Online Appendix for:

Behavioral Impediments to Valuing Annuities: Complexity and Choice Bracketing

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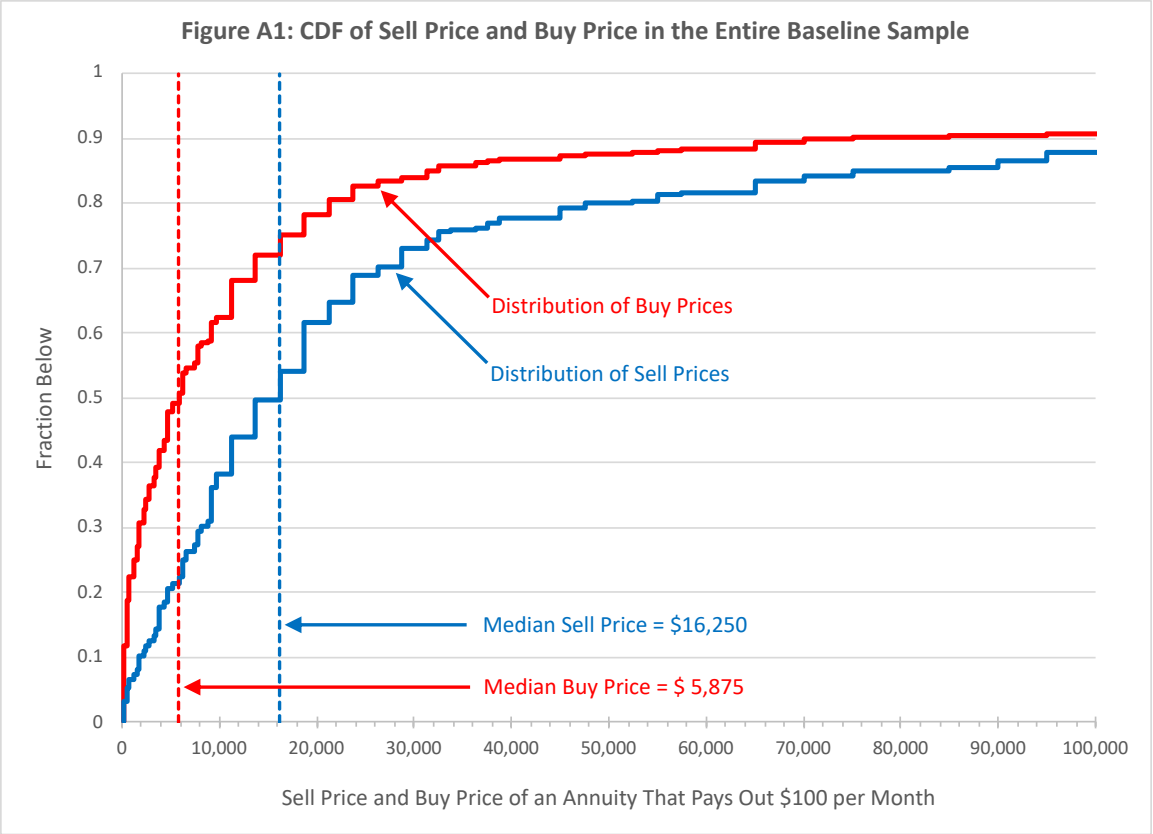
Figure A1: CDF of Sell Price and Buy Price in the Entire Baseline Sample
Fraction Below
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0
10,000
20,000
30,000
40,000
50,000
60,000
70,000
80,000
90,000
100,000
Distribution of Buy Prices
Distribution of Sell Prices
Median Sell Price = $16,250
Median Buy Price = $ 5,875
Sell Price and Buy Price of an Annuity That Pays Out $100 per Month

Table A1: Balance Tests

Variable	No Complexity	Complexity	p-value on test of equal means	No Consequence Message	Consequence Message	p-value on test of equal means
Panel A: Excluded from Baseline Sample due to:						
Missing annuity valuation data	0.008	0.011	0.322	0.011	0.009	0.491
Missing demographic data	0.003	0.007	0.099	0.006	0.005	0.507
Missing cognition data	0.090	0.115	0.008	0.109	0.104	0.627
Panel B: Balance on Control Variables in the Baseline Sample						
Age	48.43	48.51	0.876	48.50	48.46	0.925
Age^2	25.96	25.85	0.831	25.88	25.90	0.965
Female	0.58	0.57	0.592	0.58	0.57	0.663
Married	0.57	0.61	0.028	0.59	0.60	0.636
Nonhispanic white	0.76	0.75	0.507	0.76	0.75	0.626
Nonhispanic black	0.07	0.09	0.132	0.08	0.08	0.722
Nonhispanic other	0.08	0.08	0.627	0.07	0.08	0.349
Hispanic	0.09	0.09	0.960	0.08	0.09	0.843
High School Dropout	0.05	0.05	0.805	0.05	0.05	0.697
High School Education	0.19	0.20	0.381	0.20	0.19	0.651
Some College	0.41	0.38	0.087	0.38	0.40	0.219
Bachelor's Degree	0.21	0.22	0.151	0.22	0.22	0.998
Graduate Degree	0.15	0.15	0.917	0.16	0.14	0.151
Household Income: Less than 25k	0.17	0.17	0.944	0.16	0.17	0.114
Household Income: 25k-50k	0.18	0.18	0.945	0.18	0.17	0.428
Household Income: 50k-75k	0.15	0.17	0.060	0.17	0.16	0.915
Household Income: 75k-100k	0.14	0.12	0.145	0.13	0.13	0.383
Household Income: Above 100k	0.37	0.36	0.695	0.37	0.36	0.263
Household size of one	0.22	0.19	0.114	0.20	0.20	0.818
Household size of two	0.38	0.40	0.249	0.38	0.39	0.498
Household size of three	0.18	0.17	0.730	0.18	0.16	0.074
Household size of four or more	0.23	0.24	0.616	0.23	0.24	0.301
Any Kids	0.32	0.33	0.711	0.33	0.33	0.764
Cognition index	-0.04	0.02	0.072	-0.01	0.01	0.704
P-value of joint test of equality of control variables		0.107			0.788	

Notes: Each cell contains the mean of the variable listed in the row header for observations subject to the experimental condition listed in the column header. The baseline sample consists of observations with nonmissing annuity valuation data, nonmissing demographic data, and nonmissing cognition data. The first panel (N=4,596) examines balance on inclusion into the baseline sample. The second panel (N=4,060) examines balance of control variables included into the baseline regression specifications.

Table A2: Full Set of Coefficient Estimates from Table 4

Dependent Variable: Sell-Buy Spread	(1)		(2)		(3)	
Explanatory variables:	Sell-Buy Spread		Sell price (log)		Buy price (log)	
Complexity treatment	0.131**	(0.065)	0.050	(0.057)	-0.137**	(0.068)
Consequence message treatment	-0.141**	(0.062)	0.011	(0.055)	0.133**	(0.065)
Cognition index	-0.788***	(0.043)	-0.188***	(0.038)	0.098**	(0.046)
Sell question first	0.166***	(0.062)	-0.043	(0.055)	0.777***	(0.065)
Lump-sum medium: 20k	0.063	(0.076)	0.239***	(0.067)	0.236***	(0.079)
Lump-sum high: 30k	-0.002	(0.075)	0.484***	(0.068)	0.476***	(0.079)
Lump-sum shown first	0.029	(0.062)	-0.044	(0.055)	-0.065	(0.065)
Social security benefit 1200	0.113	(0.087)	0.010	(0.075)	-0.458***	(0.093)
Social security benefit 1600	0.057	(0.084)	-0.006	(0.074)	-0.393***	(0.091)
Social security benefit 2000	0.167*	(0.087)	-0.118	(0.080)	-0.353***	(0.093)
Vignette name: Mr. Jones	0.114	(0.086)	-0.028	(0.076)	-0.098	(0.089)
Vignette name: Mr. Smith	0.088	(0.088)	-0.097	(0.076)	0.114	(0.091)
Vignette name: Mrs. Smith	-0.011	(0.085)	-0.081	(0.076)	0.146	(0.089)
Age	0.025*	(0.013)	0.001	(0.011)	-0.035***	(0.013)
Age^2	-0.015	(0.013)	0.006	(0.010)	0.023*	(0.013)
Female	0.085	(0.066)	-0.075	(0.058)	-0.160**	(0.069)
Married	0.097	(0.076)	-0.007	(0.069)	-0.104	(0.081)
Nonhispanic black	0.028	(0.142)	-0.087	(0.134)	-0.116	(0.148)
Nonhispanic other	0.048	(0.122)	-0.056	(0.107)	-0.087	(0.128)
Hispanic	0.081	(0.125)	-0.094	(0.122)	-0.097	(0.133)
High School Dropout	-0.057	(0.178)	0.138	(0.161)	0.136	(0.182)
High School Education	0.033	(0.093)	0.104	(0.085)	0.048	(0.099)
Bachelor's Degree	0.008	(0.084)	0.019	(0.073)	0.100	(0.086)
Graduate Degree	0.076	(0.095)	0.224***	(0.077)	0.233**	(0.100)
Household Income: 25k-50k	0.102	(0.117)	0.046	(0.108)	-0.136	(0.123)
Household Income: 50k-75k	-0.166	(0.116)	-0.070	(0.107)	-0.037	(0.121)
Household Income: 75k-100k	-0.055	(0.130)	-0.104	(0.119)	-0.010	(0.132)
Household Income: Above 100k	-0.257**	(0.110)	-0.098	(0.100)	-0.041	(0.111)
Household size of two	-0.025	(0.095)	0.042	(0.084)	-0.007	(0.100)
Household size of three	0.147	(0.131)	0.252**	(0.113)	-0.025	(0.134)
Household size of four or more	0.182	(0.145)	0.178	(0.135)	-0.207	(0.151)
Any Kids	-0.177*	(0.106)	-0.239**	(0.101)	0.117	(0.114)
R^2	0.1568		0.035		0.0672	
N	4,060		4,060		4,060	

Notes: The regressions in Table A2 are identical to the regressions reported in Table 4, but here we also report the coefficients on all the secondary experimental manipulations as well as the coefficients on the demographic control variables. Robust standard errors are in parentheses. * significant at 10%, ** significant at 5%, *** significant at 1%.

Table A3: Complexity Treatment Split out by Type of Complexity Treatment

Dependent Variable: Sell-Buy Spread	(1)		(2)		(3)	
Explanatory variables:	Sell-Buy Spread		Sell price (log)		Buy price (log)	
Complexity treatment: Wide Age Range	0.149*	(0.076)	0.066	(0.068)	-0.117	(0.079)
Complexity treatment: Added Information	0.114	(0.075)	0.034	(0.066)	-0.156**	(0.079)
Consequence message treatment	-0.140**	(0.062)	0.011	(0.055)	0.134**	(0.065)
Cognition index	-0.788***	(0.043)	-0.188***	(0.038)	0.098**	(0.046)
Sell question first	0.165***	(0.062)	-0.043	(0.054)	0.777***	(0.065)
P-value on lump-sum starting values	0.624		0.000		0.000	
P-value on lump-sum shown first	0.623		0.434		0.323	
P-value on SS benefit amounts	0.248		0.368		0.000	
P-value on vignette names	0.374		0.566		0.032	
Demographic controls	Yes		Yes		Yes	
P-value that coefficients on both complexity treatments are equal	0.646		0.638		0.626	
R^2	0.157		0.035		0.067	
N	4,060		4,060		4,060	

Notes: This table is identical to Table 4, except that the two complexity treatments are estimated separately (rather than pooled). Robust standard errors are in parentheses. * significant at 10%, ** significant at 5%, *** significant at 1%.

Survey Instrument

Notes on the Survey Instrument

- Everyone sees both EV-Sell and EV-Buy questions in the same survey
- Randomizations are all orthogonal and across subjects. All options within each randomization are selected with equal probability.
    - The main manipulations consist of a 3x2 design: three vignettes that vary the complexity, and whether or not the consequence message (see Table 2) is shown.
    - The secondary manipulations consist of a 4x3x4x2x2 design that is orthogonal to the main manipulations.
        - There are four different versions for name and gender of the vignette person to be advised on annuity decisions. This name and gender is randomized to one of the following: Mr. Jones, Mrs. Jones, Mr. Smith, or Mrs. Smith. The person featured in the consequence message has the opposite name and gender from the vignette person in the annuity valuation questions.
        - The starting value for lump-sum amounts is randomized at $10,000, $20,000, or $30,000. For any given respondent, the same starting value is used for the EV-Sell and EV-Buy questions.
        - The baseline monthly Social Security Benefit, $*SSB*, is randomized to $800, $1200, $1600, or $2000.
        - Whether the choice option with the lump-sum amount ($*LS*) is shown first or second is randomized. For each respondent, this is randomized once and the same order is used for EV-Buy and EV-Sell.
        - Whether EV-Buy is asked before or after EV-Sell is randomized.
        - For the consequence message, it is randomized whether the paragraph on the benefits and drawbacks of spending down retirement wealth quickly is shown before or after the paragraph on the benefits and drawbacks of spending down retirement slowly.
- Text in Arial are instructions to the programmers while text in Times New Roman is shown to respondents. Text in *italicized Arial* denote variables and the respondents see the value contained by that variable.
- Text between square brackets is replaced based on the randomization.
- Page breaks are shown by horizontal lines.

Survey Instrument Text and Instructions for Understanding America Study #49

Invitation to the survey. When panelists logged on to their UAS account, they saw the following message. If they clicked on the link in this message, they entered into UAS49.

This survey asks you to make decisions as if you were giving someone financial advice. You will then play an insurance game. You will earn $10 for completion, and have a chance to win more.

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.

Consequence message treatment: Advisor explanations. Only people in the consequence message treatment get this screen and the following two screens. Respondents are randomized to see one of four vignette person names: Mr. Jones, Mrs. Jones, Mr. Smith, or Mrs. Smith. The pronouns [he/she] and [his/her] should match the gender of the consequence-message vignette person. Similarly, the word [man/women] should match the gender of the vignette person.

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.

Randomize whether either block 1 or block 2 is shown.

Block 1:

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

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

Block 2:

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

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

Consequence message treatment: Test questions 1 and 2.

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:

- ○ Increases the risk that [he/she] does not get to enjoy all of [his/her] money during [his/her] lifetime.
- ○ Decreases the risk that [he/she] runs out of money during [his/her] lifetime.
- ○ Increases the risk that [he/she] runs out of money during [his/her] lifetime.
- ○ None of the above.

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

- ○ Increases the risk that [he/she] runs out of money during [his/her] lifetime.
- ○ Decreases the risk that [he/she] does not get to enjoy all of [his/her] money during [his/her] lifetime.
- ○ Increases the risk that [he/she] does not get to enjoy all of [his/her] money during [his/her] lifetime.
- ○ None of the above.

If a question is not answered, prompt once to answer the question, but move to next screen if respondent still leaves the question blank.

Consequence message treatment: Question to induce respondent to think about how to draw down savings during retirement

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?

- ○ 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.
- ○ 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.
- ○ 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.
- ○ 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.

This is the end of the screens shown for the consequence message.

Complexity Treatment. Respondents are randomized to one of the three vignettes shown below: Vignette 1 (corresponding to treatment "No added complexity"), Vignette 2 (corresponding to treatment "Complexity: Wide age range") or Vignette 3 (corresponding to treatment "Complexity: Added information"). The name in the complexity vignette below is different than the name shown in the consequence-message vignette above. Similarly, the gender of the person in the complexity vignette is different from the gender of the person in the consequence-message vignette. The scalar variable *SSB* is randomized to 800, 1200, 1600, or 2000.

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

Vignette 1 ("No added complexity"):
[Mrs. Smith/Mr. Smith/Mrs. Jones/Ms. Jones] is a single, 60-year old [woman/man] with no children. [She/He] will retire and claim [her/his] Social Security benefits at 65. When [she/he] retires, [she/he] will have $100,000 saved for [her/his] retirement, and [she/he] will receive $[*SSB*] in monthly Social Security benefits. Based on [her/his] current health and family history, doctors have told Mr. Smith that [she/he] will almost certainly be alive at age 75 but almost certainly will not live beyond age 85.

Vignette 2 ("Complexity: Wide age range"):
[Mrs. Smith/Mr. Smith/Mrs. Jones/Ms. Jones] is a single, 60-year old [woman/man] with no children. [She/He] will retire and claim [her/his] Social Security benefits at 65. When [she/he] retires, [she/he] expects to have $100,000 saved for [her/his] retirement, and expects to receive $[*SSB*] in monthly Social Security benefits. Based on [her/his] current health and family history, doctors have told Mrs. Jones that [she/he] 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.

Vignette 3 ("Complexity: Added information"):
[Mrs. Smith/Mr. Smith/Mrs. Jones/Ms. Jones] is a single, 60-year old [woman/man] 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 [Mrs. Smith/Mr. Smith/Mrs. Jones/Ms. Jones] qualifies since [she/he] has worked for 30 years. Since [Mrs. Smith/Mr. Smith/Mrs. Jones/Ms. Jones] was born in 1956, [her/his] full retirement age is 66 years and 4 months, but [she/he] is eligible to start claiming starting at 62. [She/He] will retire and claim [her/his] Social Security benefits at 65. When [she/he] retires, [she/he] will have $100,000 saved for [her/his] retirement, and [she/he] will receive $[*SSB*] in monthly Social Security benefits. Based on [her/his] current health and family history, doctors have told [Mrs. Smith/Mr. Smith/ Mrs. Jones/Ms. Jones] that [she/he] will almost certainly be alive at age 75 but almost certainly will not live beyond age 85.

Initializations for EV-Sell and EV-Buy. Whether the EV-Buy questions or the EV-Sell questions are shown first is randomized.
The scalar variable *LS_STARTVALUE* is randomized to 1, 2, or 3.
The values in the matrices *LS_LOW*, *LS_MED*, and *LS_HIGH* are listed at the very end of this document.
Initialization of the matrix *LS_AMT*:
If *LS_STARTVALUE* ==1

Set the 16x5 matrix *LS_AMT=LS_LOW*
Elseif *LS_STARTVALUE* ==3
Set the 16x5 matrix *LS_AMT=LS_HIGH*
Else
Set the 16x5 matrix *LS_AMT=LS_MED*
Endif

EV-Sell Questions
Set the scalar *j*=1
Set the scalar *ROW*=1
For *j*=1 to 5
This is the start of the loop for EV-Sell questions.
The text for each iteration of the loop is shown on a new screen.

If *j* = 1, Display:
If EV-Sell is asked before EV-Buy:
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, [Mrs. Smith/Mr. Smith/Mrs. Jones/Ms. Jones] is asked to make a choice between two money amounts.

What should [Mrs. Smith/Mr. Smith/Mrs. Jones/Ms. Jones] do?
Else
Now consider a different way of giving people more choice in how they want to receive their benefits. As part of this policy, [Mrs. Smith/Mr. Smith/Mrs. Jones/Ms. Jones] is asked to make a choice between two money amounts.
Endif
Else, Display:
Now we ask you the same question but with a different amount for the one-time payment.

What should [Mrs. Smith/Mr. Smith/Mrs. Jones/Ms. Jones] do?
Endif
The order of the two options shown is randomized once for each respondent. The order remains the same for the EV-Sell and EV-Buy questions shown to a given respondent. The third appearance of the word "receive" (i.e., when it appears after the underlined word "and") in the text below is shown in bold if and only if EV-Sell is asked after EV-Buy.

- Receive a Social Security benefit of $[*SSB*+100] per month starting at age 65.
- Receive [her/his] expected Social Security benefit of $[*SSB*] per month and receive a one-time payment of $[*LS_AMT*[*ROW,j*]] from Social Security at age 65.

If the respondent does not select any option, the respondent is prompted once to answer this question. If the respondent still doesn't give an answer, the variable *j* is set to 5, so that we get skipped out of this loop.

If Respondent selects the option that does **not** contain the one-time payment:

Set *ROW*=*ROW*+2^(4-*j*)]
Note: this will increase the size of one-time payment in the next iteration, so it makes the option that does not contain the one-time payment less attractive.

Endif

Set *j*=*j*+1

This is the end of the loop for the EV-Buy questions.

Vignette reminder. The complexity vignette is shown again, but now preceded by the word "Remember, ".

Vignette 1 ("No added complexity"):
Remember, [Mrs. Smith/Mr. Smith/Mrs. Jones/Ms. Jones] is a single, 60-year old [woman/man] with no children. [She/He] will retire and claim [her/his] Social Security benefits at 65. When [she/he] retires, [she/he] will have $100,000 saved for [her/his] retirement, and [she/he] will receive $[*SSB*] in monthly Social Security benefits. Based on [her/his] current health and family history, doctors have told Mr. Smith that [she/he] will almost certainly be alive at age 75 but almost certainly will not live beyond age 85.

Vignette 2 ("Complexity: Wide age range"):
Remember, [Mrs. Smith/Mr. Smith/Mrs. Jones/Ms. Jones] is a single, 60-year old [woman/man] with no children. [She/He] will retire and claim [her/his] Social Security benefits at 65. When [she/he] retires, [she/he] expects to have $100,000 saved for [her/his] retirement, and expects to receive $[*SSB*] in monthly Social Security benefits. Based on [her/his] current health and family history, doctors have told Mrs. Jones that [she/he] 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.

Vignette 3 ("Complexity: Added information"):
Remember, [Mrs. Smith/Mr. Smith/Mrs. Jones/Ms. Jones] is a single, 60-year old [woman/man] 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 [Mrs. Smith/Mr. Smith/Mrs. Jones/Ms. Jones] qualifies since [she/he] has worked for 30 years. Since [Mrs. Smith/Mr. Smith/Mrs. Jones/Ms. Jones] was born in 1956, [her/his] full retirement age is 66 years and 4 months, but [she/he] is eligible to start claiming starting at 62. [She/He] will retire and claim [her/his] Social Security benefits at 65. When [she/he] retires, [she/he] will have $100,000 saved for [her/his] retirement, and [she/he] will receive $[*SSB*] in monthly Social Security benefits. Based on [her/his] current health and family history, doctors have told [Mrs. Smith/Mr. Smith/ Mrs. Jones/Ms. Jones] that [she/he] will almost certainly be alive at age 75 but almost certainly will not live beyond age 85.

EV-Buy Questions

Set the scalar *j*=1

Set the scalar *ROW*=1

For *j*=1 to 5

This is the start of the loop for EV-Buy questions.

The text for each iteration of the loop is shown on a new screen.

If *j* = 1, Display:

If EV-Buy is asked before EV-Sell:

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, [Mrs. Smith/Mr. Smith/ Mrs. Jones/Ms. Jones] is asked to make a choice between two money amounts.

What should [Mrs. Smith/Mr. Smith/ Mrs. Jones/Ms. Jones] do?

Else

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

Endif

Else, Display:

Now we ask you the same question but with a different amount for the one-time payment.

What should [Mrs. Smith/Mr. Smith/ Mrs. Jones/Ms. Jones] do?

Endif

The order of the two options shown is randomized once for each respondent. The order remains the same for the EV-Sell and EV-Buy questions shown to a given respondent. The word "payment" in the text below is shown bold if and only if EV-Buy is asked after EV-Sell.

- Receive a Social Security benefit of $[*SSB*-100] per month starting at age 65.
- Receive [her/his] expected Social Security benefit of $[*SSB*] per month and make a one-time payment of $$[*LS_AMT[ROW,j]*] to Social Security at age 65.

If the respondent does not select any option, the respondent is prompted once to answer this question. If the respondent still doesn't give an answer, the variable *j* is set to 5 so that we get skipped out of this loop.

If Respondent selects the option that **does** contain the one-time payment:

Set *ROW*=*ROW*+2^(4-*j*)]

Note: this will increase the size of one-time payment in the next iteration, so it makes this option with the payment less attractive.

Endif

Set *j*=*j*+1

This is the end of the loop for the EV-Buy questions

End of survey instrument for experiment on annuity valuations. The remainder of UAS49 consisted of approximately 24 screens with information and questions about insurance decisions that were collected for a different project.

The Values of the Matrices for the Lump-Sum Amounts

The following tables show lump-sum amounts for three different starting values: low, medium and high, which are randomized as mentioned above.

10,000	**4,000**	**2,000**	**1,000**	**500**	**Row 1**
				1,500	**Row 2**
			3,000	**2,500**	**Row 3**
				3,500	**Row 4**
		7,000	**5,500**	**4,750**	**Row 5**
				6,250	**Row 6**
			8,500	**7,750**	**Row 7**
				9,250	**Row 8**
	30,000	**20,000**	**15,000**	**12,500**	**Row 9**
				17,500	**Row 10**
			25,000	**22,500**	**Row 11**
				27,500	**Row 12**
		60,000	**40,000**	**35,000**	**Row 13**
				50,000	**Row 14**
			100,000	**80,000**	**Row 15**
				200,000	**Row 16**
Col. 1	**Col. 2**	**Col. 3**	**Col. 4**	**Col. 5**	

We put the values of this in the 16x5 matrix *LS_LOW*. The i^{th} row and j^{th} column of this matrix is denoted by *LS_LOW*[*i,j*]

20,000	4,000	2,000	1,000	500	Row 1
				1,500	Row 2
			3,000	2,500	Row 3
				3,500	Row 4
		10,000	7,000	5,500	Row 5
				8,500	Row 6
			15,000	12,500	Row 7
				17,500	Row 8
	60,000	30,000	25,000	22,500	Row 9
				27,500	Row 10
			40,000	35,000	Row 11
				50,000	Row 12
		100,000	80,000	70,000	Row 13
				90,000	Row 14
			200,000	150,000	Row 15
				500,000	Row 16
Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	

We put the values of this in the 16x5 matrix *LS_MED*. The i^{th} row and j^{th} column of this matrix is denoted by *LS_MED*[*i,j*]

30,000	10,000	4,000	2,000	1,000	Row 1
				3,000	Row 2
			7,000	5,500	Row 3
				8,500	Row 4
		20,000	15,000	12,500	Row 5
				17,500	Row 6
			25,000	22,500	Row 7
				27,500	Row 8
	60,000	40,000	35,000	32,500	Row 9
				37,500	Row 10
			50,000	45,000	Row 11
				55,000	Row 12
		100,000	80,000	70,000	Row 13
				90,000	Row 14
			200,000	150,000	Row 15
				500,000	Row 16
Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	

We put the values of this in the 16x5 matrix *LS_HIGH*. The i^{th} row and j^{th} column of this matrix is denoted by *LS_HIGH*[*i,j*]