KEY FINDINGS AND ISSUES: Understanding and Managing the Risks of Retirement

>> May 2008

2007 RISKS AND PROCESS OF RETIREMENT SURVEY REPORT

SOCIETY OF ACTUARIES

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Introduction and Background

The long and widely heralded passage of Baby Boomers into retirement is now underway. Maturing into older Americans, this generation brings to the forefront serious issues of financial security and wellness. Understanding retirement risks is becoming increasingly important in our aging society, with volatility in financial markets and growing emphasis on individual responsibility for managing personal assets. Compounding these issues is the changing dynamics of work itself—specifically, how people leave the labor force or partially retire as they get older. Not only is the very concept of retirement changing, but Baby Boomers are reinventing their lives. And they are doing this within a society whose basic fabric is once more being retextured by their influential presence.

Traditionally, retirement planning had focused on the years before retirement. Almost a decade ago, however, the Society of Actuaries recognized the need to address the issues concerning how retirees manage risks after retirement and instituted its Retirement Needs Framework Project. As an outgrowth of this project, the Society commissioned surveys on public attitudes toward retirement in 2001, 2003, 2005 and 2007, conducted on its behalf by Mathew Greenwald & Associates, Inc., and the Employee Benefit Research Institute (EBRI).

The 2007 Risks and Process of Retirement Survey (2007 Survey) evaluates Americans' awareness of retirement risk, how their awareness has changed, and how their awareness affects management of their finances. The 2007 Survey included a new area of exploration—the phases of retirement. Additional reports will cover health and long-term care issues, phases of retirement and retirement issues of special concern to women in greater depth. The 2001, 2003, 2005 and 2007 studies separately analyzed current retirees and those not yet retired, referred to in these reports as 'pre-retirees.' More than half of retirees in the 2007 Survey retired before age 60.

The 2007 Survey was conducted through telephone interviews of 801 adults age 45 to 80 (400 retirees, 401 pre-retirees). The survey results are based on a representative sample of Americans and do not provide specific insights concerning high net worth individuals. Only 6% of the sample reported $1 million or more in savings and investments, although this was up from 2% in 2005. Five percent of pre-retirees and 6% of retirees report savings and investments between $500,000 and $1,000,000. Twenty-two percent of pre-retirees and 11% of retirees report household incomes of at least $100,000, up from 15% and 10%, respectively, from two years prior. At the low income end of the spectrum, 7% of pre-retirees and 19% of retirees report incomes below $25,000.

The survey respondents identified a number of risks relating to retirement. Their preponderant concerns related to the cost and availability of health care and long-term care, keeping the value of investments up with inflation, outliving one's assets, and maintaining a reasonable standard of living. In these respects, respondent concerns were little changed from 2005. Other risks include the loss of a spouse and unrealistic expectations relating to the control individuals have in timing their retirement. This report provides an overview of these post-retirement risks, how they are perceived, and ways to protect against them. It presents key findings on the major retirement risks explored in the 2007 Survey and provides context for the results in relation to other studies.

To further the understanding of changes in perception of risk, this series of surveys includes a number of new questions with each new iteration, and not all questions are repeated in each iteration. Finally, for a balanced perspective, the discussion sections in this report include input from all organizations that supported the studies and material from other related research.

Overview of Post-Retirement Risks

Post-retirement risks include those specific to individual retirees: longevity and the risk of outliving assets, declining functionality, ability to pay for health insurance and major out-of-pocket medical expenses, loss of a spouse, and change in status of other family members providing or needing assistance. Post-retirement risks also include external risks affecting retirees depending on their financial situation: inflation and volatility in financial markets.

Employee benefit plans, Social Security, private insurance and other financial products protect retirees against some of these risks. To manage the many risks in retirement, American households must determine the appropriate balance of self-insuring against these risks by independently investing their retirement portfolios, annuitizing a portion of their wealth and adjusting their spending habits as needed. Following is a summary of risks and approaches to protect against them.

Risk	Potential Range for Risk	Approaches to Manage/Transfer Risk
Outliving assets	At age 65, average life expectancy is 17 years for American men and 20 years for women. Half of those reaching 65 will survive longer. Thirty percent of all women and almost 20% of men age 65 can expect to reach 90. (1)	Annuities, including joint and survivor annuities and deferred annuities commencing at higher ages, such as 75 or 80; investment strategies to preserve principal.
Loss of spouse	Because women have longer life expectancies than men and traditionally have been younger than their husbands, periods of widowhood of 15 years or more are not uncommon. For many women, the death of a spouse is accompanied by a decline in standard of living.	Joint and survivor annuities; life insurance; investment strategies to produce income.
Decline in functional status	The cost of care as older people become frail may amount to a million dollars or more for a couple over their lifetimes. Nursing home care costs may run $70,000 or more per person per year. (2) Care may be provided at home, in adult day care centers, assisted living facilities or nursing homes.	Long-term care insurance that helps pay for the cost of caring for disabled seniors. Many continuing care retirement communities (CCRCs) cap monthly costs for assisted living and skilled nursing care, but are subject to their own financial risks.
Health care and medical expenses	With catastrophic illness, medical costs for retirees over 65 not covered by Medicare can exceed $1 million for a couple over their lifetimes.	Medical insurance, Medicare supplement
Inflation	Over the period 1980–2007, annual inflation in the U.S. for all items ranged from 1.1% to 8.9%, and has averaged 3.5%. For medical care, the annual average has been 5.9%. (3)	Ownership of home and other assets; TIPS; annuity products with a cost-of-living adjustment.

1: Social Security Administration, 2000 Period Life Table Extrapolated to 2008.
2: Metlife Market Survey of Nursing Home and Home Health Care Costs, 2005
3: Consumer Price Indices, U.S. Bureau of Labor Statistics, 2007

Key Findings from the 2007 Study

Pre-retirees are more concerned about risk than retirees.

Finding

Pre-retirees express higher levels of concern about retirement risks than those already retired, and are much more likely than retirees to be *very* or *somewhat* concerned about some of the risks examined in the study, including:

- Inability to afford adequate health care (69% pre-retirees, 51% retirees);
- Keeping the value of their investments up with inflation (63% pre-retirees, 57% retirees);
- Inability to afford long-term care (63% pre-retirees, 52% retirees); and
- Depleting their savings (56% pre-retirees, 45% retirees).

In addition, pre-retirees and retirees differ in the individual risks that concern them most; however, in both cases, these risks are related to health care. Specifically, the largest share of pre-retirees indicate that they are *most* concerned about their ability to afford adequate health care (28%), while the largest portion of retirees suggest they are *most* concerned about their ability to pay for a long stay in a nursing home or a long period of home care (18%).

As in prior studies, men and women do not differ in their prioritization of risks, although significant differences persist in the impact of risks by gender. An upcoming report in this series will explore key findings of retirement risk that are of particular concern for women.

Discussion

As in prior studies, pre-retirees are more concerned than retirees across virtually all risk areas. The risks about which they have the greatest concern continue to be health care, inflation and long-term care.

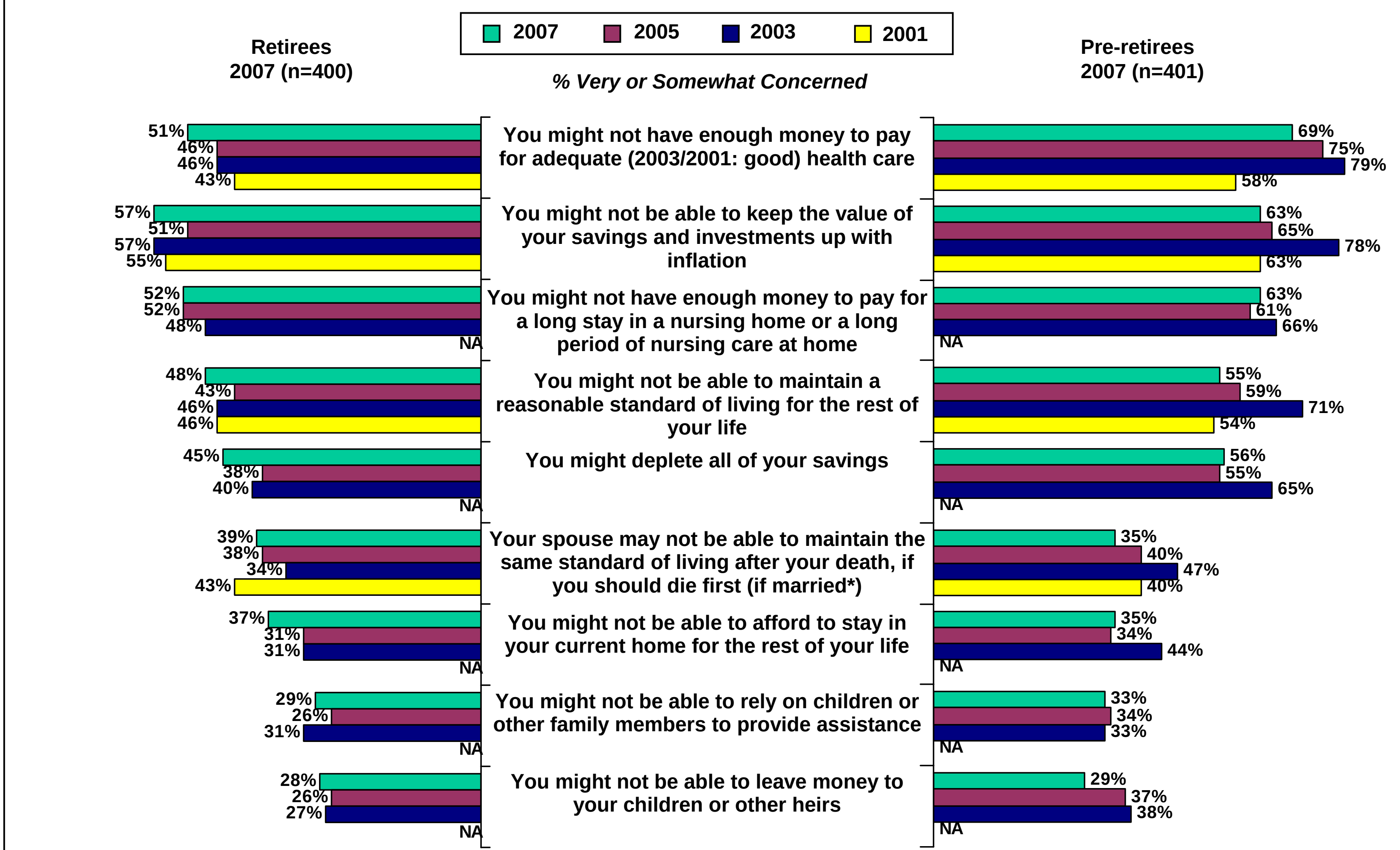
Trends observed in 2005 continue in 2007. Risk awareness increased significantly among pre-retirees from 2001 to 2003, but perceptions of risk levels have returned close to the 2001 level, except for health care. The period from 2001 to 2003 included weak equity markets and the terrorist attacks in September 2001.

Risk awareness does not seem to be increasing even though there is more media coverage on retirement issues and defined benefit plan coverage declined.

Longevity remains a key risk, and the under-appreciation of longevity risk continues to be important. This risk was not covered in detail in the 2007 survey, but a report on longevity risk entitled “Longevity: The Underlying Driver of Risk” was issued by the Society of Actuaries in 2006.

Retirement Risks—A Comparative Snapshot of Concerns

How concerned are you that…?



***Asked only of married respondents (2007: Retirees, n=261; Pre-retirees, n=299); NA – Not Asked**

Source: 2001, 2003, 2005 and 2007 Risks and Process of Retirement Surveys

Health Care Risk

Affordability of health care is the retirement risk most likely to worry pre-retirees.

Finding

While health care expenses cause significant worry among retirees, pre-retirees are even more likely to express concern about having to pay for health care in retirement. Seven out of ten pre-retirees are *very* or *somewhat* concerned about having enough funds to afford adequate health care (69%), and six in ten are concerned about having enough funds to pay for long-term care (63%). Roughly half of retirees are concerned about each of these costs.

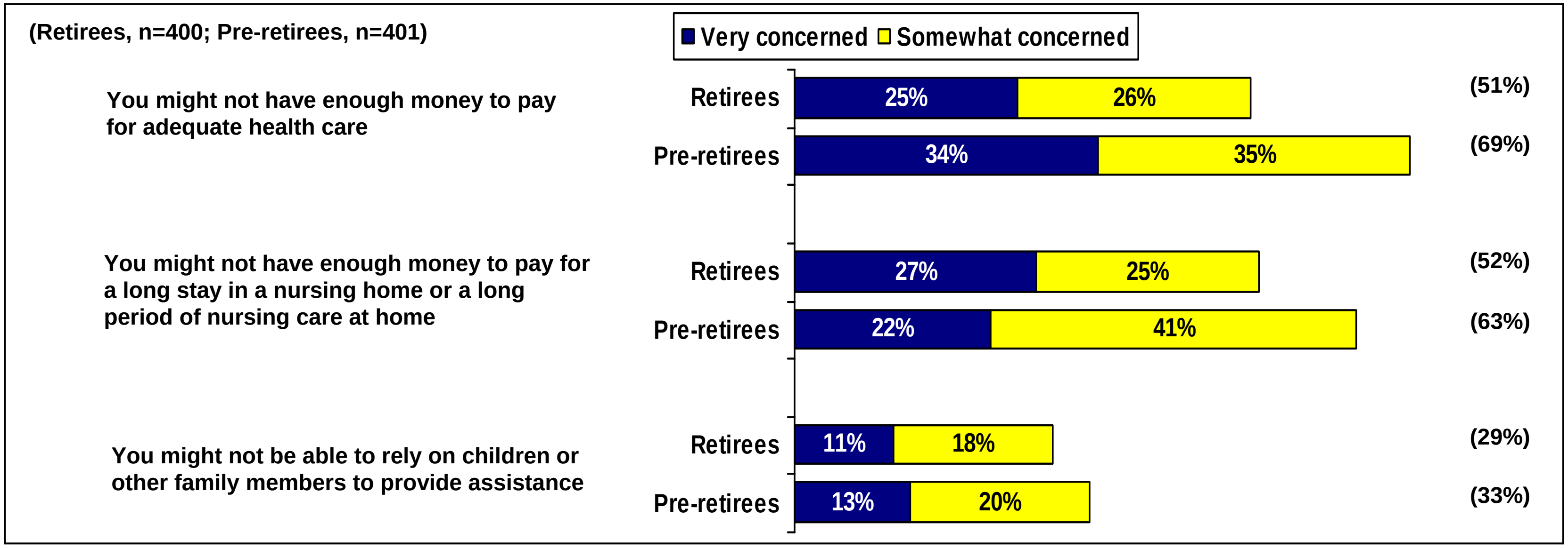
Both retirees and pre-retirees are much less likely to say they are concerned about not being able to rely on family members for assistance. About three out of ten of both pre-retirees (33%) and retirees (29%) are *very* or *somewhat* concerned about not being able to rely on family members to provide assistance.

Discussion

Health care costs have been rising much more rapidly than general inflation. Those with employer coverage, in general, have typically experienced sharp increases in their share of costs as employers shift more of this burden. Health care coverage and financing are increasing concerns for Americans at all ages. Pre-retirees without employer coverage often have a difficult time securing adequate coverage in the individual health marketplace.

Health care coverage is a major issue in the 2008 Presidential election with some candidates proposing fundamental change in the health care delivery system. The U.S. leads industrialized nations in the percentage of GDP spent on health care, and differs in that insurance for those under 65 is primarily linked to employment.

How concerned are you that . . . ?



Source: 2007 Risks and Process of Retirement Survey

Inflation Risk

Inflation risk ranks among the top three concerns of pre-retirees and retirees. Many also worry about maintaining their standard of living.

Finding

With pre-retirees expressing more concern than retirees, inflation risk ranks among the top three concerns examined in the study for both groups. About six in ten retirees (57%) and pre-retirees (63%) are *very* or *somewhat* concerned about inflation risk.

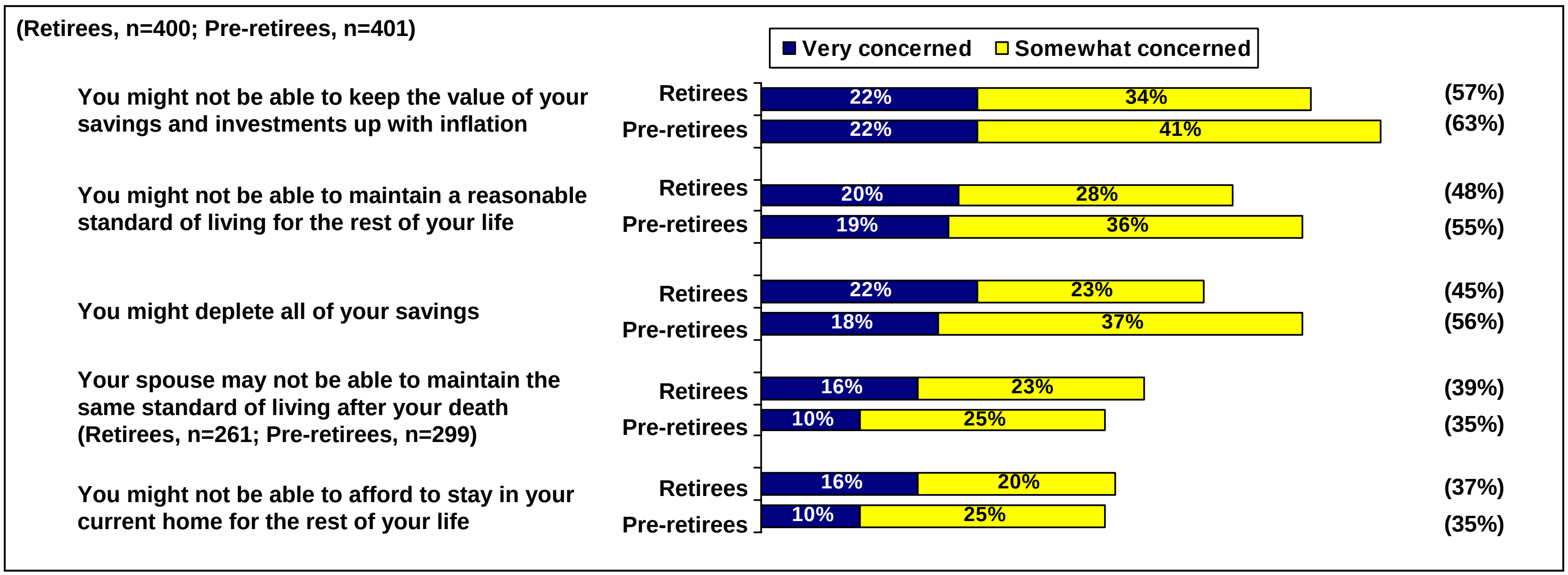
Similarly, pre-retirees are more likely to be concerned that they will deplete their savings (56%) than are retirees (45%). Many are concerned about maintaining their standard of living, with six in ten pre-retirees (55%) and half of retirees (48%) concerned that they will not be able to maintain the same lifestyle for the rest of their lives.

Discussion

Retirees are often more affected by inflation than Consumer Price Index (CPI) figures indicate. Increases in Medicare Part B premiums are far greater than benefit increases in Social Security. Social Security is the only inflation-indexed benefit that most retirees have.

Many retirees are significantly affected by cost increases in health care, utilities and transportation. Although home ownership is a hedge against rental inflation, homeowners may be affected by increases in real estate taxes. Concerns about inflation have increased since 2005 for retirees, but among pre-retirees have decreased marginally.

How concerned are you that. . . ?



Source: 2007 Risks and Process of Retirement Survey

Inflation Impact

Both pre-retirees and retirees realize that inflation will affect their income needs.

Finding

Pre-retirees and retirees differ in their estimates about how much inflation will affect their monetary needs in retirement. Pre-retirees are more likely than retirees to think inflation will affect their needs *a great deal* or *some* (76% pre-retirees, 67% retirees).

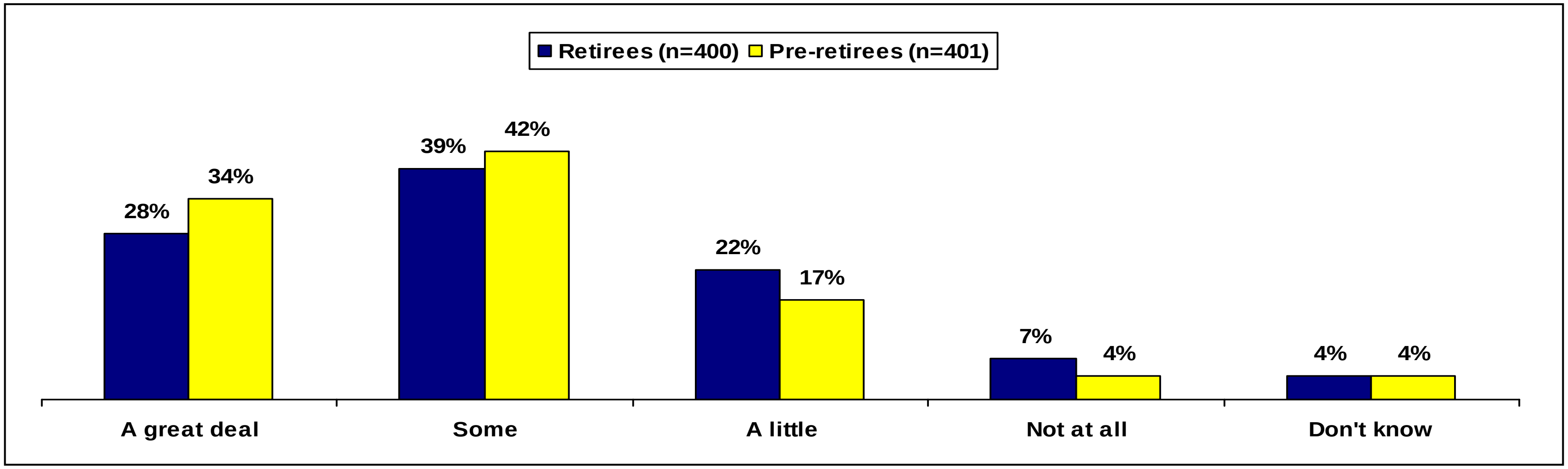
The results by gender indicate that women express higher levels of concern than men about inflation (62 percent *very* or *somewhat* concerned vs. 51 percent). Furthermore, a larger share of female retirees than male retirees think inflation will have a great deal of impact on their retirement (33 percent vs. 22 percent).

Discussion

For retirees living on a fixed income, the longer the period of retirement, the greater the impact of inflation. For this reason, women are more adversely affected by inflation than men because of their longer life expectancy, on average. Similarly, those who retire early are more affected than others who postpone retirement. Retirees, on the other hand, appear adept at coping with some inflation by cutting back on discretionary expenditures.

Health care costs, which typically are not discretionary, are a significant factor in inflation concerns. Many employers who previously offered extensive retiree health care coverage are reducing their programs. For instance, many have increased the share of retiree premium contributions as well as imposed maximum limits of coverage. Medicare Part B premiums are also rising more rapidly than in the past.

How much do you think inflation will affect the amount of money you will need each year in retirement?



Source: 2007 Risks and Process of Retirement Survey

Loss of Spouse

Few believe they will suffer financially due to the death of a spouse.

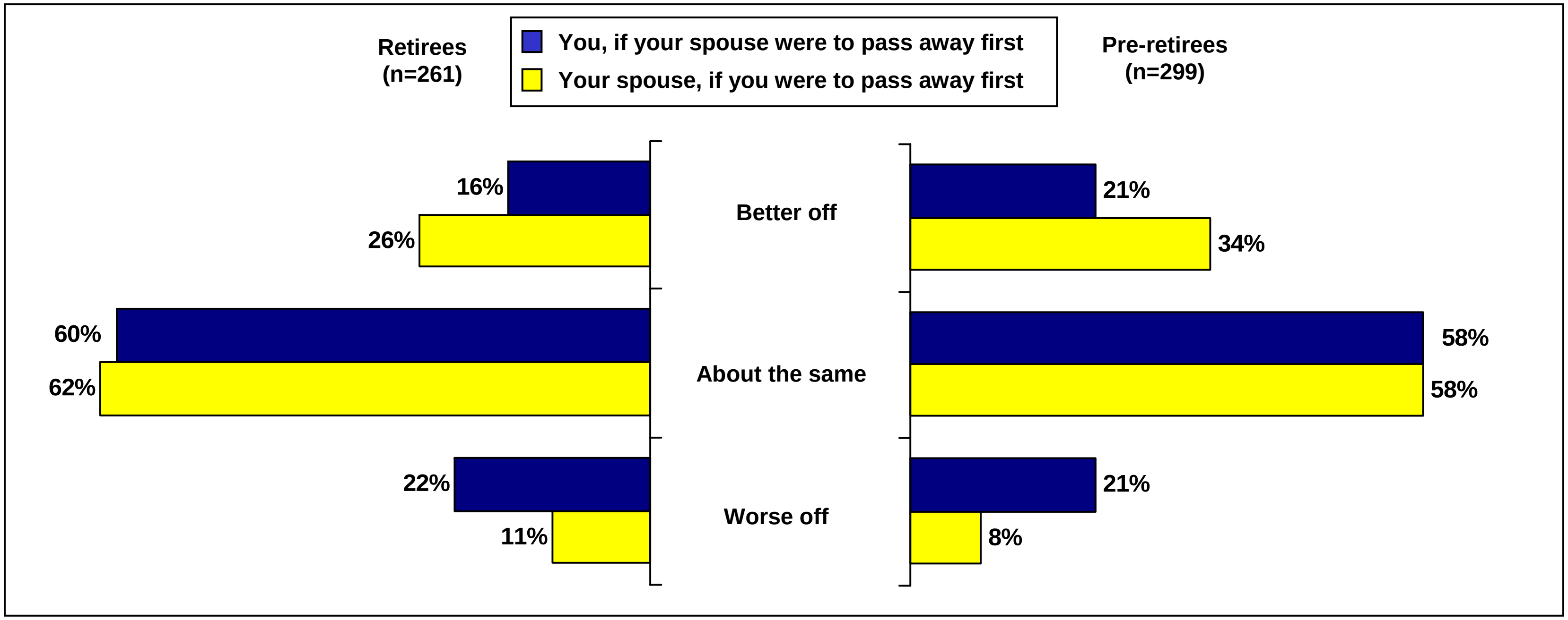
Finding

Pre-retirees and retirees have similar expectations for their own financial well-being after their spouse's death or the financial well-being of their spouse after their own death. Two in ten of both retirees (22%) and pre-retirees (21%) feel they would be financially worse off if their spouse were to die first. Only about one in ten of both retirees (11%) and pre-retirees (8%) believe their spouse would be worse off if they were to die first.

Discussion

The responses to this question, asked for the first time in the 2007 survey, indicate a seeming lack of awareness concerning the financial effect of widowhood. Many women experience a significant drop in economic status at widowhood. More than four out of ten widows have no significant income other than Social Security. According to the official poverty threshold, a single person requires nearly 80% of the income needed by a married couple. Yet the Social Security benefit paid to a survivor typically varies from between only 50% to 67% of what the couple received.

If your spouse were to pass away before you/if you were to pass away before your spouse, do you think it would leave you/your spouse financially…? (Among married retirees and pre-retirees)



Source: 2007 Risks and Process of Retirement Survey

Decline in Functional Status
A majority expect to experience some level of incapacity.

Finding

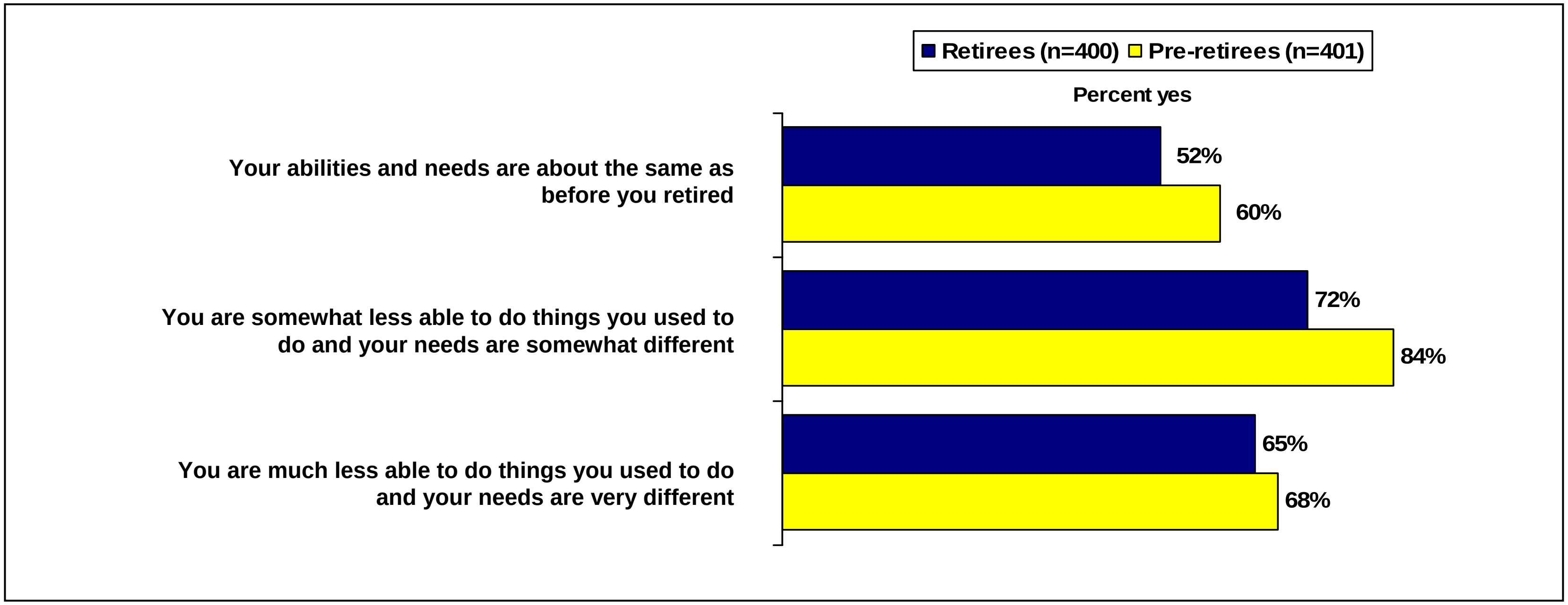
Six in ten pre-retirees expect to have an active phase of retirement (60%) compared to half (52%) of retirees. Pre-retirees are also more likely than retirees to expect a period during which they encounter previously unexperienced limitations. More than eight in ten pre-retirees expect to be somewhat limited and less active at some point during retirement (84%), versus seven in ten (72%) of retirees.

Pre-retirees and retirees have similar expectations for experiencing greater incapacity during some phase of retirement. About two-thirds of both pre-retirees (68%) and retirees (65%) expect to be severely limited and much less active at some point during retirement.

Discussion

This question exploring the dynamics of situational changes during the retirement years appears for the first time in 2007. The results indicate significant awareness that needs and abilities are likely to change during retirement. Other research studies investigating the nature of activity changes in retirement are discussed in another 2007 key findings report in this series.

Do you think you will have a time in retirement when…?



Source: 2007 Risks and Process of Retirement Survey

Use of Services

Dependence on family or community services is expected to increase as successive phases are experienced.

Finding

Pre-retirees are more likely to expect to rely on family or community services (59%) than are retirees (46%) for the second, less active phase of retirement.

Pre-retirees are more likely than retirees to expect they will need family or community assistance, paid assistance, home modifications and nursing care by the time they reach the least active, most limited phase of life.

Discussion

Retirement can be conceptualized as occurring in three phases roughly correlated to age—the younger aged having few limitations, the middle group of aged being less active and the oldest group being the least active and most dependent on assistance from others. The responses to this question provide insight into expectations for coping with the later phases of retirement. An important area of future research will be to assess these expectations versus actions taken.

I'm going to ask about some ways your needs might change during this time. Do you think you will need…? (Among those experiencing each phase)

	Less Active Phase		Least Active Phase	
	Retirees (%) (n=284)	Pre-retirees (%) (n=337)	Retirees (%) (n=260)	Pre-retirees (%) (n=266)
To modify your home or move to a home that is more livable	48	56	56	69
To depend on your family or community services for assistance	46	59	64	78
To pay someone to provide assistance	41	46	61	70
Nursing home or home health care	NA	NA	53	63

Source: 2007 Risks and Process of Retirement Survey

Delayed Retirement

Compared to retirees, pre-retirees expect to retire at later ages, if at all.

Finding

Pre-retirees expect to work beyond the age at which those now retired did. While one in ten pre-retirees currently in the workforce expect to retire prior to age 60 (10%), half of the retirees did, in fact, retire before age 60 (52%).

The largest share of pre-retirees in the workforce report they plan to retire at or after age 65 (36%). Among those in the workforce, nearly three in ten pre-retirees say they do not expect to retire (28%).

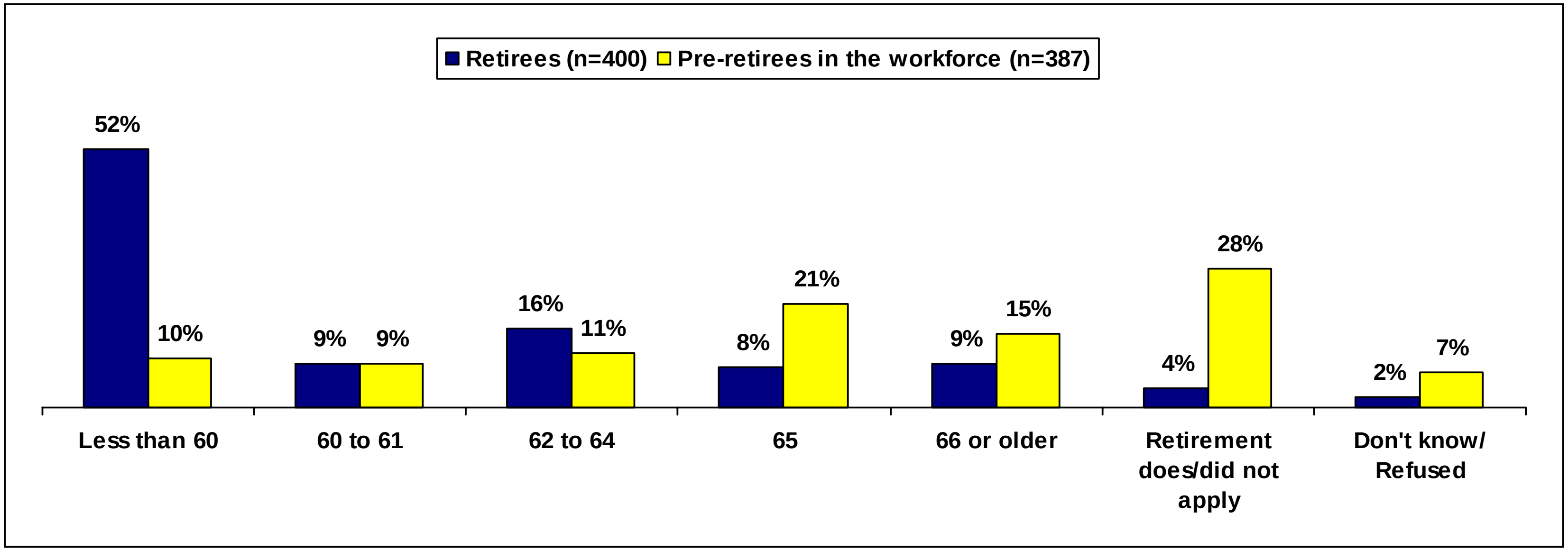
Note: Retirement age in the survey refers to retirement from primary occupation. Other research (The Retirement Confidence Study) indicates that four retirees out of 10 retire earlier than planned, usually the result of poor health, layoffs or other employment difficulties.

Discussion

In assessing delayed retirement, it appears that a gap exists between reality and expectations. While pre-retirees have consistently indicated that they intend to retire much later than current retirees did, this has not actually happened. Yet, the difference between reality and expectations may narrow in the future as more individuals consider delaying retirement due to factors such as a later age for eligibility of full Social Security benefits.

Individuals who do plan on working in later ages should consider the risk that they become unable to do so, either because of health problems, layoffs, forced early retirement or other employment difficulties. Furthermore, it is typically observed that few individuals both want and are able to work beyond age 75. This indicates a need to be explicitly prepared for retirement regardless of eventual work plans.

At what age do you expect to/did you retire from your primary occupation?



Source: 2007 Risks and Process of Retirement Survey

Managing Health Risk

Few turn to risk-reducing insurance products other than supplemental health insurance.

Finding

Pre-retirees and retirees have taken or plan to take similar actions to protect themselves financially against health risks. Nearly all pre-retirees (94%) and retirees (91%) say they will maintain a healthy lifestyle. Three-quarters have or plan to have supplemental health coverage (75% pre-retirees, 74% retirees).

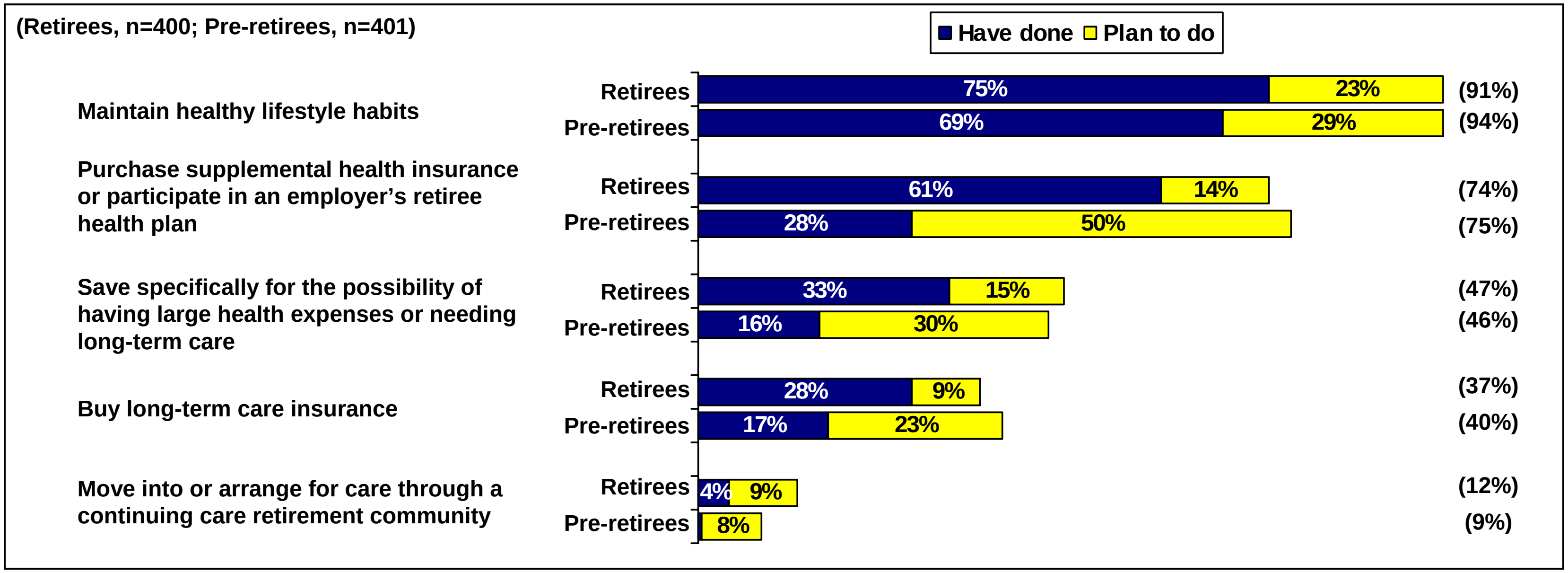
Fewer than half have saved or plan on saving specifically for health expenses. Four in ten have bought or plan to buy long-term care insurance. Just one in ten have arranged or plan to arrange for care in a continuing care retirement community.

Discussion

A high proportion of respondents indicate that they plan to maintain healthy habits. However, it is likely that a significantly greater number of them say they are maintaining healthy habits than actually do so.

A somewhat paradoxical situation exists with regard to how retirees typically approach health care coverage and other types of risk protection products. Although retirees over age 65 are already covered by Medicare for acute health care needs, they tend to concern themselves more with supplementing this coverage, rather than seeking out long-term care insurance and risk protection products for other needs that have potentially greater financial impact.

To protect yourself financially, have you or do you plan to…?



Source: 2007 Risks and Process of Retirement Survey

Managing Financial Risk
Most try to manage financial risk themselves.

Finding

Large majorities of pre-retirees, significantly more than retirees, say they have already saved or will save as much as they can (90% pre-retirees, 76% retirees) and eliminate debt (89% pre-retirees, 79% retirees).

Three-quarters of pre-retirees and retirees have or plan to pay off their mortgage (76% each). About seven in ten have cut back on spending or plan to do so, and about six in ten have invested in or plan to invest in equities.

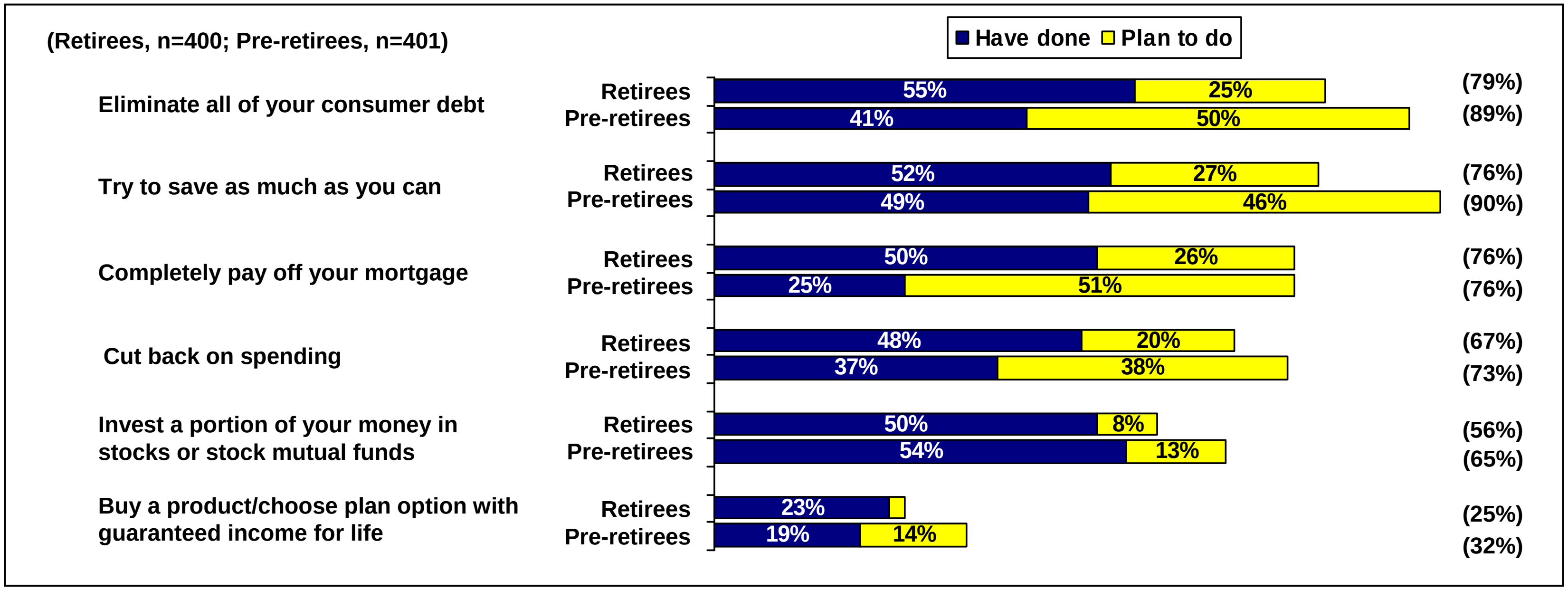
Few pre-retirees (32%) or retirees (25%) have or plan to have a product or plan option, other than Social Security, that provides guaranteed income for life.

Discussion

Retirees employ a variety of strategies for managing risk. It is evident that the most widely used strategies do not involve the use of risk protection products.

Earlier focus groups conducted by the Society of Actuaries indicate that retirees tend to be relatively short-term focused when they think about managing finances in retirement. This short-term focus makes it easier for them to avoid contemplating future risk.

To protect yourself financially, have you or do you plan to…?



Source: 2007 Risks and Process of Retirement Survey

Insurance Products

Many downplay insurance as a risk management tool in retirement.

Finding

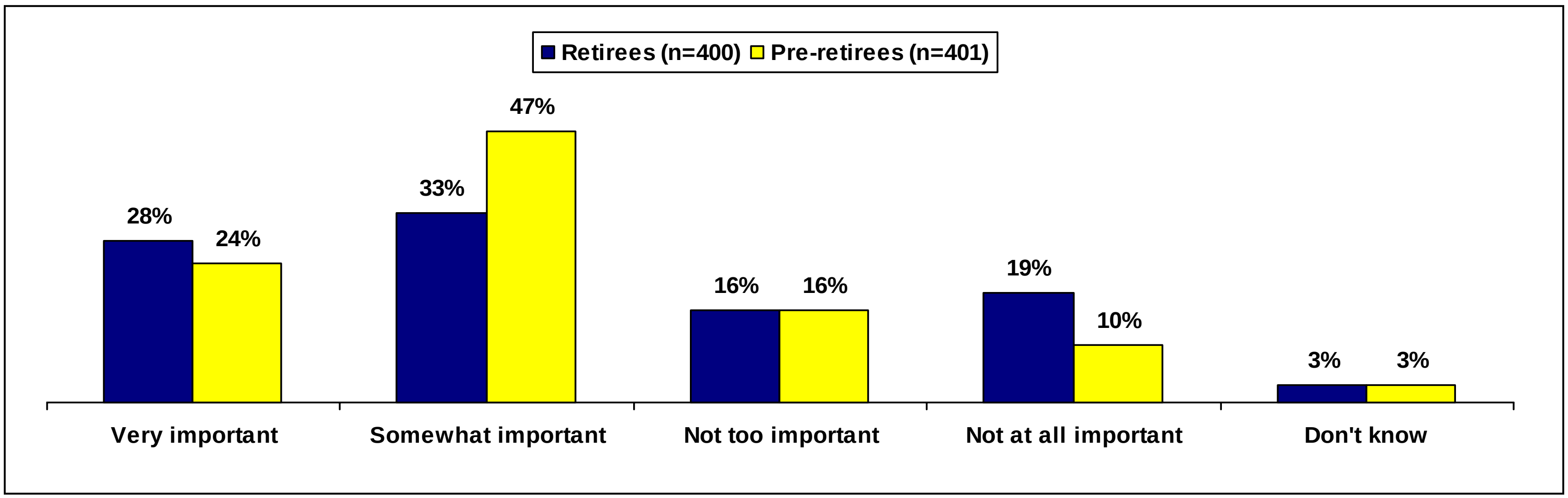
Pre-retirees are more likely than retirees to feel it is *very* or *somewhat* important to buy insurance to protect against the financial consequences of unexpected events (71% vs. 61% of retirees). Retirees are more likely to feel it is *not too* or *not at all* important to buy insurance (35% vs. 26% of pre-retirees).

Discussion

Research on the planning process for retirement indicates that the focus of pre-retirees and retirees tends toward investment management rather than balancing both risk management and investment management.

Except for supplemental health insurance, insurance products to protect against retirement risk have not been widely purchased.

How important do you think it is to buy insurance products to help protect against risks related to retirement?



Source: 2007 Risks and Process of Retirement Survey

Impact of Delayed Retirement

Pre-retirees think delaying retirement would increase their security.

Finding

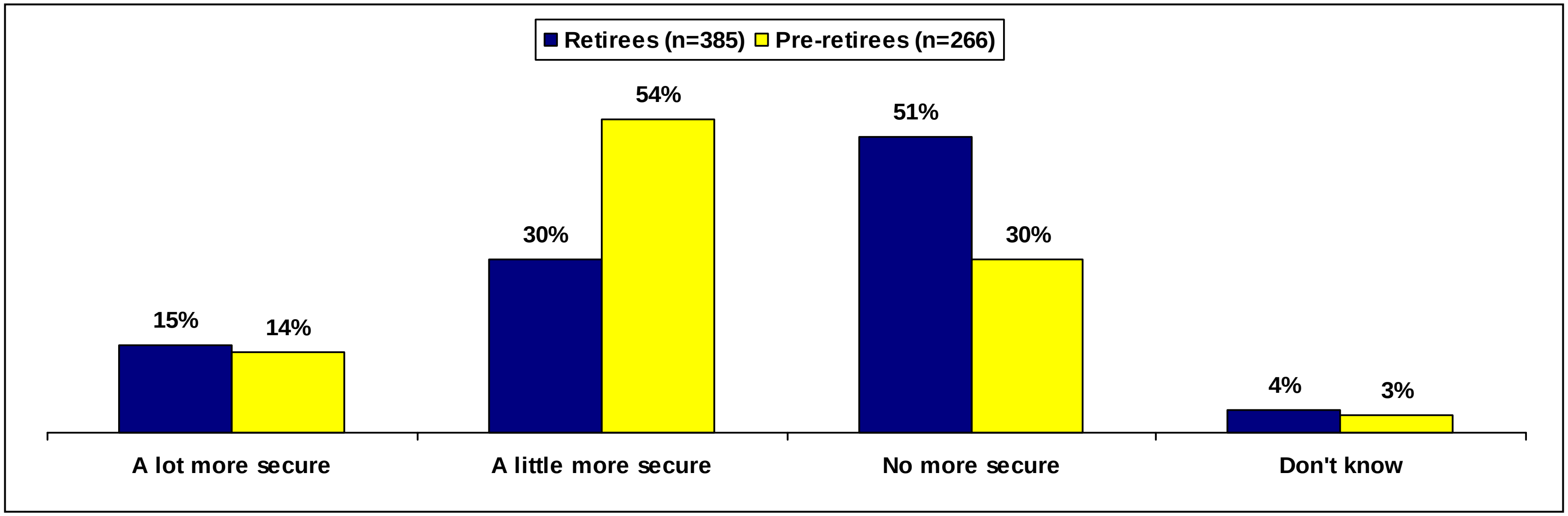
Pre-retirees are more likely than retirees to feel a three-year delay in retirement would make their retirement finances *a lot more* or *a little more* secure (68% vs. 45% of retirees). Half of retirees feel delayed retirement would have made them *no more secure* (51%), while three in ten pre-retirees feel the same (30%).

Discussion

Many actuaries and retirement professionals view longer work as the logical solution to insufficient retirement resources.

The responses to this question indicate some awareness of this approach to the problem. Greater security that comes from working longer would be most applicable to those in the middle and lower income range of the economic spectrum. High net worth individuals (those with more than $1 million in assets) are already relatively secure in retirement, and working longer is more likely to simply increase their estates.

Suppose you had retired/you were to retire three years later than you actually did/are currently planning. Do you think this would make your retirement financially…?
(Among those providing retirement age from primary occupation)



Source: 2007 Risks and Process of Retirement Survey

Impact of Delayed Retirement

Much of the added security from delayed retirement comes from employer health coverage.

Finding

Pre-retirees are more likely than retirees to feel that delayed retirement would increase their financial security in retirement.

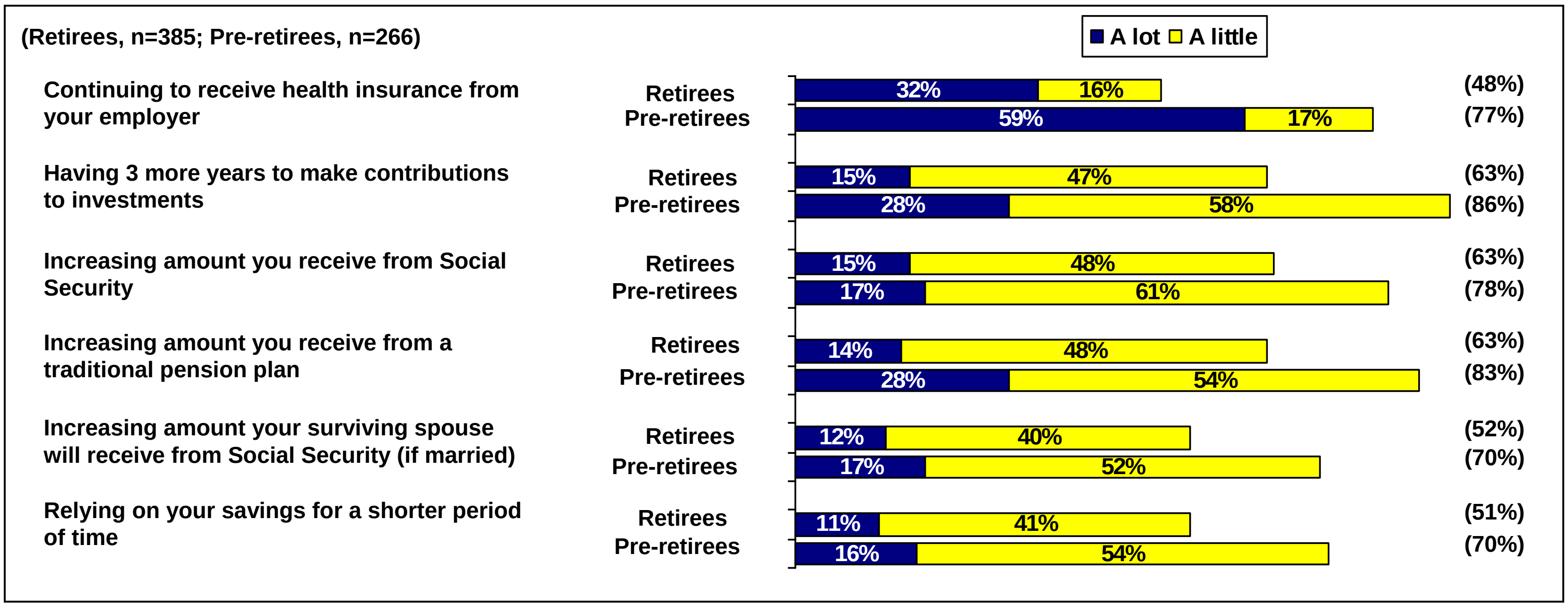
Pre-retirees and retirees alike feel that continuing to receive health insurance from their employer would most increase their financial security (59% and 32% *a lot more secure*, respectively).

Discussion

Four out of ten women living alone beyond age 65 receive little or no income outside of Social Security. Declines in economic status during retirement are commonly experienced, making the decision of when to retire and take benefits important to overall planning. Being able to evaluate the significance of retiring at different ages is vital to good decision making.

The majority of individuals claim Social Security as early as they can (age 62), although for individuals living beyond age 85 the value of the benefits is significantly greater if they had postponed claiming them until age 70. Under the formula used to determine them, Social Security benefits increase substantially if they start at a later age.

How much, if at all, would each of the following have increased your financial security in retirement if you retired three years later? (Among those providing retirement age from primary occupation)



Source: 2007 Risks and Process of Retirement Survey

The Role of Housing in Managing Post-Retirement Risk

For many individuals and families, real estate is an important asset, whether as a primary residence or investment properties providing rental income. Housing is often the only significant asset for those with no other sources of retirement savings.

Housing can be used to help finance retirement in several ways:

- By paying off an outstanding home mortgage, monthly spending in retirement can be reduced, although this can also reduce available savings for other uses.
- By securing a reverse annuity mortgage, the value of a home can gradually be used to generate additional income in retirement. Although reverse annuity mortgages currently are not popular among retirees, such mortgages can offer a lifetime guarantee, so that payments continue until death. Hence, they can provide longevity insurance. The price at which reverse mortgages are currently offered may affect their popularity.
- A home may be sold in an emergency, generating cash to pay for other needs, although adequate new housing will be needed.
- Real estate, if owned without mortgage debt, can be viewed as a source of income during retirement and then be used as a bequest at death. However, many retirees may be poorly diversified if they hold a substantial portion of their assets in the form of housing equity. Swings in the real estate market, currently felt in many areas of the country, will have a disproportionately negative impact on their assets.

The responses of the 2005 Survey questions on the role of housing are illustrated on the next page. The 2007 Survey did not repeat these questions because the 2005 results indicated that few people were planning to use housing assets to help finance retirement. However, since housing is a major asset for many retirees with little or no pension assets, it is anticipated that there may well be a growing trend towards using housing equity to help finance retirement and this will likely be explored in subsequent surveys.

The Role of Housing

Only a small minority of homeowners plan to tap their equity to help fund retirement.

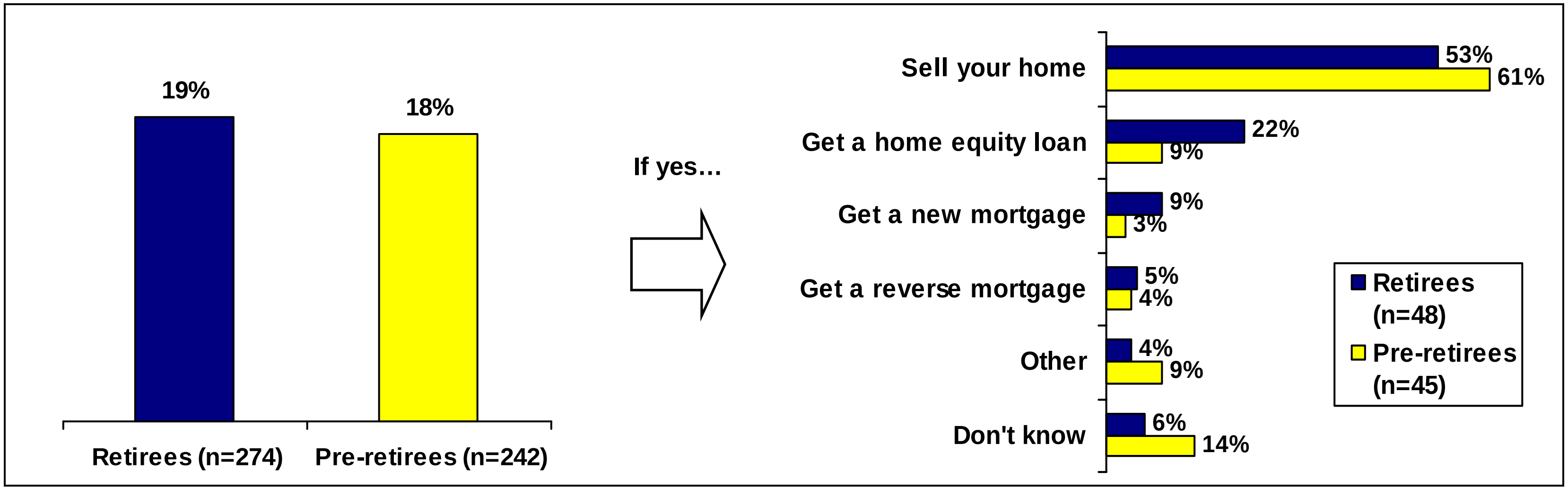
Finding

In the 2005 survey, only two in ten retirees (19%) and pre-retirees (18%) plan to use equity in their home to help finance their retirement. More than half of those who plan to use home equity say they will tap into it by selling their home (53% of retirees, 61% of pre-retirees). They are less likely to indicate their plans include obtaining a home equity loan (22% and 9%), a new mortgage (9% and 3%) or a reverse mortgage (5% and 4%).

Discussion

The home is an important asset—if not the most important—for many families, yet fewer than one homeowner in five said they plan to tap this source of equity to help fund retirement. Sentimental value and the personal satisfaction of maintaining a home are significant considerations for many retirees, and may lead to decisions that are not necessarily to their greatest advantage from a purely financial perspective.

(Retirees:) Up until now, have you used any of the equity you built up in your current home or a previous home to help fund your retirement? (Retirees and pre-retirees:) Do you have any plans to use the equity in your home to help finance your retirement in the future? If yes to either question: Did you/Do you think you will . . . ?



Source: 2005 Risks and Process of Retirement Survey

Major Differences in 2007, 2005, 2003 and 2001 Survey Results

Retirees' levels of concern regarding the retirement risks examined in this study have remained relatively consistent since 2001. However, retirees were more likely in 2007 than in 2001 or 2003 to report they are *very* concerned about having enough money to pay for long-term care in a nursing home or at home (27% in 2007 vs. 20% in 2003 and 20% for nursing home care and 18% for home care in 2001).

Among pre-retirees, concern about many of the risks has dropped back to or below 2001 levels after an increase in 2003. For example, four in ten pre-retirees in 2003 (42%) said they were *very* concerned about their ability to keep the value of their investments up with inflation. Yet, in 2007, less than one-quarter of pre-retirees (22%) express this level of concern about inflation, comparable to the 24% who said they were *very* concerned in 2001. Pre-retirees also showed decreased levels of concern about:

- having to deplete all of their savings (36% *very* concerned in 2003, 18% *very* concerned in 2007);
- their ability to maintain a reasonable standard of living for the rest of their (and their spouse's) life (20% *very* concerned in 2001, 34% in 2003, 23% in 2005, 19% in 2007);
- having enough to pay for a long stay in a nursing home or a long period of nursing care at home (24% *very* concerned in 2001, 33% in 2003, 35% in 2005, 22% in 2007); and
- their spouse's ability to maintain the same standard of living after their death, if they should die first (17% *very* concerned in 2001, 25% in 2003, 16% in 2005, 10% in 2007).

On the other hand, pre-retirees remain more likely in 2007 (69%, 75% in 2005, 79% in 2003) than in 2001 (58%) to indicate they are concerned about their ability to afford adequate (2007/2005) or good (2003/2001) health care.

In 2007, retirees (31%) were more likely to report they retired before age 55 than they were in 2001 (18%), but levels are comparable to 2005 (34%) and 2003 (26%).

In comparing the results of the studies, major events and conditions during the period from 2001 to 2007 should be noted. The 2001 study field work was done in August 2001, about a month before the events of September 11, 2001. Investment market conditions were more volatile between the 2001 and 2003 studies but somewhat more stable between 2003 and 2007. Neither period experienced the strong investment gains of the 1990s, but 2003–2007 was further away in time from that period. It appears that risk awareness was generally higher in 2003, but had receded somewhat by 2005, and receded even further by 2007.

The Broader Context

The next section discusses in a broader context some of the issues raised by the survey results.

Topics explored include the following:

–Understanding Investments and Risks

–Managing Retirement Assets and Understanding Post-Retirement Risks

–Knowledge of Risk Compared to General Financial Literacy

–Dealing with Post-Retirement Risk—Lessons from Behavioral Economics

–Management of Risk—An Overall Perspective

Understanding Investments and Risk

The public appears to lack sufficient investment knowledge to assume the management of retirement assets, but innovative products can help alleviate this deficiency.

A useful perspective on the public's knowledge of investments is given in the John Hancock Life Insurance Company's 2004 study in the series, The Insight into Participant Investment Knowledge and Behavior Study. Respondents to that survey all participated in 401(k) or similar plans that provided them investment choice, but many showed significant gaps in their knowledge of investments, and confusion about how investment vehicles work, their relative risk and what assets they include.

Survey respondents were unclear about the features and risk profiles of many investment vehicles common to employer-sponsored plans. For example, when asked what types of instruments are found in a money market fund, the following response rates were tallied: short-term investments (48%), bonds (47%) and stocks (43%). Participants were asked to include all that applied, so multiple responses were possible. Only 9% replied correctly that money market funds contain only short-term investments. Similarly, most participants do not understand how bonds perform in changing investment markets. Specifically, they do not understand that the market value of a bond moves inversely with changes in external interest rates. In the Hancock's 2004 survey, more than three-quarters, 77% of respondents, did not know that the best to time to invest in bonds is prior to a decrease in interest rates. In addition, significantly more respondents incorrectly believed there is a direct relationship between bond prices and interest rates than those correctly identifying the inverse relationship. This level of misunderstanding has been consistent since these questions were first asked in 1992.

Participants do not seem to grasp the relative risk of company stock. When asked to rank the risk of various investment options within their employer-sponsored plans, in all nine surveys, respondents ranked their company's stock as less risky than diversified domestic stock funds or diversified global stock funds. Unfortunately, familiarity with the employer, combined with company loyalty may lull a participant into a false sense of security regarding employer stock as an investment. Recent revelations of corporate fraud and mismanagement, leading to the impoverishment of retirees who had a majority of their defined contribution plan assets invested in company stock, serve to heighten the importance of education in financial risk.

Findings from SOA research reveal that participants also show a preference for lump sum payments rather than receiving benefits as an annuity. This can be a risky preference since an annuity provides insurance against outliving one's resources, while a lump sum payment does not.

On a positive note, while many appear to lack investment knowledge, there has been increasing usage of innovative products such as lifecycle or target-date funds, according to EBRI/ICI data on 401(k) participants. These funds act essentially as pre-packaged investment advice and require the individual to know only when retirement is planned. These findings also reveal that recently hired 401(k) participants are less likely to hold company stock and less likely to have high concentrations in company stock than earlier hires. This tendency may be the result of widespread news coverage and financial advice reported about the risks of potential major company failures like Enron in 2001. As such, this behavior indicates a beneficial and direct application of greater financial literacy among the public.

Managing Retirement Assets and Understanding Post-Retirement Risks

Focus groups conducted in the fall of 2005 looked at how retirees manage assets, and probed their understanding of post-retirement risk. The results can be found in the the SOA/LIMRA (2006) study entitled “Spending and Investing in Retirement—Is There a Strategy?” The findings included the observation that retirees did not focus well on long-term issues. When asked to rank a variety of risks, the resulting composite ranking compiled by the focus groups is shown below (ranked from most to least risky):

1. Inability to afford health care;
2. Inability to afford long-term care;
3. Inflation;
4. Investment;
5. Inability to maintain lifestyle;
6. Outliving assets

The above ranking of concerns expressed by retirees may reflect the degree of control they feel they have—little or none over health care costs and inflation, and not much over their own needs for long-term care. While they have no control over financial markets, they feel they can modulate their own investment risk to some degree through changing asset allocation or exiting the market. Less concern was expressed over maintaining their lifestyle because there is some control over these expenses and, to the extent that they are managed, a degree of control over outliving their assets.

The following advice offered by retirees to the next generation on how to achieve a financially secure retirement reflects both what they have done themselves, and steps they wish they had taken:

- Pay off all debt before retirement.
- Begin to save for retirement as soon as possible.
- Invest in real estate.
- Allocate extra money for needed care and emergencies.
- Obtain health insurance coverage.
- Make a list of personal fulfillment goals for retirement.

The focus group findings reinforce and are compatible with the survey findings. When the focus group findings, the survey findings and research done on financial literacy are considered together, all the findings point in the same direction: much work remains to be done to improve the awareness of older Americans concerning retirement risks.

Knowledge of Risk Compared to General Financial Literacy

The 2007 Survey results again illustrate gaps in what individuals know about retirement risk. Other work using the Health and Retirement Study (HRS) illustrates deficiencies in financial literacy among individuals at the ages studied in the 2007 Survey.

For example, Lusardi and Mitchell[(1)] analyzed three questions in the 2004 HRS and found that:

- 67% of respondents correctly answered a simple question on compound interest.
- 75% correctly answered a simple question on inflation.
- 52% correctly answered a simple question on stock risk.
- 34% correctly answered all three of the above questions.

This research is consistent with the findings of knowledge gaps in the risk survey and other work and also signals that some survey respondents likely do not fully understand the questions.

Other surveys have shown that many Americans have a low level of financial literacy. The employer trend of movement away from defined benefit plans to 401(k) plans has increased the need for financial literacy. Because few workers annuitize their 401(k) account balances at retirement, retirees must make financial decisions concerning the management of their accounts.

Further findings demonstrate that many participants do not understand the basic mathematics of finance, do not know basic facts about different financial instruments and corresponding risk, and do not understand basic financial principles, such as risk diversification. Therefore, the growth of 401(k) plans has created an increased need for financial education for workers. Yet, there seems to be little improvement in worker financial knowledge even though some employers have been educating them for several decades.

Other research indicates that financial illiteracy is also a problem in other countries and the challenges in the U.S. are not unique.[(2)]

Among workers, there is a significant variation in the level of financial literacy. The need for sufficient financial literacy is the principal challenge of a pension system based on accounts managed by individuals. Financial issues are complex and, realistically, literacy cannot be achieved through seminars alone. Furthermore, studies on the effectiveness of financial education reveal its limitations. For instance, many workers receiving financial education often do not take actions based on that education. Nonetheless, financial literacy is the foundation for sound action.

1. Lusardi, Annamaria and Mitchell, Olivia S., *Financial Literacy and Planning Implications for Retirement Well-Being*, October 2006
2. This issue is discussed in the blog of Annamaria Lusardi, “Financial Literacy and Ignorance.” htttp://annalusardi.blogspot.com

Dealing with Post-Retirement Risk—Lessons from Behavioral Economics

Research reveals major gaps in the public's understanding of risk. In spite of the need for individuals to assume more responsibility for financing their retirement, these gaps do not appear to be closing. Defined contribution 401(k) plans have been in existence since 1980. Many employers have been trying to educate employees about investing their plans and saving for retirement. While financial education helps some individuals, there is also evidence that many are not interested in increasing their financial awareness, and that financial education has little influence over their decisions.

An emerging body of knowledge focusing on individual behavior provides new insights into how people understand and deal with risk and uncertainty. The approach taken by this discipline should be considered together with the surveys and research presented in this report to provide additional perspective on the findings. Readers interested in learning more about economic behavior as it applies to pensions may wish to consult *Pension Design and Structure: New Lessons from Behavioral Finance*.(1) This work discusses some of the following considerations that make retirement savings difficult:

- The payoff for behavioral change is uncertain;
- Workers do not easily accept the idea of payoffs in the distant future;
- The promise of pleasure tomorrow is perceived as meaning pain today;
- Wrong decisions may yield instantaneous gains;
- There is no immediate tangible reward for saving now;
- Savings decisions can be postponed without immediate penalty; and
- There are no specific functional deadlines for action.

For further context in decision-making, the following comments from *Pension Design and Structure* represent general observations on how individuals make decisions:

- Long-term thinking is foreign to many people;
- More choices are not necessarily better than fewer choices; for many people, too much choice is confusing;
- Retirement decisions should not be made on a trial and error basis. Poor results are likely to emerge after a period of years rather than immediately, so it will be a while before results are recognized and often too late to correct them.
- Many Americans are not skilled in the mathematics of finance and do not understand compound interest. This makes it very challenging for them to understand long-term savings and the impact of inflation.
- In influencing how people act and think, personal experiences make for a much more powerful message than statistics and probabilities.(2)

1. *Pension Design and Structure: New Lessons from Behavioral Finance*, Olivia Mitchell and Stephen Utkus, Oxford, 2004

2. Ibid.

Management of Risk—An Overall Perspective

One consistent theme running through the research on knowledge about post-retirement risk and behavioral finance is that there are limits as to how well individuals deal with complex risks. In considering the findings from related Society of Actuaries' studies including the 2003, 2005 and 2007 Risks and Process of Retirement Surveys, the Retirement Plan Preference Survey, and the Focus Groups on Managing Retirement Assets, the undeniable conclusion is that retirement security for much of the population depends on having programs that work without individual decisions and action.

Social Security and defined benefit plans are such systems, and provide critical resources for many retirees. Defined contribution plans vary to the extent that they require individual action, but most 401(k) plans require participants to decide whether to participate and how to invest their account balances. Requiring decisions to opt-in versus decisions to opt-out do not produce ideal results because many employees simply accept defaults. There has been increased emphasis recently on using default options to promote better savings results including:

- Automatic enrollment
- Automatic increases in savings
- Managed investments and specially designed funds as default investment options.

More work is needed on default distribution options and the SOA is issuing a call for papers to explore this issue.

In terms of both education and good intentions as to financial planning for their retirement, many people say they will take action, but never do. Mitchell and Utkus report on a study where after educational seminars, 100% of employees not already participating in a 401(k) said they planned to enroll, but over the next six months, only 14% did. Similarly, 28% of the attendees said that they planned to increase their contribution rates, but only 8% did so within six months. Finally, 47% said that they planned to change their fund selection, but only 15% did so within six months.[1]

It is clear that education is important in helping the public deal better with the need to save on an individual basis. Some people are naturally good savers and risk managers, while education can be effective in helping others. Yet, it is also important to recognize the limitations of education and not expect it to be a panacea. Undoubtedly, much more work needs to be done in this area.

1. *Pension Design and Structure: New Lessons from Behavioral Finance*, Olivia Mitchell and Stephen Utkus, Oxford, 2004

Conclusions

Today's retirees face a number of risks with the list of the principal concerns they express, in order:

- Affordability of healthcare;
- Keeping the value of investments up with inflation;
- Affordability of long-term care;
- Maintaining a reasonable standard of living;
- Outliving one's resources—the longevity risk.

With a decline in traditional defined benefit plans and the emphasis on greater individual responsibility for planning one's retirement, retirees are increasingly faced with the prospect of managing these risks on their own.

This study provides insights about what retirees and those nearing retirement age say about post-retirement risks and the use of strategies for managing them. It indicates serious gaps in the understanding of these risks and in techniques for dealing with them. Examples of the challenges include:

- The cost of health care is a leading concern for retirees and pre-retirees. With increasing pressure on employers, the health care benefits they provide to retirees continue to decline as a reliable source of post-retirement medical coverage. In addition, Medicare funding is under stress from a combination of rising costs and utilization, budgetary pressures, and cost shifting to the government caused by seniors switching into more expensive Medicare Advantage plans, the private market alternative to traditional Medicare.

- Retirees and pre-retirees are more likely to try to save for long-term care costs than to purchase insurance against this type of risk. But, with growing trends towards longer time spent in a stage of retirement with health limitations, dependence on personal savings may be an ineffective strategy.

- Inflation is a major concern of pre-retirees and retirees. This is interrelated with healthcare challenges and may be further compounded in periods of economic recession.

- Many pre-retirees and retirees do not understand how investments work. For example, some do not understand what a money market fund is, let alone more complex instruments such as stocks and bonds, on which they may need to rely on to protect against inflation and longevity risks.

- Many people do not save enough, and they do not estimate their retirement needs well.

- Capabilities and needs change during the retirement period. Many people will experience lessened capacity later during retirement and particularly at advanced ages, but planning is often focused on the earlier period. (Readers interested in research on medical, financial, and social challenges at advanced retirement ages are encouraged to review the proceedings from the Society of Actuaries' series of Symposia on Living to 100 and Beyond. The complete series may be found on the Society of Actuaries' Web site at www.soa.org.)

Conclusions (continued)

The above challenges may be attributed in part to the short-term focus of many individuals with some almost fatalistic in their approach to planning. Such attitudes are not compatible with the long-term perspective needed for retirement planning. Furthermore, even when there is awareness of these long-term risks, this does not always translate into tangible action and changed behavior.

The efforts of various elements of society need to be brought together to help the public deal with these issues. The solutions to these challenges lie in structuring programs that work even without individual action and combining these programs with more education to foster action. Public education can be provided through programs made available by employers, other private groups, government and by financial services providers. Financial solutions can be provided through individual action, employer action, financial security products and public programs.

As in previous surveys in this series, this report should serve as a call to action by employers and employees, and by all groups advocating for employees and retirees, to accelerate the enormous effort required to prepare Baby Boomers for the challenges they face even as the first wave of this generation begins to experience retirement.

Note: More complete reports of these surveys can be obtained from the Society of Actuaries (www.soa.org).

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To Obtain a Copy of the Complete Survey Report

The 2007 Risks and Process of Retirement & Survey report may be obtained from the web site of the Society of Actuaries at www.soa.org.

Glossary

ADEA—The Age Discrimination in Employment Act, 1967 and as subsequently amended.

Baby Boomers; Baby Boom Generation—Those born in the U.S. from 1946 through 1964.

Defined Benefit Plan—A retirement plan in which the pension benefit is expressed as a monthly or other periodic amount based on a formula typically reflecting earnings and years of service.

Defined Contribution Plan—A retirement plan in which the benefit is expressed as a lump sum amount based on the accumulation of employer and employee contributions with investment earnings. Many of these plans allow employees to save on a pre-tax basis and provide an employer matching contribution.

Full Retirement Age—Defined by Social Security as the age at which monthly retirement benefits are available in full without reduction for early retirement. For birth cohorts through 1937, this has been established at 65. For those born in 1938, full retirement age for Social Security is currently set at 65 years and two months, increasing an additional two months for each subsequent birth year, reaching age 66 for those born from 1943 through 1954. It increases again by two months for each subsequent birth year after 1954, reaching age 67 for those born in 1960 and after.

High Income—An arbitrary amount of income or earnings which, for the purpose of these reports, is assumed to be in excess of $100,000 annually for a family of two.

High Net Worth—An arbitrary amount of retirement savings, including defined contribution pension account balances, aggregating $1 million or more for a family of two.

Inflation—Annual increase in the Consumer Price Index as measured by the U.S. Bureau of Labor Statistics; it may be for all consumer items, or for specific subsets such as medical care.

Joint and Survivor Annuity—An annuity issued on two individuals under which payments continue in whole or in part until the second of the two dies (also called joint and last survivor life annuity).

Life Expectancy—The average future remaining lifetime for a cohort of people at a specific age. For all Americans, life expectancy at birth in 2005 was 78; for females 80, and for males, 75. At age 65, life expectancy for males is 17 years, and for females, 20 years. Source: U.S. Bureau of Census Tables.

Maximum Life Span—The maximum possible extent of human longevity, generally taken by gerontologists and actuaries as 120 years. Two thoroughly documented cases are of Shigechiyo Izumi, who died in 1986 at the age of 120, and of Jeanne Calment, who was born in Arles, France in February, 1875, and died there also in August, 1997 eight days short of 122½ .

Normal Retirement Age—For most traditional defined benefit pension plans, this has been established as 65, the same age at which full Social Security benefits were available for birth cohorts through 1937. See also, ‘Full Retirement Age’

Glossary

Phased Retirement—There is no standard agreed upon definition of phased retirement. It is used to describe such arrangements as working part-time before retirement or retiring and then taking a new job, becoming self-employed or working on a limited basis for a former employer. Viewed broadly, it may include reducing one's work schedule before retirement, changing duties at normal retirement age, working part-time in retirement or some combination of approaches to gradually phase out of the labor force. The definition of phased retirement is typically limited to situations where a partial pension payment is available or to a situation where the individual is working for the same employer as before.

Pre-retiree—Anyone still in the work force who has reached an arbitrary age—typically set around 50—at which planning for retirement begins to become a serious prospect. For the purposes of the 2007 Risk and Process of Retirement Survey, pre-retirees are at least age 45.

Qualified Plan—A pension plan under which contributions meet certain standards set by the IRS to be tax deductible for the plan sponsor and are tax-deferred to the participant. These plans are subject to numerous rules in order to maintain the favorable tax status.

Retiree—Traditionally, a person who, having attained a certain age—often, but not necessarily normal retirement age—has left the labor force, with no expectation of returning. Today, many retirees leave full-time work, but continue with some work. As retirement is changing, there is no clear definition of retirement, and self-declaration of status produces varying definitions when based on labor force participation criteria. Others tend to consider themselves retired if they are collecting retirement benefits. For the purposes of the 2007 Risk and Process of Retirement Survey, respondents were considered retirees if they classified themselves as retired in an employment status question or were employed, but responded that they had retired from a primary occupation.

Retirement—This is generally defined as exiting from one's job or occupation, typically at an age at which the individual has no expectation of returning full-time to the labor force. For the purposes of the 2007 Risk and Process of Retirement Survey, retirement is based on exit from a primary occupation or the self-definition of respondents.

Reverse Mortgage—-An arrangement in which a homeowner borrows against home equity and receives regular monthly tax-free payments from the lender. Also called reverse-annuity mortgage or home equity conversion mortgage.

Risk—Exposure to the probability of an event that will occur with certainty, but with unknown timing—death—or that may or may not occur, such as accident, sickness, becoming disabled or outliving one's assets.

Notes

Notes