UnderStandingAmericaStudy

UAS 647: OMST BRAIN GAMES

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Fielded October 8, 2024 - March 21, 2025

Contents

1 INTRODUCTION

This UAS panel survey, titled ”UAS647: OMST Brain Games” asks respondents to participate in two Mnemonic Similarity Task brain games. This survey is no longer in the field. Respondents were paid $7 to complete the survey.
More information about the brain games can be found here: https://github.com/celstark/oMST.

1.1 Topics

This survey contains questions (among others) on the following topics: Cognitive Abilities. 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 of active respondents.

As such, this survey was made available to 482 UAS participants. Of those 482 participants, 335 completed the survey and are counted as respondents. Of those who are not counted as respondents, 7 started the survey without completing and 140 did not start the survey. The overall response rate was 69.5%.

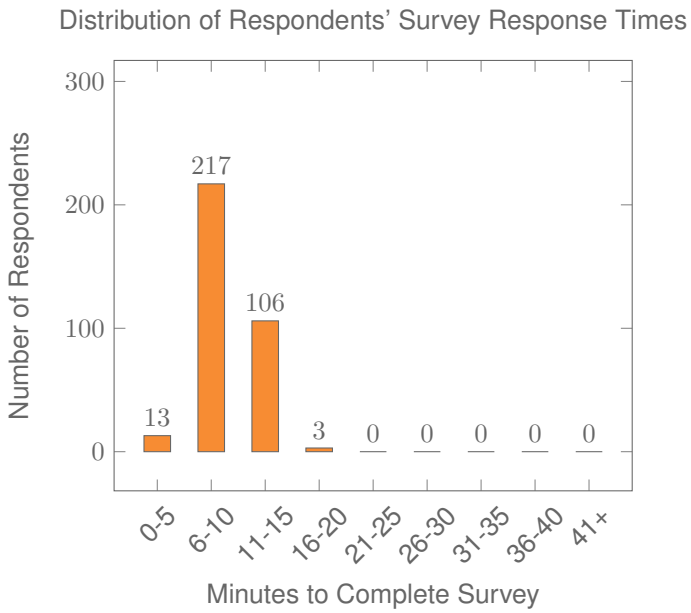
Note: We are unable to provide sample weights for a small number of UAS members (see the Sample and weighting section below for details). If they completed the survey, these members are included in the data set with a weight of zero, but accounted for in the computation of total sample size and survey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

The detailed survey response rate is as follows:

UAS647 - Response Overview	
Size of selected sample	482
Completed the survey	335
Started but did not complete the survey	7
Did not start the survey	140
Response rate	69.5%

2.2 Timings

The survey took respondents an average of 8 minutes, and the full distribution of survey response times is available in the figure below. Times per question are available upon request.



2.3 Weighting

Weights are not (yet) available for this survey. Please contact UAS staff with any questions.

3 STANDARD VARIABLES

Each Understanding America Study data 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 ¡a href=”https://uasdata.usc.edu/page/Data+Cleaning+Process”¿cleaning process¡/a¿. 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. 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

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 BACKGROUND DEMOGRAPHICS

Every UAS survey data set 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 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**: 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. 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. 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. 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 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.

In addition, 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 set available on request.

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 **Device**

surveyversion := '2'

GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

omst_intro (Section Device)
In this survey you will be playing two new games we are testing in the UAS. Please set aside about 8 minutes so you can complete the games in one sitting. We will ask you for some feedback on how it went, at the end.

ondeviceask (using smart phone to take survey in section Device)
Before we get started could you please tell whether you are using a smartphone to take this survey?
1 I am currently using a smartphone to take this survey
2 I am currently NOT using a smartphone to take this survey

END OF GROUP

IF ondeviceask = 1 THEN

onmobilewarning (Section Device)
Thank you!

For the best experience please turn your phone or tablet to a **vertical position** now. Reading glasses are recommended for those who wear them.

END OF IF

End of section **Device**

Start of section **Icon**

icon_intro2 (Section Icon)
In this task, you will see two objects appear on the screen, one after the other, with a bit of "static" for a few seconds between them. Your job is to determine if the two images are *exactly the same* or *or similar to each other*.

Click "Next" to see a sample.

/* Respondents are asked to perform a task in which they indicate if they have seen an object before or not. 26 images are shown with each image being shown for 2 seconds. The data for the task is captured as follows:

- icon_trial_response variables: contain the answers given by the respondent.
- icon_trial_response_correct variables: indicate the correctness of the answers given by the respondent.
- icon_number_correct: the number of answers correct.

*/

icon_timeout := '2000'
icon_trial_total := '26'

GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

icon_trial_practice1 (icon trial practice 1 response in section Icon)
Wait...
1 Same
2 Similar

icon_trial_practice1_result (icon trial response practice 1 result string in section Icon)
STRING

icon_trial_practice1_answer (icon trial response practice 1 answer string in section Icon)
STRING

END OF GROUP

icon_practice1_answer (Section Icon)
Here are those images again. You should have said **Same** for that one as they were the same images.

GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

icon_trial_practice2 (icon trial practice 2 response in section Icon)
Wait...
1 Same
2 Similar

icon_trial_practice2_result (icon trial response practice 2 result string in section Icon)
STRING

icon_trial_practice2_answer (icon trial response practice 2 answer string in section Icon)
STRING

END OF GROUP

icon_practice2_answer (Section Icon)
Here are those images again. You should have said **Similar** for that one as they were not exactly the same.

```
IF icon_stimset = EMPTY THEN
  icon_stimset := '1'
  icon_progress_randomizer := mt_rand(1,2)
END OF IF
```

icon_intro3 (Section Icon)
That's it!

When you are ready to begin the test, click "Next" to start.

GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

icon_trial_test (icon trial response in section Icon)
()Wait...
1 Same
2 Similar

icon_trial_test_result (icon trial response result string in section Icon)
STRING

icon_trial_test_answer (icon trial response answer string in section Icon)
STRING

END OF GROUP

icon_trial_thanks (Section Icon)
You have completed the test. Thank you!

LOOP FROM 1 TO ICON_TRIAL_TOTAL

```
IF icon_trial_response(icon_trial_cnt) = icon_trial_correct_answer(icon_trial_cnt) THEN

  icon_trial_response_correct(icon_trial_cnt) := '1'

ELSE
```

icon_trial_response_correct(icon_trial_cnt) := '2'

END OF IF

END OF LOOP

End of section **Icon**

Start of section **Omst**

/* Respondents are asked to perform a task in which they indicate if they have seen an object before in terms of whether it is old, similar or new. 128 images are shown with each image being shown for 2 seconds.

The set of images shown is randomly assigned per variables stimset and subset. Half of the respondents see a progress indicator, half do not (per variable progress_randomizer).

There are three types of image:

- targets: images different from what was seen before
- lures: images the same as what was seen before
- foils: images similar to what was seen before in order to entice a mistake.

The data for the task is captured as follows:

- trial_response variables: contain the answers given by the respondent.
- trial_response_correct variables: indicate the correctness of the answers given by the respondent.
- numbercorrect: the number of answers correct.
- targets: number of targets
- targets_old: number of targets identified as old
- targets_similar: number of targets identified as similar
- targets_new: number of targets identified as new
- lures: number of lures
- lures_old: number of lures identified as old
- lures_similar: number of lures identified as similar

- lures_new: number of lures identified as new
- foils: number of foils
- foils_old: number of foils identified as old
- foils_similar: number of foils identified as similar
- foils_new: number of foils identified as new
- rec: ratio (targets_old / targets) - (foils_old / foils)
- ldi: ratio (lures_similar / lures) - (foils_similar / foils)

Further details about the task can be found here: https://github.com/celstark/oMST. */

omst_intro2 (Section Omst)
Now you are going to see pictures of everyday items, one at a time. For each one, you will select **Old** if you have seen this exact picture before, **Similar** if it is similar, but not exactly the same as one you saw before, or **New** if it is entirely a new picture.

The way to think of *Similar* is whether it has the same name, but is a different picture in any way.

A few practice trials should make this clear.

example1 (example1 in section Omst)
You have not seen this image yet so you should select **New** here.You haven't seen this image yet, so press **New**.
0 Old
1 Similar
2 New

example2 (example2 in section Omst)
You have not seen this image yet so you should select **New** here.You haven't seen this image yet, so press **New**.
0 Old
1 Similar
2 New

example3 (example3 in section Omst)
You have not seen this image yet so you should select **New** here.You haven't seen this image yet, so press **New**.
0 Old
1 Similar
2 New

example4 (example24 in section Omst)
You have seen this image so you should select **Old** here.You have seen this exact image, so press **Old**.
0 Old
1 Similar
2 New

example5 (example5 in section Omst)
This item is similar to one you have seen before, but not exactly the same, so you should select **Similar** here.You saw one *similar to this*, but not exactly the same. So, the correct response is **Similar**.
0 Old
1 Similar
2 New

example5_show (example 5 show in section Omst)
As you can see, these items are similar, but not exactly the same. For this kind of image, you should select **Similar** to indicate that you saw something similar to this but have not seen that exact item before during this session.

practice1 (practice 1 in section Omst)
Your turn. Have you seen this? *Old*, *Similar*, or *New*?You haven't seen this image yet, so press **New**.
0 Old
1 Similar
2 New

practice2 (practice 2 in section Omst)
Your turn. Have you seen this? *Old*, *Similar*, or *New*?You haven't seen this image yet, so press **New**.
0 Old
1 Similar
2 New

practice3 (practice 3 in section Omst)
Your turn. Have you seen this? *Old*, *Similar*, or *New*?You have seen this exact image, so press **Old**.
0 Old
1 Similar
2 New

practice4 (practice 4 in section Omst)
Your turn. Have you seen this? *Old*, *Similar*, or *New*?You saw one *similar to this*, but not exactly the same. So, the correct response is **Similar**.
0 Old

1 Similar
2 New

practice4_show (practice 4 show in section Omst)
As you can see, these items are similar, but not exactly the same. For this kind of image, you should select **Similar** to indicate that you saw something similar to this but have not seen that exact item before during this session.

omst_intro3 (Section Omst)
That's the idea. Now, we'll do the actual test.

Note the test has to be completed in one sitting. Please do not navigate away or attempt to reload the browser address, otherwise you will have to start the test from the beginning again.

As you do the actual task, if the picture disappears before you respond, don't worry. Just make your response even if the screen is blank.

Click "Next" to begin.

IF stimset = EMPTY THEN
  stimset := mt_rand(1,6)
  subset := mt_rand(1,3)
  ignore := '1'
  progress_randomizer := mt_rand(1,2)
END OF IF

timeout := '2000'
trial_total := '128'
omst_type := 1

IF omst_type = 1 THEN
  Fill code of question scriptname executed
  Fill code of question FLProgressTest executed

  GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

    trial_test (trial response in section Omst)
    ()Did you see this before? Is it Old, Similar, or New?
    0 Old
    1 Similar
    2 New

    trial_test_result (trial response result string in section Omst)

STRING

trial_test_answer (trial response answer string in section Omst)
STRING

END OF GROUP

dummy := processOMSTAnswers(trial_test_answer)

trial_thanks (Section Omst)
You have completed the test. Thank you!

```
targets := '0'
targets_old := '0'
targets_similar := '0'
targets_new := '0'
lures := '0'
lures_old := '0'
lures_similar := '0'
lures_new := '0'
foils := '0'
foils_old := '0'
foils_similar := '0'
foils_new := '0'

LOOP FROM 1 TO TRIAL_TOTAL
  IF trial_response(trial_cnt) = trial_correct_answer(trial_cnt) THEN
    trial_response_correct(trial_cnt) := '1'
  ELSE
    trial_response_correct(trial_cnt) := '2'
  END OF IF
  IF trial_type(trial_cnt) = 2 THEN
    targets := targets + 1
    IF trial_response(trial_cnt) = 0 THEN
      targets_old := targets_old + 1
```

```
        ELSEIF trial_response(trial_cnt) = 1 THEN
            targets_similar := targets_similar + 1
        ELSEIF trial_response(trial_cnt) = 2 THEN
            targets_new := targets_new + 1
        END OF IF
    ELSEIF trial_type(trial_cnt) = 3 THEN
        lures := lures + 1
        IF trial_response(trial_cnt) = 0 THEN
            lures_old := lures_old + 1
        ELSEIF trial_response(trial_cnt) = 1 THEN
            lures_similar := lures_similar + 1
        ELSEIF trial_response(trial_cnt) = 2 THEN
            lures_new := lures_new + 1
        END OF IF
    ELSE
        foils := foils + 1
        IF trial_response(trial_cnt) = 0 THEN
            foils_old := foils_old + 1
        ELSEIF trial_response(trial_cnt) = 1 THEN
            foils_similar := foils_similar + 1
        ELSEIF trial_response(trial_cnt) = 2 THEN
            foils_new := foils_new + 1
```

| END OF IF

END OF IF

END OF LOOP

rec := (targets_old / targets) - (foils_old / foils)
ldi := (lures_similar / lures) - (foils_similar / foils)

ELSE

targets := '0'
targets_old := '0'
targets_similar := '0'
targets_new := '0'
lures := '0'
lures_old := '0'
lures_similar := '0'
lures_new := '0'
foils := '0'
foils_old := '0'
foils_similar := '0'
foils_new := '0'

LOOP FROM 1 TO 128

Fill code of question FLProgress(trial_cnt) executed

GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

trial_response (trial response in section Omst)
(Trial ^trial_cnt of ^trial_total)Did you see this before? Is it Old, Similar, or New?
0 Old
1 Similar
2 New

trial_response_result (trial response result string in section Omst)
chosen: (trial response(trial_cnt))
STRING

END OF GROUP

IF trial_response(trial_cnt) = trial_correct_answer(trial_cnt) THEN

trial_response_correct(trial_cnt) := '1'

```
ELSE
    trial_response_correct(trial_cnt) := '2'
END OF IF
IF trial_type(trial_cnt) = 2 THEN
    targets := targets + 1
    IF trial_response(trial_cnt) = 0 THEN
        targets_old := targets_old + 1
    ELSEIF trial_response(trial_cnt) = 1 THEN
        targets_similar := targets_similar + 1
    ELSEIF trial_response(trial_cnt) = 2 THEN
        targets_new := targets_new + 1
    END OF IF
ELSEIF trial_type(trial_cnt) = 3 THEN
    lures := lures + 1
    IF trial_response(trial_cnt) = 0 THEN
        lures_old := lures_old + 1
    ELSEIF trial_response(trial_cnt) = 1 THEN
        lures_similar := lures_similar + 1
    ELSEIF trial_response(trial_cnt) = 2 THEN
        lures_new := lures_new + 1
    END OF IF
ELSE
```

```
        foils := foils + 1
        IF trial_response(trial_cnt) = 0 THEN
          foils_old := foils_old + 1
        ELSEIF trial_response(trial_cnt) = 1 THEN
          foils_similar := foils_similar + 1
        ELSEIF trial_response(trial_cnt) = 2 THEN
          foils_new := foils_new + 1
        END OF IF
      END OF IF
    END OF LOOP

    rec := (targets_old / targets) - (foils_old / foils)
    ldi := (lures_similar / lures) - (foils_similar / foils)
  END OF IF
```

End of section **Omst**

Start of section **Feedback**

GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

ef_intro (Section Feedback)
We are interested in how hard people try to remember the pictures during this survey.

Using *little effort* in the survey means clicking without trying very hard, or at all, to remember each picture. *Maximum* effort means trying hard to remember each picture in detail.

ef001 (how much effort at or near beginning of survey in section Feedback)
At or near the beginning of this survey, how much effort did you use to try to remember each picture?
1 Little effort
2 Some effort
3 Maximum effort

ef002 (how much effort neared to end of survey in section Feedback)

Nearer to the end of this survey, how much effort did you use to try to remember each picture?
1 Little effort
2 Some effort
3 Maximum effort

END OF GROUP

ef003 (how willing do another game in next few weeks in section Feedback)
How willing are you to do another game like the one you just completed?
1 Definitely not
2 Probably not
3 Undecided
4 Probably
5 Definitely

End of section **Feedback**

Start of section **Closing**

CS_001 (HOW PLEASANT INTERVIEW in section Closing)
Could you tell us how interesting or uninteresting you found the questions in this survey?
1 Very interesting
2 Interesting
3 Neither interesting nor uninteresting
4 Uninteresting
5 Very uninteresting

CS_003 (comments in section Closing)
Do you have any other comments on the survey? Please type these in the box below. (If you have no comments, please click next to complete this survey.)
STRING

End of section **Closing**

/* 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. */