Public Misperceptions About Retirement Security

A world of insight.

A 2005 Report

PUBLIC MISPERCEPTIONS ABOUT RETIREMENT SECURITY

Eric T. Sondergeld, ASA, CFA, MAAA
Retirement Research
860-285-7754
esondergeld@limra.com

Mathew Greenwald, Ph.D.
President
Mathew Greenwald & Associates
202-686-0300 x101
mathewgreenwald@greenwaldresearch.com

Editor

Linda Rowland
LIMRA International

006822-105-1,000-000G23 Printed in U.S.A.

Contents

Click on page
number to connect.

FIGURES AND TABLES

Click on page
number to connect.

ACKNOWLEDGMENT

LIMRA International, Inc., the Society of Actuaries, and Mathew Greenwald & Associates would like to acknowledge the members of the Society of Actuaries Committee on Post-Retirement Needs and Risks and others that contributed to this project.

Anna M. Rappaport, Chair, SOA Committee on Post-Retirement Needs and Risks

James A. Beirne, Retired

Monica Dragut, Mercer Human Resource Consulting

Matthew Drinkwater, LIMRA International

Ruth Helman, Mathew Greenwald & Associates

Howard M. Iams, Social Security Administration

Emily K. Kessler, Society of Actuaries

Richard G. Schreitmueller, Retired

Anthony Webb, International Longevity Center — USA

EXECUTIVE SUMMARY

"It's not what we know that gives us trouble. It's what we know that ain't so."

— Will Rogers

This paper identifies and discusses 10 ways in which Americans lack a realistic understanding of retirement saving. Under the most common patterns of employee benefits being offered today, workers need to accumulate substantial savings before retirement and then gradually draw down those savings after retirement. Therefore, personal knowledge and choices in planning for retirement will be much more important in the future. Unfortunately, many workers and retirees have an incomplete or misleading picture of how much they need to save, how to invest such savings effectively, and how to make their money last as long as they live. Clearing up such misconceptions will be essential for people to fulfill their dreams of a comfortable retirement.

Over the next decade, more baby boomers will reach traditional retirement ages. In the long run, this brings very good news; many retirees can expect to live a long time, with the opportunity to choose when to retire and how they wish to live. Moreover, poverty rates among the elderly have dropped dramatically, to about 5 percent for married couples and 13 percent for women living alone.[1] This is truly progress.

This paper, a joint project by the Society of Actuaries, LIMRA International, and Mathew Greenwald & Associates, is sponsored by the Society of Actuaries Committee on Post-Retirement Needs and Risks. Its goal is to bring together and organize data on these misconceptions. The intention is to give interested parties a far more complete picture than they could determine from any of the studies individually. It is hoped that this paper highlights where there are gaps in knowledge and lays the foundation for educational programs and other measures.

1. **Saving too little.** Most people have not tried to estimate how much money they will need for retirement. Moreover, those who have calculated this amount often underestimate it.

2. **Not knowing when retirement will occur.** Many workers will retire before they expect to, and before they're ready.

3. **Living longer than planned.** As individuals learn to manage their own retirement funds, they may not understand that life expectancy is a very limited planning tool. In fact, some retirees will live long beyond their life expectancy, with a substantial risk of outliving their savings.

4. **Not facing facts about long-term care.** Many people underestimate their chances of needing long-term care. Relatively few people either own long-term care insurance or can afford to self-insure an extended long-term care situation.

5. **Trying to self-insure against long life.** Although people find guaranteed lifetime income attractive, in practice they usually will choose to receive retirement plan benefits in lump-sum form. They pass up opportunities to get a lifetime pension or annuity, failing to recognize the difficulty of self-insuring their longevity.
6. **Not understanding investments.** Due to the growth of workplace retirement savings plans, workers are now responsible for managing investments for retirement. However, many workers misunderstand investment returns and how investment vehicles work.
7. **Relying on poor advice.** A significant portion of retirees and pre-retirees do not seek the help of a "qualified professional." Yet they indicate a strong desire to work with a financial professional.
8. **Not knowing sources of retirement income.** Workers misunderstand what their primary sources of income will be in retirement, and may be disappointed when trying to live on the income that's available.
9. **Failing to deal with inflation.** Inflation is a fact of life that workers usually deal with through pay increases. But after retirement, few people can increase their income to keep pace with the cost of living.
10. **Not providing for a surviving spouse.** Many married couples fail to plan for the eventual death of one spouse before the other. This can have serious consequences, especially when the survivor is the wife.

As evidence of widespread misperceptions about retirement security, the text of this report cites many surveys. Some surveys cover the American public, others cover people in retirement plans, and still others cover people in 401(k) plans. A detailed list of these surveys at the end of the report explains the sample and methodology for each survey the first time it appears in the list. In the survey results, percentages may not add to 100 percent because of rounding.

Chapter 1:
Savings Goals

The shift in responsibility for retirement security from employers to workers means that workers must accumulate significant nest eggs by the time they retire. Correctly estimating the size of this nest egg is important because underestimating the amount can mean forfeiting dreams, or even deprivation, in retirement. Yet a majority of Americans have not tried to estimate how much money they will need for retirement and many of those who have may have arrived at estimates that are too low, putting their retirement security into jeopardy.

Nearly 3 in 5 American households have not tried to estimate how much they need to save for retirement (57 percent).[2] Among those who have tried to figure out how much money they may need, many appear to have used unreliable methods. Almost one quarter report obtaining an estimate from a financial advisor or doing a calculation based on a worksheet or form, but one third seem to have used a back of the envelope calculation and 2 in 10 appear to guess, making assumptions based on what they have read or heard, or use some other method (12 percent).[3]

The results show evidence that some of these methods are unreliable. Estimates of savings goals often appear to be inaccurate, falling short of what may be needed. Those who provide the results they obtained when trying to figure out how much they need to save for retirement report the following:

Table 1 —
Reported Estimates of Savings Needed for Retirement — Nonretirees*

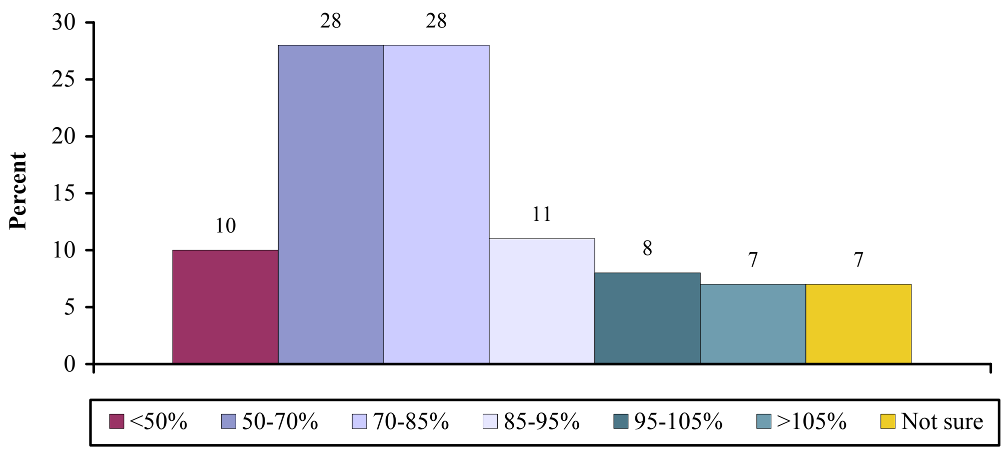
	Current Household Income			
	Less than $35,000	**$35,000 – $74,999**	**$75,000 or more**	**Total**
Less than $250,000	41%	16%	8%	18%
$250,000 – $499,999	8	13	3	8
500,000 – 999,999	6	13	12	11
1MM – 1.49MM	8	8	14	11
1.5MM or more	5	13	20	14
Could not do calculation	0	3	3	3
Don't know/remember	33	35	39	36

**2004 Retirement Confidence Survey,* Employee Benefit Research Institute, American Savings Education Council, and Mathew Greenwald & Associates, 2004. Random digit-dial telephone interviews of 1,002 Americans age 25 and older (785 workers and 217 retirees).

While the amount reported increases with household income, only about one third have estimated an amount that will come close to safely replacing at least half of their current income (using constant dollars). Another third say they have done a calculation, but are not able to give the results. This implies that they are not saving toward their goal even if they have calculated it.

When nonretirees are asked how much of their pre-retirement income they need for a comfortable retirement, they provide a broad range of estimates.[4] One in 10 think they need less than 50 percent of their pre-retirement income, while almost 3 in 10 believe they need 50 percent to 70 percent and 7 percent say they do not know how much they need. The remaining 54 percent give more realistic estimates.

Figure 1 —
Retirement Income Needed as a Percent of Pre-retirement Income — Nonretirees*



**2004 Retirement Confidence Survey,* Employee Benefit Research Institute, American Savings Education Council, and Mathew Greenwald & Associates, 2004. Random digit-dial telephone interviews of 1,002 Americans age 25 and older (785 workers and 217 retirees).

Surprisingly, those who have tried to calculate a savings goal are even more likely than those who have not to say they will need less than 70 percent of their pre-retirement income for a comfortable retirement (43 percent vs. 36 percent).

Even those who have done a calculation using seemingly reliable methods may be incorrectly estimating their needs. Worksheets and forms often use income replacement ratios to determine the amount needed to maintain the pre-retirement standard of living, traditionally 70 percent to 80 percent of pre-retirement income. But this assumes that certain expenses won't be incurred in retirement, such as health care expenses, Social Security taxes, and work-related expenses, and that a retiree won't be continuing to put money toward savings. It also assumes that retirees won't work for pay in retirement.

Several studies indicate that replacement ratios need to be higher than 70 percent if the pre-retirement standard of living is to be maintained. One study found that actual replacement levels of retirees vary by household income, and more than 70 percent of pre-retirement income is needed at all income levels.[5]

Table 2 —
Actual Replacement Ratios*

Pre-retirement income	Social Security	Private and employer sources	Total
$30,000	56%	28%	84%
50,000	48	29	77
70,000	39	37	76
90,000	33	45	78
150,000	20	65	85
200,000	15	73	88
250,000	12	76	88

**Aon Consulting/Georgia State University 2004 Retirement Income Replacement Ratio Study,* Aon Corporation, 2004, pages 10, 14, and 21. Data source is U.S. Department of Labor's 1999, 2000, and 2001 Consumer Expenditure Survey, which provided data on 9,738 working consumer units and 5,642 retired consumer units.

The same study found that if an employee has fully paid employer health care just prior to retirement and no coverage after retirement, additional income would be needed to replace the medical benefit, necessitating a replacement ratio of about 91 percent for someone with a pre-retirement income of $30,000 or 81 percent with a pre-retirement income of $90,000. Another study has suggested that the savings needed to cover health care — employment-based health insurance premiums, Medicare Part B Premiums, and maximum out-of-pocket costs — alone in retirement could be considerable.[6]

Table 3 —
Savings Needed to Cover Retirement Health Care Expenses Starting at Age 65*

	7% Annual Increase in Employment-Based Retiree Health Premiums and Out-of-Pocket Costs		10% Annual Increase in Employment-Based Retiree Health Premiums and Out-of-Pocket Costs	
Age at death	Retiree Health Premium + Medicare Part B Premium	Retiree Health Premium + $1,500 Maximum Out-of-Pocket + Medicare Part B Premium	Retiree Health Premium + Medicare Part B Premium	Retiree Health Premium + $1,500 Maximum Out-of-Pocket + Medicare Part B Premium
80	$137,000	$202,000	$223,000	$337,000
90	257,000	381,000	495,000	754,000
100	409,000	610,000	956,000	1,469,000

*Fronstin, Paul. "Health Savings Accounts and Other Account-Based Health Plans," *EBRI Issue Brief,* No. 273, September 2004.

Replacement ratios may need to be even higher for women than for men. Some suggest that women should consider replacing 100 percent of their pre-retirement income to meet post-retirement needs. Indeed, women should be saving more money than men because they live longer and need this additional money to support themselves for about four more years than men, on average.

There are other reasons why people may have savings goals that fall short of what is needed for a comfortable retirement. A limited understanding of inflation, overvaluing a lump sum when compared with monthly income, and overestimating the investment income that can be earned on savings can lead people to underestimate the total they need to accumulate. This includes those who estimate their post-retirement income needs correctly. Failing to allow adequate resources for health care can also lead to underestimation. Working for pay in retirement can reduce the amount of money needed, but this can be a dangerous assumption to make when calculating savings needs. Some individuals who plan to work in retirement may not be able to do so.

Reducing expenses can help to stretch income in retirement. For retirees at lower income levels, however, this may mean choosing between food and medicine.

CHAPTER 2: EXPECTED RETIREMENT AGE AND WORKING IN RETIREMENT

When planning for retirement, most people target a specific retirement age, assuming they will have until then to save for retirement and will not need retirement income until that time. In addition, many workers expect to supplement their retirement income with earned income after they retire. However, a significant proportion of workers retire before they plan to and many people find they are unable to work in retirement, throwing their retirement security into jeopardy. This means that retirement planning should include the possibilities that retirement will begin before it is expected and that earned income will not be available for support in retirement.

The chances are high that many workers will retire earlier than they expect — almost 2 in 5 retirees (39 percent) in 2003 said they retired earlier than planned, and this proportion is similar to results from previous years.[7] Those who retired early cited a number of negative reasons for doing so:

- having a health problem or disability (50 percent)
- changes at their company, such as downsizing or closure (23 percent)
- another work-related reason, such as being fired, problems with boss or co-worker, etc. (22 percent)
- family reasons (20 percent)

Half cited one or more positive reasons for retiring early:

- being able to afford to retire earlier than planned (39 percent)
- wanting to do something else (22 percent)

On the whole, people tend to retire early for either positive or negative reasons, but not both. For example, only about 1 in 5 of those who retired due to health or disability also indicated they found they could afford to retire earlier than planned, and almost none wanted to do something else.

In another study, almost 3 in 10 retirees (27 percent) said they retired involuntarily due to health problems (15 percent), being forced to retire early (6 percent), a spouse or family member having health problems (6 percent), or a spouse being forced to retire early.[8] At the same time, only 4 percent of pre-retirees reported planning for the possibility of an involuntary retirement, an event difficult to plan for.

A majority of workers now expect to supplement their retirement income through employment. In 2004, more than two thirds of workers (68 percent) expected to work in retirement, compared with only 32 percent of retirees who have actually worked after retirement.[9] Only 3 in 10 workers expecting to work did not identify a financial motive as one of their reasons for working in retirement. However, those who plan to work in retirement are subject to the same factors that cause people to retire early: their own poor health or disability, the poor health of a family member, or lack of opportunity. Work for pay during retirement is rising, but it is unlikely that all of the workers who would like to work will do so.

It is uncertain what effect the increasing popularity of phased retirement will have. In 2003, 7 percent of retirees gradually reduced the number of hours they worked before retiring completely from their primary occupation.[10] Twice the proportion of workers indicated they plan a gradual retirement (16 percent).

CHAPTER 3: LONGEVITY RISK AND EXPECTED RETIREMENT LENGTH

Several major trends are converging, exposing many Americans to longevity risk, or the risk of living longer than they are planning. These trends include the following:

- People are living longer. Life expectancy at age 65 has increased about four years from 13.9 years in 1950 to 18.1 years in 2001.[11]
- The average retirement age declined by more than five years from 1950 to the early 1970s, where it remained near 62 years for both sexes for the remainder of the century.[12]
- Traditional sources of guaranteed retirement income are at risk. Confidence in Social Security retirement income is low. Fewer employers provide traditional defined benefit pension plans, with many employers instead offering defined contribution-type plans. Many employers have converted their traditional defined benefit plans to cash balance-type plans, contributing to the trend toward offering lump sums at retirement. Increased job mobility also means smaller total pension income (or lump sums) for many.

As a result of these trends, responsibility for longevity risk is being placed on the shoulders of retirees. The relatively low level of savings in America means many people will not have sufficient resources to make up any shortfalls in retirement income. Even if one were to assume people will have adequate resources, awareness is low on how to create a retirement income stream, especially one that is to last for life.

Longevity risk is further exacerbated to the extent retirees underestimate their future lifespan. They may not recognize that life expectancy is just an average and that about half of retirees will live beyond their life expectancy. There is some evidence that many people do indeed underestimate their life expectancy.[13] Also, the notion that life expectancy constantly changes as one grows older is not well understood;[*] instead, some people use life expectancy at birth as their planning target. One third of retirees and nearly half (46 percent) of pre-retirees assume they would live to a certain age when planning the details of their retirement.[14] Eleven percent of these retirees have already reached that age by the time of the survey. In addition, a common input for retirement planning software tools is

[*] For example, a 65-year old male who survives to his life expectancy of age 81 will then have a life expectancy of another 8.5 years. If he survives to age 89, he will then have a life expectancy of another five years, and so on.

life expectancy.[15] For people at or near typical retirement ages, such an assumption would cut off approximately half of potential scenarios. Worse yet, since people do not usually think in terms of joint life expectancy, the chances of at least one spouse outliving an individual's life expectancy are much higher.

Table 4 shows that there is an 82 percent chance that one member of a 65-year old couple will survive to or beyond the male's life expectancy of age 81 and a 71 percent chance of outliving the female's life expectancy of age 84. As the planned-for life expectancy age nears, many retirees will be forced to cut back on spending to make their savings last. Still others may run out of money altogether. These people will not be able to support their standard of living and many will be left with nothing but Social Security income.

Table 4 —
Survival Probabilities of 65-Year Olds*

	Percentage Surviving to Age Shown		
Age	**Male**	**Female**	**Joint****
70	88%	93%	99%
75	73	82	95
80	55	68	85
81	51	64	82
84	38	53	71
85	34	49	66
90	16	28	39
95	5	11	15
100	1	2	3

*Human Mortality Database, University of California, Berkeley (U.S.A.), and Max Planck Institute for Demographic Research (Germany). Survival rates are based on 1999 U.S. population experience and do not reflect the expectation that people will live even longer than in 1999.

** At least one member of a couple.

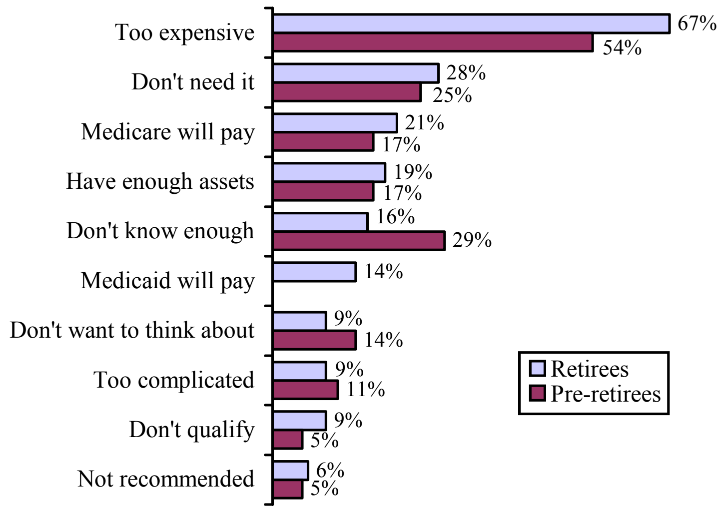
CHAPTER 4: LONG-TERM CARE

With people living longer and experiencing more chronic health conditions, the need for long-term health care is on the rise. Unfortunately, the cost of this care is not often covered by private health insurance, employer-provided retiree health care, or Medicare. Medicaid covers long-term care costs but only for individuals with very little financial means or for those that have spent down their assets to qualifying levels. Long-term care is often provided by family members. For those needing a lot of care, however, providing it is a great burden that many families are either unable or unwilling to bear. A growing number of people will not have family members available to provide this assistance. Long-term care insurance (LTCI) offers a method to privately finance care. However, the percent of older Americans and those approaching retirement age owning LTCI is low,[16] as is the percent of the population whose financial resources could pay for an extended period of long-term care out of pocket. These facts alone are making a growing number of people believe the United States is facing an impending long-term care crisis.*

The low levels of LTCI ownership are probably related to issues of affordability and understanding. The most common reason people give for not owning LTCI is that they believe it is too expensive. This belief is held by two thirds of retirees and more than half of pre-retirees (See Figure 2). However, while people generally understand how much long-term care costs, qualitative research suggests that they may grossly overestimate the cost of LTCI.[17]

*Several sources point to such a crisis, including the following: *Who Will Care for Each of Us — America's Coming Health Care Labor Crisis*, University of Illinois at Chicago, 2001. *Medicaid Crisis: Could Long-Term Care Partnerships Be Part of the Solution?*, American Health Care Association, 2004. See http://www.ahca.org/brief/test040622.htm) The American College, Essentials of Long-Term Care Insurance, Chapter 1, 2003.

Figure 2 —
Reasons for Not Owning Long-Term Care Insurance*



**Retirement Risks — How They Are Viewed and Managed,* LIMRA International, 2002. 2,768 retirees aged 55-78 and 538 pre-retirees aged 50-70 completed a mail questionnaire in the fall of 2001. Pre-retirees were defined as planning to retire within two years.

Workers and retirees are more likely to be confident about having enough money to pay for medical expenses in retirement (61 percent of workers and 72 percent of retirees very confident) than about having enough to pay for long-term care expenses in retirement (51 percent and 53 percent).[18] One reason for this concern about health insurance costs may be that workers are increasingly convinced they will not receive employer-based health coverage in retirement. The 2003 Health Confidence Survey finds that the proportion of workers age 40 and over who expect to receive such benefits in retirement from an employer has declined to one third from almost one half in 1998 (34 percent, down from 46 percent in 1998). Moreover, while 83 percent of Health Confidence Survey respondents age 40 and over feel that a Medicare supplemental insurance policy is extremely or very important, less than 1 in 5 are extremely or very confident that they can afford such a policy (16 percent).[19] If Americans are convinced they cannot afford Medicare supplement policies, they may also feel they cannot afford long-term care insurance policies.

Relative to other kinds of retirement issues, concern over health care costs is very high. Retirees and pre-retirees are most concerned about the impact each of three health-related risks could have on their retirement living standard, of the 11 risks presented.[20] The health risks include prescription drug costs, health care costs beyond those covered by Medicare and Medicare supplement policies, and long-term care costs.

While concern about long-term care is high, people underestimate the likelihood it will impact them. Only 1 in 8 Americans over age 45 believes it is very likely that he or she will spend time in a nursing home at some point after age 65 (See Table 5).[21] But in fact 1 in 5 people age 65 or older were functionally disabled or required some form of long-term care in 1999.[22]

Table 5 —
Consumer Attitudes Regarding Nursing Care*

Question	Response	Retirees	Pre-retirees
Chance that an average person now age 65 will have to spend some time in a nursing home	Very likely	23%	23%
	Somewhat likely	46	51
Chance that you will have to spend some time in a nursing home	Very likely	13%	12%
	Somewhat likely	30	32
I think it is a good idea to buy insurance to protect against things like needing extended nursing care.	Describes well	26%	16%
	Describes somewhat well	21	33

**2001 Risks and Process of Retirement Survey,* Society of Actuaries, 2002. Telephone interviews of 600 Americans age 45 and older (282 retirees and 318 pre-retirees).

Although Table 5 also shows that approximately half of retirees and pre-retirees believe buying LTCI is a good idea, industry experts estimate that LTCI ownership is in the single digits. Yet, 1 in 6 pre-retirees and one quarter of retirees claim they own LTCI.[23] These results are confirmed in the Society of Actuaries' 2003 Risks and Process of Retirement Survey where 1 in 6 pre-retirees and retirees alike believe they own this coverage.[24] Such results suggest that people may misconstrue their various health insurance policies as actually providing long-term care coverage.

CHAPTER 5: LUMP-SUM PAYMENTS AND PAYOUT ANNUITIES

Retirement benefits are increasingly available in lump-sum form. This is largely due to the popularity of defined contribution (DC) type pensions over their traditional counterpart, defined benefit (DB) plans. Newer DB designs, such as the cash balance plan, and the trend toward allowing retirees to take their traditional DB plan benefit in a lump sum have made benefits available in lump-sum form to 43 percent of employees who participate in DB plans.[25]

Contrary to this trend is a growing body of evidence supporting the need and desire for guaranteed lifetime income.

- Retirees are most likely to be satisfied with retirement when a higher proportion of guaranteed income sources provide their income.[26]
- Retirees with a higher proportion of their income from pensions and lifetime annuities are also less concerned about outliving their assets.[27] When guaranteed income sources constitute a larger proportion of retirement income, retirees are more likely to have enough financial resources available to pay for expenses beyond the basics (i.e., food, housing, clothing, and ordinary health expenses). They are also more likely to describe their current income as sufficient to meet their expenses and to feel as financially secure in retirement as they thought they would be.[*]
- More than 4 in 5 workers say they prefer to receive their retirement plan benefit in the form of regular payments for life.[28]
- More than half of near-retirees who will not have enough guaranteed income to meet basic living expenses are interested in converting a portion of their assets into a lifetime income stream.[29**] (See Figure 3)

However, while interest in guaranteed income is relatively high, there is little evidence that people will actually annuitize a significant portion of their retirement wealth. Instead, they will likely self-insure longevity risk either out of preference or by default. The low level of concern over this risk among individuals in and near retirement suggests many are not going to do anything about it.[30]

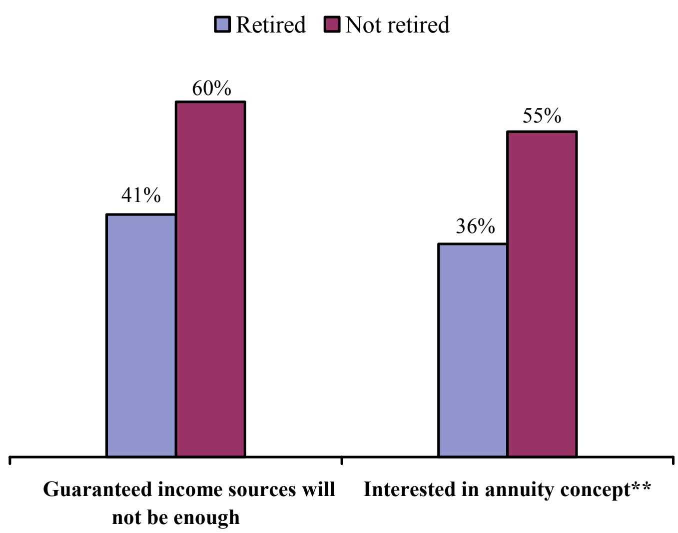
---

[*] For all of the analyses cited in this paragraph, Social Security income was excluded because a large proportion of retirees rely mostly or entirely on Social Security income. Their outlook tends to be less promising than others with significant sources of guaranteed lifetime income without including Social Security. In fact, when Social Security makes up higher proportions of retirement income, the level of concern about outliving assets is higher. Retirees whose income from Social Security was 50 percent or more of their total income were about twice as likely to express major concern about this risk as retirees whose Social Security income represented less than half of their total income.

[**] Additional analysis.

To "self-insure" longevity risk, individuals would have to invest and manage a large nest egg over 10, 20, 30 years or more. They would try to earn a good return and draw out enough income each year to live comfortably without ever running out of money. Few retirees have the skills and temperament needed, especially in their later years.

Figure 3 —
Demand for Guaranteed Lifetime Income*



*Source: LIMRA International

**Based on respondents whose guaranteed income sources will not be enough to cover basic living expenses in retirement.

So far, the election of lifetime income options by retirees is low. This is true whether retirees are considering what to do with employer-sponsored retirement plan benefits or with other retirement savings. Just 9 percent of retirees who had the opportunity to receive retirement benefits from a DB or DC plan at work in lump-sum form took an annuity option. Nearly one quarter (23 percent) began taking income installments (which are not guaranteed to last for life) and more than half either transferred their plan balance to an IRA (37 percent) or took a lump-sum distribution (14 percent).[31] Of those with only a DB plan, 16 percent receive their benefit in the form of an annuity. This figure, however, jumps to 49 percent for those aware that an annuity option was available. For those stating either no annuity form was available or they were not sure, two thirds selected installment payments. Since installment payments are not a common option under traditional defined benefit plans, perhaps many of these people confused installment payments for what was really an annuity. Of those transferring their balance to an IRA and of those investing part or all of their lump sum payment, 14 percent said they invested the proceeds in an annuity. Given the small size of the immediate annuity market, it is very unlikely that much of these funds were used to create lifetime income, at least initially.

In 2003, just 0.8 percent of individual deferred annuity assets were annuitized, representing $11.1 billion, while sales of individual immediate annuities were an additional $5.3 billion.[32] Not all of this was lifetime income. In a study of people who annuitized a deferred annuity or purchased an immediate annuity in either 2000 or 2001, nearly half (47 percent) purchased an annuity for a specified number of years (the majority for less than 10 years), though this represented just one quarter (26 percent) of the dollars annuitized.[33]

CHAPTER 6: INVESTMENT KNOWLEDGE

Numerous surveys have found that people have a fairly high level of confidence in their ability to manage their investments, but the evidence suggests that such confidence is misplaced. Many people lack basic knowledge about investment products and techniques, putting them at a major disadvantage when they try to accumulate and manage retirement savings. In some cases this might result in only a minor shortfall but for others the consequences could be more unfortunate.

At a very basic level people tend to overestimate their expected investment returns. For example, 401(k) participants expect to receive, on average, a five-year average annual return as follows:[34]

- 10.9 percent from stocks on the New York Stock Exchange
- 8.1 percent from bonds issued by large corporate entities
- 7.7 percent from money market funds
- 7.6 percent from stable value funds

Investment risk is another area that people tend to misunderstand. Defined contribution plan participants consistently rate company stock as one of the least risky types of stock (an average of 3.1 on a five-point scale in 2002).[35] (Other studies have also shown that workers view employer stock as less risky than other types of stocks.)[36] This may be because their familiarity with the company reduces concerns about risk. Domestic, diversified stock funds (3.6) and international/ global stock funds (4.1) receive higher risk ratings than company stock. However, a basic lack of investment understanding is evidenced by the fact that participants assign more risk to a money market fund (2.5) than to a domestic bond fund (2.4).

People also lack knowledge about what types of investment products and retirement accounts are guaranteed. In a 2002 study, more than half of respondents agreed with a statement that "401(k) accounts are guaranteed by law" and 4 in 10 thought that IRA investments are guaranteed by law.[37] This misperception of IRA guarantees may simply reflect a belief by some workers that IRAs must be invested in federally guaranteed certificates of deposit. Although more than half thought defined benefit plan benefits are guaranteed, more than 2 in 10 disagreed.

Many of these problems may come from people's basic lack of knowledge about investment products. When asked about the type of investments typically found in a money market fund, only 9 percent of participants in defined contribution plans are able to answer the question correctly.[38]

Nearly 8 in 10 did not know that the best time to transfer money to a bond fund is when interest rates are expected to decrease. While 9 in 10 realize that they could potentially lose money in a stock fund, 4 in 10 did not know they could lose money in a bond fund, and two thirds did not know they could lose money in a government bond fund.

Despite less than adequate knowledge overall, Americans do not appear eager to rely on advice from professional advisors when it comes to savings and investments. Only 43 percent of financial decision makers have a particular person they think of as their primary professional advisor on investment decisions.[39] Moreover, a minority of workers who report access to investment advice through their employer's retirement plan sought specific recommendations about which stocks, bonds, and mutual funds they should invest their money in for retirement (43 percent).[40] This willingness to rely on their own financial ability is further demonstrated by the preference of workers to listen to professional recommendations about saving and investing, but to then make their own decisions:[41]

Table 6 —
Preferred Approach to Saving and Investing — Workers*

Statement	Percent agreeing
You would prefer to look into investments on your own and make your own decisions	21%
You would prefer suggestions from a professional, but often make your own decisions	53
You would prefer suggestions from a professional, and most of the time use their recommendations	16
You would prefer a paid professional to manage your investments for you	7
Don't know/refused	3

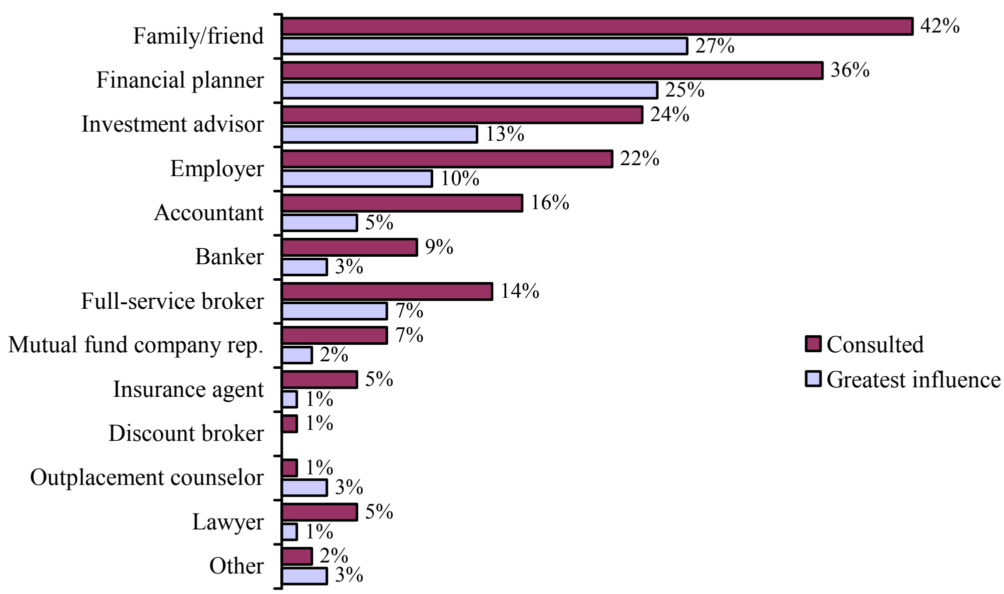
**2003 Retirement Confidence Survey,* Employee Benefit Research Institute, American Savings Education Council, and Mathew Greenwald & Associates, 2003.

Annuities might help many Americans by providing a guaranteed stream of lifetime income in retirement, while reducing the complexity of managing retirement savings. Annuities still remain unpopular options for investment, although some of the objections to them are difficult to understand. Six in 10 workers and more than half of retirees also say it is very important to maintain control of their savings when choosing a payout option, and half of workers and more than 4 in 10 retirees indicate it is very important to maintain protection against the loss of value from a pension or annuity investment should you die early.[42] At the same time, few retirees are likely to have the investment knowledge to be able to maximize their income during retirement without an annuity, and only a small minority thinks it is very important to leave money to their heirs.

CHAPTER 7:
FINANCIAL PLANNING HELP

A significant portion of retirees and pre-retirees rely on the advice of family and friends and not a financial professional to help them plan their retirements. Family and friends most often do not have the skills to help someone plan for the financial aspects of retirement nor do they always act selflessly when advising loved ones regarding financial issues. Nonetheless, workers who have the opportunity to receive a lump sum from a retirement plan at work when they retire are more likely to consult with family members, friends, or associates than with someone they identify as a financial planner.[43] Furthermore, when asked who had the *greatest* influence over their decision, the most popular answer is family members, friends, or associates (See Figure 4).

Figure 4 —
Individuals Consulted for Rollover Decision — Retirees*



**Opportunities in the Pension Rollover Market – Employee Perspective*, LIMRA International, 2002.

Even if every retiree or prospective retiree sought the advice and guidance of a financial planner or financial advisor, there is no guarantee that the advice would be good. In other words, not all financial professionals understand the myriad issues retirees face and how to best prepare for and manage them. Various financial services industry groups are creating or have already created training and designation programs to further the education, knowledge, and skills to help financial professionals guide clients through the retirement planning process. While these programs assist in creating quality retirement planning professionals, there are currently no recognized standards to identify a qualified professional. Nonetheless, retirees and pre-retirees indicate a strong preference for working with a financial professional to help them plan their retirements (See Figure 5).[44] When given a choice of several combinations of sponsor (financial professional, employer, or self) and setting (group, one-on-one, etc.), nearly two thirds (63 percent) of pre-retirees and retirees indicate a strong preference for one of the financial professional models presented.

Figure 5 —
Preferences for Receiving Retirement Advice and Planning Assistance*

**Consumer Preferences for Retirement Planning Advice,* LIMRA International, 2004.

CHAPTER 8:
SOURCES OF INCOME IN RETIREMENT

Workers often misunderstand what their primary sources of income will be in retirement. Although the importance of various sources of retirement income may be slightly different for current workers than for current retirees, an understanding of roughly how much income will be expected from each source is crucial to good retirement planning.

There is considerable evidence that workers downplay the role that Social Security is going to play in their retirement and overestimate the contribution of personal savings. One study finds that retirees are most likely to say Social Security is a major source of their retirement income (56 percent of retirees vs. 26 percent of workers). On the other hand, workers are most likely to think that savings (either through a workplace savings plan or outside of work) will be a major source of income in retirement (41 percent of workers vs. 26 percent of retirees).[45] Other studies find similar differences between workers and retirees.

Table 7—
Sources of Income in Retirement*

	Percent of retirement income				
Expected source of income	**More than 50%**	**25% to 50%**	**Less than 25%**	**None**	**Don't know/ No answer**
Money provided by your employer's retirement plans					
Workers	33%	40%	19%	3%	5%
Retirees	31	34	25	5	5
Social Security and other government income programs					
Workers	15%	35%	38%	6%	6%
Retirees	24	35	26	10	4
Other personal savings or investments, not in a work-related retirement plan					
Workers	7%	25%	46%	13%	8%
Retirees	5	12	50	23	11
Income from part-time or full-time employment					
Workers	5%	12%	51%	20%	11%
Retirees	<0.5	5	14	69	12
Money from the sale of your home or business					
Workers	2%	7%	20%	58%	13%
Retirees	1	2	4	80	13

**Retirement Plan Preferences Survey*, Society of Actuaries, 2004.

What workers may not realize is that Social Security, unlike the majority of private-employer benefits, is inflation protected. While the purchasing power of these private-employer benefits may decrease over time, Social Security does not, perhaps changing the relative importance of Social Security as a source of income. Moreover, if investments are not adequately managed, the income from these investments will also decrease in purchasing power over time, decreasing their worth as a relative source of income.

Regardless of how important they view Social Security, almost all workers are counting on it as part of their retirement income. Yet many do not know when they will be eligible to receive retirement benefits from Social Security without a reduction for early retirement. More than half of workers think they are eligible for full benefits before they actually will be (54 percent), while another 2 in 10 admit they do not know when they are eligible.[46]

Numerous studies have shown that workers are more likely than current retirees to expect to work in retirement. Almost three quarters of pre-retirees expect to receive income from employment in retirement, but less than 4 in 10 retirees report receiving this type of income.[47] In another study, 7 in 10 workers expect to receive income from employment, but just 3 in 10 retirees said they earn employment income.[48] Likewise, 7 in 10 workers with workplace retirement plans expect to receive income from employment, although only 2 in 10 retirees who receive benefits from workplace retirement plans report this type of income.[49]

The process of retirement is changing. Seven in 10 of today's retirees report retiring from their primary occupation by stopping work all at once, while only 1 in 6 continued to work for pay part time or on a periodic basis, 7 percent gradually reduced their working hours before they stop working entirely, and 5 percent continued to work for pay fulltime.[50] At the same time, 4 in 10 pre-retirees plan to stop working all at once, while one third plan to continue working for pay part time, 16 percent think they will gradually reduce their hours, and 1 in 10 expect to continue working full time. However, it is unlikely that all workers who expect to work will. As previously noted, disability and ill health are often unexpected and not all who want work can find satisfactory employment.

Finally, workers are more likely to think they will rely on money from the sale of their home in retirement than retirees actually do. Four in 10 workers expect money from the sale of their home to contribute to their retirement income, but just 14 percent of retirees say the sale of their home has provided retirement income.[51] Regardless of some wealthier retirees moving to more temperate climates, the large majority of homeowners age 65 and over appear to remain in their pre-retirement residences, and the change from homeowner to renter status appears to be largely due to widowhood.[52] It may be that people become more reluctant to move as they age, so that while current workers may think they will scale back on housing in retirement, these plans often fade away as support groups, familiar doctors and hospitals, and other considerations become more important. This conclusion is supported by the fact that 74 percent of pre-retirees, but 61 percent of retirees, think it would be acceptable to move to a smaller house or apartment if needed to reduce living expenses.[53]

Besides selling a home, there are other ways to take advantage of home equity in retirement. One is the reverse mortgage. Though not popular today, many future retirees may find it advantageous to consider this option after not saving adequately during their working years. On the other hand, as people enter retirement with increased debt burdens, workers may find that they have not built up as much equity in their homes as they thought they would.

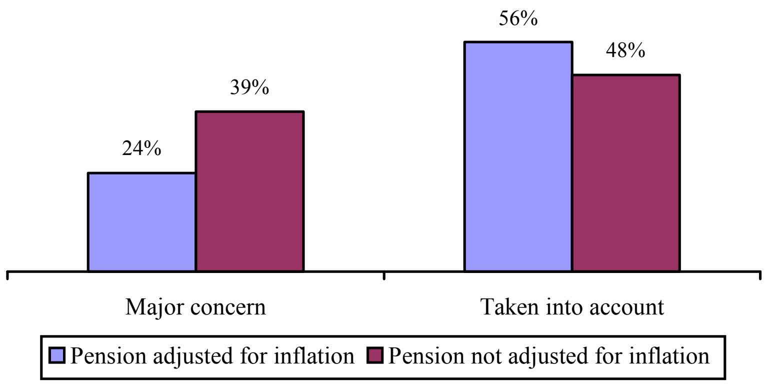
CHAPTER 9: INFLATION

Inflation is the rise in prices over time. Usually, workers' incomes keep up with, if not exceed, general price levels over time. It is likely that people approaching retirement expect inflation to continue. Perhaps our being accustomed to inflation's existence, while not really having to worry about it, results in many retirees and prospective retirees not adequately addressing its impact on their standard of living during retirement. Retirees and those approaching retirement, however, are increasingly becoming concerned about inflation. Three in 10 retirees (32 percent) and pre-retirees (29 percent) say the impact that inflation could have on their standard of living in retirement is a major concern. An additional half of both retirees and pre-retirees admit inflation is of some concern.[54] In another survey, almost 6 in 10 retirees (57 percent) and 8 in 10 pre-retirees (78 percent) are very or somewhat concerned about their savings and investments keeping up with inflation.[55]

Keeping up with inflation is also an important consideration when choosing a payout option from a retirement plan. Two thirds of workers with an employer-sponsored retirement plan (65 percent) and three fourths of retirees with benefits from a plan say that keeping up with inflation is very important when choosing a payout option from a retirement plan.[56] While this may be an important consideration, it is unlikely that those expressing this sentiment actually have/had available a payout option that keeps up with inflation. In 1985, 41 percent of employees with a defined benefit plan and working for medium or large private companies had a plan that gave post-retirement increases. By 1995, this figure had dropped to 4 percent, the same figure reported for 1992 for those working in small firms.[57] When these figures are combined with the fact that just 1 in 5 people working in private industry last year were covered by any type of defined benefit plan, it becomes obvious that many workers will not retire with an inflation-adjusted pension, other than Social Security. It's no wonder that just 18 percent of workers and 23 percent of retirees are very confident of their ability to keep the value of their savings growing at least as fast as inflation.[58]

While the majority of workers are not currently covered by a pension that is going to provide inflation-adjusted retirement income, many current retirees and many nearing retirement have such coverage. Retirees with pensions that are adjusted for inflation are less concerned about inflation and are more likely to take inflation into account in their planning than those whose pensions are not adjusted (Figure 6).[59]

Figure 6 —
Risk of Inflation — Retirees*



*Source: LIMRA International

Inflation has added to the challenge among financial modelers, columnists, and others struggling to determine the optimal retirement withdrawal strategy that will keep up with inflation and last for life. Unfortunately, their efforts will never truly succeed if they do not incorporate risk protection products for the lifetime income and hedging strategies for the inflation risk.

Just as with other risks, it is difficult to self-insure the risk with guaranteed success — unless of course you are very wealthy. There are numerous financial products available and strategies suggested that can help mitigate the effects of inflation.

Treasury Inflation Protected Securities (TIPS) — In 1997, the U.S. Treasury began issuing TIPS. These are bonds that pay interest semi-annually and return the principal amount at maturity. They differ from traditional bonds in that the interest rate is fixed but the principal amount gradually goes up with inflation, so that interest payments also grow with inflation. Retirees can buy TIPS as individual securities or as shares in a mutual fund that invests in TIPS. This will protect retirement savings against inflation, but not against other risks such as longevity.

I Bonds — Another U.S. government-issued bond that offers some inflation protection is the I Bond. These bonds pay interest in the form of a fixed rate of return plus a variable inflation rate. The earnings are not paid directly to the investor, but accumulate in the bond and are paid when the bond is redeemed. This feature and the fact that I Bonds can accrue interest for up to 30 years are characteristics that distinguish I Bonds from TIPS.

Equities — While it is true that equities generally outperform inflation, it is not necessarily true in the short run (e.g., the U.S. stock market from 2000 – 2002). Many different investments can claim they are long-term inflation hedges (e.g., gold, real estate).

Bonds — Because bond yields reflect the expected rate of inflation during their terms, they theoretically will outpace inflation. However, this would only work if bonds were held to maturity and actual inflation were in line with expectations. A bond fund is not a hedge against unexpected inflation. On the contrary, if inflation rises, interest rates would likely rise causing bond prices to fall.

Pseudo-Inflation-Adjusted Annuities — Many insurers offer a payout option of lifetime income that grows by a predetermined dollar amount or percent. While not a true inflation hedge, these options do keep the annuity income growing each year.

Inflation-Adjusted Annuities — A relatively small number of insurers offer inflation-adjusted annuity payments on their retail immediate annuities. Many of these cap inflation at 3 percent or (less commonly) 5 percent per year. What retirees need are truly inflation-adjusted annuities with no caps or with higher caps.

Applying any one of these strategies (with the exception of annuities) requires a good deal of thought and maintenance. Structuring a portfolio of inflation-indexed bonds to provide income for life is not easy. Those opting to adjust their withdrawals from savings for inflation each year must look up the rate of inflation, apply it to their prior year's withdrawal, and do so each and every year.

It is unknown if a retiree's income *needs* to keep up with inflation. The income need could actually decline in real terms at some point as a retiree becomes less active, travels less, etc. On the other hand, income needs may increase if a retiree has health problems. But are standard measures of inflation applicable to retirees? The U.S. Bureau of Labor Statistics developed an experimental inflation index, the CPI-E, to measure price changes for expenditures of people age 62 and older. Since 1982 the inflation rate of the CPI-E has been higher every year than that of the CPI-U (all urban consumers), and CPI-W (urban wage earners and clerical workers) — the inflation rate used by Social Security. While some may criticize the CPI-E as not being reflective of all Social Security recipients, any index will be an average and not perfectly align with the spending patterns of any particular individual. The only way to accomplish perfect alignment is to develop personalized inflation indices where each retiree tracks his or her spending by the major categories included in the CPI. Instead of applying the standard weighting factors for those categories, the inflation rate for individuals is weighted based on how much they, not the average person, spends in each category. This process would repeat each year.

INFLATION FACTS (as of 12/31/2004)

Since 1916, inflation as measured by the U.S. Consumer Price Index:

- Averaged 3.5 percent per year
- Was present in all but 11 years
- When it occurred, averaged 4.7 percent per year
- What $1 could buy in 1980 would cost over $2.20 today

Chapter 10: The Impact of a Spouse's Death on Retirement Income

For the majority of married couples, one spouse is going to die before the other.[60] [*] A spouse's death typically reduces the income of the survivor, at least from Social Security. Most often the wife is the survivor since, on average, women outlive men by about four years and marry men who are two years older. However, most couples fail to plan for this.

In their decision about what type of payout to take from an employer-provided retirement plan, about two thirds of married workers and retirees indicate that providing guaranteed income for their spouse after their death is very important.[61] While men are more likely than women to say this is very important, a sizeable minority of married men do not say it is a priority (28 percent of married male workers and 24 percent of married male retirees).

There is further evidence that people fail to consider the surviving spouse when choosing payout options. Less than half of married retirees with a defined benefit plan and 4 in 10 with a defined contribution plan choose to take their payout as a series of guaranteed payments for life, with additional payments if the spouse outlives them.[62] These proportions increase to one half among married male retirees. In addition, 6 in 10 married workers (two thirds of married men) say they would prefer this type of payout.

Defined contribution plans and lump-sum payments have the potential to exacerbate the problem of leaving inadequate resources for a spouse. Calculations of how much money should be set aside for the survivor need to consider not only living expenses, but the effects of inflation, the longevity of the spouse, and the increased likelihood of health care or long-term care costs of the surviving spouse. Many retirees may not have the knowledge to do this.

Moreover, when retirees choose to manage retirement savings themselves, there is the possibility that they will misjudge how much money can be withdrawn each year. This leaves the surviving spouse to manage with only Social Security payments and a pension (if any), and little or no savings cushion. In addition, certain retirement benefits, such as Social Security and employer-provided pensions, decrease or cease altogether with the death of the primary income earner. In some cases, this situation is worsened when employer-provided health insurance ceases with the death of the former employee.

[*] Nearly 3 in 4 (73 percent) spouses in a 65-year old couple will die five or more years apart and nearly half (47 percent) will die 10 or more years apart. Analysis assumes independent lives.

The severity of the problem is seen in the poverty rates among the nonmarried elderly. While only 4 percent of married people age 65 and over were poor in 2001, the percentages jump sharply for nonmarried individuals.[63] Furthermore, the poverty rates for nonmarried women are higher than for nonmarried men. In the large majority of cases the husband was the primary income earner, so widowed women are more likely to find themselves in poverty than widowed men.

Table 8 —
Percentage Poor and Near Poor by Marital Status of Those 65 and Over — 2001*

	Poor	Near poor
Married persons	4%	4%
Nonmarried men	14	9
Nonmarried women	18%	10%

* Munnell, Alicia H., "Why Are So Many Older Women Poor?," Center for Retirement Research at Boston College, *Just the Facts*, No. 10, April 2004.

SNAPSHOT

This paper identifies and discusses 10 ways in which Americans lack a realistic understanding of retirement saving. A joint project by the Society of Actuaries, LIMRA International, and Mathew Greenwald & Associates, it is sponsored by the Society of Actuaries Committee on Post-Retirement Needs and Risks. The goals of the paper are to bring together and organize data on these misconceptions and to give interested parties a far more complete picture than they could determine from any of the studies individually. It is hoped that this paper highlights where there are gaps in knowledge and lays the foundation for educational programs and other measures.

ENDNOTES

[1] Current Population Survey, 2004 Annual Social and Economic Supplement*,* U.S. Census Bureau, 2004.

[2] 2004 Retirement Confidence Survey, Employee Benefit Research Institute, American Savings Education Council, and Mathew Greenwald & Associates, 2004. Random digit-dial telephone interviews of 1,002 Americans age 25 and older (785 workers and 217 retirees).

[3] 2003 Retirement Confidence Survey, Employee Benefit Research Institute, American Savings Education Council, and Mathew Greenwald & Associates, 2003. Random digit-dial telephone interviews of 1,000 Americans age 25 and older (782 workers and 218 retirees).

[4] 2004 Retirement Confidence Survey, Employee Benefit Research Institute, American Savings Education Council, and Mathew Greenwald & Associates, 2004.

[5] Aon Consulting/Georgia State University 2004 Retirement Income Replacement Ratio Study, Aon Corporation, 2001, pages 10, 14, and 21. Data source is U.S. Department of Labor's 1999, 2000, and 2001 Consumer Expenditure Survey, which provided data on 9,738 working consumer units and 5,642 retired consumer units.

[6] Fronstin, Paul. "Health Savings Accounts and Other Account-Based Health Plans," *EBRI Issue Brief,* No. 273, September 2004.

[7] 2003 Retirement Confidence Survey*,* Employee Benefit Research Institute, American Savings Education Council, and Mathew Greenwald & Associates, 2003.

[8] Retirement Planning – The Ongoing Challenge, LIMRA International, 2003. 2,768 retirees aged 55 – 78 and 538 pre-retirees aged 50 – 70 completed a mail questionnaire in the fall of 2001. Pre-retirees were defined as planning to retire within two years.

[9] 2004 Retirement Confidence Survey, Employee Benefit Research Institute, American Savings Education Council, and Mathew Greenwald & Associates, 2004.

[10] 2003 Risks and Process of Retirement Survey, Society of Actuaries, 2004. Telephone interviews of 604 Americans age 45 to 80 (303 retirees and 301 pre-retirees).

[11] *Health, United States, 2003*, National Center for Health Statistics, Table 27, p. 133.

[12] Gendell, Murray. *"*Retirement Age Declines Again in 1990s," Bureau of Labor Statistics, *Monthly Labor Review*, October 2001.

[13] 2003 Risks and Process of Retirement Survey, Society of Actuaries, 2004.

[14] Retirement Planning — The Ongoing Challenge, LIMRA International, 2003.

[15] Retirement Planning Software, LIMRA International and the Society of Actuaries, in collaboration with the International Foundation for Retirement Education, 2003.

[16] Long-term care insurance penetration is estimated to be less than 8 percent. Dulisse, Richard A., Okumura, Kirk S., Stevick, Glenn E., Jr., and Worsham, C. Bruce, *Essentials of Long-Term Care Insurance*, Bryn Mawr, PA: The American College, 2003, p. 1-25.

[17] Long-Term Care Insurance — Consumer Perceptions, LIMRA International and the Health Insurance Association of America, 2002. In this study of six focus groups of retirees and pre-retirees, the majority of participants estimated the cost of an LTCI policy well above — sometimes by five to 10 times — the actual cost of coverage. Only those who had actually shopped around for LTCI had more realistic expectations.

[18] 2004 Retirement Confidence Survey*,* Employee Benefit Research Institute, American Savings Education Council, and Mathew Greenwald & Associates, 2004.

Endnotes *continued*

[19] 2003 Health Confidence Survey, Employee Benefits Research Institute and Mathew Greenwald & Associates, 2003. Telephone interviews of 1,002 Americans age 21 and older.

[20] Retirement Risks — How They Are Viewed and Managed, LIMRA International, 2002. 2,768 retirees aged 55 – 78 and 538 pre-retirees aged 50 – 70 completed a mail questionnaire in the fall of 2001. Pre-retirees were defined as planning to retire within two years.

[21] 2001 Risks and Process of Retirement Survey, Society of Actuaries, 2002. Telephone interviews of 600 Americans age 45 and older (282 retirees and 318 pre-retirees).

[22] Manton, Kenneth G. and Gu, XiLiang, "Changes in the prevalence of chronic disability in the United States black and nonblack population above age 65 from 1982 to 1999." Proceedings of the National Academy of Sciences of the United States of America, May 2001; 10.1073/pnas.111152298.

[23] Retirement Risks — How They Are Viewed and Managed, LIMRA International, 2002.

[24] 2003 Risks and Process of Retirement Survey, Society of Actuaries, 2004.

[25] National Compensation Survey, U.S. Department of Labor, Bureau of Labor Statistics, 2000 data.

[26] MetLife Retirement Crossroads Study: Paving the Way to a Secure Future, MetLife, 2002.

[27] Retirement Risks — How They Are Viewed and Managed, LIMRA International, 2002.

[28] Retirement Plan Preferences Survey, Society of Actuaries, 2004. Mail panel survey of 790 workers with a retirement plan from a current employer and 600 retirees who retired with retirement benefits.

[29] Retirement Planning — Activities, Advisors, and Risk Management, LIMRA International, 2004. Survey of 2,508 people age 50 – 75 with at least $50,000 in household investable financial assets. Fielded in the summer of 2003.

[30] Retirement Risks — How They Are Viewed and Managed, LIMRA International, 2002.

[31] Opportunities in the Pension Rollover Market — Employee Perspective, LIMRA International, 2002. Mail survey of 767 job changers age 30 – 70 and 1,042 retirees age 55 – 75 who had the opportunity to receive a lump-sum distribution from a retirement plan at the employer they left within the previous three years. Fielded in the fall of 2001.

[32] The 2003 Individual Annuity Market — Sales and Assets, LIMRA International, 2004.

[33] The Annuitization Study: Profiles and Attitudes, LIMRA International, 2003. Analysis of 42,192 people that purchased an immediate annuity or annuitized a deferred annuity in 2000 or 2001 and a survey of 647 of these people.

[34] John Hancock, 2002 Defined Contribution Survey. Telephone interviews of 801 employees age 25 to 65 currently contributing money to a 401(k) or equivalent plan with a choice of funds in which to invest.

[35] John Hancock, 1997 – 2002 Defined Contribution Surveys. Telephone interviews of 801 employees (in 2002) age 25 to 65 currently contributing money to a 401(k) or equivalent plan with a choice of funds in which to invest.

[36] Mitchell, Olivia S. and Utkus, Stephen P., "Company Stock and Retirement Plan Diversification." Pension Research Council Working Paper No. 2002 – 4.

[37] Merrill Lynch Retirement Preparedness Study, Merrill Lynch & Co., 2002.

[38] John Hancock, 2002 Defined Contribution Survey.

[39] 2004 MoneyTrack Survey, Mathew Greenwald & Associates, 2004. Telephone interviews of 400 financial decision makers age 21 and older.

[40] 2004 Retirement Confidence Survey, Employee Benefit Research Institute, American Savings Education Council, and Mathew Greenwald & Associates, 2004.

Endnotes *continued*

[41] 2003 Retirement Confidence Survey, Employee Benefit Research Institute, American Savings Education Council, and Mathew Greenwald & Associates, 2003.

[42] Retirement Plan Preferences Survey, Society of Actuaries, 2004.

[43] Opportunities in the Pension Rollover Market — Employee Perspective, LIMRA International, 2002.

[44] Consumer Preferences for Retirement Planning Advice, LIMRA International, 2004. Survey of 2,508 people age 50 – 75 with at least $50,000 in household investable financial assets. Fielded in the summer of 2003.

[45] 2003 Retirement Confidence Survey, Employee Benefit Research Institute, American Savings Education Council, and Mathew Greenwald & Associates, 2003.

[46] 2004 Retirement Confidence Survey, Employee Benefit Research Institute, American Savings Education Council, and Mathew Greenwald & Associates, 2004.

[47] Retirement Planning — The Ongoing Challenge, LIMRA International, 2003.

[48] 2004 Retirement Confidence Survey, Employee Benefit Research Institute, American Savings Education Council, and Mathew Greenwald & Associates, 2004.

[49] Retirement Plan Preferences Survey, Society of Actuaries, 2004.

[50] 2003 Risks and Process of Retirement Survey, Society of Actuaries, 2004.

[51] 2003 Retirement Confidence Survey, Employee Benefit Research Institute, American Savings Education Council, and Mathew Greenwald & Associates, 2003.

[52] U.S. Bureau of the Census, 2000 Decennial Census (STF-3).

[53] Retirement Plan Preferences Survey, Society of Actuaries, 2004.

[54] Retirement Risks — How They Are Viewed and Managed, LIMRA International, 2002.

[55] 2003 Risks and Process of Retirement Survey, Society of Actuaries, 2004.

[56] Retirement Plan Preferences Survey, Society of Actuaries, 2004.

[57] Employee Benefits Survey, Bureau of Labor Statistics, 1992. More recent figures are not available.

[58] Retirement Plan Preferences Survey, Society of Actuaries, 2004.

[59] Retirement Risks — How They Are Viewed and Managed, LIMRA International, 2002.

[60] Human Mortality Database, University of California, Berkeley (U.S.A.) and Max Planck Institute for Demographic Research (Germany) and LIMRA calculations. Mortality rates based on 1999 U.S. population experience.

[61] Retirement Plan Preferences Survey, Society of Actuaries, 2004.

[62] Retirement Plan Preferences Survey, Society of Actuaries, 2004.

[63] Munnell, Alicia H., "Why Are So Many Older Women Poor?," Center for Retirement Research at Boston College, *Just the Facts*, No. 10, April 2004.

LIMRA International is a worldwide association providing research, consulting and other services to nearly 850 insurance and financial services companies in more than 60 countries. LIMRA was established in 1916 to help its member companies maximize their marketing effectiveness through cooperative research and research-based products, consultation, and educational services.

Mathew Greenwald & Associates, Inc. is a premier public opinion and market research company that has conducted customized research for more than 200 organizations, including many of the nation's largest corporations, trade associations, and nonprofit organizations. Founded in 1985, Mathew Greenwald & Associates, Inc. has earned a reputation for research expertise and commitment to serving the needs of their clients.

The Society of Actuaries is a nonprofit educational, research, and professional society of 17,000 members who are involved in the modeling and management of financial risk and contingent events. The mission of the SOA is to advance actuarial knowledge and to enhance the ability of actuaries to provide expert advice and relevant solutions for financial, business, and societal problems involving uncertain future events.

LIMRA International
300 Day Hill Road
Windsor, CT 06095-4761 U.S.A.

Mathew Greenwald & Associates, Inc.
4201 Connecticut Avenue NW
Suite 620
Washington, DC 20008-1158 U.S.A.

Society of Actuaries
475 N. Martingale Road
Suite 600
Schaumburg, IL 60173-2226 U.S.A.

006822-105-1000-0G23PUBLIC