

UnderStandingAmericaStudy

UAS 49: FINANCIAL DECISION MAKING



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1 INTRODUCTION

This UAS panel survey, titled "UAS 49: Financial Decision Making" survey builds upon prior work developed through the Social Security Administrator's Financial Literacy Center. The survey asks respondents to make decisions as if they were giving someone financial advice, and concludes with an insurance game developed by Anya Samek. This survey was funded as part of the Roybal Center for Health Decision Making and Financial Independence in Old Age, ultimately exploring the question of whether or not people understand annuities. This survey is no longer in the field. Respondents were paid \$10 to complete the survey.

1.1 Topics

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

1.2 Experiments

This survey includes experiment(s) of the following type(s): Auxiliary Randomization, Vignettes With Randomly Determined Individual Characteristics. 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

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:

All active respondents except Spanish speakers.

As such, this survey was made available to 5523 UAS participants. Of those 5523 participants, 4530 completed the survey and are counted as respondents. Of those who are not counted as respondents, 63 started the survey without completing and 930 did not start the survey. The overall response rate was 82.02%.

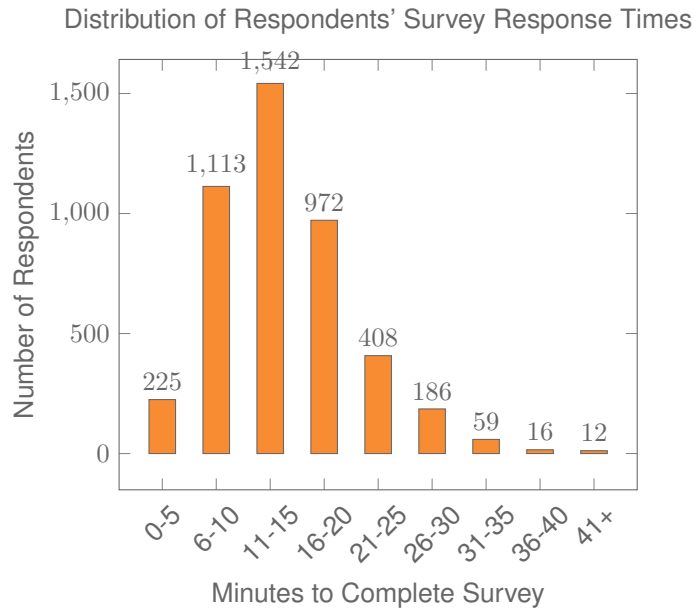
Note: We are unable to provide sample weights for a small number of UAS members (see the Sample weighting section below for details). If they completed the survey, these members are included in the data set with a weight of zero, but accounted for in the computation of total sample size and survey response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

The detailed survey response rate is as follows:

UAS49 - Response Overview	
Size of selected sample	5523
Completed the survey	4530
Started but did not complete the survey	63
Did not start the survey	930
Response rate	82.02%

2.2 Timings

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.



2.3 Sample & Weighting

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.

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:

- **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 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.

- **sampletype**: 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 'sampletype' takes on three values reflecting three distinct recruitment categories (in future data sets the number of categories may increase due to the incorporation of new recruitment categories):
 1. Nationally Representative Sample
 2. Native Americans: recruited through ABS, where the probability of drawing a zip-code is a function of the percentage of Native Americans in the zip-code. Primary respondents in these zip-codes who are not Native Americans are not invited to join the UAS.
 3. LA County: recruited through ABS drawing from zip-codes in Los Angeles County.
- **batch**: indicates the batch from which the respondent was recruited. There are currently the following values this variable takes (in future data sets the number of categories may increase due to the usage of new recruitment samples):
 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

- **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 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.
- **hisplativo**: 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 hisplativo, 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.
- **hhmembervnumber**: 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 'hhmembervnumber' 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.

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 in the survey due to a survey 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 can be found in the UAS Data Guide available 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

intro1 (intro in section Base)

In the following survey we want you to play the role of financial advisor. We will show you some examples of persons who have to make a decision about money and we will ask you to help them make the decision.

Start of section **Randomization**

/ In this survey several randomizations are performed. The values for the randomizers involved are set below. Explanations for them can be found in the sections in which they are used. */*

```
IF randomizer_name = EMPTY THEN
| randomizer_name := mt_rand(1,4)
| Fill code of question randomizer_ed_name executed
END OF IF
```

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

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

```
IF randomizer_advice_intro = EMPTY THEN
| randomizer_advice_intro := mt_rand(1,3)
END OF IF
```

```
IF randomizer_advice_lsstartvalue = EMPTY THEN
| randomizer_advice_lsstartvalue := mt_rand(1,3)
END OF IF
```

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

```
IF randomizer_advice_answer_order = EMPTY THEN
| randomizer_advice_answer_order := mt_rand(1,2)
```

END OF IF

IF randomizer_advice_ssb = EMPTY THEN

| randomizer_advice_ssb := mt_rand(1,4)

END OF IF

IF randomizer_framing_order = EMPTY THEN

| randomizer_framing_order := mt_rand(1,2)

END OF IF

IF randomizer_insurance_order = EMPTY THEN

| randomizer_insurance_order := mt_rand(1,2)

END OF IF

IF randomizer_insurance_group = EMPTY THEN

| randomizer_insurance_group := mt_rand(1,4)

END OF IF

IF randomizer_insurance_ambiguity = EMPTY THEN

| randomizer_insurance_ambiguity := mt_rand(1,2)

END OF IF

IF (randomizer_advice_answer_order = 1) THEN

| randomizer_advice_answer_order_internal(1) := 1

| randomizer_advice_answer_order_internal(2) := 2

ELSE

| randomizer_advice_answer_order_internal(1) := 2

| randomizer_advice_answer_order_internal(2) := 1

END OF IF

Fill code of question FLName executed

Fill code of question FLSheHe executed

Fill code of question FLSheHeCaps executed

Fill code of question FLHisHer executed

Fill code of question FLHisHerCaps executed

Fill code of question FLManWoman executed

Fill code of question FLSSB executed

FLSSBExtra := FLSSB + 100

FLSSBMinus := FLSSB - 100

End of section **Randomization**

Start of section **Educationsection**

/*

- o **randomizer_education**: Indicates whether the respondent received the Education section (randomizer_education = 1) or not (randomizer_education = 2).
- o **randomizer_ed_name**: Determines the name used in the hypothetical questions in the Education section: 1 Mr. Jones, 2 Mrs. Jones, 3 Mr. Smith, 4 Mrs. Smith.
- o **randomizer_education_block**: Determines the explanatory text used in the section introduction (ed_intro):
 - Value of 1: His/Her advisor explains that s/he could decide to spend down his/her savings relatively quickly. In this case, s/he will be more likely to be able to enjoy his/her money during his/her lifetime. But s/he also runs a risk of running out of money while alive and having to cut back on his/her spending as a result.
 - Value of 2: His/Her advisor explains that s/he could decide to spend down his/her savings relatively slowly. In this case, s/he will be less likely to run out of money. But now s/he runs a risk of not getting to enjoy all his/her money during his/her lifetime.

*/

IF randomizer_education = 1 THEN

```
Fill code of question FLEdName executed
Fill code of question FLEdSheHe executed
Fill code of question FLEdSheHeCaps executed
Fill code of question FLEdHisHer executed
Fill code of question FLEdHisHerCaps executed
Fill code of question FLEdManWoman executed
Fill code of question FLBlock executed
ed_reward := 0
```

ed_intro (Section Educationsection)

First, we will show you a story about (Mr. Jones/Mrs. Jones/Mr. Smith/Mrs. Smith). Please pay close attention to the story, because at the end we will ask you two questions about the story. You will receive an additional \$1 for each question you answer correctly.

(Mr. Jones/Mrs. Jones/Mr. Smith/Mrs. Smith) is a single, 65-year old (man/woman) with no children, and (he/she) is as healthy as the typical 65-year old (man/woman). (He/She) just retired and receives (his/her) monthly Social Security check. (He/She) is talking with (his/her) financial adviser on how to spend (his/her) substantial savings in retirement.

^FLEdHisHerCaps advisor explains that ^FLEdSheHe could decide to spend down ^FLEdHisHer savings relatively quickly. In this case, ^FLEdSheHe will be more likely to be able to enjoy ^FLEdHisHer money during ^FLEdHisHer lifetime. But ^FLEdSheHe also runs a risk of running out of money while alive and having to cut back on ^FLEdHisHer spending as a result.

^FLEdHisHerCaps advisor explains that ^FLEdSheHe could also decide to spend down ^FLEdHisHer savings relatively slowly. In this case, ^FLEdSheHe will be less likely to run out of money. But now ^FLEdSheHe runs a risk of not getting to enjoy all ^FLEdHisHer money during ^FLEdHisHer lifetime.^FLEdHisHerCaps advisor explains that ^FLEdSheHe could decide to spend down ^FLEdHisHer savings relatively slowly. In this case, ^FLEdSheHe will be less likely to run out of money. But now ^FLEdSheHe runs a risk of not getting to enjoy all ^FLEdHisHer money during ^FLEdHisHer lifetime.

^FLEdHisHerCaps advisor explains that ^FLEdSheHe could also decide to spend down ^FLEdHisHer savings relatively quickly. In this case, ^FLEdSheHe will be more likely to be able to enjoy ^FLEdHisHer money during ^FLEdHisHer lifetime. But ^FLEdSheHe also runs a risk of running out of money while alive and having to cut back on ^FLEdHisHer spending as a result.)

Figure 1: Example of possible introduction to Education section

First, we will show you a story about Mr. Jones. Please pay close attention to the story, because at the end we will ask you two questions about the story. You will receive an additional \$1 for each question you answer correctly.

Mr. Jones is a single, 65-year old man with no children, and he is as healthy as the typical 65-year old man. He just retired and receives his monthly Social Security check. He is talking with his financial adviser on how to spend his substantial savings in retirement.

His advisor explains that he could decide to spend down his savings relatively quickly. In this case, he will be more likely to be able to enjoy his money during his lifetime. But he also runs a risk of running out of money while alive and having to cut back on his spending as a result.

His advisor explains that he could also decide to spend down his savings relatively slowly. In this case, he will be less likely to run out of money. But now he runs a risk of not getting to enjoy all his money during his lifetime.

GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

ed.001 (spending savings more quickly in section Educationsection)

Remember, you will earn an extra \$1 for each question you answer correctly on this page.

The financial advisor tells (Mr. Jones/Mrs. Jones/Mr. Smith/Mrs. Smith) that spending down (his/her) savings more quickly:

- 1 Increases the risk that (he/she) does not get to enjoy all of (his/her) money during (his/her) lifetime.
- 2 Decreases the risk that (he/she) runs out of money during (his/her) lifetime.
- 3 Increases the risk that (he/she) runs out of money during (his/her) lifetime.
- 4 None of the above.

ed_002 (spending savings more slowly in section Educationsection)

The financial advisor tells (Mr. Jones/Mrs. Jones/Mr. Smith/Mrs. Smith) that spending down (his/her) savings more slowly:

- 1 Increases the risk that (he/she) runs out of money during (his/her) lifetime.
- 2 Decreases the risk that (he/she) does not get to enjoy all of (his/her) money during (his/her) lifetime.
- 3 Increases the risk that (he/she) does not get to enjoy all of (his/her) money during (his/her) lifetime.
- 4 None of the above.

END OF GROUP

IF ed_001 = 3 THEN

| ed_reward := ed_reward + 1

END OF IF

IF ed_002 = 3 THEN

| ed_reward := ed_reward + 1

END OF IF

ed_003 (how quickly should spend savings in section Educationsection)

Now we are going to switch to a different type of question. Instead of asking you about facts, we are going to ask your advice about what decisions (Mr. Jones/Mrs. Jones/Mr. Smith/Mrs. Smith) should make. Unlike the previous questions, there is no right or wrong answer; we just want to know what you think.

Recall (Mr. Jones/Mrs. Jones/Mr. Smith/Mrs. Smith), the retired, single, 65-year old (man/woman) with no children. (He/She) is as healthy as the typical 65-year old (man/woman).

How quickly should (he/she) spend (his/her) savings?

- 1 Spend (his/her) savings by age 70. (He/She) can spend a large amount each year, but (he/she) will have to cut back if (he/she) lives beyond 70. If (he/she) dies before 70, (he/she) will not have enjoyed all of (his/her) savings.
- 2 Spend (his/her) savings by age 80. (He/She) can spend a moderate amount each year, but (he/she) will have to cut back if (he/she) lives beyond 80. If (he/she) dies before 80, (he/she) will not have enjoyed all of (his/her) savings.
- 3 Spend (his/her) savings by age 90. (He/She) can spend a modest amount each year,

but (he/she) will have to cut back if (he/she) lives beyond 90. If (he/she) dies before 90, (he/she) will not have enjoyed all of (his/her) savings.

4 Spend (his/her) savings by age 100. (He/She) can spend a small amount each year, and (he/she) will have to cut back if (he/she) lives beyond 100. If (he/she) dies before 100, (he/she) will not have enjoyed all of (his/her) savings.

END OF IF

End of section **Educationsection**

Start of section **Advice**

/*

- **randomizer_name**: Determines the name used in the hypothetical questions in the Advice section: 1 Mr. Jones, 2 Mrs. Jones, 3 Mr. Smith, 4 Mrs. Smith. It takes the value opposite of that of randomizer_ed_name with regard to name and gender. For example, if randomizer_ed_name equals 1, then randomizer_name will equal 4.
- **randomizer_advice_intro**: Determines which introduction was presented to the respondent.
 - Value of 1: FLName is a single, 60-year old man/woman with no children. S/he will retire and claim his/her Social Security benefits at 65. When s/he retires, s/he will have \$100,000 saved for his/her retirement, and s/he will receive \$FLSSB in monthly Social Security benefits. Based on his/her current health and family history, doctors have told FLName that s/he will almost certainly be alive at age 75 but almost certainly will not live beyond age 85.
 - Value of 2: FLName is a single, 60-year old man/woman with no children. S/he will retire and claim his/her Social Security benefits at 65. When s/he retires, s/he expects to have \$100,000 saved for his/her retirement, and expects to receive \$FLSSB in monthly Social Security benefits. Based on his/her current health and family history, doctors have told FLName that/she has an 80% chance of being alive at age 70, a 50% chance of being alive at age 80, a 20% chance of being alive at age 90, and a 10% chance of being alive at age 95.
 - Value of 3: FLName is a single, 60-year old man/woman with no children. Social Security rules state that you need at least 40 credits, or 10 years of work, to qualify for Social Security – and FLName qualifies since s/he has worked for 30 years. Since FLName was born in 1956, his/her full retirement age is 66 years and 4 months, but s/he is eligible to start claiming starting at 62. S/he will retire and claim his/her Social Security benefits at 65. When s/he retires, s/he will have \$100,000 saved for his/her retirement, and s/he will receive \$FLSSB in monthly Social Security benefits. Based on his/her current health and family history, doctors have told FLName that s/he will almost certainly be alive at age 75 but almost certainly will not live beyond age 85.

- **randomizer_advice_ssb:** Determines the height of the monthly security benefits presented in the Advice section introduction (1=800, 2=1200, 3=1600, 4=2000). It also forms the basis for the monthly benefits presented in the AD_001 series (where the monthly benefit amount is the randomized amount plus 100 in the option of just a monthly benefit) and in the AD_002 series (where the monthly benefit amount is the randomized amount minus 100 in the option of just a monthly benefit). The amount set by randomizer_advice_ssb is also used in the other option from which the respondent can choose, which is a monthly benefit as set by randomizer_advice_ssb and a receipt/payment of an one time sum at age 65.
- **randomizer_advice_order:** Determines the order in which the hypothetical choices between a monthly benefit OR a monthly benefit plus one time payment at age 65 are presented. With a value of 1 the respondent is asked to first choose several times between receiving a monthly benefit as set by (randomizer_advice_ssb + 100) or receiving a monthly benefit as set by randomizer_advice_ssb and receive a one-time payment (where the height of the one-time payment varies on the choices the respondent makes). Next, the respondent is asked to choose several times between receiving a monthly benefit as set by (randomizer_advice_ssb - 100) or receiving a monthly benefit as set by randomizer_advice_ssb and make a one-time payment (where the height of the one-time payment varies on the choices the respondent makes). If the randomizer value is 2, the order is reversed.
- **randomizer_advice_answer_order:** Determines the order in which the options of each choice are presented. If the value is 1, then option 1 is the monthly benefit and option 2 the monthly benefit and one-time payment. If the randomizer value is 2, the order is reversed.
- **randomizer_advice_lsstartvalue:** Determines the start value for the one-time payments offered in the hypothetical choices presented to the respondent (1= LS Low: \$10000, 2=2 LS Medium: \$20000, 3=3 LS High: \$30000). Note that all one-time payments offered are captured in separate variables. For the AD_001 series (receive one-time payments) they are captured in variables of the form FLSellPayment. For the AD_002 series (make one-time payments) they are captured in variables of the form FLBuyPayment.

*/

Fill code of question FLAdviceIntro executed

ad_intro (Section Advice)

In the next few questions, we are going to ask you to give some advice to (Mr. Jones/Mrs. Jones/Mr. Smith/Mrs. Smith) for when (he/she) retires. You will be happy to know that whatever advice you give (Mr. Jones/Mrs. Jones/Mr. Smith/Mrs. Smith), (he/she) will not owe any taxes on the amounts shown and (his/her) benefits will keep up with inflation. There is no right or wrong answer; we just want to know what you think.

(^FLName is a single, 60-year old ^FLManWoman with no children. ^FLSheHeCaps

will retire and claim ^FLHisHer Social Security benefits at 65. When ^FLSheHe retires, ^FLSheHe will have \$100,000 saved for ^FLHisHer retirement, and ^FLSheHe will receive \$^FLSSB in monthly Social Security benefits. Based on ^FLHisHer current health and family history, doctors have told ^FLName that ^FLSheHe will almost certainly be alive at age 75 but almost certainly will not live beyond age 85.^FLName is a single, 60-year old ^FLManWoman with no children. ^FLSheHeCaps will retire and claim ^FLHisHer Social Security benefits at 65. When ^FLSheHe retires, ^FLSheHe expects to have \$100,000 saved for ^FLHisHer retirement, and expects to receive \$^FLSSB in monthly Social Security benefits. Based on ^FLHisHer current health and family history, doctors have told ^FLName that ^FLSheHe has an 80% chance of being alive at age 70, a 50% chance of being alive at age 80, a 20% chance of being alive at age 90, and a 10% chance of being alive at age 95.^FLName is a single, 60-year old ^FLManWoman with no children. Social Security rules state that you need at least 40 credits, or 10 years of work, to qualify for Social Security - and ^FLName qualifies since ^FLSheHe has worked for 30 years. Since ^FLName was born in 1956, ^FLHisHer full retirement age is 66 years and 4 months, but ^FLSheHe is eligible to start claiming starting at 62. ^FLSheHeCaps will retire and claim ^FLHisHer Social Security benefits at 65. When ^FLSheHe retires, ^FLSheHe will have \$100,000 saved for ^FLHisHer retirement, and ^FLSheHe will receive \$^FLSSB in monthly Social Security benefits. Based on ^FLHisHer current health and family history, doctors have told ^FLName that ^FLSheHe will almost certainly be alive at age 75 but almost certainly will not live beyond age 85.)

Figure 2: Example of possible introduction to Advice section

In the next few questions, we are going to ask you to give some advice to Mr. Smith for when he retires. You will be happy to know that whatever advice you give Mr. Smith, he will not owe any taxes on the amounts shown and his benefits will keep up with inflation. There is no right or wrong answer; we just want to know what you think.

Mr. Smith is a single, 60-year old man with no children. He will retire and claim his Social Security benefits at 65. When he retires, he will have \$100,000 saved for his retirement, and he will receive \$2000 in monthly Social Security benefits. Based on his current health and family history, doctors have told Mr. Smith that he will almost certainly be alive at age 75 but almost certainly will not live beyond age 85.

Fill code of question FLBuyBold executed
 Fill code of question FLSellBold executed

IF randomizer_advice_order = 1 THEN

Start of section **Sell**

sellrow(1) := 1

LOOP FROM 1 TO 5

Fill code of question FLAD001 executed

IF sellcnt = 1 THEN

```

FLSellPayment(sellcnt) := getPayment(randomizer_advice_lsstartvalue, sell-
row(sellcnt), sellcnt)

ELSE

IF AD_001(sellcnt-1) = 1 THEN

sellrow(sellcnt) := sellrow(sellcnt-1) + pow(2,4-sellcnt+1)
FLSellPayment(sellcnt) := getPayment(randomizer_advice_lsstartvalue, sell-
row(sellcnt), sellcnt)

ELSE

sellrow(sellcnt) := sellrow(sellcnt-1)
FLSellPayment(sellcnt) := getPayment(randomizer_advice_lsstartvalue, sell-
row(sellcnt), sellcnt)

END OF IF

END OF IF

```

ad_001 (sell choice in section Advice)

(Suppose that the Social Security Administration is considering a new policy that gives people more choice in how they want to receive their benefits. As part of this policy, ^FLName is asked to make a choice between two money amounts.

What should ^FLName do?/Now consider a different way of giving people more choice in how they want to receive their benefits. As part of this policy, ^FLName is asked to make a choice between two money amounts./Now we ask you the same question but with a different amount for the one-time payment.

What should ^FLName do?)

- 1 Receive a Social Security benefit of \$(()) per month starting at age 65.
- 2 Receive (his/her) expected Social Security benefit of \$(800/1200/1600/2000) per month and (**receive**/receive) a one-time payment of \$(payment amount sell(sellcnt)) from Social Security at age 65.

Figure 3: Example of receive one-time payment scenario

Now consider a different way of giving people more choice in how they want to receive their benefits. As part of this policy, Mr. Smith is asked to make a choice between two money amounts.

- Receive a Social Security benefit of \$2100 per month starting at age 65.
- Receive his expected Social Security benefit of \$2000 per month and **receive** a one-time payment of \$20,000 from Social Security at age 65.

IF AD_001(sellcnt) = EMPTY THEN

|

END OF IF

END OF LOOP

End of section **Sell**

ad.intro2 (Section Advice)

Remember, (^FLName is a single, 60-year old ^FLManWoman with no children. ^FLSheHeCaps will retire and claim ^FLHisHer Social Security benefits at 65. When ^FLSheHe retires, ^FLSheHe will have \$100,000 saved for ^FLHisHer retirement, and ^FLSheHe will receive \$^FLSSB in monthly Social Security benefits. Based on ^FLHisHer current health and family history, doctors have told ^FLName that ^FLSheHe will almost certainly be alive at age 75 but almost certainly will not live beyond age 85./^FLName is a single, 60-year old ^FLManWoman with no children. ^FLSheHeCaps will retire and claim ^FLHisHer Social Security benefits at 65. When ^FLSheHe retires, ^FLSheHe expects to have \$100,000 saved for ^FLHisHer retirement, and expects to receive \$^FLSSB in monthly Social Security benefits. Based on ^FLHisHer current health and family history, doctors have told ^FLName that ^FLSheHe has an 80% chance of being alive at age 70, a 50% chance of being alive at age 80, a 20% chance of being alive at age 90, and a 10% chance of being alive at age 95./^FLName is a single, 60-year old ^FLManWoman with no children. Social Security rules state that you need at least 40 credits, or 10 years of work, to qualify for Social Security - and ^FLName qualifies since ^FLSheHe has worked for 30 years. Since ^FLName was born in 1956, ^FLHisHer full retirement age is 66 years and 4 months, but ^FLSheHe is eligible to start claiming starting at 62. ^FLSheHeCaps will retire and claim ^FLHisHer Social Security benefits at 65. When ^FLSheHe retires, ^FLSheHe will have \$100,000 saved for ^FLHisHer retirement, and ^FLSheHe will receive \$^FLSSB in monthly Social Security benefits. Based on ^FLHisHer current health and family history, doctors have told ^FLName that ^FLSheHe will almost certainly be alive at age 75 but almost certainly will not live beyond age 85.)

Figure 4: Example of reminder of background for the Advice section

Remember, Mr. Smith is a single, 60-year old man with no children. He will retire and claim his Social Security benefits at 65. When he retires, he will have \$100,000 saved for his retirement, and he will receive \$2000 in monthly Social Security benefits. Based on his current health and family history, doctors have told Mr. Smith that he will almost certainly be alive at age 75 but almost certainly will not live beyond age 85.

Start of section **Buy**

buyrow(1) := 1

LOOP FROM 1 TO 5

Fill code of question FLAD002 executed

IF buycnt = 1 THEN

```
FLMakePayment(buycnt) := getPayment(randomizer_advice_Isstartvalue, buy-  
row(buycnt), buycnt)
```

ELSE

IF AD_002(buycnt-1) = 2 THEN

```
buyrow(buycnt) := buyrow(buycnt-1) + pow(2,4-buycnt+1)  
FLMakePayment(buycnt) := getPayment(randomizer_advice_Isstartvalue, buy-  
row(buycnt), buycnt)
```

ELSE

```
buyrow(buycnt) := buyrow(buycnt-1)  
FLMakePayment(buycnt) := getPayment(randomizer_advice_Isstartvalue, buy-  
row(buycnt), buycnt)
```

END OF IF

END OF IF

ad_002 (buy choice in section Advice)

(Suppose that the Social Security Administration is considering a new policy that gives people more choice in how they want to receive their benefits. As part of this policy, ^FLName is asked to make a choice between two money amounts.

What should ^FLName do?/Now consider a different way of giving people more choice in how they want to receive their benefits. As part of this policy, ^FLName is asked to make a choice between two money amounts./Now we ask you the same question but with a different amount for the one-time payment.

What should ^FLName do?)

- 1 Receive a Social Security benefit of \$(()) per month starting at age 65.
- 2 Receive (his/her) expected Social Security benefit of \$(800/1200/1600/2000) per month and make a one-time (**payment**/payment) of \$(make payment amount(buycnt)) to Social Security at age 65.

Figure 5: Example of receive one-time payment scenario

Suppose that the Social Security Administration is considering a new policy that gives people more choice in how they want to receive their benefits. As part of this policy, Mr. Smith is asked to make a choice between two money amounts.

What should Mr. Smith do?

- Receive a Social Security benefit of \$1900 per month starting at age 65.
- Receive his expected Social Security benefit of \$2000 per month and make a one-time payment of \$20,000 to Social Security at age 65.

IF AD_002(buycnt) = EMPTY THEN

|

END OF IF

END OF LOOP

End of section **Buy**

ELSE

Start of section **Buy**

buyrow(1) := 1

LOOP FROM 1 TO 5

Fill code of question FLAD002 executed

IF buycnt = 1 THEN

| FLMakePayment(buycnt) := getPayment(randomizer_advice_Isstartvalue, buy-
| row(buycnt), buycnt)

ELSE

| IF AD_002(buycnt-1) = 2 THEN

| buyrow(buycnt) := buyrow(buycnt-1) + pow(2,4-buycnt+1)
| FLMakePayment(buycnt) := getPayment(randomizer_advice_Isstartvalue, buy-
| row(buycnt), buycnt)

| ELSE

| buyrow(buycnt) := buyrow(buycnt-1)
| FLMakePayment(buycnt) := getPayment(randomizer_advice_Isstartvalue, buy-
| row(buycnt), buycnt)

| END OF IF

END OF IF

ad_002 (buy choice in section Advice)

(Suppose that the Social Security Administration is considering a new policy that gives people more choice in how they want to receive their benefits. As part of this policy, ^FLName is asked to make a choice between two money amounts.

What should ^FLName do?/Now consider a different way of giving people more choice in how they want to receive their benefits. As part of this policy, ^FLName is asked to make a choice between two money amounts./Now we ask you the same question but with a different amount for the one-time payment.

What should ^FLName do?)

1 Receive a Social Security benefit of \$(()) per month starting at age 65.

2 Receive (his/her) expected Social Security benefit of \$(800/1200/1600/2000) per month and make a one-time (**payment**/payment) of \$(make payment amount(buycnt)) to Social Security at age 65.

IF AD_002(buycnt) = EMPTY THEN

|

END OF IF

END OF LOOP

End of section **Buy**

ad_intro2 (Section Advice)

Remember, (^FLName is a single, 60-year old ^FLManWoman with no children. ^FLSheHeCaps will retire and claim ^FLHisHer Social Security benefits at 65. When ^FLSheHe retires, ^FLSheHe will have \$100,000 saved for ^FLHisHer retirement, and ^FLSheHe will receive \$^FLSSB in monthly Social Security benefits. Based on ^FLHisHer current health and family history, doctors have told ^FLName that ^FLSheHe will almost certainly be alive at age 75 but almost certainly will not live beyond age 85./^FLName is a single, 60-year old ^FLManWoman with no children. ^FLSheHeCaps will retire and claim ^FLHisHer Social Security benefits at 65. When ^FLSheHe retires, ^FLSheHe expects to have \$100,000 saved for ^FLHisHer retirement, and expects to receive \$^FLSSB in monthly Social Security benefits. Based on ^FLHisHer current health and family history, doctors have told ^FLName that ^FLSheHe has an 80% chance of being alive at age 70, a 50% chance of being alive at age 80, a 20% chance of being alive at age 90, and a 10% chance of being alive at age 95./^FLName is a single, 60-year old ^FLManWoman with no children. Social Security rules state that you need at least 40 credits, or 10

years of work, to qualify for Social Security - and ^FLName qualifies since ^FLSheHe has worked for 30 years. Since ^FLName was born in 1956, ^FLHisHer full retirement age is 66 years and 4 months, but ^FLSheHe is eligible to start claiming starting at 62. ^FLSheHeCaps will retire and claim ^FLHisHer Social Security benefits at 65. When ^FLSheHe retires, ^FLSheHe will have \$100,000 saved for ^FLHisHer retirement, and ^FLSheHe will receive \$^FLSSB in monthly Social Security benefits. Based on ^FLHisHer current health and family history, doctors have told ^FLName that ^FLSheHe will almost certainly be alive at age 75 but almost certainly will not live beyond age 85.)

Start of section **Sell**

```
sellrow(1) := 1
```

LOOP FROM 1 TO 5

Fill code of question FLAD001 executed

IF sellcnt = 1 THEN

```
FLSellPayment(sellcnt) := getPayment(randomizer_advice.lsstartvalue, sell-  
row(sellcnt), sellcnt)
```

ELSE

IF AD_001(sellcnt-1) = 1 THEN

```
sellrow(sellcnt) := sellrow(sellcnt-1) + pow(2,4-sellcnt+1)  
FLSellPayment(sellcnt) := getPayment(randomizer_advice.lsstartvalue, sell-  
row(sellcnt), sellcnt)
```

ELSE

```
sellrow(sellcnt) := sellrow(sellcnt-1)  
FLSellPayment(sellcnt) := getPayment(randomizer_advice.lsstartvalue, sell-  
row(sellcnt), sellcnt)
```

END OF IF

END OF IF

ad_001 (sell choice in section Advice)

(Suppose that the Social Security Administration is considering a new policy that gives people more choice in how they want to receive their benefits. As part of this policy, ^FLName is asked to make a choice between two money amounts.

What should ^FLName do?/Now consider a different way of giving people more choice in how they want to receive their benefits. As part of this policy, ^FLName is asked to make a choice between two money amounts./Now we ask you the same question but with a different amount for the one-time payment.

What should ^FLName do?)

- 1 Receive a Social Security benefit of \$(()) per month starting at age 65.
- 2 Receive (his/her) expected Social Security benefit of \$(800/1200/1600/2000) per month and (**receive**/receive) a one-time payment of \$(payment amount sell(sellcnt)) from Social Security at age 65.

IF AD_001(sellcnt) = EMPTY THEN

|

END OF IF

END OF LOOP

End of section **Sell**

END OF IF

End of section **Advice**

Start of section **Framing**

/*

- o **randomizer_framing_order**: Determines the order in which the Framing section questions are asked. A value of 1 indicates an order of fr_001 and then fr_002. A value of 2 indicates the reverse order.

*/

IF randomizer_framing_order = 1 THEN

fr_001 (people saved version in section Framing)

Imagine that the United States is preparing for the outbreak of an epidemic expected to kill 600 people. Two alternative programs to combat the disease have been proposed. Scientists estimate that the outcome of each program is as follows:

If Program A is adopted, 300 people will be saved.If Program B is adopted, there is a 50-50 chance that either 600 people will be saved or none will be saved.

Which program would you favor: Program A or Program B?

- 1 Program A
- 2 Program B

fr_002 (people died version in section Framing)

Imagine that the United States is preparing for the outbreak of an epidemic expected to kill 600 people. Two alternative programs to combat the disease have been proposed. Scientists estimate that the outcome of each program is as follows:

If Program A is adopted, 300 people will die. If Program B is adopted, there is a 50-50 chance that either none will die or 600 people will die.

Which program would you favor: Program A or Program B?

1 Program A

2 Program B

ELSE

fr_002 (people died version in section Framing)

Imagine that the United States is preparing for the outbreak of an epidemic expected to kill 600 people. Two alternative programs to combat the disease have been proposed. Scientists estimate that the outcome of each program is as follows:

If Program A is adopted, 300 people will die. If Program B is adopted, there is a 50-50 chance that either none will die or 600 people will die.

Which program would you favor: Program A or Program B?

1 Program A

2 Program B

fr_001 (people saved version in section Framing)

Imagine that the United States is preparing for the outbreak of an epidemic expected to kill 600 people. Two alternative programs to combat the disease have been proposed. Scientists estimate that the outcome of each program is as follows:

If Program A is adopted, 300 people will be saved. If Program B is adopted, there is a 50-50 chance that either 600 people will be saved or none will be saved.

Which program would you favor: Program A or Program B?

1 Program A

2 Program B

END OF IF

End of section **Framing**

Start of section **Insurance**

/*

- o **randomizer_insurance_order**: In the Insurance section respondents are presented with several hypothetical insurance scenarios. For each scenarios the respondent indicates whether they want to take out insurance or not on a machine. At the end of the section one scenario is chosen at random and the respondent can win up to \$5 in addition to a base \$5 depending on whether the machine got damaged and/or the

respondent took out insurance. The presentation of risk in each scenario varies. If randomizer_insurance_order equals 1, first five scenarios with a fixed risk percentage are presented and next five scenarios with a ranged risk percentage.

- o **randomizer_insurance_group**: The risk percentages presented to the respondent are determined by randomizer randomizer_insurance_group (listed from first to fifth scenario):
 - 1 = Group 1: Known: 5, 10, 20, 50, 80, Ranged: 3-7, 1-19, 13-27, 46-54, 68-92
 - 2 = Group 2: Known: 5, 10, 20, 40, 70, Ranged: 1-9, 3-17, 18-22, 28-52, 61-79
 - 3 = Group 3: Known: 2, 10, 20, 40, 90, Ranged: 1-3, 6-14, 8-32, 38-42, 83-97
 - 4 = Group 4: Known: 2, 10, 20, 30, 60, Ranged: 0-4, 8-12, 16-24, 21-39, 48-72

Note that the risk percentage presented for each scenario is captured in the FLIN001 variables for the Known percentage scenarios (whose answers can be found in the IN001 variables) and in the FLIN002 variables for the ranged percentage scenarios (whose answers can be found in the IN002 variables).

- o **randomizer_insurance_ambiguity**: In the scenarios with ranged risk a sentence on the likelihood of the risk being at the lower or higher end of the range is included. The exact text is dependent on the value of randomizer_insurance_ambiguity:
 - Value of 1: The exact rate of damage within this range is unknown.
 - Value of 2: All damage rates in this range are equally likely.

*/

GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

in_intro (Section Insurance)

You can earn up to \$10 for the next part. The amount you earn depends on the decisions you make, so you should read carefully!

We will ask you to make decisions about insurance in a few different scenarios. This time, at the end of the survey, one of the scenarios will be selected by the computer as the "scenario that counts." The money you earn in the "scenario that counts" will be added to your usual UAS payment. Since you won't know which scenario is the "scenario that counts" until the end, you should make decisions in each scenario **as if** it might be the one that counts.

We will use virtual dollars for this part. At the end of the survey, virtual dollars will be converted to real money at the rate of 20 virtual dollars = \$1. This means that 200 virtual dollars equals \$10.00.

in_intro2 (Section Insurance)

Each scenario You have 100 virtual dollars You are the owner of a machine worth 100 virtual dollars. Your machine has some chance of being damaged, and some chance of

remaining undamaged, and the chance is described in each decision. You can purchase insurance for your machine. You can use up to 100 virtual dollars you start with to purchase the insurance. If you purchase insurance, a damaged machine will always be replaced by an undamaged machine. At the end, in the scenario-that-counts, **you will get 100 virtual dollars for an undamaged machine. You will not get anything for a damaged machine.**

in_intro3 (Section Insurance)

Paying for insurance You will move a slider to **indicate how much you are willing to pay for insurance, before learning the actual price of insurance.** To determine the actual price of insurance in the "scenario that counts", the computer will draw a price between 0 and 100 virtual dollars, where any price between 0 and 100 virtual dollars is equally likely.

If the amount you are willing to pay is *equal to or higher* than the actual price, then:

You pay for the insurance at the actual price, **whether or not your machine gets damaged**

If damage occurs, your machine is replaced at no additional cost. If there is no damage, your machine remains undamaged. You get 100 virtual dollars for your machine. That means you would earn 100 virtual dollars (what you start with) PLUS 100 virtual dollars (amount you get for machine) MINUS the price of insurance.

If the amount you are willing to pay for insurance is *less* than the actual price, then:

You do not pay for the insurance

If damage occurs, your machine is damaged and you do not get any money for your machine. That means you would earn 100 (what you start with) but you would not earn anything for your machine. If there is no damage, your machine remains undamaged and you get 100 virtual dollars. That means you would earn 100 virtual dollars (what you start with) PLUS 100 virtual dollars (amount you get for the machine).

This means that the higher your willingness to pay, the more likely it is that you will buy insurance.

Figure 6: Explanation for Insurance section

You can earn up to \$10 for the next part. The amount you earn depends on the decisions you make, so you should read carefully!

We will ask you to make decisions about insurance in a few different scenarios. This time, at the end of the survey, one of the scenarios will be selected by the computer as the "scenario that counts." The money you earn in the "scenario that counts" will be added to your usual UAS payment. Since you won't know which scenario is the "scenario that counts" until the end, you should make decisions in each scenario as if it might be the one that counts.

We will use virtual dollars for this part. At the end of the survey, virtual dollars will be converted to real money at the rate of 20 virtual dollars = \$1. This means that 200 virtual dollars equals \$10.00.

Each scenario

- You have 100 virtual dollars
- You are the owner of a machine worth 100 virtual dollars.
- Your machine has some chance of being damaged, and some chance of remaining undamaged, and the chance is described in each decision.
- You can purchase insurance for your machine. You can use up to 100 virtual dollars you start with to purchase the insurance. If you purchase insurance, a damaged machine will always be replaced by an undamaged machine.
- At the end, in the scenario-that-counts, you will get 100 virtual dollars for an undamaged machine. You will not get anything for a damaged machine.

Paying for insurance

You will move a slider to indicate how much you are willing to pay for insurance, before learning the actual price of insurance. To determine the actual price of insurance in the "scenario that counts", the computer will draw a price between 0 and 100 virtual dollars, where any price between 0 and 100 virtual dollars is equally likely.

If the amount you are willing to pay is equal to or higher than the actual price, then:

- You pay for the insurance at the actual price, whether or not your machine gets damaged
 - If damage occurs, your machine is replaced at no additional cost.
 - If there is no damage, your machine remains undamaged.
 - You get 100 virtual dollars for your machine.
 - That means you would earn 100 virtual dollars (what you start with) PLUS 100 virtual dollars (amount you get for machine) MINUS the price of insurance.

If the amount you are willing to pay for insurance is less than the actual price, then:

- You do not pay for the insurance
 - If damage occurs, your machine is damaged and you do not get any money for your machine. That means you would earn 100 (what you start with) but you would not earn anything for your machine.
 - If there is no damage, your machine remains undamaged and you get 100 virtual dollars. That means you would earn 100 virtual dollars (what you start with) PLUS 100 virtual dollars (amount you get for the machine).

This means that the higher your willingness to pay, the more likely it is that you will buy insurance.

END OF GROUP

Fill code of question FLRange executed

IF randomizer_insurance_order = 1 THEN

LOOP FROM 1 TO 5

FLIN001(cnt) := getInsuranceRisk(1, randomizer_insurance_group, cnt)

GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

in.001 (known risk amount willing to pay insurance in section Insurance)

Remember: You can earn up to \$10 for this part. The amount you earn depends on the decisions you make, so you should read carefully!

KNOWN DAMAGE RATE: The chance of your machine being damaged is ((cnt)).

Please move the slider to indicate the maximum amount you are willing to pay for insurance.

Remember, if the amount you are willing to pay is higher than the actual price, then you will pay for insurance at the actual price, whether or not your machine is damaged. Should there be damage, your machine will be replaced and will pay out 100 virtual dollars. If the amount you are willing to pay is less than the actual price, then you will not pay for insurance, but if damage occurs, your machine will not be replaced and will not pay out any money.

RANGE 0..100

in_note (Section Insurance)

If you do not select any price or select a price of 0, we assume you are unwilling to pay for insurance.

Figure 7: Example of insurance scenario with known risk

Remember: You can earn up to \$10 for this part. The amount you earn depends on the decisions you make, so you should read carefully!

KNOWN DAMAGE RATE: The chance of your machine being damaged is 2%.

Please move the slider to indicate the maximum amount you are willing to pay for insurance.

Remember, if the amount you are willing to pay is higher than the actual price, then you will pay for insurance at the actual price, whether or not your machine is damaged. Should there be damage, your machine will be replaced and will pay out 100 virtual dollars. If the amount you are willing to pay is less than the actual price, then you will not pay for insurance, but if damage occurs, your machine will not be replaced and will not pay out any money.



END OF GROUP

IF in_001(cnt) > 0 THEN

in001_confirmation (Section Insurance)

You have indicated you are willing to pay **up to (known risk amount willing to pay insurance(cnt)) virtual dollars** for insurance. If this is correct, please just click 'Next'

| to continue. Otherwise, please go 'Back' and adjust your answer.

ELSE

| **in001_confirmation_empty** (Section Insurance)

| You have indicated you are not willing to pay for insurance. If this is correct, please just click 'Next' to continue. Otherwise, please go 'Back' and adjust your answer.

END OF IF

END OF LOOP

LOOP FROM 1 TO 5

| FLIN002(cnt) := getInsuranceRisk(2, randomizer_insurance_group, cnt)

GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

| **in.002** (ranged risk amount willing to pay insurance in section Insurance)

Remember: You can earn up to \$10 for this part. The amount you earn depends on the decisions you make, so you should read carefully!**UNCERTAIN DAMAGE RATE: The chance of your machine being damaged is ((cnt)). (The exact rate of damage within this range is unknown./All damage rates in this range are equally likely.)**

Please move the slider to indicate the maximum amount you are willing to pay for insurance.

Remember, if the amount you are willing to pay is higher than the actual price, then you will pay for insurance at the actual price, whether or not your machine is damaged. Should there be damage, your machine will be replaced and will pay out 100 virtual dollars. If the amount you are willing to pay is less than the actual price, then you will not pay for insurance, but if damage occurs, your machine will not be replaced and will not pay out any money.

RANGE 0..100

| **in.note** (Section Insurance)

| If you do not select any price or select a price of 0, we assume you are unwilling to pay for insurance.

Figure 8: Example of insurance scenario with ranged risk

Remember: You can earn up to \$10 for this part. The amount you earn depends on the decisions you make, so you should read carefully!

UNCERTAIN DAMAGE RATE: The chance of your machine being damaged is **between 1% and 3%**. The exact rate of damage within this range is unknown.

Please move the slider to indicate the maximum amount you are willing to pay for insurance.

Remember, if the amount you are willing to pay is higher than the actual price, then you will pay for insurance at the actual price, whether or not your machine is damaged. Should there be damage, your machine will be replaced and will pay out 100 virtual dollars. If the amount you are willing to pay is less than the actual price, then you will not pay for insurance, but if damage occurs, your machine will not be replaced and will not pay out any money.



END OF GROUP

IF in_002(cnt) > 0 THEN

in002_confirmation (Section Insurance)

You have indicated you are willing to pay **up to (ranged risk amount willing to pay insurance(cnt)) virtual dollars** for insurance. If this is correct, please just click 'Next' to continue. Otherwise, please go 'Back' and adjust your answer.

ELSE

in002_confirmation_empty (Section Insurance)

You have indicated you are not willing to pay for insurance. If this is correct, please just click 'Next' to continue. Otherwise, please go 'Back' and adjust your answer.

END OF IF

END OF LOOP

ELSE

LOOP FROM 1 TO 5

FLIN002(cnt) := getInsuranceRisk(2, randomizer.insurance_group, cnt)

GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

in_002 (ranged risk amount willing to pay insurance in section Insurance)

Remember: You can earn up to \$10 for this part. The amount you earn depends on the decisions you make, so you should read carefully!**UNCERTAIN DAMAGE RATE: The chance of your machine being damaged is ((cnt)). (The exact rate of damage within this range is unknown./All damage rates in this range are equally likely.)**

Please move the slider to indicate the maximum amount you are willing to pay for insurance.

Remember, if the amount you are willing to pay is higher than the actual price, then you will pay for insurance at the actual price, whether or not your machine is damaged. Should there be damage, your machine will be replaced and will pay out 100 virtual dollars. If the amount you are willing to pay is less than the actual price, then you will not pay for insurance, but if damage occurs, your machine will not be replaced and will not pay out any money.

RANGE 0..100

in_note (Section Insurance)

If you do not select any price or select a price of 0, we assume you are unwilling to pay for insurance.

END OF GROUP

IF in_002(cnt) > 0 THEN

in002_confirmation (Section Insurance)

You have indicated you are willing to pay **up to (ranged risk amount willing to pay insurance(cnt)) virtual dollars** for insurance. If this is correct, please just click 'Next' to continue. Otherwise, please go 'Back' and adjust your answer.

ELSE

in002_confirmation_empty (Section Insurance)

You have indicated you are not willing to pay for insurance. If this is correct, please just click 'Next' to continue. Otherwise, please go 'Back' and adjust your answer.

END OF IF

END OF LOOP

LOOP FROM 1 TO 5

FLIN001(cnt) := getInsuranceRisk(1, randomizer.insurance_group, cnt)

GROUP OF QUESTIONS PRESENTED ON THE SAME SCREEN

in_001 (known risk amount willing to pay insurance in section Insurance)

Remember: You can earn up to \$10 for this part. The amount you earn depends on the decisions you make, so you should read carefully!

KNOWN DAMAGE RATE: The chance of your machine being damaged is ((cnt)).

Please move the slider to indicate the maximum amount you are willing to pay for insurance.

Remember, if the amount you are willing to pay is higher than the actual price, then you will pay for insurance at the actual price, whether or not your machine is damaged. Should there be damage, your machine will be replaced and will pay out 100 virtual dollars. If the amount you are willing to pay is less than the actual price, then you will not pay for insurance, but if damage occurs, your machine will not be replaced and will not pay out any money.

RANGE 0..100

in_note (Section Insurance)

If you do not select any price or select a price of 0, we assume you are unwilling to pay for insurance.

END OF GROUP

IF in_001(cnt) > 0 THEN

in001_confirmation (Section Insurance)

You have indicated you are willing to pay **up to (known risk amount willing to pay insurance(cnt)) virtual dollars** for insurance. If this is correct, please just click 'Next' to continue. Otherwise, please go 'Back' and adjust your answer.

ELSE

in001_confirmation_empty (Section Insurance)

You have indicated you are not willing to pay for insurance. If this is correct, please just click 'Next' to continue. Otherwise, please go 'Back' and adjust your answer.

END OF IF

END OF LOOP

END OF IF

Fill code of question FLX executed

Fill code of question FLY executed

/* A question of comprehension is asked after the hypothetical scenarios. The range presented in the question is dependent on the value of randomizer_insurance_group. The exact minimum and maximum of the range shown to the respondent are captured in **FLX**

and **FLY** respectively. They are:

- 1 = Group 1: 3-7
- 2 = Group 2: 3-17
- 3 = Group 3: 8-32
- 4 = Group 4: 21-39

*/

in_003 (confirmation question in section Insurance)

Before we finish, we'd like you to answer a final question. You will receive \$1 for a correct answer.

Suppose a machine has a chance of being damaged between (3/3/8/21)% and (7/17/32/39)%. All damage rates in this range are equally likely. What is the average rate of damage for this machine?

RANGE 0..100

/* One scenario is randomly selected below and it is assessed whether the respondent won any money. The procedure is as follows:

- Select a scenario
- Select the point of failure (between 0 and 100)
- Select the price of insurance
- Determine if the respondent bought insurance by comparing the maximum price the respondent was willing to pay for insurance with the selected price.
- Determine whether the machine failed by comparing the selected point of failure with the risk of failure. For example, if the selected point was 45 in the selected scenario and the risk was known to be 50%, then the machine failed.
- Determine if and if yes, how much the respondent won. If the machine failed and no insurance was bought, nothing is won. If the machine did not fail and no insurance was bought, then \$5 was won. If the machine failed and insurance was bought, \$5 minus the cost of insurance was won. If the machine did not fail and insurance was bought, \$5 minus the cost of insurance was won.

*/

```
in_check_reward := getIN003Reward(randomizer_insurance_group, in_003)
```

```
in_reward := 0
```

```
in_scenario_reward := 0
```

```
IF in_scenario = EMPTY THEN
```

```

in_scenario := mt_rand(1,10)
in_failurepoint := mt_rand(0,100)
in_price := mt_rand(0, 100)
in_scenario_dummy := in_scenario

IF randomizer_insurance_order = 2 AND in_scenario > 5 THEN
| in_scenario_dummy := in_scenario - 5
ELSEIF randomizer_insurance_order = 2 AND in_scenario < 6 THEN
| in_scenario_dummy := in_scenario + 5
END OF IF

IF in_scenario < 6 THEN
| in_maximum := in_001(in_scenario)

| IF in_maximum = EMPTY THEN
| | in_maximum := 0
| END OF IF

in_probability := FLIN001(in_scenario)

| IF in_001(in_scenario) = EMPTY OR (in_001(in_scenario) = RESPONSE AND
in_001(in_scenario) < in_price) THEN
| | in_bought := 2
| ELSE
| | in_bought := 1
| END OF IF

| in_failed := getFailed(1, randomizer_insurance_group, in_scenario, in_failurepoint)
ELSE
| in_maximum := in_002(in_scenario-5)

| IF in_maximum = EMPTY THEN
| | in_maximum := 0
| END OF IF

in_probability := FLIN002(in_scenario-5)

| IF in_002(in_scenario-5) = EMPTY OR (in_002(in_scenario-5) = RESPONSE AND
in_002(in_scenario-5) < in_price) THEN
| | in_bought := 2
| ELSE
| | in_bought := 1

```



```

| END OF IF
| in_failed := getFailed(2, randomizer.insurance_group, in_scenario, in_failurepoint)
| END OF IF

| IF in_failed = 1 AND in_bought = 2 THEN
| in_scenario_reward_virtual := 0
| ELSEIF in_failed = 1 AND in_bought = 1 THEN
| in_scenario_reward_virtual := 100 - in_price
| ELSEIF in_failed = 2 AND in_bought = 2 THEN
| in_scenario_reward_virtual := 100
| ELSEIF in_failed = 2 AND in_bought = 1 THEN
| in_scenario_reward_virtual := 100 - in_price
| END OF IF

| in_scenario_reward := number_format((100 + in_scenario_reward_virtual)/20, 2)
| in_reward := number_format(in_check_reward + in_scenario_reward, 2)
| in_scenario_reward_virtual_total := in_scenario_reward_virtual + 100
| END OF IF

```

```

reward := number_format(ed_reward + in_reward, 2)
Fill code of question FLBought executed
Fill code of question FLDamage executed
Fill code of question FLPaid executed
Fill code of question FLEdReward executed

```

in_confirmation (Section Insurance)

Thank you for participating!

The computer selected scenario (()) to be the "scenario that counts".

The computer selected the price of (indicates price of insurance()) virtual dollars for the insurance. Since the maximum you were willing to pay for insurance was (maximum willing to pay for selected insurance scenario()) virtual dollars, you (bought/did not buy) insurance a the price of (indicates price of insurance()) virtual dollars.

The likelihood of damage for scenario (()) was (insurance scenario probability of failure()). Your machine (was/was not) damaged and you got (100 virtual dollars/nothing) for your machine.

Based on the scenario the computer selected, your earnings for this part are (total virtual reward earned for selected insurance scenario (includes 100 base amount))

virtual dollars.

Converted to real money, your earnings are \$(reward earned for selected insurance scenario()).

You also earned \$(reward earned for insurance questions()) in the previous question.

(You also won \$^ed_reward for your answers to our quiz questions making for a total of \$^reward./You did not win any reward for your answers to our quiz questions making for a total of \$^reward./This makes for a total of \$^reward.) This will be added to your usual UAS payment.

Figure 9: Example of final result of how much the respondent won during the survey

Thank you for participating!

The computer selected scenario 4 to be the "scenario that counts".

The computer selected the price of 22 virtual dollars for the insurance. Since the maximum you were willing to pay for insurance was 86 virtual dollars, you bought insurance a the price of 22 virtual dollars.

The likelihood of damage for scenario 4 was between 38% and 42%. Your machine was not damaged and you got 100 virtual dollars for your machine.

Based on the scenario the computer selected, your earnings for this part are 178 virtual dollars.

Converted to real money, your earnings are \$8.90.

You also earned \$1 in the previous question.

You also won \$2 for your answers to our quiz questions making for a total of \$11.90. This will be added to your usual UAS payment.

Next >>

End of section **Insurance**

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

```
IF reward > 0 AND reward < 14 THEN
| dummy := doPayout(reward)
ELSEIF reward > 13 THEN
| dummy := sendEmailNotPaid(reward)
END OF IF
```

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. */*