Can Annuity Purchase Intentions Be Influenced?

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- Respondent Group
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Research Approach and Methodology

Research Overview

Hypotheses: Providing people information about

1. Actual retirement ages, life expectancy, and life income annuities, (condition 2) or
2. Decision-making biases (condition 3) or
3. Both (from 1. and 2. above) (condition 4) or
4. A story highlighting aspects from 1. and 2. above (condition 5)

can impact their retirement-income-related choices.

Methodology: Between-subject, five-condition online experimental survey

Conditions: (1) Control, (2) Information about life expectancy, typical retirement age, and life income annuities provided, (3) Information about certain behavioral biases that researchers suspect affect retirement income choices provided, (4) Information from both conditions (2) and (3) provided, and (5) Anecdotal evidence highlighting suboptimal decision making provided (see following slide for additional information)

Subjects: ~200 (per condition) randomly selected 45 to 75 year-olds with self-reported retirement assets (of any amount) from Market Tools, Inc. online panel data

Data Collection: 1,009 subjects responded during the first week of January 2011

Summary of Research Conditions

	Condition				
	(1) Control	**(2) Statistical and basic life income annuity information**	**(3) Behavioral bias information**	**(4) Statistical, basic annuity and behavioral bias information**	**(5) Story**
Experimental manipulation	None (Baseline)	Information about life expectancy, retirement age, and life income annuities	Information about relevant behavioral biases	Information from conditions (2) & (3)	Anecdotal evidence highlighting suboptimal decision making
Measures (Similar for all conditions)	Primary Dependent Variables 1. Plans for retirement wealth 2. Likelihood of buying an annuity Other Measures 1. Expected retirement age 2. Life expectancy 3. Familiarity with annuities 4. Major concern about retirement 5. Objective financial knowledge 6. Perceived financial knowledge 7. Demographics				

Results and Analyses

Who responded to our survey?

Participants were randomly recruited by email invitations from MarketTools' panel, ZoomPanel, which resembles the demographic mix of U.S. census. We requested that the subjects be evenly split between pre-retirees and retirees, with an even gender split within each group.

	Pre-Retirees	Retirees	All Participants
n	505	504	1,009
Average Age	55.9	63.6	59.7
% Female	50.9%	49.6%	50.2%
Employment Status:			
Retired	0.0%	96.0%	48.0%
Working full time for pay	86.3%	0.0%	43.2%
Working part time for pay	5.3%	2.2%	3.8%
Unemployed and looking for work	5.0%	1.4%	3.2%
Something else	3.4%	0.4%	1.9%

Who responded to our survey?

	Pre-Retirees	Retirees	All Participants
Marital Status:			
Married	60.8%	64.7%	62.7%
Unmarried and living with a partner in a permanent relationship	4.6%	4.0%	4.3%
Divorced	12.7%	10.9%	11.8%
Separated	0.4%	1.2%	0.8%
Widowed	5.0%	9.3%	7.1%
Single, never married	16.6%	9.9%	13.3%
Subjective Health:			
Excellent	18.0%	11.5%	14.8%
Very good	44.6%	38.9%	41.7%
Good	27.9%	34.7%	31.3%
Fair	8.1%	11.5%	9.8%
Poor	1.4%	3.4%	2.4%

Who responded to our survey?

	Pre-Retirees	Retirees	All Participants
Household Income:			
Less than $25,000	6.7%	11.1%	8.9%
$25,000 to less than $35,000	9.9%	11.9%	10.9%
$35,000 to less than $50,000	16.0%	20.2%	18.1%
$50,000 to less than $75,000	26.9%	26.6%	26.8%
$75,000 to less than $100,000	17.0%	14.7%	15.9%
$100,000 or more	23.4%	15.5%	19.4%
Education:			
Some high school or less	0.0%	0.4%	0.2%
High school graduate	12.9%	14.1%	13.5%
Some college/trade or business school	34.3%	38.9%	36.6%
Bachelors degree	27.9%	20.0%	24.0%
Post graduate work	7.7%	7.1%	7.4%
Graduate degree	17.2%	19.4%	18.3%

Who responded to our survey?

	Pre-Retirees	Retirees	All Participants
Savings and Investments:			
Less than $25,000	17.6%	9.5%	13.6%
$25,000 to less than $50,000	11.9%	9.7%	10.8%
$50,000 to less than $100,000	13.9%	12.9%	13.4%
$100,000 to less than $250,000	24.6%	24.0%	24.3%
$250,000 to less than $500,000	19.2%	22.4%	20.8%
$500,000 to less than $1 million	8.9%	12.9%	10.9%
$1 million or more	4.0%	8.5%	6.2%

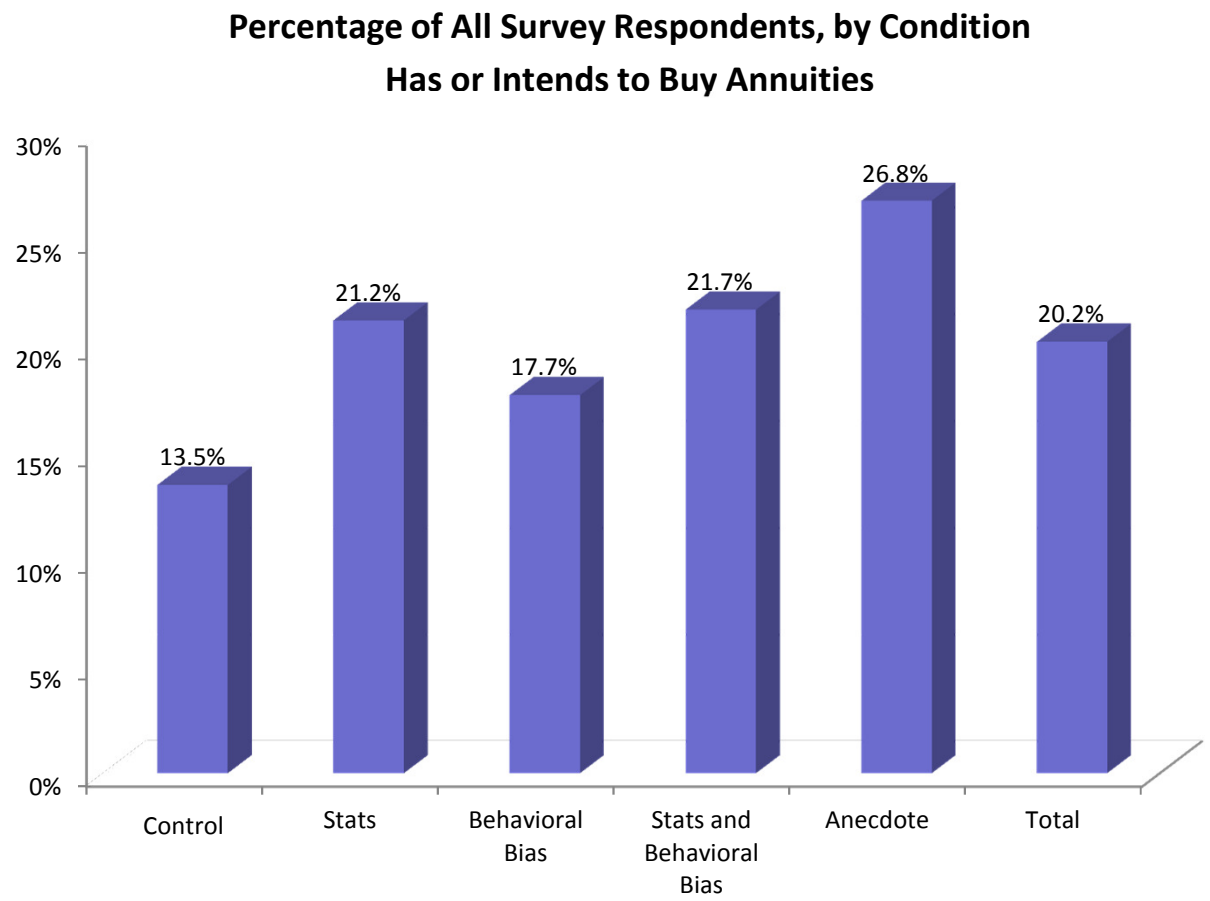
Data Analysis Procedures (Annuity Purchase Intentions)

The “will buy an annuity” response was analyzed using a logistic regression including experimental condition and the following demographic variables: gender, expected lifespan, schooling, income, self-reported health, retirement savings, self rating of annuity familiarity, retirement concerns, the need to support another in retirement, marital status, investment plans, an objective measurement of financial knowledge, existence of an expected monthly pension in retirement, and type of retirement plan coverage from which the monthly benefit would come. Age and expected/actual retirement age were not included in the model because they were correlated with other variables in the model (expected lifespan). These variables correlate similarly, but less strongly, with the dependent measures as the corresponding variables included in the model, e.g. later retirement age or younger participants were more likely to be interested in annuities. All included variables had a variance inflation factor of less than 5.

Given the initial findings and the inherent differences in the question for retired and pre-retired participants, we ran separate logistic regressions on each group to capture any effects of interactions between them. We additionally modeled all participants including interaction terms between condition and retirement, with the same qualitative results.

Responses related to the likelihood of purchasing an annuity were analyzed with ordinary least squares regression including the same demographic factors as were included when analyzing the "will buy an annuity" response. No interactions between condition and retiree status were observed, so all participants were analyzed together with an additional factor of retiree status. Also, we were interested in gender differences between the conditions, and observed some apparent interesting interactions in the data not present in the "will purchase an annuity" response. Accordingly, we included an interaction with gender for the different manipulations.

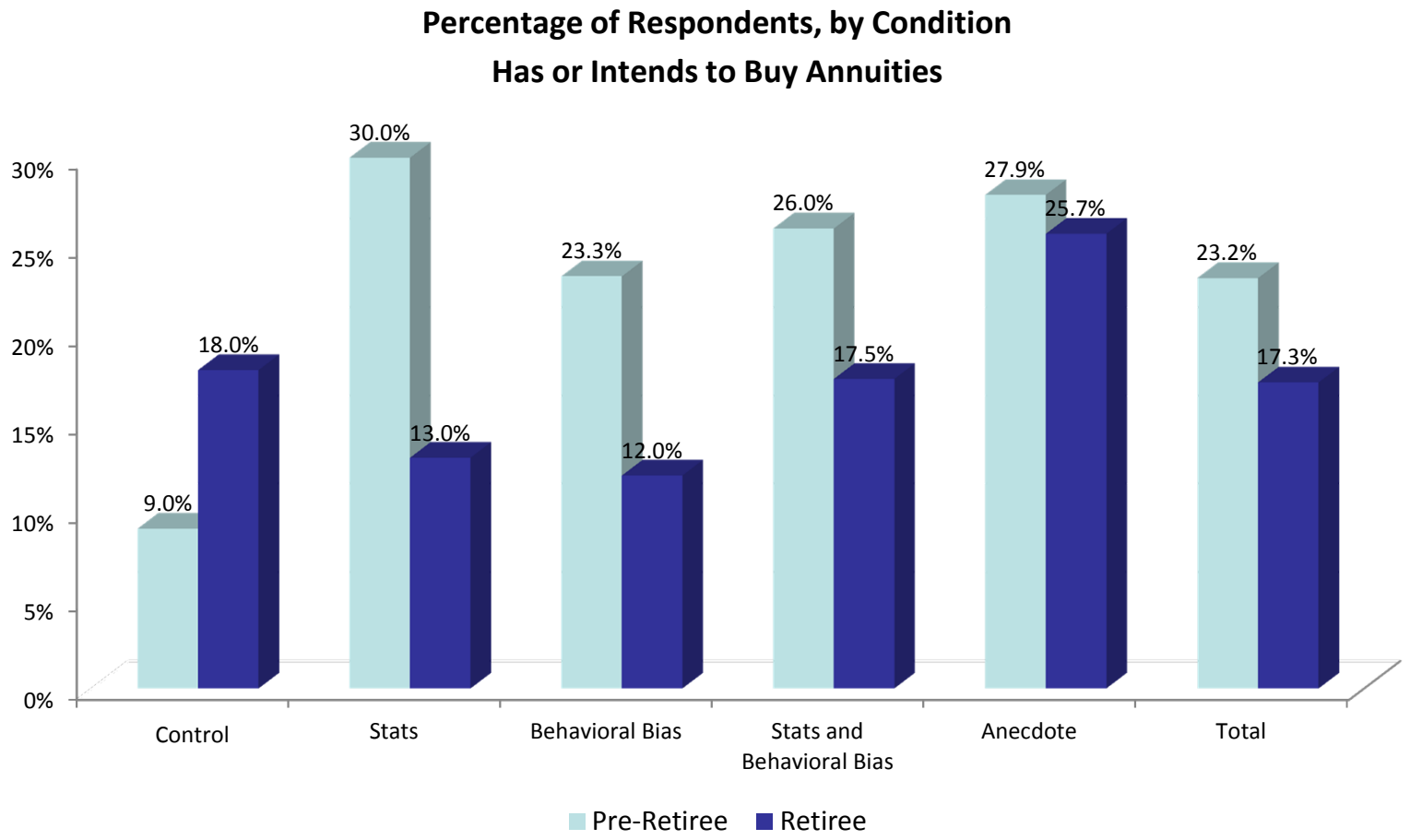
Results: How does reported intention to buy an annuity vary by condition?



For the combined group, the results of simple t-tests reveal significant differences (95% confidence level) between the choices of people in the control group and those in conditions 2, 4 and 5.

Statistical comparisons are presented in the Appendix.

Results: How does reported intention to buy an annuity vary by condition?



The results of simple t-tests reveal significant differences between each of the interventions (when compared to the control condition) within the pre-retiree group. We see no significant effects for retirees.

Statistical comparisons are presented in the Appendix.

Results: What predicts annuity purchase intention of pre-retirees?

Results of logistic regression show that pre-retirees with the following attributes are *more likely* to report that they will buy an annuity with a portion of their retirement savings:

- Were in any of the treatment conditions (greater effects if they were in the information or anecdote conditions)
- Rated their annuity familiarization higher
- Reported longer subjective life expectancies
- Concerned about maintaining their standard of living, having adequate health care, and their savings keeping up with inflation
- Widowed (marginally significant).

And pre-retirees with the following characteristics are less likely to indicate they will buy an annuity:

- Unmarried in a permanent relationship
- Likely to invest in accounts from which they can withdraw as they like
- Have more schooling (marginally significant).

Detailed regression results are presented in the Appendix.

Results: What predicts annuity purchase intention of retirees?

Results of logistic regression show that retirees with the following attributes are *more likely* to buy an annuity with a portion of their retirement savings:

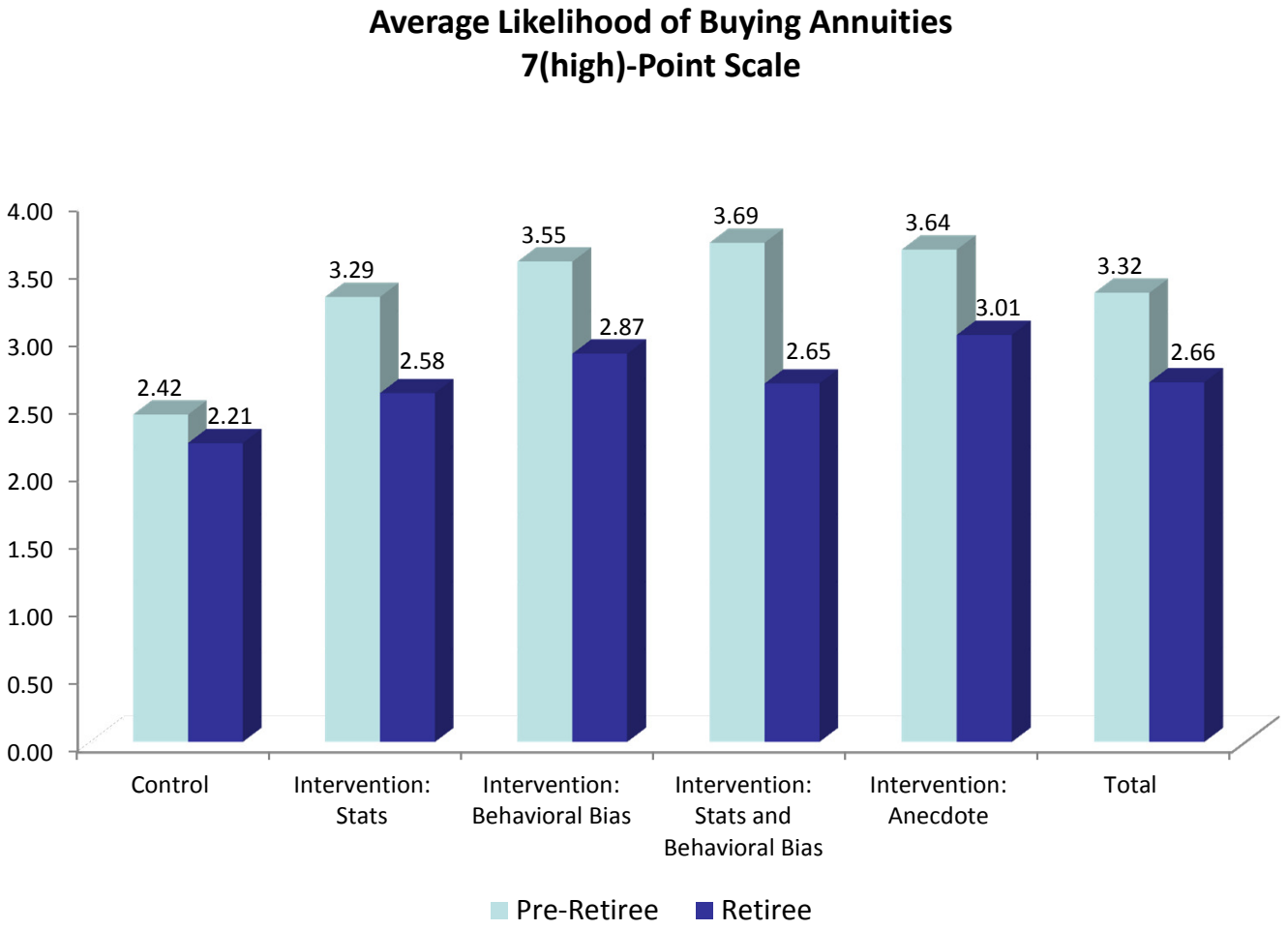
- Report annuity familiarity
- Are female
- Have a 401(k) plan (marginally significant).

And, retirees with the following characteristics are *less likely* to buy an annuity:

- Likely to invest in accounts they can withdraw from as they like
- In excellent health
- Unmarried in a permanent relationship
- Are concerned about changes in interest rates (marginally significant).

Detailed regression results are presented in the Appendix.

Results: How does the likelihood of buying an annuity vary by condition?



Results: How does the likelihood of buying an annuity vary by condition?

Average Likelihood of Buying Annuities
(7-Point Scale)

	Pre-Retiree		Retiree		All Participants
	Overall	Intend to Buy	Overall	Intend to Buy	Overall
Control	2.42	5.44 (9)	2.21	4.06 (18)	2.32
Intervention: Stats	3.29	4.79 (29)	2.58	5.08 (13)	2.93
Intervention: Behavioral Bias	3.55	5.54 (24)	2.87	5.58 (12)	3.22
Intervention: Stats and Behavioral Bias	3.69	5.38 (26)	2.65	5.22 (18)	3.16
Intervention: Anecdote	3.64	5.48 (29)	3.01	5.15 (26)	3.33
All Participants	3.32	5.30 (117)	2.66	4.99 (87)	2.99

In the pre-retiree group, significant differences were found between the control condition and each of the treatment conditions, with the strongest effect from the behavioral bias plus stats condition.

For the retiree group, simple t-tests reveal significant differences between the control condition and the behavioral bias and anecdote conditions, with a stronger effect for the anecdote condition.

Statistical comparisons are presented in the Appendix.

Results: What predicts annuity purchase likelihood ratings?

Results of multiple regression analysis show that subjects with the following attributes are *more likely* to report higher likelihood ratings:

- Were in one of the treatment conditions
- Are pre-retirees
- Female
- Report greater annuity familiarity
- Are concerned about maintaining their standard of living, having adequate health care, having their savings keeping up with inflation, and leaving money to heirs.

And those who report that they are:

- In excellent health
- Likely to invest in accounts they can withdraw from as they like or pay down debt

are *less likely* to report higher likelihood ratings.

Detailed regression results are presented in the Appendix.

Results: How do results vary for subjects with higher savings?

Because purchasing an annuity may be more realistic when savings exceed $100,000, we separately analyzed data for these individuals only. Excluding subjects with self-reported savings and investments less than $100,000 resulted in a sample size of 628 (286 pre-retirees and 342 retirees).

In the pre-retiree group, regression results show some of the same factors found when analyzing annuity purchase intention results from the full group (slide 14). However, the effects from the treatments (being shown the various types of information) have diminished, with the sole remaining effect (with only marginal significance) resulting from the anecdotal condition. Additionally, we find no significant effect of reporting a retirement concern of having adequate health care or savings keeping up with inflation. No effects are found from an "unmarried in a permanent relationship" status or reporting an intention to invest in accounts from which at-will withdrawals can be made.

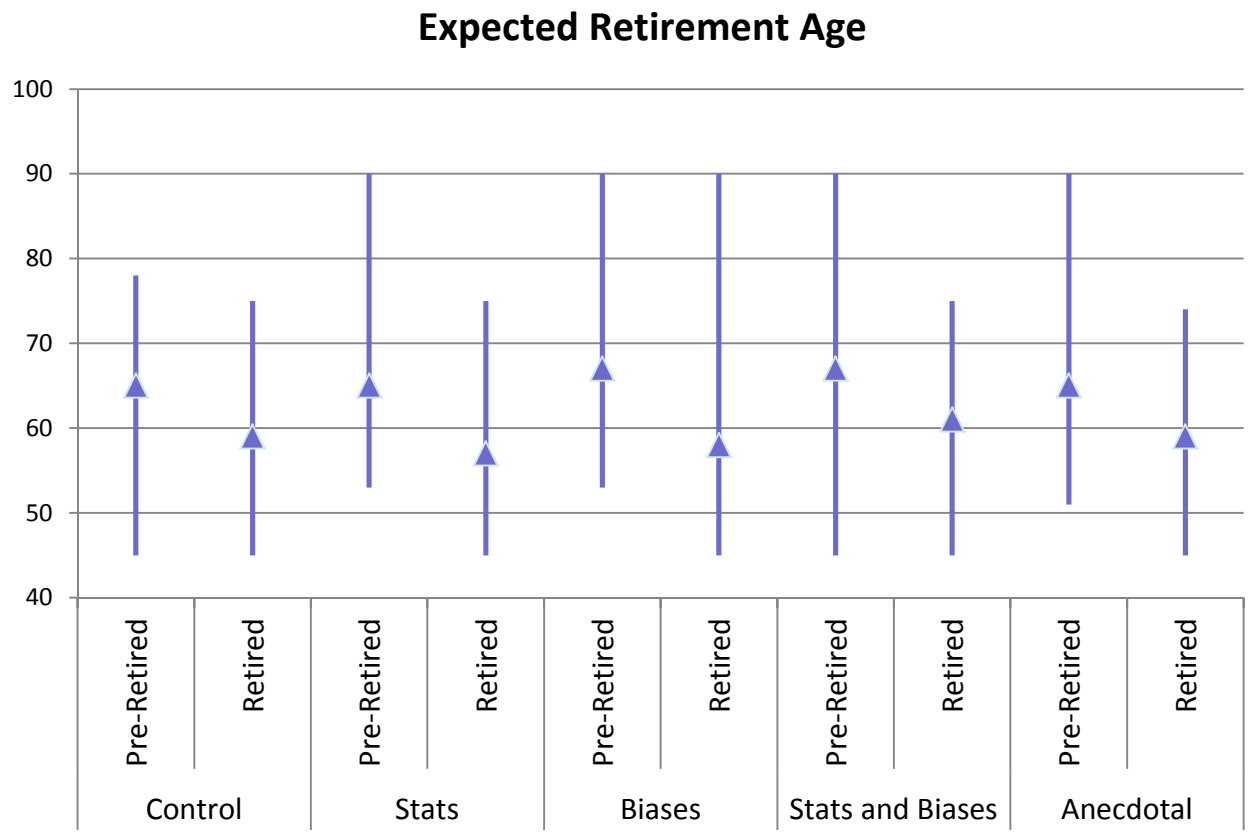
In the retiree group, we find all of the same significant factors, along with an effect of income, with an increase in probability (of reporting past or intended annuity purchase) of 1.43% for each increase in reported income level.

With respect to the annuity purchase likelihood responses of this parsed group, we report similar findings to those reported on slide 18. However, we do not see an effect from reporting a retirement concern of leaving money to heirs.

Results: How do expected retirement age and life expectancy relate to annuity purchase intentions?

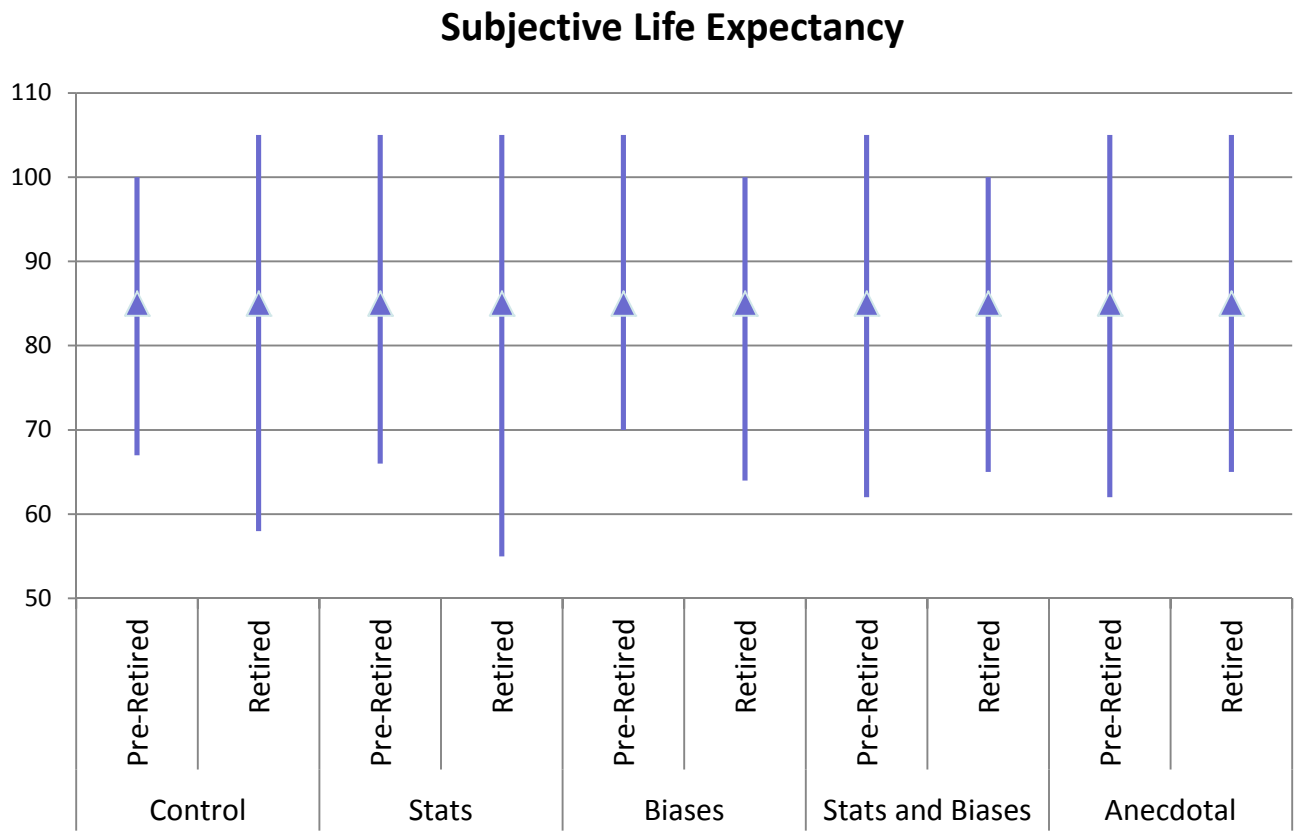
- Pre-Retirees who report longer life expectancies are more likely to say they will buy an annuity; this relationship does not exist in the retiree group.
- There is no statistically significant relationship between expected retirement age or the expected length of retirement (life expectancy – expected retirement age) and annuity purchase intentions in either group.

Results: Expected Retirement Age (Min, Median, Max)



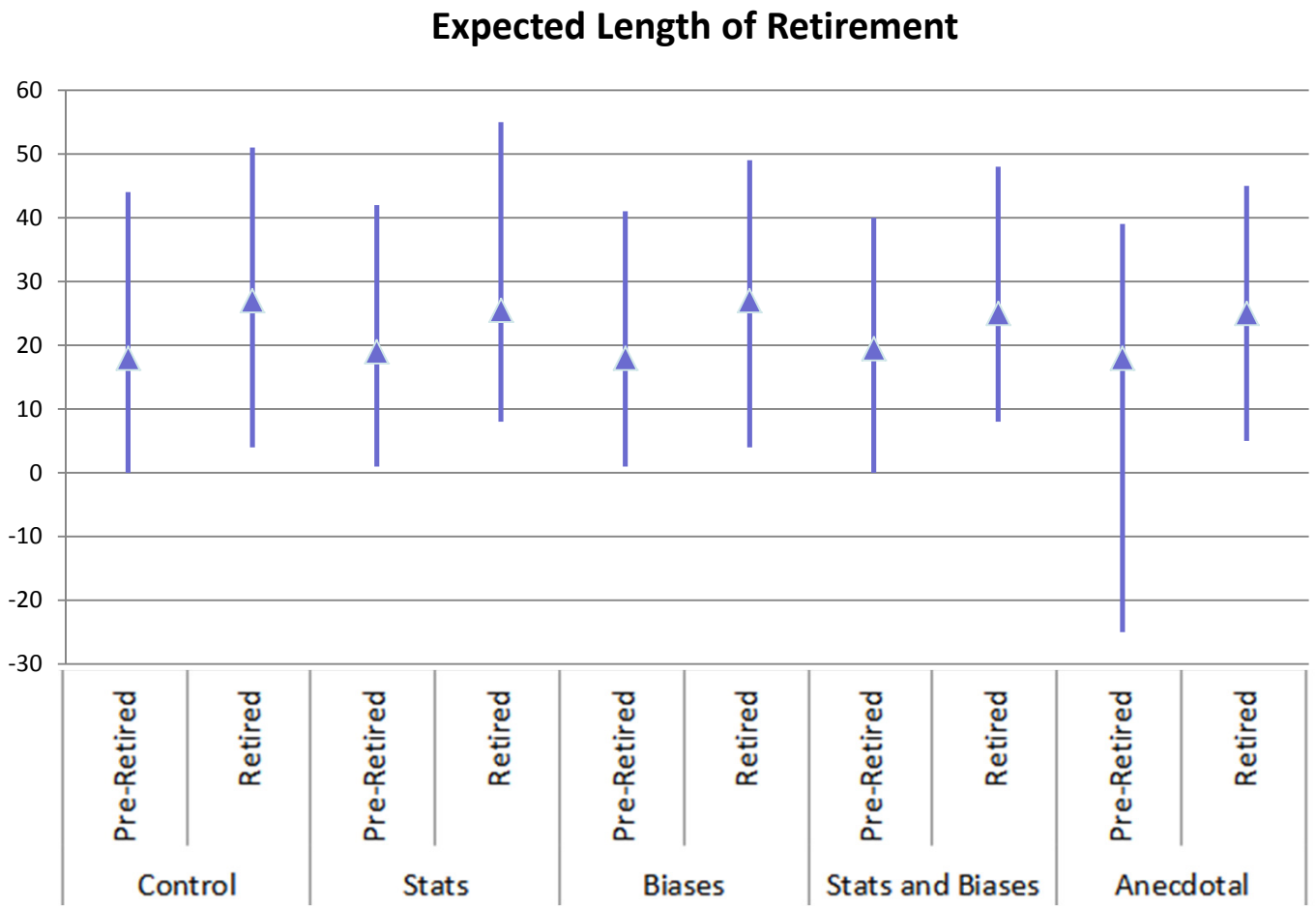
Note: Responses were constrained to age 90. Less than 1% of respondents (all but one were pre-retirees) selected 90 as their expected retirement age.

Results: Life Expectancy (Min, Median, Max)



Note: Responses were constrained to age 105. Less than 1% of respondents selected 105 as their expected age at death.

Results: Expected Length of Retirement (Min, Median, Max)



Results: Do expected retirement age or life expectancy vary by condition?

We found a small increase in the expected retirement age for subjects who were presented with behavioral bias information.

We find no effect of condition on subjective life expectancy.

Results: What predicts an expected retirement age different from 65?

Significant factors contributing to a non-65 retirement age include:

- Retired status (pre-retired expect to retire older and closer to 65)
- Age (older and expected retirement age closer to 65)
- Concern about standard of living, healthcare, inflation, changes in interest rates (increases retirement age closer to 65 compared to "none of these")
- Support for another (moves retirement age older and closer to 65)
- Higher savings (more savings move expected ages lower than 65)
- Paying debt with savings (decreases retirement age from 65), and
- Monthly pension payments not expected (higher retirement age than 65).

Detailed regression results are presented in the Appendix.

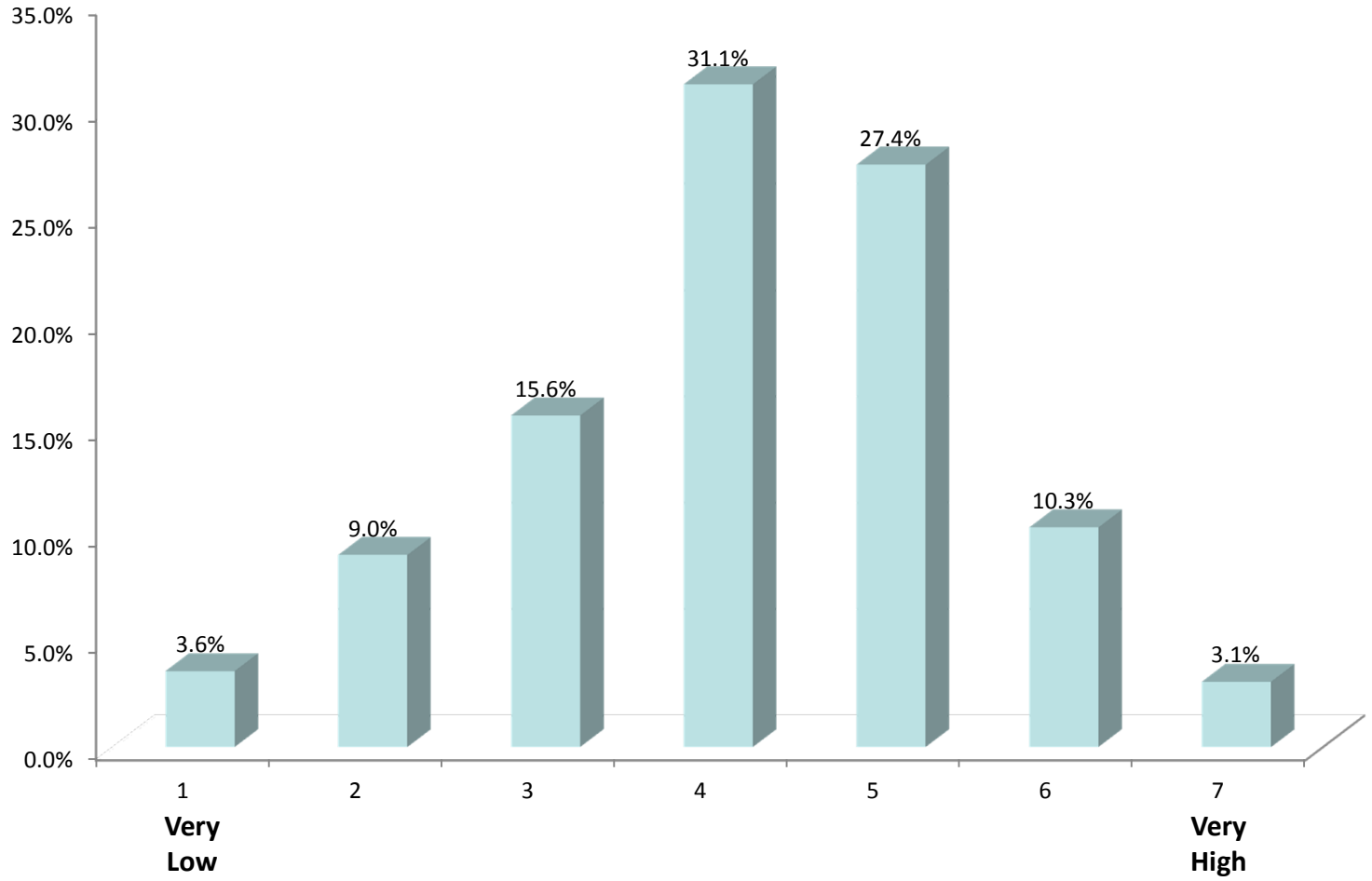
Results: What predicts life expectancy responses?

Significant factors contributing to subjective life expectancy include:

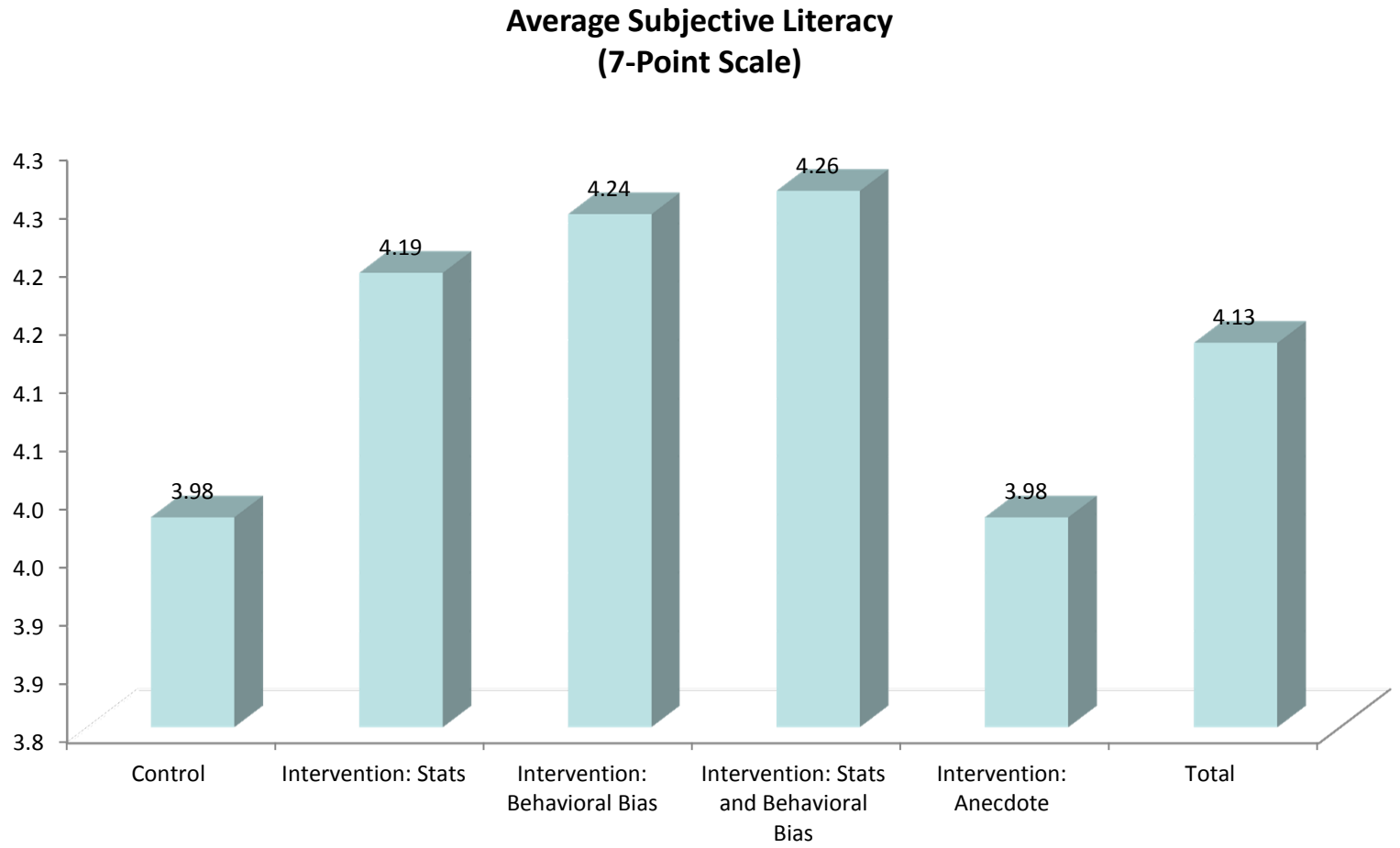
- Pre-Retiree status (lower life expectancy)
- Age (correlates negatively)
- Gender (relative to males, females expect to live longer)
- Health status (poorer health, lower life expectancy)
- Retirement concern about anything other than interest rates (lower life expectancy)
- Education level (correlates positively)
- Retirement age (correlates positively), and
- Subjective financial knowledge (correlates positively).

Detailed regression results are presented in the Appendix.

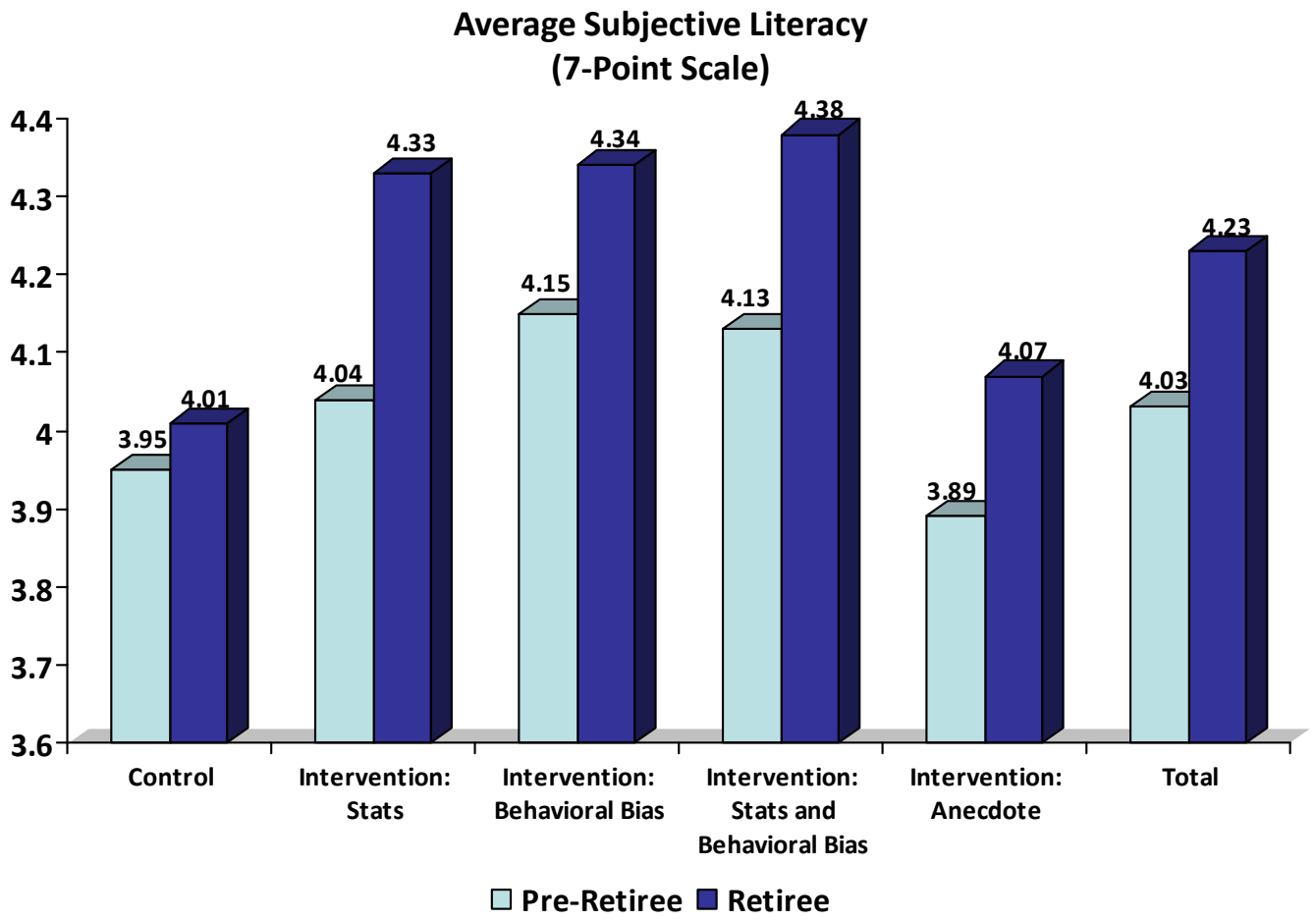
Results: How do respondents rate their financial knowledge level?



Results: How does subjective financial knowledge vary by condition?



Results: How does subjective financial knowledge vary by condition?



Simple t-tests show some effect from presenting behavioral bias information (both condition 3 and 4).

Statistical comparisons are presented in the Appendix.

Results: How accurately did subjects answer literacy questions?

Percent Correct by Education Level

	None	20%	40%	60%	80%	100%
Some High School or Less (n=2)	0.0%	0.0%	0.0%	50.0%	50.0%	0.0%
High School Graduate (n=136)	4.4%	8.8%	22.1%	26.5%	19.9%	18.4%
Some College/Trade or Business School (n=369)	1.4%	3.8%	10.8%	25.5%	34.4%	24.1%
Bachelors Degree (n=242)	0.8%	3.3%	4.5%	16.1%	31.4%	43.8%
Post Graduate Work (n=75)	0.0%	1.3%	0.0%	20.0%	30.7%	48.0%
Graduate Degree (n=185)	0.5%	2.2%	3.2%	11.4%	41.1%	41.6%
Total (n=1009)	1.4%	3.9%	8.6%	20.4%	32.7%	33.0%

Cumulative Percent Correct by Education Level

	None	20%	40%	60%	80%	100%
Some High School or Less (n=2)	0.0%	0.0%	0.0%	50.0%	100.0%	100.0%
High School Graduate (n=136)	4.4%	13.2%	35.3%	61.8%	81.7%	100.0%
Some College/Trade or Business School (n=369)	1.4%	5.2%	16.0%	41.5%	75.9%	100.0%
Bachelors Degree (n=242)	0.8%	4.1%	8.6%	24.7%	56.1%	100.0%
Post Graduate Work (n=75)	0.0%	1.3%	1.3%	21.3%	52.0%	100.0%
Graduate Degree (n=185)	0.5%	2.7%	5.9%	17.3%	58.4%	100.0%
Total (n=1009)	1.4%	5.3%	13.9%	34.3%	67.0%	100.0%

Results: What predicts objective literacy?

Statistically significant factors related to greater accuracy in responding to standardized financial literacy questions in the survey include:

- Education
- Income, and
- Level of savings and investments.

Being female was negatively related to increased accuracy.

Results: Additional Financial Literacy Information

Relationship	r value	p value
Subjective financial knowledge and objective literacy score	.37	p<.001
Education and subjective financial knowledge	.20	p<.001
Education and objective literacy score	.28	p<.001
Annuity familiarization and subjective financial knowledge	.46	p<.001
Annuity familiarization and objective literacy score	.15	p<.001

Results: How does financial literacy relate to annuity purchase intentions?

For retirees (only), there was a significant effect of self-reported financial knowledge and 'will buy an annuity' which resulted in a *decrease* of responding "yes" to 'will buy an annuity' by a factor of 0.72.

However, further investigation revealed that this is due to correlations between self ratings of financial knowledge and familiarity with annuities (over all participants, r = .45). Overall, the data suggest that there is some effect of confidence with financial information captured by both ratings of self familiarity with annuities, and financial knowledge, and to a lesser extent the objective measure of knowledge and that this is best captured by self ratings of familiarity with annuities.

Including self-reported financial knowledge in a model without self-rated familiarity with annuities showed a positive effect of self-reported financial knowledge.

Summary of Significant Findings

Significant Findings – Annuity Purchase Intentions

- Pre-retirees' intentions to buy a life income annuity appear to be impacted by the interventions tested in this research. We see stronger effects when pre-retirees were provided with basic information (including basic statistics related to retirement age and life expectancy) and anecdotal evidence.
- Retirees' annuity purchase intentions do not appear to be impacted by the interventions used in our study.
- We find other significant factors associated with annuity purchase intentions:

	Pre-Retiree Effect	**Retiree Effect**
Annuity Familiarization	**+**	**+**
Excellent Health	**not significant (ns)**	**-**
Likely to Also Invest in Accounts	**-**	**-**
Longer Life Expectancy	**+**	**ns**
Having Concerns about Retirement	**+**	**ns**
Unmarried in Permanent Relationship	**-**	**-**
Higher Education Level	**ns**	**ns**
Female	**ns**	**+**

Other Significant Findings

Purchase Likelihood Ratings

- With respect to the reported likelihood of purchasing an annuity, we again see greater effects related to treatment conditions on the choices of pre-retirees than we see with retirees' choices. We see effects from all treatment conditions with pre-retirees (behavioral bias plus stats the strongest) and only from the behavioral bias and anecdote (stronger) conditions for retirees.
- Many of the same factors that additionally seemed to be associated with the reported intent to purchase an annuity are also associated with higher likelihood ratings, although we see stronger effects related to the presentation of information about behavioral biases.
- When reporting the likelihood of purchasing an annuity, females were more influenced by the presentation of behavioral bias information than were males.

Expected Retirement Age

- The average expected retirement age of pre-retirees was 66.3, versus 58.2, the average actual retirement age for retirees.
- We found a small increase in the expected retirement age for subjects who were presented with behavioral bias information.
- The following are associated with a deviation from a retirement age of 65: being retired, being younger, having no retirement concern, not supporting another, having more savings, indicating that savings will be used to pay down debt, not expecting a monthly pension.

Other Significant Findings

Subjective Life Expectancy

- Average life expectancy was 85.4 for females and 84.2 for males.
- We found no effect of condition on subjective life expectancy.
- The following are associated with longer subjective life expectancies: being female, higher education level, older retirement (actual or expected) age, higher subjective financial knowledge. And these factors are associated with shorter subjective life expectancies: being retired, being older, having a retirement concern, having poor health.

Financial Literacy

- On a combined basis, respondents rated their subjective financial knowledge as slightly above average (4.13 on a 7(high)-point scale). Retirees rate their financial knowledge higher than do pre-retirees.
- We find some (minimally significant) effect of presenting behavioral bias information on subjective knowledge ratings (relates to increased subjective knowledge).
- One third of subjects were able to answer all literacy questions correctly. The most frequently missed question pertained to the relationship between interest rates and bond prices, which was answered incorrectly by over half the respondents.

Appendix – Results of Statistical Analyses

Annuity Purchase Intention t-Test Results

Will Buy an Annuity – by Condition (vs. condition 1)

Pre-retired:			
Condition 2 - Condition 1:	t = 3.78	df = 162	p-value < 0.001
Condition 3 - Condition 1:	t = 2.82	df = 180	p-value = 0.005
Condition 4 - Condition 1:	t = 3.23	df = 170	p-value = 0.001
Condition 5 - Condition 1:	t = 3.58	df = 176	p-value < 0.001
Retired:			
Condition 2 - Condition 1:	t = -0.97	df = 195	p-value = 0.331
Condition 3 - Condition 1:	t = -1.19	df = 193	p-value = 0.237
Condition 4 - Condition 1:	t = -0.10	df = 201	p-value = 0.923
Condition 5 - Condition 1:	t = 1.33	df = 196	p-value = 0.186
Overall:			
Condition 2 - Condition 1:	t = 2.04	df = 382	p-value = 0.042
Condition 3 - Condition 1:	t = 1.17	df = 397	p-value = 0.243
Condition 4 - Condition 1:	t = 2.16	df = 390	p-value = 0.0311
Condition 5 - Condition 1:	t = 3.39	df = 383	p-value = 0.001

Pre-Retiree Intention to Purchase Annuity

Logistic Regression Results

Coefficients	Estimate	Std. Error	Pr(>|z|)	Significance	Effect Size (1)
(Intercept)	-2.76	0.67	0.000	***	5.93%
Life Expectancy	0.05	0.02	0.008	**	0.27%
Shown Only Factual Information	1.43	0.44	0.001	**	14.94%
Shown Only Bias Information	0.95	0.45	0.034	*	8.10%
Shown both Factual and Bias Information	1.23	0.45	0.006	**	11.76%
Shown Anecdotal Information	1.39	0.44	0.002	**	14.20%
Schooling	-0.23	0.12	0.055	.	-1.14%
Self rating of annuity familiarity	0.30	0.07	0.000	***	1.93%
Objective Knowledge	0.13	0.12	0.264		0.76%
Income	0.06	0.11	0.569		0.37%
Savings	0.03	0.09	0.748		0.17%
Female	-0.13	0.26	0.605		-0.71%
Most concerned about standard of living	1.34	0.46	0.004	**	13.40%
Most concerned about adequate healthcare	1.21	0.49	0.014	*	11.47%
Most concerned about savings given inflation	1.15	0.55	0.036	*	10.73%
Most concerned about money to heirs	0.68	0.93	0.462		5.15%
Most concerned about changes in interest rates	0.44	0.80	0.580		2.99%
Unmarried in a permanent relationship	-1.70	0.81	0.036	*	-4.79%
Divorced	-0.01	0.40	0.979		-0.06%
Separated	1.87	1.64	0.254		23.04%

Significance Codes : ***= 0.001, **=0.01, *=0.05, .= 0.1

Continued on next page

Pre-Retiree Intention to Purchase Annuity

Logistic Regression Results (continued)

Coefficients	Estimate	Std. Error	Pr(>|z|)	Significance	Effect Size (1)
Widowed	0.91	0.53	0.090	.	7.57%
Single never married	0.05	0.37	0.901		0.26%
Support another	0.19	0.30	0.520		1.17%
Intend to invest retirement assets in account from which they can withdraw as desired	-0.67	0.26	0.009	**	-2.80%
Intend to invest retirement assets in accounts that provide regular payments	0.05	0.26	0.841		0.30%
Intend to use retirement assets to pay down debt	0.01	0.29	0.962		0.08%
Have 401(k) benefits	-0.01	0.31	0.979		-0.05%
Have defined benefit	0.15	0.32	0.635		0.91%
Unsure of retirement benefits	0.06	0.63	0.929		0.32%
No benefits	-0.41	0.32	0.205		-1.92%
No monthly pension payments	0.18	0.52	0.737		1.06%
Excellent health	-0.52	0.44	0.238		-2.33%
Other health status	0.22	0.19	0.235		1.37%

Significance Codes : ***= 0.001, **=0.01, *=0.05, .= 0.1

(1) Represents the absolute change in probability of annuity purchase intention for those in the labeled group, (e.g., the change in 'yes' proportion for one experimental condition or for people with a particular marriage status) or for a one unit increase from the median response (e.g,. the change for each year of life expectancy longer than the median, or for a one point increase in subjective knowledge from the median response).

Retiree Intention to Purchase Annuity

Logistic Regression Results

Coefficients	Estimate	Std. Error	Pr(>|z|)	Significance	Effect Size(1)
(Intercept)	-2.60	0.69	0.000	***	6.93%
Life Expectancy	-0.02	0.02	0.361		-0.13%
Shown Only Factual Information	-0.63	0.51	0.215		-3.11%
Shown Only Bias Information	-0.74	0.50	0.138		-3.50%
Shown both Factual and Bias Information	-0.22	0.47	0.647		-1.27%
Shown Anecdotal Information	0.50	0.47	0.282		4.03%
Schooling	-0.02	0.12	0.871		-0.12%
Self rating of annuity familiarity	0.85	0.11	0.000	***	7.87%
Objective Knowledge	0.01	0.14	0.940		0.07%
Income	0.18	0.13	0.161		1.26%
Savings	-0.08	0.11	0.471		-0.49%
Female	1.06	0.34	0.002	**	10.82%
Most concerned about standard of living	0.35	0.42	0.407		2.63%
Most concerned about adequate healthcare	0.53	0.48	0.270		4.32%
Most concerned about savings given inflation	0.46	0.46	0.316		3.61%
Most concerned about money to heirs	0.45	0.69	0.513		3.56%
Most concerned about changes in interest rates	-2.13	1.18	0.072	.	-6.05%
Unmarried in a permanent relationship	-2.21	1.10	0.044	*	-6.12%
Divorced	0.39	0.57	0.497		2.98%
Separated	0.50	1.15	0.663		4.04%

Significance Codes : ***= 0.001, **=0.01, *=0.05, .= 0.1

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Retiree Intention to Purchase Annuity

Logistic Regression Results (continued)

Coefficients	Estimate	Std. Error	Pr(>|z|)	Significance	Effect Size(1)
Widowed	0.50	0.49	0.309		4.02%
Single never married	0.49	0.51	0.341		3.88%
Support another	-0.34	0.48	0.474		-1.90%
Intend to invest retirement assets in account from which they can withdraw as desired	-1.16	0.35	0.001	***	-4.64%
Intend to invest retirement assets in accounts that provide regular payments	-0.28	0.31	0.375		-1.59%
Intend to use retirement assets to pay down debt	-0.39	0.53	0.457		-2.14%
Have 401(k) benefits	0.61	0.34	0.071	.	5.10%
Have defined benefit	-0.12	0.44	0.791		-0.71%
Unsure of retirement benefits	0.93	0.72	0.197		8.99%
No benefits	0.04	0.44	0.922		0.28%
No monthly pension payments	2.49	1.72	0.147		40.27%
Excellent health	-1.42	0.71	0.045	*	-5.17%
Other health status	-0.07	0.22	0.743		-0.44%

Significance Codes : ***= 0.001, **=0.01, *=0.05, .= 0.1

(1) Represents the absolute change in probability of annuity purchase intention for those in the labeled group, (e.g., the change in 'yes' proportion for one experimental condition or for people with a particular marriage status) or for a one unit increase from the median response (e.g., the change for each year of life expectancy longer than the median, or for a one point increase in subjective knowledge from the median response).

Annuity Purchase Likelihood t-Test Results

Likelihood of buying an annuity by Condition (vs. condition 1), Controlling for Important Individual Differences

Pre-retired:			
Condition 2 - Condition 1:	t = 3.63	df = 194	p-value < 0.001
Condition 3 - Condition 1:	t = 4.78	df = 200	p-value < 0.001
Condition 4 - Condition 1:	t = 5.30	df = 196	p-value < 0.001
Condition 5 - Condition 1:	t = 5.14	df = 201	p-value < 0.001
Retired:			
Condition 2 - Condition 1:	t = 1.53	df = 197	p-value = 0.128
Condition 3 - Condition 1:	t = 2.58	df = 192	p-value = 0.011
Condition 4 - Condition 1:	t = 1.77	df = 198	p-value = 0.079
Condition 5 - Condition 1:	t = 3.03	df = 189	p-value = 0.003
Overall:			
Condition 2 - Condition 1:	t = 3.58	df = 391	p-value < 0.001
Condition 3 - Condition 1:	t = 5.14	df = 393	p-value < 0.001
Condition 4 - Condition 1:	t = 4.80	df = 392	p-value < 0.001
Condition 5 - Condition 1:	t = 5.69	df = 392	p-value < 0.001

Likelihood of Purchasing Annuity

Coefficients	Estimate	Std. Error	Pr(>|z|)	Significance
(Intercept)	1.38	0.25	0.000	***
Pre-retired	0.56	0.13	0.000	***
Life Expectancy	0.01	0.01	0.282	
Shown Only Factual Information	0.56	0.17	0.001	***
Shown Only Bias Information	0.77	0.17	0.000	***
Shown both Factual and Bias Information	0.84	0.17	0.000	***
Shown Anecdotal Information	0.95	0.17	0.000	***
Schooling	-0.05	0.05	0.278	
Self rating of annuity familiarity	0.31	0.03	< 2e-16	***
Objective knowledge	-0.03	0.05	0.548	
Income	0.06	0.05	0.161	
Savings	0.00	0.04	1.000	
Female	0.37	0.11	0.001	***
Most concerned about standard of living	1.07	0.16	0.000	***
Most concerned about adequate healthcare	0.83	0.18	0.000	***
Most concerned about savings given inflation	0.82	0.19	0.000	***
Most concerned about money to heirs	0.94	0.30	0.002	**
Most concerned about changes in interest rates	0.46	0.27	0.083	.
Unmarried in a permanent relationship	-0.51	0.26	0.056	.
Divorced	-0.03	0.18	0.859	

Significance Codes : ***= 0.001, **=0.01, *=0.05, .= 0.1

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Likelihood of Purchasing Annuity (continued)

Coefficients	Estimate	Std. Error	Pr(>|z|)	Significance
Separated	-0.09	0.60	0.879	
Widowed	0.11	0.22	0.612	
Single never married	0.31	0.17	0.066	.
Support another	0.17	0.14	0.222	
Intend to invest retirement assets in account from which they can withdraw as desired	-0.52	0.13	0.000	***
Intend to invest retirement assets in accounts that provide regular payments	0.13	0.12	0.278	
Intend to use retirement assets to pay down debt	-0.29	0.15	0.055	.
Have 401(k) benefits	0.10	0.13	0.427	
Have defined contribution benefits	-0.03	0.15	0.838	
Unsure of benefits	-0.10	0.25	0.692	
No benefits	-0.02	0.15	0.919	
No pension	0.09	0.32	0.772	
Excellent health	-0.43	0.19	0.026	*
Other health status	-0.01	0.08	0.857	

Significance Codes : ***= 0.001, **=0.01, *=0.05, .= 0.1

Deviation from Expected or Actual Retirement of 65

OLS Regression Results

Coefficients	Estimate	Std. Error	t value	Pr(>|t|)	
(Intercept)	15.63	2.53	6.18	0.00	***
Shown statistical information	0.46	0.50	0.91	0.37	
Shown bias information	0.47	0.50	0.94	0.35	
Shown anecdotal information	0.24	0.50	0.48	0.63	
Pre-retired	-4.10	0.41	-10.04	< 2e-16	***
Age	-0.18	0.03	-5.86	0.00	***
Female	0.11	0.34	0.32	0.75	
Self rating of annuity familiarity	-0.08	0.09	-0.85	0.40	
Most concerned about standard of living	-1.87	0.47	-3.99	0.00	***
Most concerned about adequate healthcare	-1.77	0.54	-3.28	0.00	**
Most concerned about savings given inflation	-1.32	0.56	-2.35	0.02	*
Most concerned about money to heirs	0.15	0.89	0.17	0.87	
Most concerned about changes in interest rates	-1.83	0.80	-2.29	0.02	*
Support another	1.06	0.42	2.52	0.01	*
Unmarried in a permanent relationship	-0.16	0.80	-0.20	0.84	
Divorced	0.87	0.53	1.63	0.10	
Separated	0.64	1.81	0.35	0.72	
Widowed	-0.28	0.67	-0.43	0.67	
Single never married	0.57	0.52	1.09	0.27	
Excellent Health	-0.12	0.70	-0.18	0.86	
Very Good Health	-0.35	0.59	-0.61	0.54	
Good Health	0.04	0.58	0.06	0.95	

Significance Codes : ***= 0.001, **=0.01, *=0.05, .= 0.1

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Deviation from Expected or Actual Retirement of 65

OLS Regression Results (continued)

Coefficients	Estimate	Std. Error	t value	Pr(>|t|)	
Poor health	1.74	1.15	1.51	0.13	
Schooling	0.01	0.14	0.05	0.96	
Income	0.04	0.14	0.29	0.78	
Savings	0.28	0.12	2.37	0.02	*
Withdraw from investment	0.05	0.38	0.14	0.89	
Make Payments from investment	0.07	0.35	0.20	0.84	
Pay debt from investment	1.00	0.45	2.21	0.03	*
Have 401k benefits	-0.51	0.45	-1.14	0.26	
Have defined contribution benefits	0.53	0.49	1.09	0.28	
Unsure of benefits	0.03	0.81	0.04	0.97	
No benefits	0.63	0.75	0.84	0.40	
No pension	1.16	0.46	2.52	0.01	*
Unsure of pension	-0.30	0.96	-0.31	0.75	
Life expectancy	0.02	0.02	1.09	0.28	
Subjective knowledge	-0.06	0.15	-0.37	0.71	
Objective knowledge	0.08	0.15	0.53	0.60	
Shown both statistical and bias information	-0.92	0.71	-1.29	0.20	

Significance Codes : ***= 0.001, **=0.01, *=0.05, .= 0.1

Life Expectancy (in years)

OLS Regression Results

Coefficients	Estimate	Std. Error	t value	Pr(>|t|)	
(Intercept)	62.51	3.15	19.86	< 2e-16	***
Shown statistical information	-0.34	0.75	-0.46	0.65	
Shown bias information	0.26	0.75	0.35	0.72	
Shown anecdotal information	-0.61	0.74	-0.82	0.41	
Pre-retired	-1.61	0.77	-2.09	0.04	*
Age	-0.97	0.04	-23.01	< 2e-16	***
Female	1.73	0.50	3.43	0.00	***
Self rating of annuity familiarity	-0.05	0.14	-0.35	0.73	
Most concerned about standard of living	-2.51	0.70	-3.61	0.00	***
Most concerned about adequate healthcare	-2.11	0.80	-2.65	0.01	**
Most concerned about savings given inflation	-1.68	0.84	-2.00	0.05	*
Most concerned about money to heirs	-3.17	1.32	-2.40	0.02	*
Most concerned about changes in interest rates	-1.76	1.19	-1.48	0.14	
Support another	-0.14	0.24	-0.60	0.55	
Unmarried in a permanent relationship	-0.71	1.19	-0.60	0.55	
Divorced	0.32	0.79	0.40	0.69	
Separated	-4.99	2.69	-1.85	0.06	.
Widowed	0.41	1.00	0.41	0.68	
Single never married	-0.63	0.77	-0.82	0.42	
Health Rating	-0.61	0.24	-2.51	0.01	*
Schooling	0.56	0.20	2.75	0.01	**
Income	-0.03	0.21	-0.13	0.90	

Significance Codes : ***= 0.001, **=0.01, *=0.05, .= 0.1

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Life Expectancy (in years)

OLS Regression Results (continued)

Coefficients	Estimate	Std. Error	t value	Pr(>|t|)	
Savings	0.18	0.18	0.99	0.32	
Withdraw from investment	1.01	0.56	1.80	0.07	.
Make Payments from investment	0.79	0.52	1.51	0.13	
Pay debt from investment	0.50	0.67	0.74	0.46	
Have 401k benefits	0.60	0.67	0.90	0.37	
Have defined contribution benefits	0.64	0.73	0.88	0.38	
Unsure of benefits	2.10	1.21	1.74	0.08	.
No benefits	0.86	1.12	0.77	0.44	
No pension	-0.30	0.69	-0.43	0.66	
Unsure of pension	-0.10	1.43	-0.07	0.95	
Age retire or expect to retire	0.29	0.04	6.76	0.00	***
Subjective knowledge	0.69	0.22	3.08	0.00	**
Objective knowledge	-0.23	0.23	-0.99	0.32	

Significance Codes : ***= 0.001, **=0.01, *=0.05, .= 0.1

Subjective Financial Literacy t-Test results

Condition 2 vs 1:	t = 1.57	df = 389	p-value = 0.118
Condition 3 vs 1:	t = 1.95	df = 396	p-value = 0.052
Condition 4 vs 1:	t = 2.03	df = 398	p-value = 0.043
Condition 5 vs 1:	t = 0.00	df = 403	p-value = 0.997