feedback survey.

5. **How much will I earn?** You will earn the usual UAS rate for taking surveys. That comes to $10 per day for the first 8 days and $7 for the feedback survey on the 9th day, or a total of $87 per study. If you do all three 9-day studies - one every six months - it will take about 6 and a half hours total, and you will have earned $261.

6. **Are there any risks?** As with all UAS projects, the level of risk of having someone learn your identity in association with your answers is lower than you encounter in everyday life.

7. **Are there any benefits?** You will earn compensation for the time you spend answering survey questions, but there are no direct benefits to you from the study. However, you may enjoy your participation, and it could help doctors and researchers find better and more accurate ways of measuring change in memory and thinking, over time.

8. **What if I don't want to do it?** As with all of our UAS projects and surveys, you can just say no. If you decide not to participate in this particular study, you will continue to be a member of the UAS, being invited to do our surveys!

detailedinfo (detailed info in section Consent)
Please take as much time as you need to read the information about the study on each of the following screens. We will provide more information if anything is hard to understand.

After reading about the project, you will be asked to fill out a survey question letting us know if you would like to participate in the study or not. You can also tell us you need more information before deciding.

participants (participants in study in section Consent)
Participants in the study

You are invited as a possible participant in this study because you are a member of the Understanding America Study online panel, you are at least 20 years old, and you have a smartphone.

About 1200 UAS members will take part in the study. We are looking for people of all ages and in any kind of health to participate, across the country, to make sure everyone is fairly represented.

The purpose of the study

This study is part of a larger project being conducted by the Mobile Monitoring of Cognitive Change at Pennsylvania State University.

The purpose of the study is to help doctors and researchers understand the best ways to measure changes in thinking and memory.

Traditionally, people answer questions about thinking and memory once a year, maybe during a check-up. Their answers are then compared to how they answered last year.

However, people's thinking and memory can change all the time. For example, if they haven't slept well or are anxious about something or are sick, they may answer differently than they would if they were feeling better.

In this study participants will answer questions several times a day over several days. Then it is repeated every six months, for a total of three times. The results will help us understand what is being missed if people only do a check-up once a year.

procedures (study procedures in section Consent)
Study procedures

If you decide to take part in this study, this is what will happen:

1. You will schedule a start date that is convenient for you, at the end of this survey.

You will receive an email by the next day verifying your participation dates, and providing you with more information about doing the study

2. We will give you an easy Study User Guide. UAS helpdesk staff will be available by phone and email to answer questions.

3. During the eight days of the study, the survey questions are answered through the UAS' cell phone app (called the "Zemi app"). You will download it from the Google Play store or Apple Store, and log in using your usual UAS login id and password. The app was developed by the UAS, so we can guarantee that it is private and secure.

4. Prior to the first day of the study, we will email you a reminder to log into the Zemi app as soon as you wake up.

5. On the first day and each day after that for 8 days total, you will be notified by the app when it is time to fill out the questions. The app will use your phone's notification system, and text message reminders. You will get these prompts at three random times during each day. **You will have up to one hour after the prompt to find a quiet safe place to respond, in case you are driving or busy.**

6. On the ninth day, no more prompts. We will send you an email reminder to log into the UAS and complete the 10-minute feedback survey.

7. After the end of the study, you will simply delete the app from your phone.

8. We will add your study earnings to your UAS account within 10 days after you finish the study, and they will be added to your ClinCard with your other earnings on the usual UAS monthly schedule.

9. If you completed at least 50% of the 24 survey prompts in the first 9-day study (12 prompts), the UAS staff will contact you again in about 6 months to schedule the next 9-day study.

10. Then, if you complete at least 50% of the survey prompts in the second 9-day study, UAS staff will contact you again about six months after the second one to schedule the third one. After the third 9-day study, the project will be over.

timeearnings (time and earnings in section Consent)
Time and earnings

You will earn the usual UAS rate of $10 for each 15 minutes it takes to answer survey questions through the app, and in the feedback survey. On each day of the 8-day study, you will be prompted by our Zemi app, and by a text message to answer 5 minutes of questions, three times a day. So that is 15 minutes of questions per day, and you earn $10 for each day you complete at least one of the three 5-minute surveys. On the ninth day, you fill

out the feedback survey through your UAS account. The survey will take about 10 minutes and you will earn $7.

If you complete all 8 days of questions and the feedback survey on day 9, it will take just over two hours total. You can earn up to a total of $87 for the project.

We will add your earnings to your UAS account within about 10 days after the end of each 8-day study. The amount you have earned for this and any other studies or surveys you have completed will be loaded onto your Clincard according to the usual UAS monthly schedule.

If you complete all three of the 9-day studies over the next year and a half, you will have spent about six and half hours total, and will have earned $261 over the course of the whole project.

If you decide to withdraw from the study before the end, you can let us know, or simply stop using the app by deleting it or logging out. Either way, we will compensate you for any time that you completed before you withdrew or stopped.

alternatives (alternatives in section Consent)
Alternatives to participating

Participation in this study is completely voluntary. If you do not wish to join the study, just answer the question in this survey by telling us that you do not want to participate.

We very much appreciate your participation in our UAS surveys, and **whether or not you decide to participate in this or any other UAS project, you will continue to be a valued member of the Understanding America Study.**

Risks of participation

If you decide to take part in this study, the risks are the same as for any UAS survey. There is a small chance that your identity could be disclosed along with your survey answers. However, we work hard to safeguard your data and your privacy. If you have questions or would like to learn more about what we do to protect you, just ask us! uashelp@uas.edu.

There are no direct benefits

You will be compensated for the time you spend answering questions in each of the three 9-day sessions. However, there are no direct benefits to you from taking part in this study. You may enjoy your participation, and it will help doctors and researchers find better and more accurate ways of measuring change in thinking and memory over time.

Protecting privacy and confidentiality

The information you provide during the study through the phone app will be collected and protected in the same way we protect all UAS survey data.

Only the UAS helpdesk staff who are authorized to communicate with you will know who you are, and they do not have access to your answers. Researchers at USC and at Pennsylvania State University will not have access to your name or other identifiers.

We keep your data confidential. The UAS has a Certificate of Confidentiality from the National Institutes of Health that allows us to keep your identity confidential.

Your information may be made available in certain cases. For example, the Brany Institutional Review Board (Brany IRB) or Federal representatives could access your research records for the purpose of protecting human subjects in research projects. They will not disclose your personal identifying information to anyone else.

futureuse (privacy in section Consent)
How will the data from this study be used, now and in the future?

Data from the study will be used only to produce research articles (scientific and popular), manuscripts, research posters, student theses, research briefs, and presentations at research meetings.

UAS staff may combine the data from this study with data from other UAS studies that you have participated in and contributed to. This includes UAS surveys and other UAS projects such as tracking activity or measuring the environment.

After the study, the UAS will securely store the data for use by this study team or other researchers who are doing similar or different kinds of research in the future.

If you do not wish for your data from this project to be used for these purposes, you should not participate in this study.

Voluntary participation

It is your choice whether to participate in this study. You can choose not to participate in this study and continue to be invited to take UAS surveys and participate in future UAS studies.

If you choose to join the study, you may change your mind and leave it at any time. Refusal to participate or stopping your participation will involve no penalty. You can either contact the UAS helpdesk to withdraw, or simply delete or log out of the app.

If you decide to withdraw from the study, you will be compensated for any part of the study that you completed.

Contact information

Note that we will provide you with a study information sheet that includes this information.

If you have questions, concerns, or complaints about the study, or if you choose to withdraw after you have decided to participate, contact the UAS helpdesk, by phone (855) 872-8673 or by email (uashelp@usc.edu).

This research has been reviewed and approved by the Brany Institutional Review Board (IRB). The IRB is a research review board that reviews and monitors research studies to protect the rights and welfare of research participants. Contact the IRB if you have questions about your rights as a research participant or you have complaints about the research. You may contact the IRB at 516-318-6877.

studyconsent (consent in section Consent)
Now that you have read about the study, please answer the question below.

I have read and understood the information about this study and:
1 I agree to participate in the study
2 I do not agree to participate in the study
3 I have more questions before I can decide

IF studyconsent = 1 THEN

dayparticipation (date first participation in section Consent)
Thank you for agreeing to participate in our study!

Please choose your start date. We suggest picking an 8-day period during which:
You will have your phone or tablet with you every day between 8am and 8pmYou will have either a cell or WiFi connection between 8am and 8pm each day.You will be able to answer 3 prompts each day, each one takes 5 minutes. (You have anhour to find the time to respond).
Please select your preferred start date between (period fill()):
DATE

Fill code of question FLScheduled executed

timezone (timezone in section Consent)
(())

Please select the time zone you will be in during this week:
1 Eastern
2 Central
3 Mountain Daylight
4 Mountain Standard

5 Pacific
6 Alaska
7 Hawaii

GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

|

END OF GROUP

thanksagain (thanks again in section Consent)
Thanks again for agreeing to participate in our study!

We will email the Study User Guide to you, along with the Study Information Sheet. You can also download the Study Information Sheet and the Project Study Guide now as pdfs to save or print.

Clicking these links will open a new window, don't forget to come back and click "Next" to finish the survey

Please click "Next" to provide any comments you may have, and to return to your panel member page.

studycomments (comments in section Consent)
Do you have any other comments for us? Please type these in the box below. (If you have no comments, please click next to complete this survey.)

To protect your privacy, please do not write in any identifying information such as names or email addresses. Thank you!
STRING

END OF IF

IF studyconsent = 2 THEN

noconsent (no consent in section Consent)
Thank you for taking the time to read about our new study and for being a part of the Understanding America Study! We will let you know when there are more UAS surveys ready for you to take.

END OF IF

IF studyconsent = 3 THEN

moreinfo (more info needed in section Consent)
Thank you for taking the time to consider participating in our new study.

To see a summary of the study and more answers to questions you can download

a pdf now to save or print: here.

This will open a new window, don't forget to come back to finish the survey.

We will contact you to see if we can answer any questions you may have.

studycomments (comments in section Consent)
Do you have any other comments for us? Please type these in the box below. (If you have no comments, please click next to complete this survey.)

To protect your privacy, please do not write in any identifying information such as names or email addresses. Thank you!
STRING
END OF IF

End of section **Consent**

/* Please note that although question CS_003 is listed in the routing, the answers are not included in the microdata in the event identifiable information is captured. Cleaned responses are available by request. */