

Attitudes toward Immediate Annuities: Overcoming the Annuity Puzzle

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This article focuses on the role of immediate annuities as a means to insure against outliving one's assets. Typically purchased during retirement, an immediate annuity is a tool to fulfill the final stage of the *life-cycle hypothesis* of savings. It serves as a "synthetic pension," shifting the risk of outliving retirement assets to an insurance company.

This study assesses the attitudes toward and the knowledge of immediate annuities. Using a unique survey conducted at a large state university of employees who participate in a defined contribution retirement plan, it confirms the well-known "annuity puzzle," that is, this financial instrument is not well understood nor is it viewed favorably, even by individuals who are educated, some with sophisticated knowledge of investments. Recommendations for educating consumers about annuities as a means to ensure against outliving one's financial resources are offered.

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INTRODUCTION AND OVERVIEW

"Retirement is the great financial riddle. Think of the uncertainties. You don't know how long you will live. You don't know what investment returns you will earn. You have only a limited sum of money. And there are no second chances" (Clements, 2000, p. C1). With the decline of the defined benefit pension, the financial risk of outliving one's assets in retirement has been shifted from employers to workers who are inadequately prepared to make complex financial decisions and manage a portfolio (Lusardi, Mitchell, & Curto, 2009).

As the leading edge of 78 million baby boomers reaches age 65 in 2011, there is considerable concern among educators, advisors, and policy makers about retirement asset adequacy (Congressional Budget Office, 2003; Fore, 2003; Helman, Copeland, & VanDerhei, 2010; Lown, 2008; Munnell, Webb, & Golub-Sass, 2007; VanDerhei, 2011).

During the global financial crisis which began in 2008, many boomers lost as much as a third of their investment portfolio at the same time that their homes declined in value. With massive federal deficits, concern is rising about the ability of Social Security and Medicare to pay benefits at the rate enjoyed by current retirees. Boomers are the first generation of workers to depend heavily on defined contribution plans rather than pensions. "Over 70 percent of 401(k) plan participants lack a payout option that insures them against longevity risk" (Brown, 2000, p. 2). With longer lifespans, high debt, and low savings, boomers are stressing all aspects of retirement supports (Meschede, Shapiro, & Wheary, 2009).

These macro level problems are exacerbated by evidence of suboptimal financial decision making (Benton, Meier, & Sprenger, 2007) and low levels of financial literacy (Lusardi et al., 2009). Most older Americans lack the knowledge (Lusardi et al., 2009; Webb, 2009) and interest to manage an investment portfolio and these abilities diminish with age (Kasten & Kasten, 2011).

According to a report by AARP and the American Council of Life Insurers [ACLI] (2007), educating workers on how to invest *for* retirement has been emphasized to the exclusion of teaching them how to ensure assets last for their lifetime. The traditional retirement withdrawal approach is to limit expenditures to 4% of assets the first year, increasing withdrawals in subsequent years at the rate of inflation (Bengen, 1994; Salter & Evensky, 2008). While this strategy may succeed during periods of stable investment returns, real world volatility poses a challenge when asset totals may fluctuate 20-30% from year to year (Webb, 2009). Investment losses such as those experienced in 2008-2009 are especially devastating if they occur early in retirement (Ameriks, Veres, & Warshawsky, 2001).¹

The purpose of this study is to assess the attitudes toward immediate annuities of university employees who participate in a defined contribution retirement plan. This article focuses on the role of immediate annuities as a means to insure against outliving one's assets. An annuity is a tool to fulfill the final stage of the *life-cycle hypothesis* of savings (Ando & Modigliani, 1963). According to the life-cycle hypothesis, individuals plan their consumption and savings behaviors over their lifetime to maintain steady consumption levels by borrowing during early adulthood, saving during prime working years, and dissaving in retirement. Recommendations for consumer education on how to ensure against outliving one's financial resources are offered.

IMMEDIATE ANNUITY BASICS

Deferred annuities are designed to accumulate assets for retirement while *immediate* annuities are typically purchased during retirement to provide income for life. An immediate life annuity (hereinafter "annuity") creates a "synthetic pension" (Chu & Whitehouse, 2002) designed to shift the risk of outliving retirement assets to an insurance company. Thus, a retiree lacking an employer pension can purchase the equivalent of a pension in the form of an annuity. Joint and survivor annuities provide income for a couple until the death of the second to die. Annuities are suitable for persons who anticipate at least an average life expectancy. The primary advantage is never outliving

one's income; the principal drawback is that nothing is left for heirs because payments cease at death. This life insurance product should appeal to retirees with low to moderate risk tolerance and modest assets who have minimal interest in managing an investment portfolio.

Annuities play a pivotal role in hedging longevity risk but annuities alone are not sufficient. Many retirees have a bequest motive and may face large unpredictable financial demands related to health care expenses (Fronstin, Salisbury, & VanDerhei, 2009). Many experts recommend annuitizing a portion of one's nest egg while retaining assets for large unexpected expenses (Agnew et al., 2008; Americks, et al., 2001; Babel & Merrill, 2007; Brown, 2008; Chu & Whitehouse, 2002; Clements, 2000; Drinkwater & Sondergeld, 2004; Panis, 2004).

REVIEW OF LITERATURE

Annuities are designed to address longevity risk, yet retirees are reluctant to purchase this product, a reluctance referred to as the "annuity puzzle." Various explanations have been proposed for the aversion to annuities, including fear of dying early, reluctance to relinquish control over their money, and overconfidence that one can do "better" by investing one's assets. Some retirees may be counseled to void annuities by financial planners who are compensated based on the value of assets under management. Loss aversion (Kahneman & Tversky, 1979), the tendency to weigh losses twice as heavily as gains, may influence annuity attitudes. Dushi and Webb (2004, p. 1) attribute current low annuitization rates "to the exceptionally high proportion of the wealth of these cohorts that is pre-annuitized," predicting higher annuitization rates for younger cohorts who will have lower pre-annuitized wealth.

According to behavioral finance principles, how a decision is presented or "framed" affects how it is perceived. Agnew, Anderson, Gerlach, and Szykman (2008) conducted an experiment employing various biased, but accurate, presentations to help understand the "annuity puzzle." They concluded that negative framing of annuities, which employed a pro-investment bias focusing on the potential loss of buying an annuity but dying early, is very powerful in affecting annuity decisions of women. The study also found that women who were more risk averse favored annuities while women with higher financial literacy favored the investment option. Agnew et al. (2008) concluded that the more financially literate subjects would be knowledgeable about investments and thus feel more comfortable choosing the investment option. Brown, Kling, Mullainathan, and Wrobel (2008) experimented by offering some subjects choices that represented annuities and others non-annuitized investments. Some scenarios used an "investment" framework (focusing on rate of return) while other subjects were offered choices in a "consumer" framework using words like spend and payment, and describing periods in terms of the purchaser's age. The consumer scenario shifts the frame; instead of considering investment returns, individuals focused on the consumption consequences (Brown et al., 2008). When options were presented in the consumer frame, most subjects chose the stream of income consistent with a life annuity. In contrast, the majority of subjects presented with the same choices set in the investment frame did not select the

annuity. The researchers concluded that individuals prefer an annuity over alternative products when the choice is presented in a consumer framework, whereas most subjects prefer non-annuitized products when options are presented in an investment framework. Since the investment framework is the dominant frame of reference for consumers making financial decisions for retirement, framing helps to explain why so few individuals purchase annuities (Brown et al., 2008).

An AARP/ACLI(2007) study confirmed this distrust of annuities. Although retirees who were most worried about depleting their assets were most receptive to the annuity concept, the most risk-averse respondents were the least receptive. The researchers concluded that lack of knowledge of annuities and unfamiliar terminology cause confusion which may deter purchase (AARP/ACLI, 2007). Drawing upon research on analytic cognitive abilities, Kasten and Kasten (2011) explain that even normal aging negatively affects the capability to make financial decisions in an increasingly complex retirement planning environment. Using the 2007 Survey of Consumer Finances, Hanna (2011) reported that only 25% of Americans use a financial planner and that those with the lowest risk tolerance are least likely to use a planner; only 15.7% of persons 70 and older work with a planner.

Ameriks et al., (2001) used historical investment returns and Monte Carlo analysisⁱⁱ to determine the sustainability of investment portfolio withdrawal strategies. They demonstrated the benefit of combining a fixed income annuity with a stock portfolio as the most effective strategy for ensuring lifetime income (Ameriks et al., 2001, p. 60). “For all time periods and for all portfolios, the addition of the annuity leads to a decline in the portfolio failure rates” (Amerikset al., 2001, p. 72). Incorporating various ages, marital statuses, risk tolerances, bequest desires, and wealth levels, Babbell and Merrill (2007) conducted multiple analyses to evaluate the financial benefits of annuitization. They concluded that a retiree would need a 25% to 40% larger portfolio to equal the income stream from an annuity. Based on analysis of Asset and Health Dynamics Among the Oldest Old and the Health and Retirement Study panels, Dushi and Webb (2004) concluded that it is optimal for single men to annuitize some of their wealth at age 65 while single women benefit by waiting until age 70; couples are better off if they delay annuitization until age 74 to 89. After analyzing a variety of investment and annuity scenarios Spitzer (2009) concluded that immediate life annuities can significantly reduce the failure rate of retirement portfolios.

The financial crisis has been particularly severe for many older workers (Pynoos & Liebig, 2009; Rosnick & Baker, 2009). The National Retirement Risk Index, an estimate of the percent of American households in danger of insufficient retirement assets, increased from 44% in 2007 to 51% in 2009 (Munnell, Webb, & Golub-Sass, 2009). Further, recent research suggests that the 4% withdrawal strategy is overly optimistic for the 21st century. Pfau (2010) used domestic and international data to demonstrate that relying on the 4% withdrawal strategy is likely to be more risky in the future than projections based on Monte Carlo simulations of past US investment returns. Athavale and Goebel (2011) project a safe withdrawal rate of only 2.5%. Managing investments, determining how much to withdraw, and coping with uncertain asset returns is beyond the investment skills of most retirees (e.g., Kasten & Kasten, 2011; Lusardi et al., 2009; Webb, 2009). After reviewing various decumulation strategies, Webb (2009,

p.4) concluded, "Given the difficulties in managing the decumulation of unannuitized wealth and the severe consequences of mis-steps, all households approaching retirement should consider annuitizing sufficient financial assets to secure at least their minimum required standard of living."

According to Babel and Merrill (2007) annuitization is one of the few concepts upon which economists agree. Pooling longevity risk through an annuity eliminates the risk of outliving assets. With increasing longevity leading to longer retirements combined with greater investment volatility, a powerful strategy for ensuring that a retiree will not outlive assets is to combine annuity payments with a moderately aggressive investment portfolio (Ameriks et al., 2001; Chu & Whitehouse, 2002). Numerous studies have demonstrated that this strategy is more likely to succeed, defined as not depleting funds over a 30 year period, than the traditional 4% withdrawal rate. The security of annuity income for life enables a retiree to invest the rest of their assets in a moderately aggressive investment portfolio to cope with inflation (Ameriks et al., 2001; Brown, 2008).

All of the research studies that recommended annuitization concur that retirees should annuitize only a portion of their wealth. The recommended target is to provide sufficient income to cover basic monthly expenses with guaranteed income sources. Also recommended is a laddering strategy of purchasing additional annuities as needed to cope with inflation.

CONCEPTUAL FRAMEWORK AND RESEARCH QUESTIONS

According to the life-cycle hypothesis of saving theory (Ando & Modigliani, 1963), individuals smooth consumption by using credit during family formation and career building years, saving for retirement during prime employment decades, and, finally, living off the accumulated assets in retirement. Although annuitization does not guarantee sufficient assets to cover needs, the strategy does assure against outliving one's assets,ⁱⁱⁱ consistent with the life cycle savings theory. Immediate life annuities are designed for the final phase of the financial life cycle, guaranteeing an income for life while matching consumption needs with assets.

The research questions are:

- How do respondents rate their knowledge of investing?
- How familiar are university employees with immediate annuities?
- What are university employee attitudes toward immediate annuities?
- Do attitudes toward annuities vary based on familiarity and investment knowledge?
- How does a retirement planning class affect employee attitudes toward annuities?
- What are university employees' intentions for annuitization?

METHODS

Data were collected via an internet survey sent to the university email addresses of all 1,720 employees of a large state university who participate in a defined contribution (DC) retirement plan. Lower paid classified employees participate in a defined benefit plan and thus were excluded from the study. The Human Resources Office sent a letter through campus mail to all DC plan participants informing them of the study and encouraging participation. Questions on attitudes toward annuities came from the ACLI/AARP (2007) study (see Appendix). The research was part of a larger study of retirement planning attitudes and practices (Robb, 2010).

Data were analyzed using the Statistical Package for the Social Sciences (SPSS). In addition to descriptive statistics, one way Analysis of Variance (ANOVA) was used to answer the research questions. Similar to the *t-test* which is used to determine if the means of two samples are significantly different from each other, ANOVA is a technique used to compare the means of three or more samples.

RESULTS

Description of the Sample

As shown in Table 1, 744 employees responded to the survey, resulting in a response rate of 43.3%. Respondent ages ranged from 23 to 84 with a mean of 47.2

Table 1. Demographic Characteristics

Variable	<i>N</i>	%	Variable	<i>N</i>	%
Gender			Retirement class		
Males	335	54.6	No	424	57.5
Females	278	45.4	Yes	176	23.8
Unknown	131		University class	138	18.7
Marital status			Plan to retire		
Married	47	79.3	Before 55	10	1.6
Living together/partnered	22	3.6	55 to 59	45	7.3
Widowed	6	1.0	60 to 61	47	7.7
Divorced	37	6.0	62 to 64	99	16.1
Separated	6	1.0	65	106	17.3
Never married	56	9.1	66 or later	307	50.0

Age			Income		
Less than 44	248	40.9	Less than \$25,000	8	1.3
45-54	160	26.4	\$25,000 to <\$50,000	106	17.5
55-65	179	29.5	\$50,000 to <\$75,000	141	23.3
66+	19	3.1	\$75,000 to <\$100,000	138	22.8
Median age (years)		48	\$100,000 or more	213	35.2
Ethnic group			Retirement assets		
American Indian/Alaskan Native	1	0.2	Less than 100k	216	36.0
Asian/Pacific Islander	12	2.0	100k-250k	132	22.0
Black/African-American	4	0.7	250k-500k	92	15.3
Hispanic/Latino	13	2.1	500k-750k	69	11.5
White	576	94.0	750k-1 million	42	7.0
Other	7	1.1	Million +	49	8.2
Degree completed			Investment knowledge		
Some college/technical training	18	2.9	Sophisticated	47	6.3
Bachelor's degree	132	21.4	Average	222	29.9
Master's degree	202	32.8	Simple	306	41.2
Ph.D./professional degree	264	42.9	I know nothing	167	22.5
Employment status			Life expectancy		
Faculty	321	52.3	Less than 80	72	11.6
Professional staff	286	46.7	80-84	188	30.3
Classified employee	6	1.0	85-89	201	32.4
			90-94	119	19.2
			95+	41	6.6

years. Men constituted 54.6% of the sample with women comprising 45.4%. Most respondents (79.3%) were married; 52% were faculty and about 47% were professional staff. Fully 42.0% reported retirement asset totals (excluding house) of \$250,000 or more; 15.2% reported more than \$750,000 in retirement assets. Almost half of the respondents had attended a retirement planning class or seminar.

Knowledge of Investing

Despite the very high level of education of these university employees, their self-rating of investment knowledge was low. Almost two-thirds (63.7%) indicated they know little or nothing about investing; 29.9% rated their knowledge as “average.” Only 6.3% considered themselves “sophisticated” investors.

Annuity Attitudes

Annuity attitude scores were calculated based on responses to nine questions from the ACLI/AARP (2007) study. Scores could range from 9 to 36; higher scores indicated a more positive attitude toward annuities. Actual scores ranged from 9 to 36 with a mean of 27.5 ($SD = 5.74$). Cronbach's alpha^{iv} for the attitude scale was .84.

Familiarity with Annuities

Despite the fact that most of these employees own investments in the Teacher's Insurance Annuity Association (TIAA), study results indicate that few understand annuities. Familiarity with annuities was measured with a 4-point Likert scale ranging from 1 = very familiar to 4 = not at all familiar. Only 4.5% rated themselves "very familiar" with annuities; 21.7% rated themselves as "somewhat familiar." More than half (51.4%) stated they are "not at all familiar" with annuities (see Table 2).

Table 2. Attitudes Toward Annuities by Familiarity with Annuities

Familiarity	Number	%	Attitude Score	
			Average	Standard Deviation
Very familiar	30	4.5	25.5	7.39
Somewhat familiar	145	21.7	25.3	5.74
Not too familiar	150	22.4	27.1	4.94
Not at all familiar	344	51.4	28.9	5.71
Total	669	100.0	27.5	5.74

Results of the ANOVA for familiarity with and attitudes toward immediate annuities reveal a significant difference in attitude between familiarity groupings (F ratio = 8.9, $p < .0001$); persons who are less familiar express a more positive attitude toward annuities while respondents who consider themselves familiar or very familiar expressed a less positive attitude. Consistent with the annuity puzzle, individuals who are less familiar with an immediate annuity have a more positive attitude compared to those who rate themselves as more familiar.

Respondents' self-reported confidence in being able to manage their assets to last for their lifetime was measured in five categories. The "very confident" express the least positive attitudes toward annuities. Those who are "somewhat confident" are less positive than the "not too confident" while the "not at all confident" are most positive. Those who are "not sure" about their retirement assets lasting express a positive attitude toward immediate annuities (Table 3).

Confidence Assets will Last a Lifetime

A one-way ANOVA between confidence in retirement assets lasting through retirement and attitudes toward annuities shows a more positive attitude toward annuities

for the groups who were not too confident, not at all confident, and unsure. The result of the F ratio was 3.616 ($p < .007$); the difference between the confidence groups was significant at the .01 level.

Table 3 . Attitudes in Relation to Confidence in Retirement Assets Lasting in Retirement

Confidence levels	<i>Attitude Score</i>	
	<i>M</i>	<i>SD</i>
Very confident	24.83	7.39
Somewhat confident	27.70	5.38
Not too confident	28.38	5.31
Not at all confident	28.80	6.05
Not sure	28.21	4.74

Note: significant at the .01 level

Annuity Intentions

To assess intentions to annuitize, respondents were asked what percent of their assets they would consider annuitizing. More than 30% are not sure; 15.4% do not plan to annuitize any assets. When asked reasons for *not* annuitizing, the largest group (36.4%) indicated they “don’t know enough about annuities” while 19.6% want to leave money to family (Table 4).

Retirement Education

Employees who had taken a retirement planning seminar or class were expected to have a more positive attitude toward immediate annuities than employees who had not received retirement education. The assumption was that retirement classes or workshops would include information about annuities; the university’s retirement seminar for employees emphasizes the benefits of annuities for hedging longevity risk. The hypothesis was tested by comparing three groups: those who have not attended a retirement seminar, those who have taken a retirement class other than the one offered for university employees, and respondents who attended the university’s class. The group that had not taken a retirement class had an average annuity attitude score of 27.6 ($SD = 5.91$) while those who had attended another retirement class scored 27.4 ($SD = 5.79$). The respondents who attended the university retirement seminar had the highest mean annuity attitude score of 28.0 ($SD = 5.46$). A one-way ANOVA measured the differences in attitude scores between these three retirement education groups. The F ratio was .203 ($p < .81$). Therefore, attending any retirement class or the university class did not significantly affect respondents’ attitudes toward annuities.

Table 4. Reasons Not to Purchase an Annuity

Reasons	<i>N</i>	%
Do not have enough income	73	10.6
Can do better by investing myself	73	10.6
Won't live long enough	28	4.1
Want flexibility of own money	128	18.7
Want to leave money to family	134	19.6
Don't know enough about annuities	249	36.4
Total	685	100.0

In sum, these high-income and asset, highly educated university employees admit to a lack of knowledge about investing in general and profess minimal knowledge about annuities. While this result may not be surprising for the younger employees, a separate analysis^v found that self-assessed knowledge did not improve for employees approaching retirement. Although the annuity attitude scores for the employees who took the university's retirement planning seminar were more positive than those with no retirement education or a different seminar, the difference was not statistically significant. A notable finding is that the more respondents claim to know about annuities and investing, the less positive their attitudes toward immediate annuities, providing additional evidence of the "annuity puzzle."

DISCUSSION AND RECOMMENDATIONS

One purpose of this article is to encourage consumer educators to become informed about immediate annuities and their role as a *supplement* to Social Security and personal investments as a source of retirement income. The value of immediate annuities for retirement income is a singular area of agreement among economists (Babbel, & Merrill, 2007). Retirees who invest their retirement wealth in stocks, bonds, money market funds, face greater risk, higher expenses, and the likelihood that returns will fall short of annuity returns (Babbel, & Merrill, 2007). Annuitization is not an "all or nothing" or a one-time decision, but is part of an overall investment income strategy that combines immediate annuities with Social Security benefits and an investment portfolio to provide a level of guaranteed income combined with a growth-oriented investment portfolio to keep pace with inflation.

The consumer and personal finance education literature has virtually ignored the role of immediate annuities in mitigating longevity risk. Until recently the personal financial planning literature has emphasized the 4% withdrawal rule with extensive

research exploring many variations on how to make assets last for a 30 year retirement while avoiding “failure” (running out of money before running out of life). However, more financial planning researchers are suggesting the value of combining immediate fixed annuities (e.g., Spitzer, 2009) to ensure against outliving assets with a moderately aggressive investment portfolio to help assets continue to grow to keep up with inflation (Cooley, Hubbard, & Walz, 2003).

The results of this study indicate that these well-educated university employees lack knowledge about immediate annuities. Furthermore, many confess to know little about investing, yet are confident that they will be able to manage their assets to last for their lifetime. This lack of investment knowledge, combined with the expectation that they will be able to manage an investment portfolio through their aging years, is troubling in light of our understanding of the decline in mental abilities that accompanies aging (Kasten & Kasten, 2011). With 78 million baby boomers beginning to retire, there is a clear need for more education about how to effectively ensure against outliving one’s assets in retirement.

About one fifth of respondents indicated they were reluctant to annuitize because of a bequest motive. However, life insurance can be purchased to ensure a bequest as part of an annuity strategy. The guaranteed income from an annuity also can allow a retiree to give more generously while alive rather than hoping to leave a bequest at death.

Studies reveal that retirees are happier and more satisfied if a significant portion of their income is predictable and reliable (Panis, 2004). Overcoming the reluctance to annuitize is a challenge for educators. Results show that lack of familiarity with annuities affects attitudes and intentions to annuitize. Based on framing research, appeals to retirees should focus on the security of a predictable income that will last for a lifetime. In addition, couples should be encouraged to consider annuitizing part of their assets to ensure security for the surviving spouse, typically the woman, who is most at risk of outliving assets.

Educational programs and appeals based on behavioral economics principles can improve the effectiveness of financial education. Framing, or how annuities are presented, affects attitudes and purchase intentions (Agnew et al., 2008; Brown et al., 2008). Positive framing emphasizes the benefits of a suggested behavior. For example, purchase of an annuity will provide income for life. Avoid negative framing or focusing on losses resulting from not following a recommended behavior (i.e., if I don’t purchase an annuity, I may outlive my retirement savings). Health research suggests that when faced with greater uncertainty, patients focus on the negative outcomes of a decision (Agnew et al., 2008). How long one is likely to live and what end of life health care and assistance will cost are fraught with uncertainty; focus instead on the positive aspects of the partial annuitization strategy which is supported by research as the most effective means to ensure adequate retirement assets.

Educators need to explain the role of annuities in addressing longevity risk and to illustrate the benefits of purchasing sufficient annuity income to cover basic expenses while investing remaining assets moderately aggressively to ensure growth. Estimating longevity with online calculators can be an effective strategy to illustrate longevity risk.

Annuities are not suitable for individuals with small retirement balances, retirees whose wealth is already heavily annuitized (less common for future retirees), persons

facing large immediate expenses, and those with below average life expectancy (AARP, 2010). However, most of these caveats do not apply to the majority of workers who participate in a defined contribution retirement plan. Although this study focused on university employees, the need for more retirement planning education, including the benefits of partial annuitization, is needed because many retirees lack the knowledge, skills, interest and cognitive ability to manage a retirement portfolio in retirement (Kasten & Kasten, 2011). Further, such education should include advanced life deferred annuities (Gong & Webb, 2007) which can be purchased early in retirement but delay payout until around age 85, resulting in addressing longevity risk at a lower cost. One third of 65-year old women are likely to live to age 90 or more (Brown, 2000). Consumer educators need to prepare workers who lack a defined benefit pension to set up their own “paycheck for life” (Brown, 2008).

Turner (2010) found that online retirement planning websites ignore annuities as a retirement planning strategy. This finding may help explain why the university employees who consider themselves most knowledgeable about investing express the least favorable attitudes toward annuities; perhaps they rely on online retirement planning resources. This may be a case of over confidence combined with the dominant 4% withdrawal paradigm.

An unexpected finding of this study is the very low self-rating of investment knowledge among these university employees, suggesting a broader need for investment education classes. Yet this professed lack of knowledge is consistent with research reporting low investment knowledge levels of Americans (Lusardi et al., 2009).

This survey was limited to the higher paid, higher educated employees^{vi} of one university so results are only suggestive of the knowledge and attitudes of other pre-retirees. A further limitation is that knowledge was self-assessed; there was no objective measure of investment or annuity knowledge. Future research should include objective knowledge measures. No information is available on the content, depth, or timing of the “other” retirement classes employees reported. While most universities offer an annuitization payout option in defined contribution plans, most corporate plans do not (Yakoboski, 2009), suggesting an even greater need for annuity education for private sector employees.

In sum, the results of this study suggest the need for improved consumer education about immediate life annuities and their role in providing a retirement income consistent with the life cycle savings hypothesis. Part of this education should include the importance of buying from a highly rated insurance company, as rated by all five major rating services, and not exceeding the state guarantee agency^{vii} limits, typically a minimum of \$100,000, in the event the issuing company fails. While the lack of ethics and due diligence on the part of the ratings agencies contributed to the global financial crisis in 2008, revealing flaws in the insurance ratings industry, the role of immediate annuities in ensuring financial security should not be dismissed. These weaknesses should serve as additional warnings of the need for careful research before purchasing immediate annuities.

Adding together the risk factors of longevity, declining mental abilities (Kasten & Kasten, 2011), the disinclination to manage an investment portfolio, the challenge of ensuring an acceptable level of income while not depleting assets or living too frugally, a

future that promises us a much more volatile and risky investment environment, the addition of a secure income stream from an immediate fixed annuity should appeal to most retirees. With investment markets in the 21st century appearing more volatile than in the previous century, adding diversity to the sources of retirement income is one way to cope with uncertain investment returns. As further evidence of the importance being placed on immediate annuities as one strategy to cope with financing the babyboom retirement wave, in February 2010, President Obama's *Middle Class Task Force* issued a report calling for the promotion of annuities and other forms of guaranteed income (Annual report, 2010).

Appendix

Annuity Attitude Questions

1. Suppose there is a financial product that provides a guaranteed monthly income for your life/your spouse's life. However, the product would not allow you to withdraw any money other than these monthly payments. How likely would you be to purchase this product with a portion of your assets if it offered the following features?

Very likely; Somewhat likely; Not too likely; Not at all likely

- a. Protection against a large drop in the stock market
- b. Certainty about the rate of return on the product
- c. Certainty about how much money you will get each month
- d. Certainty that you would not lose any money

2. If you had recurring monthly expenses that were not covered by your Social Security income, how much, if at all, would a guaranteed monthly income add to your peace of mind? Would it add (see list below)?

A great deal; A moderate amount; Not too much; Not at all; Not sure

3. How convincing are the following reasons below to purchase a guaranteed income with a portion of your retirement assets:

Very convincing; Somewhat convincing; Not too convincing; Not at all convincing

- a. You may be able to get a larger amount of money each year from this product than you can from withdrawing just gains, dividends, or interest.
- b. The payments of this product will continue for as long as you (and your spouse) live.
- c. This product helps you manage your budget because you get a predictable amount of money every month, just like a paycheck.
- d. This product can help you remain independent because the money will never run out.

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Notes

ⁱSee Pfau (2010) and Athavale & Goebel (2011) studies in the review of literature

ⁱⁱThis computer technique, named after the famous casino, simulates potential future investment outcomes based on a large number of possible combinations of historical rates of returns.

ⁱⁱⁱAssuming the annuity is purchased from a highly rated insurance company and the amount of each annuity is under the ceiling of the state guarantee fund.

^{iv}Cronbach's alpha is a measure of internal consistency reliability indicating the degree to which a set of items measure a single construct.

^vAvailable from author

^{vi}Due to the division between defined benefit and defined contribution retirement plans by employee category.

^{vii}National Organization of Life and Health Guaranty Associations, <http://www.nolhga.com/>

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