

# UnderStandingAmericaStudy

UAS 5: DECISION-MAKING QUALITY; RISK AVERSION;  
& INVESTMENT DECISIONS



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Fielded October 22, 2014 - April 14, 2016

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# 1 INTRODUCTION

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This UAS panel survey, titled "UAS5: Decision-making quality; Risk aversion and Investment Decisions", asks respondents to indicate what amount they would want to receive if a coin flip comes up heads, and how much they would want to receive if it comes up tails. Respondents were not paid a base amount to complete the survey, but instead could win compensation. This survey is no longer in the field.

Note: data files for this survey were adjusted on January 29, 2019 to remove 2 unqualified respondents who were inadvertently included in the initial data files. Please contact [uas-l@usc.edu](mailto:uas-l@usc.edu) with any questions.

## 1.1 Topics

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This survey contains questions (among others) on the following topics: Cognitive Abilities, Risk Preferences. A complete survey topic categorization for the UAS can be found [here](#).

## 1.2 Experiments

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This survey includes experiment(s) of the following type(s): Task Payment Determined Randomly. Please refer to explanatory comments in the Routing section for detailed information. A complete survey experiment categorization for the UAS can be found [here](#).

## 1.3 Citation

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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](mailto:tgutsche@usc.edu).

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## 2 SURVEY RESPONSE AND DATA

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### 2.1 Sample selection and response rate

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The sample selection for this survey was:

A subset of active respondents except for Spanish speakers.

As such, this survey was made available to 1864 UAS participants. Of those 1864 participants, 1493 completed the survey and are counted as respondents. Of those who are not counted as respondents, 45 started the survey without completing and 326 did not start the survey. The overall response rate was 80.1%.

Note: We are unable to provide sample weights for a small number of UAS members (see the Sample 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:

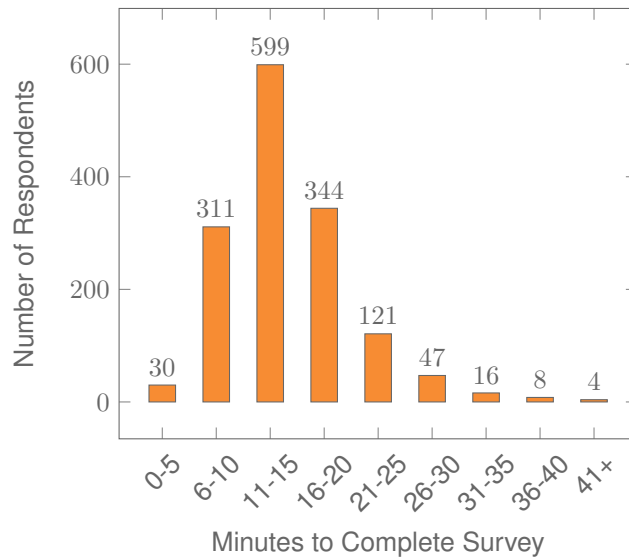
UAS5 - Response Overview	
Size of selected sample	1864
Completed the survey	1493
Started but did not complete the survey	45
Did not start the survey	326
Response rate	80.1%

### 2.2 Timings

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The survey took respondents an average of 15 minutes, and the full distribution of survey response times is available in the figure below. Times per question are available upon request.

Distribution of Respondents' Survey Response Times



## 2.3 Sample & Weighting

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Weights are included in the data set for this survey. 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. For more details on the UAS weighing procedures please refer to the UAS Weighting Procedures V1. Please contact UAS staff with any questions.

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### 3 STANDARD VARIABLES

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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:

- **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 'uashhid'. For the primary respondent this identifier equals 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 identifier '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).
- **survhhid**: uniquely identifies the household a UAS panel member belongs to in a given survey. For instance, if the primary respondent and his/her spouse are both UAS members at the time of a given survey, they both receive the same 'survhhid' identifier for that survey. If they subsequently split, they receive two different 'survhhid' in subsequent surveys. They, however, always share the same 'uashhid'. The identifier 'survhhid' is set to missing (.) if no other household members are 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 if the survey is kept in the field for a prolonged time), it may be possible that, within the same data set, household members have different 'survhhid' reflecting different household compositions at the time they answered the survey. For instance, suppose that the primary respondent and his/her spouse are both UAS members. If the primary respondent answers the survey when he/she is living with the spouse, but the spouse answers the survey when the couple has split, they receive different 'survhhid'. Hence, the variable 'survhhid' identifies household membership of UAS panel members, at the time the respondent answers the survey. Note: in the My Household survey 'survhhid' 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 if 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

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.

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## 4 BACKGROUND DEMOGRAPHICS

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Every UAS survey data set includes demographic variables, which provide background information about the respondent and his/her 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 each survey data set:

- **gender**: the gender of the respondent.
- **dateofbirth\_year**: the year of birth of the respondent.
- **age**: 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. This is set to missing (.) if the respondent was not born in the U.S.
- **countryborn**: indicates the country in which the respondent was born. This is set to missing (.) if the respondent was born in the U.S.
- **countryborn\_other**: indicates the country of birth if that country is not on the drop down list of countries shown to the respondent’.
- **statereside**: 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**: the marital status of the respondent.
- **livewithpartner**: indicates whether the respondent lives with a partner.

- **education**: the highest level of education attained by the respondent.
- **hisplatin**: indicates whether the respondent identifies him or herself as being Hispanic or Latino. This variable is asked separately from race.
- **hisplatinogroup**: indicates which Hispanic or Latino group a respondent identifies him or herself with. This is set to missing (.) if the respondent does not identify him or herself as being Hispanic or Latino.
- **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 hisplatin, so an individual may identify as Hispanic or Latino, and also as a member of one or more racial groups.
- **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.
- **If\_other**: specifies other 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, If\_other).

- **employmenttype**: indicates the employment type of the respondent (employed by the government, by a private company, a nonprofit organization, or self-employed). This is set to missing (.) if the respondent is not currently working or currently on sick or other leave.
- **workfullpart**: indicates whether the respondent works full or part-time. This is set to missing (.) if the respondent is not currently working or currently on sick or other leave.
- **hourswork**: indicates the number of hours the respondent works per week. This is set to missing (.) if the respondent is not currently working or currently on sick or other leave.
- **hhincome**: is 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.
- **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.
- **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.

- **hhmembergen\_#**: indicates the gender of another household member as reported by the respondent.
- **hhmemberage\_#**: indicates the age of another household member. The age is derived from the month and year of birth of the household member as reported by the respondent.
- **hhmemberrel\_#**: indicates the relationship of the respondent to the other household member as reported by the respondent.

- **hhmemberuasid\_#**: is the 'uasid' of the other 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'.
- **lastmyhh\_date**: the date on which the demographics variables were collected through the 'My Household' survey.

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## 5 MISSING DATA CONVENTIONS

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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.

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## 6 ROUTING SYNTAX

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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.



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## 7 SURVEY WITH ROUTING

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Start of section **Decision**

/\* This survey asks respondents to make a series of choices (25 decisions), where each choice asks them to choose how much they would like to win if a coin toss ends up heads and how much if it ends up tails. One of those decisions is then randomly selected and a virtual coin is tossed. Based on the selected decision and the choice made for that decision the respondent receives a certain compensation. \*/

introduction := 25

```
IF randNum = EMPTY THEN
| randNum := mt_rand(1,2)
END OF IF
```

/\* The starting conditions of each graph presented to the respondent are pre-assigned per respondent and are loaded into the survey in the line below. \*/

dummy := getUAS5Preload()

/\* The snippet below draws the graph and its initial point in a randomized fashion. The graph essentially constitutes a line where the payoff for heads is on the y-axis and for tails on the x-axis. The respondent then chooses a point on that line. In this regard the variables relate to the following:

PracticeLineX: end point of the line on the x-axis  
PracticeLineY: end point of the line on the y-axis  
PracticeStartingPointX: x-coordinate of the starting point  
PracticeStartingPointY: x-coordinate of the starting point \*/

counter := 1

```
IF StartingPointX(counter) = EMPTY THEN
| LOOP FROM 1 TO 2 IF randNum = 1 THEN PracticeLineX(counter) := mt_rand (5, 50)
| IF PracticeLineX(counter) < 25 THEN
| | PracticeLineY(counter) := mt_rand(25, 50)
| ELSE
| | PracticeLineY(counter) := mt_rand(5, 50)
| END OF IF ELSE
```

```

PracticeLineY(counter) := mt_rand (5, 50 )

IF PracticeLineY(counter) < 25 THEN
| PracticeLineX(counter) := mt_rand(25 ,50)
ELSE
| PracticeLineX(counter) := mt_rand(5 ,50)
END OF IF
END OF IF

PracticeStartingPointX(counter) := mt_rand(PracticeLineX(counter) - 3, PracticeLine-
X(counter) + 3)

DX := (PracticeLineX(counter) + 3) - (PracticeLineX(counter) - 3)

DY := (PracticeLineY(counter) - 3) - (PracticeLineY(counter) + 3)

PracticeStartingPointY(counter) := (PracticeLineY(counter) + 3 ) + DY * (PracticeS-
tartingPointX(counter) - PracticeLineX(counter) - 3) / DX END OF LOOP
ELSE
counter := 1
PracticeLineX(counter) := 40.096756
PracticeLineY(counter) := 35
PracticeStartingPointX(counter) := 32.630001
PracticeStartingPointY(counter) := 6.5176454
counter := 2
PracticeLineX(counter) := 5.7739348
PracticeLineY(counter) := 30
PracticeStartingPointX(counter) := 3.98
PracticeStartingPointY(counter) := 9.320860
END OF IF

```

#### **InitialVideo** (Section Decision)

In this survey you are asked to make choices involving risk. The video below explains in more details what you are supposed to do. A considerable amount of money is at stake so pay careful attention to the instructions.

If you cannot view the video you can read the instructions by clicking [here](#).

#### *Instructions*

In this experiment, your payment will depend on the toss of a coin. And your task will be to decide how much money you want to receive if the coin comes up heads and how much you want to receive if the coin comes up tails.

In each problem you will be asked to choose a point that is on a blue line like the one shown below.

The line represents all the possible combinations of payments you can choose to receive. The vertical axis shows the dollar amount you will receive if the coin comes up heads. The horizontal axis shows the amount you will receive if the coin comes up tails.

By selecting a point on the line, you are choosing how much you want to receive if the coin comes up heads and how much you want to receive if the coin comes up tails. For example, if you chose the point marked by the red ball, you would receive \$39.31 if the coin came up heads and \$6.07 if it came up tails. You can select any point on the line.

Notice the trade-off between heads and tails. To increase the amount paid when the coin comes up heads, you have to reduce the amount paid when it comes up tails. To increase the amount paid when the coin comes up tails, you have to reduce the amount paid when it comes up heads.

To select your choice, use the mouse, or your finger if you are using a touch screen, to move the pointer on the computer screen to the option you wish to choose, and then click your mouse or trackpad once. A window like the one shown below will pop up. Press "Next" to confirm your choice or "Cancel" to revise your choice. You will not be able to revise your choice after pressing "Next".

After you click "Next", you will be moved to the next round, where you will be asked to make a choice in a different decision problem involving a different a line and different options. In total you will be asked to make 25 decisions.

Next, you will have two practice rounds. The choices you make in these two rounds will not affect how much money you will be paid.

You can refer back to these instructions anytime you need to by clicking on the help link.

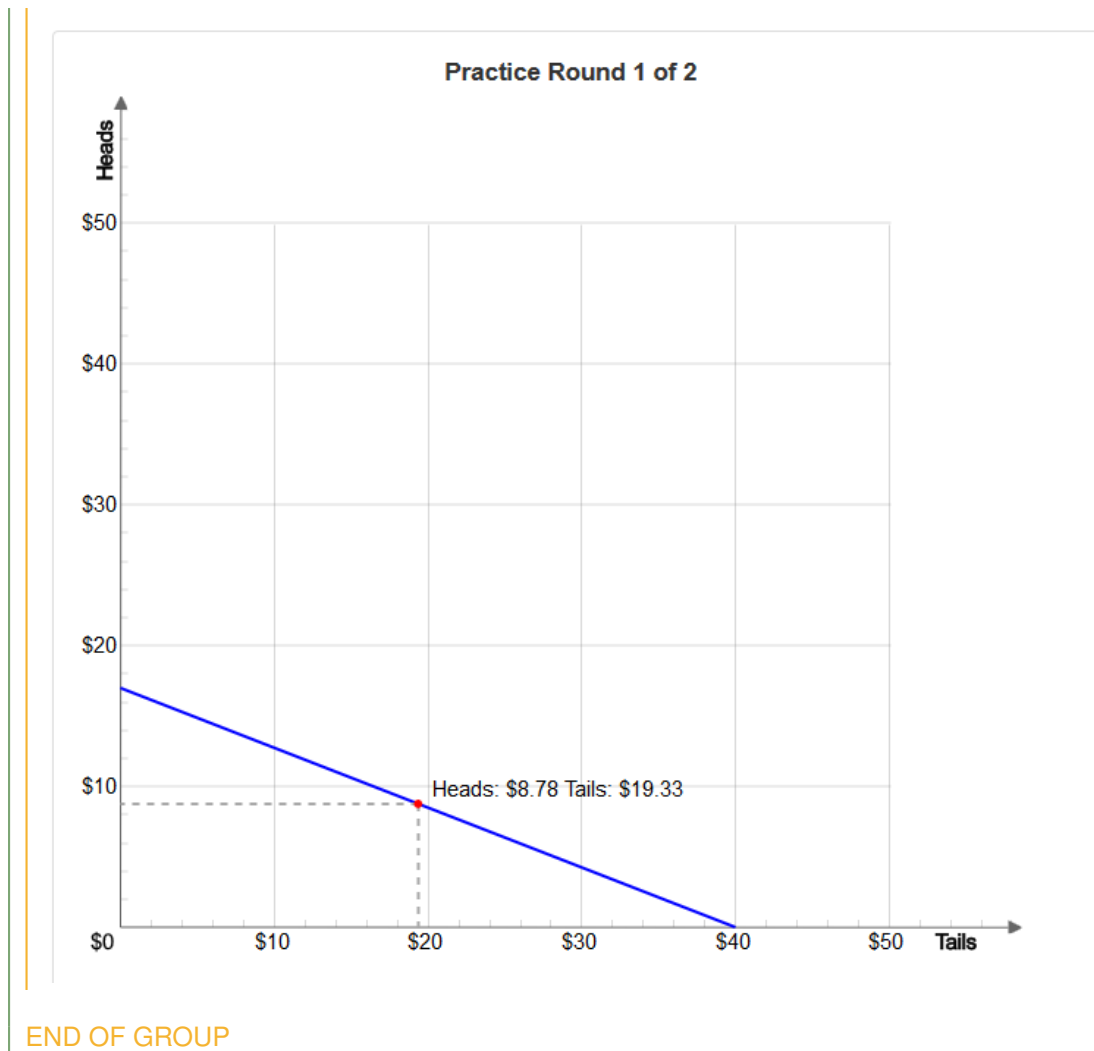
## LOOP FROM 1 TO 2

### GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

**qdecision\_practice** (decision moduleq in section Decision)

**PracticeSelectedPointX** (Section Decision)

**PracticeSelectedPointY** (Section Decision)



END OF LOOP

**SecondaryVideo** (Section Decision)

The video below explains how your earnings will be determined based on the choices you make. After watching the video you will be ready to start making these choices.

If you cannot view the video you can read the instructions by clicking here. [UAS 5 Help](#)

*Instructions*

At the end of the survey the computer will randomly select one of the 25 problems for

payment and you will be paid according to the choice you made in the selected problem.

Suppose that the computer selects problem 12 for payment. Let's say that in problem 12 you chose to receive \$20 if the coin came up heads and \$40 if it came up tails.

The computer will then randomly select "heads" or "tails." If problem 12 and heads are selected, you will be paid \$20 dollars. If problem 12 and tails are selected, you will be paid \$40 dollars.

Your earnings will be added to your card at the end of the quarter.

#### **PracticeText** (Section Decision)

We will now ask you to make 25 decisions similar to the one you just practiced. Think carefully about each one of these decisions because any one of them may be the one selected for payment.

Notice that there is no wrong or right choice. You should decide how much you want to receive if the coin comes up heads and how much you want to receive if the coin comes up tails. The chances of the coin coming up heads or tails are the same.

Please note that it may take some time for the next screen to load. Please just wait until the first decision screen appears and refrain from refreshing the browser window.

```
counter := 1
```

```
/* The snippet below draws the graph and its initial point in a randomized fashion for a decision if for some reason the preloaded conditions could not be found. In this regard the variables relate to the following:
```

```
LineX: end point of the line on the x-axis
```

```
LineY: end point of the line on the y-axis
```

```
StartingPointX: x-coordinate of the starting point
```

```
StartingPointY: x-coordinate of the starting point */
```

```
IF StartingPointX(1) = EMPTY THEN
```

```
  LOOP FROM 1 TO INTRODUCTION
```

```
    IF randNum = 1 THEN
```

```
      LineX(counter) := mt_rand ( 5 , 50 )
```

```
      IF LineX(counter) < 25 THEN
```

```
        LineY(counter) := mt_rand(25,50)
```

```

ELSE
  LineY(counter) := mt_rand(5,50)
END OF IF
ELSE
  LineY(counter) := mt_rand ( 5 , 50 )
  IF LineY(counter) < 25 THEN
    LineX(counter) := mt_rand(25,50)
  ELSE
    LineX(counter) := mt_rand(5,50)
  END OF IF
END OF IF

StartingPointX(counter) := mt_rand(LineX(counter) - 3 , LineX(counter) + 3)
DX := (LineX(counter) + 3) - (LineX(counter) - 3)
DY := (LineY(counter) - 3) - (LineY(counter) + 3)
StartingPointY(counter) := (LineY(counter) + 3 ) + DY * (StartingPointX(counter) -
LineX(counter) - 3) / DX

END OF LOOP
END OF IF

LOOP FROM 1 TO INTRODUCTION

GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

qdecision (decision moduleq in section Decision)

SelectedPointX (Section Decision)

SelectedPointY (Section Decision)

END OF GROUP

```

END OF LOOP

End of section **Decision**

Start of section **Payment**

*/\* The snippet below randomly selects one of the 25 decisions the respondent made (problemSelected). It also calculates the payout if heads (ChooseHeads) or tails (ChooseTails) comes up in the virtual coin toss. A coin is then 'tossed' (coinToss). \*/*

**IF** problemSelected = EMPTY **THEN**

**|** problemSelected := mt\_rand(1,25)

**END OF IF**

**ChooseHeads** := round(SelectedPointY(problemSelected), 2)

**ChooseTails** := round(SelectedPointX(problemSelected), 2)

**IF** coinToss = EMPTY **THEN**

**|** coinToss := mt\_rand(1,2)

**END OF IF**

Fill code of question CoinVal executed

Fill code of question FLCoinOutput executed

Fill code of question FLCoinToss executed

**IF** FinalPayment = EMPTY **THEN**

**IF** coinToss = 1 **THEN**

        FinalPayment := ChooseHeads

**ELSE**

        FinalPayment := ChooseTails

**END OF IF**

**END OF IF**

**PT001** (Payment info in section Payment)

Thank you for participating in the experiment.

We will now randomly select a choice for payment.

Problem (()) was randomly selected for payment.

In that problem, you chose to receive \$(()) if the coin comes up heads and \$(()) if it comes up tails.

We will now toss a coin.

**PT002** (coin toss in section Payment)

The coin came up (heads/tails). \$(ChooseHeads will be added to your debit card at the end of quarter. /ChooseTails will be added to your debit card at the end of quarter. /)

End of section **Payment**

Start of section **FinalDecision**

**PreFinal** (Section FinalDecision)

The next decision-problem is meant to test how well the participants in this experiment are able to implement their desired choices using the mouse.

By completing this question, you will help us to better understand the way respondents interact with the computer interface.

Your choice in this question will NOT reduce the payment amount shown in the previous screen.

Rather, you will receive an additional \$1 in compensation if you get within \$0.50 of the allocation we will indicate.

/\* The snippet below sets the conditions for a final graph presented to the respondent to verify the reliability of previous choices in relation to the mechanism used for selecting a point on the line in each graph. In this regard the variables relate to the following:

FinalLineX: end point of the line on the x-axis

FinalLineY: end point of the line on the y-axis

FinalStartingPointX: x-coordinate of the starting point

FinalStartingPointY: x-coordinate of the starting point \*/

FinalStartingPointX(1):=25

FinalStartingPointY(1):=25

FinalLineX(1):=50

FinalLineY(1):=50

**GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN**

**qdecision.final** (decision moduleq in section Decision)

**FinalSelectedPointX** (Section Decision)



| **FinalSelectedPointY** (Section Decision)

END OF GROUP

IF FinalSelectedPointY(1) > 31.49 AND FinalSelectedPointY(1) < 32.51 THEN

| FinalPayment := FinalPayment + 1.00

END OF IF

End of section **FinalDecision**

Start of section **ExitQuestions**

**ira\_keog** (has IRA or KEOGH in section ExitQuestions)

Do you currently have any money or assets that are held in an Individual Retirement Account, that is, in an IRA or KEOGH account?

- 1 Yes
- 2 Previously had accounts, not now
- 3 No
- 4 Don't know

IF **ira\_keog** = 1 THEN

| **invested\_stocks** (invested in stocks or mutual funds in section ExitQuestions)

Is any of that (IRA/KEOGH) invested in stocks or mutual funds?

- 1 Yes
- 2 No
- 3 Don't know

END OF IF

**have\_stock\_mutual** (Section ExitQuestions)

Aside from anything you have already told me about, do you have any shares of stock or stock mutual funds?

- 1 Yes
- 2 No
- 3 Don't know

End of section **ExitQuestions**

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 interview?

- 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 interview? Please type these in the box below.(If you have no comments, please click next to complete this survey.)

STRING

/\* 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. \*/

**IF Paid = EMPTY THEN**

    dummy := payUp()  
    Paid := 1

**END OF IF**

End of section **Closing**