Risk Management Issues for Individuals With Special Emphasis for Women

Anna M. Rappaport, FSA, MAAA

Presented at the Living to 100 Symposium
Orlando, Fla.
January 5–7, 2011

Abstract

Long life creates a number of risk management planning issues for individuals, particularly for women because they live longer. The economic crisis of 2008-09 did not remove any old issues and challenges, but it added new ones and intensified some of the existing difficulties. Retirement programs vary in their methods of paying benefits, in the choices they offer participants with regard to benefit payout and in the way they communicate about payouts during retirement. These issues are particularly important as we focus on the periods later in life. The Society of Actuaries has conducted research on how individuals invest their funds during retirement and the impact of economic change on that investment. The Society of Actuaries Retirement 20/20 project has focused on the payout period and signals with regard to their impact on behavior. This paper looks at issues with regard to long life and managing risk by individuals. It focuses on how structuring of payouts interacts with issues related to long life. It also draws on the Society of Actuaries research. It includes discussion of cash benefits and health-related benefits.

Introduction

As societies have shifted from more programs that provided guaranteed security in old age to more individual responsibility, longer life raises many challenges for individuals. The fundamental risks have been identified, but it is difficult to manage them, and there are no universally agreed-on solutions about the best strategies for managing them. A range of products exist for financial management of post-retirement risk, but many people choose not to use them. It should also be noted that these products do not cover all risks, and few people who need risk protection could afford to cover all risks.

This paper includes the following sections:

- The risks facing older Americans
- What changes by age
- Research results
- The aftermath of the economic downturn
- Special issues for women
- A case study
- Conclusions and future steps

Retirement ages and how people retire are an important variable underlying the risk management strategies and societal needs for support. As people live longer, retirement periods have increased from a very short expected span when retirement systems were first developed to retirement of longer duration. Retirement ages have increased somewhat from their levels in the 1980s and 1990s, but the appropriate and sustainable retirement ages in the long term remain a key issue going forward. Issues surrounding how people retire and retirement ages are explored in the paper "Living to 100—Challenges and Opportunities for Employers."

The material below builds on the ideas in my 2008 paper "Living to 100—A Woman's Issue."

Living to 100 is an international effort. This paper provides an analysis of issues that can be found in many countries, but the analysis focuses primarily on the United States. It combines U.S. and international sources. While the basic risks are common, there are differences in public programs, benefits and legal structures. Terms that apply specifically to the United States are defined in footnotes to help the international reader. A major difference to be noted is in the area of health care, where there are far fewer risks in countries with national health care programs.

The Risks Facing Older Americans

Older Americans face a variety of risks, some of which are mitigated by social programs and employee benefits, and some of which are mostly the responsibility of the individual and family. Some of the risks can be transferred and pooled, whereas others cannot. TABLE 11 highlights a few of these risks. A more comprehensive list of risks and discussion of the treatment of the risks can be found in the Society of Actuaries publication “Managing Post-Retirement Risks.”

TABLE 1
Risks Facing Older Americans and Comments About Their Management

Risk	Products and Approaches for Risk Transfer and Potential for Pooling	Comments
Loss of spouse (Impact can be at any age)	Joint and survivor life annuities, life insurance Long-term care insurance helps protect assets that may be left to spouse. Later claiming of Social Security increases benefits to survivor if survivor was the lower earner.	Social Security offers a base layer of protection. For women, periods of widowhood of 15 years and more are not uncommon. Social Security is the only significant source of income for four out of 10 older women living alone.
Inability to find job, loss of job	No way to pool on a longer-term basis	Many individuals are thinking of working longer to address inadequate savings and loss due to market downturns, but it is not clear if that will be feasible. Work is probably most feasible earlier during retirement. Relatively few people work after age 70, and work is very unlikely after age 80. However, loss of a job in the 50s or 60s and/or inability to find one may lead to depletion of assets prior to the end of life.
Family members needing care	No way to pool	Situations vary with regard to the availability of family members to help.

Risk	Products and Approaches for Risk Transfer and Potential for Pooling	Comments
Outliving assets (Impact of this risk is most often at the high ages and for couples it is often experienced by the survivor after one dies)	Annuities, including joint and survivor annuities and deferred annuities commencing at higher ages such as 85 (longevity insurance) An Organization for Economic Co-operation and Development (OECD) report focuses on programmed withdrawals and longevity insurance starting payments at age 85 as a good combination. Defined benefit (DB) plans often automatically provide life income. Defined contribution (DC) plans can provide direct life income options but usually do not. Risk transfer not needed if investment income without using assets exceeds expenses. A few inflation-adjusted annuities are available, and annuities without inflation adjustment provide only partial protection. Claiming Social Security late increases monthly income and is somewhat like an annuity purchase. Programmed withdrawals and bond ladders offer other strategies to produce long-term income but not income guaranteed for life.	Consideration of the needs of both spouses is needed in designing a strategy. The decision to purchase an annuity involves significant trade-offs.[1] Programmed withdrawals are more popular than bond ladders. Note that programmed withdrawals can be combined with longevity insurance. It is challenging to invest funds so that they last until the point that longevity insurance starts, so this risk should be considered in a strategy combining longevity insurance and conventional investments. An alternative to more regular income is to reduce expenses. One way to do this is to pay off a mortgage. This risk links to retirement ages because retirement age drives the point at which retirement resources start to be used for support. An alternative to traditional longevity insurance is to set aside a sum equal to what would have been used to purchase the coverage in an investment account and do not withdraw any amounts. This alternative provides a different trade-off in providing some help for long life but also some resources for heirs.

1. One recommendation to help understand the trade-off is to compare the price of a joint and 100 percent survivor annuity (or the amount of income produced per $1,000 invested with the yield on high-quality long-term corporate bonds). See TABLE 2

Risk	Products and Approaches for Risk Transfer and Potential for Pooling	Comments
Cost of disability and long-term care (Can be at any age but long-term care most likely at higher ages, particularly after age 80)	Long-term care insurance Continuing care retirement communities Medicaid[2] pays for the cost of long-term care for many people without assets or income. Most care is provided at home, and the extent to which family members and friends are available to help greatly impacts the amount of paid care needed. Federal insurance provided under the CLASS Act[3] will provide limited help for those who choose it and are covered for five years before claim time.	Nursing home costs can exceed $70,000 per year today. Care can be provided at home, or in an assisted living facility, adult day care center or nursing home. It is important to have a support system, and living near family who can help can be very useful. Churches and community groups can also offer help and support. Some people advocate buying long-term care insurance only on the wife, as she is more likely to need paid care than the husband.
Cost of acute health care	Medicare[4] for those who are older than 65 Medicare supplemental insurance including employer-sponsored retiree health benefits.	For early retirees, there is a major problem if they do not have employer coverage. Health reform should change the options available starting in 2014 when the state exchanges begin to operate.[5] In early 2010, Fidelity Investments estimated that an average couple both age 65 and covered by Medicare will have cash medical costs for premiums, co-payments and uncovered services with a present value of $250,000 over their lifetimes. This amount is before health care reform but it is not expected to change much. Long-term care costs are not included.

2. Government program in the United States (federal and state combined) that provides health care to those with very low income and assets. Medicaid is a major funder of long-term care in the United States, and Medicaid requirements often define the setting for long-term care.
3. Federal program in the United States to provide limited long-term care protection. The Community Living Assistance Services and Supports (CLASS) Act was passed as part of health reform in 2010 and is in the process of being implemented.
4. Federal program in the United States providing health care for Americans older than 65 and for the severely disabled.
5. However, it should be noted that health insurance will still be expensive. For early retirees who had employer coverage where the employer paid a significant share of the cost, the cost of buying a plan through the state exchanges may be much higher than expected. Health care is expensive and these plans are allowed to age rate, so that the costs at early retirement ages will be considerable. For middle income people, while health benefits will be available after 2014, their cost may still be a deterrent to early retirement.

Risk	Products and Approaches for Risk Transfer and Potential for Pooling	Comments
Investment risk, inflation and interest rate risk	Investment strategies can reduce risk; some products provide minimum guarantees. Inflation protected bonds Annuity products with cost of living adjustments	Strategies that work well when assets are being built may not work well during the period when assets are being used. Experts disagree on what is the best approach for investment of assets during the spend-down phase. Some strategies require ongoing active management and others do not. Strategies that work well earlier in retirement may no longer work well if there is cognitive decline.

TABLE 22 provides an indication of how much annuity income can be provided when funds are invested in an immediate life annuity. Prices vary by time of purchase and by insurance carrier, but this chart shows us that:

- Annuity income varies by age of purchase and type of annuity.
- The income produced by an annuity is higher than a high-grade corporate bond yield, but at the younger retirement ages, not that much higher.
- Annuity income is considerably higher than the 4 percent rule of thumb that is often used for what can be withdrawn.

If the annuity income is inflation indexed, the initial income is lower. There is a basic trade-off when an annuity is purchased of loss of flexibility and control and, depending on type of annuity, loss of benefits to be paid to heirs. Opinions differ about the optimal age to buy an annuity, and this also depends on the total situation for an individual. The mid-70s is seen as a good time by some observers.

TABLE 2
Example Annuity Prices vs. Bond Yields

Annual Bond Yield				
Financial Industry Regulatory Authority (FINRA)/Bloomberg Investment Grade U.S. Corporate Bond Index				4.96%
FINRA/Bloomberg High-Yield U.S. Corporate Bond Index				8.97%
Annual Income as Percentage of Investment in Annuity Based on Income that Starts Immediately; Date of Purchase May 30, 2010	**65M/65F**	**70M/70F**	**75M/75F**	**80M/80F**
Joint and 100% survivor	6.25%	6.84%	7.79%	9.16%
Joint and 100% survivor with minimum of 10 years payments	6.24%	6.79%	7.67%	8.72%
Joint and 50% survivor*	7.18%	8.12%	9.62%	11.77%
Joint and 50% survivor with minimum of 10 years payments*	6.94%	7.67%	8.66%	9.66%
Traditional Rule of Thumb for Withdrawal From Savings				4.00%

* Initial payments while both are alive, payment reduced 50 percent after owner dies.

Note: Annuity quotes based on Fidelity website guaranteed income estimator on May 30, 2010. Bond indexes on same day. Both rates change daily.
Purchase price of $100,000 assumed for annuity. No attempt was made to find most attractively priced annuity. Annuities are not inflation indexed, but inflation indexing can be added, reducing the initial payment amount.

Tips on Buying Financial Products for Risk Management

The right choices with regard to risk management generally mean trade-offs and are based on personal situation and risk preferences. In addition, experts do not agree on the right strategy even given a personal profile and set of risk tolerances. And for people who have decided to purchase a specific type of product, there are challenges as well.

Individuals choosing to buy financial products may find it is quite challenging and at times confusing. There are generally trade-offs in making these decisions. For example, the purchase of an annuity offers a guarantee of lifetime income, but the buyer gives up control over the assets, liquidity and the potential of a bequest. There are variations of annuity products that offer several types of guarantees including lifetime income, inflation protection, protection from investment risk, etc. Each type of risk protection has a price attached to it, and some of the buyers who experience the risk will make out much better because they chose the product. Other buyers will make out less well. For example, people who live very long will do better with annuities, and people who die quickly will do poorly.

The provision for expenses and profit embedded in alternative products also varies. It should also be noted that some products are distributed on a retail basis, i.e., sold to individuals, and some on a group basis, and that the retail products usually include higher expense charges.

For retail products, each individual must be convinced to buy and is usually contacted directly. For group sales, an employer or group sponsor will decide to offer the product, and assist in the contact with the individuals. In addition, the mortality assumptions underlying the group product may provide for better pricing for annuities because the risk pool assumed in such pricing includes a broader range of people. Where annuities are sold to individuals, usually only the healthiest people chose them. Where they are sold to groups, it is likely the individuals covered include a mix of people, some healthy and some sick. Where employers offer access to group purchase of long-term care insurance or annuity products, the group purchase will very often be a better deal.

Both life income and long-term care financial products come with a variety of different provisions and guarantees in them. These products and arrangements include fixed dollar immediate annuities, variable annuities, mutual fund payout products and bond ladders. This makes them difficult to compare, and means there are very detailed product considerations in making the best choice. Some of the differences in life income products include:

- Liquidity provisions
- Potential to change mind after setting arrangement in place
- Whether a real lifetime guarantee is included for the individual
- Whether income benefits are continued to the spouse and if so, whether the entire payment or a portion is continued
- Whether payments are dependent on investment return, how they vary based on return and whether they may stop if return is poor
- Whether investment risk is borne by the organization providing the product, and if not, whether there is any minimum return guaranteed
- Whether inflation protection is covered
- Whether there is a third party (such as a guarantee fund) providing protection in case of insolvency
- What payments or refund provisions there are in the event of the death of the primary purchaser
- Whether there are any special additional payments in the event of severe disability and/or eligibility for long-term care services

Annuity products paying higher income because they are priced to reflect the higher mortality for those in poor health are also possible and are available in some countries, but not generally in the United States.

Longevity insurance[6] combined with managing assets prior to the age the payments start, often 85, is a very appealing idea, but it should be remembered there are risks in trying to make a portfolio last to a specific point in time. Products and approaches structured to provide a payout to age 85 can be used in combination, but it should be remembered that often these are costly. Some of the big trade-offs involved with longevity insurance plus portfolio investments

6. Longevity insurance is used to refer to annuities that provide for purchase at earlier ages and income starting at ages such as 85, with no benefit paid on earlier death. They are also called Advance Life Deferred Annuities. This is a relatively new product in the United States.

compared to conventional immediate annuities are greater liquidity, larger payments to heirs in the event of earlier death and greater control over investments.

Long-term care products also include a range of different provisions. Some of the differences include:

- Whether coverage include benefits for assisted living and home care as well as nursing home care
- Conditions under which benefits are paid—how many activities of daily living (ADLs) and how defined, and what is paid for cognitive difficulty and how defined
- Whether benefits are a pool of cash or reimbursement of specific charges
- Inflation protection
- Maximum benefit period and waiting period before benefits start
- Whether they are stand-alone or connected to life insurance or annuity products
- Conditions under which premiums can be increased
- Whether there is any transfer of benefits between spouses when both are covered
- Period over which premiums are paid
- Guaranteed renewability in the event of health changes
- Provisions for residual benefits in the event of termination of premium payments

It is helpful to have a specialist assist with the purchase, particularly because there are so many product variations. In some cases, specialists will tend to seek solutions to match their particular products, and that is not a good situation if the buyer's need is a poor fit to the solution presented. In addition, it should be remembered that many agents are paid by commission and the products do not have uniform commission rates. Other advisors are paid either on the basis of assets under management, by fixed retainer, on hourly basis for their time in serving the client, by project or some combination of these. It is important to understand how your advisor is being paid and to be sure the situation you are seeking advice for fits the expertise of the advisors. Any advisor chosen should provide clear advice that the client is comfortable with. If the client is uncomfortable, it is good to get a new advisor. In addition to choosing a product that fits individual needs well, the buyer will want to be concerned about the financial strength of the company selling the product and how much experience they have with this line of business. All of these products require payment of benefits far into the future. It is not unusual in recent years for companies to sell off blocks of business to other insurance companies. The National Association of Insurance Commissioners[7] and state insurance departments are a good resource for information on financial strength of companies.

Individuals seeking advice or buying financial products need to be careful about fraud. There are many scams and people seeking to defraud older Americans who are trying to manage their money. It is also important to be careful that the advisor is focused on your interests.

Note that there are some excellent websites that offer unbiased information on the financial risks and potential solutions. For example, www.longtermcare.gov is a good site on

7. U.S. organization bringing together state insurance departments.

long-term care, maintained by the U.S. Department of Health and Human Services, and www.mymoney.gov is a U.S. Treasury site covering information on a range of issues. The Actuarial Foundation, www.actuarialfoundation.org, and the Women's Institute for a Secure Retirement (WISER), www.wiserwomen.org/, are examples of private nonprofits providing information. "Making Your Money Last a Lifetime" is a resource on life income from WISER and the Actuarial Foundation. Financial services organizations also offer websites, many of which include information. The consumer is faced not with a lack of information, but with a great deal of information and the challenge of sorting out what is appropriate for them.

What Changes by Age

This section of the paper reviews income sources by age, family status by age and changes in health status by age. In general, the younger old have more income, are more likely to work, are more likely to be married and are more likely not to have impairments. In contrast, the very old are more likely to be widows who need assistance and have less income.

Income by age: As illustrated in TABLE 3, median income among the total older population declines with age and the sources of income change as well. The amounts of income are very different for married couples than for single people. With total income declining with age and Social Security remaining relatively stable with age, more individuals older than 80 rely on Social Security for most, or nearly all, of their income. At 80 and older, fully seven in 10 seniors get half or more of their income from Social Security, including nearly four in 10 who get almost all (90 percent or more) of their income from Social Security.

TABLE 3
Median Total Income and Reliance on Social Security by Age
(Married Couples and Unmarried People 65 and Older, 2006)

	Age				
	Total	**65-69**	**70-74**	**75-79**	**80+**
	Median Total Income				
All Units	$23,190	$31,500	$26,060	$22,020	$18,000
Married couples	38,300	47,270	39,860	33,350	30,590
Unmarried people	15,928	19,000	16,120	15,900	14,650
	Reliance on Social Security—Couples and Unmarried (Percent)				
Percent relying on Social Security for:					
50% or more of income	58	41	55	63	71
90% or more of income	29	20	27	32	37
0% of income	20	15	18	21	24

Source: National Academy of Social Insurance, "When to Take Social Security: Questions to Consider," *Social Security Brief* no. 31 (January 2010): Table 5.

Role of Social Security and other income sources: The increasingly important role Social Security fills in maintaining purchasing power at advanced ages suggests the advantage of getting a larger income from Social Security if one can. TABLE4shows that the percent of people receiving pensions at age 70 and older is significantly higher than at 65 to 69, while the percentage of people with earnings from work is significantly higher at 65 to 69 than at later ages.

TABLE4
Percent Receiving Sources of Income by Age
(Couples and Unmarried People 65 and Older, 2006)

Sources of Income	Age				
	Total	**65-69**	**70-74**	**75-79**	**80+**
	Married Couples				
Social Security	89	83	92	93	94
Pensions	50	44	54	51	54
Asset income	66	67	67	65	63
Earnings from work	38	58	39	28	13
	Unmarried People				
Social Security	88	80	88	91	91
Pensions	35	30	36	37	37
Asset income	47	45	46	48	49
Earnings from work	15	34	20	12	4

Source: National Academy of Social Insurance, "When to Take Social Security: Questions to Consider," Social Security Brief no. 31 (January 2010): Appendix Table A.

This data also helps us understand how the likelihood of work changes with age. Fifty-eight percent of married couple households at ages 65 to 69 had income from earnings in this study compared to 13 percent at ages over 80. For single people, 34 percent had earnings at 65 to 69 compared to 4 percent at ages over 80.

There are also differences in the average amount of pension income between married couples and unmarried people, and between individuals receiving governmental and private sector pensions. TABLE 5 illustrates how income from Social Security, pensions and earnings varies by age. Social Security benefit amounts do not vary much by age group, pensions decrease somewhat, and earnings decrease rapidly from the 65 to 69 age group to the 75 to 79 age group. Few individuals have earnings over age 80, but for those who do, they are larger than the earnings for the 75 to 79 age group.

TABLE 5
Income from Social Security, Pensions and Earnings by Age
(Couples and Unmarried People 65 and Older, 2006; Median Income for Recipients)

	Age				
	Total	**65-69**	**70-74**	**75-79**	**80+**
	Social Security				
Married couples	$19,960	$18,390	$20,400	$20,360	$20,120
Unmarried people	11,860	11,620	11,800	11,860	11,860
	Pensions				
All Pension income*	$11,840	$13,500	$12,000	$11,400	9,600
Government pension*	16,800	19,800	19,200	15,600	14,400
Private pension*	8,500	10,800	9,550	8,400	6,010
	Earnings				
Married couples	$29,000	$35,000	$25,160	$15,000	$18,720
Unmarried people	16,000	20,600	15,000	10,000	13,000

* Family pension income for those households receiving pensions.
Source: National Academy of Social Insurance, "When to Take Social Security: Questions to Consider," Social Security Brief no. 31 (January 2010): Appendix Table B.

Family status: Family status changes by age group and is very different for the two sexes. TABLE shows us that men are much more likely to be married, and women are more likely to be widowed. Data is provided for three age groups, and the differences are most dramatic at 85 and older. At age 65 to 74, 78 percent of men and 57 percent of women are married. The second largest group is people who are widowed, and this includes 8 percent of men and 26 percent of women. By 85 and older, 60 percent of men and 15 percent of women are married, whereas 34 percent of men and 76 percent of women are widowed.

TABLE 6
Percentage of the Population by Age and Marital Status

	Age 65-74	**Age 75-84**	**Age 85+**
Men			
Married	78%	74%	60%
Widowed	8%	17%	34%
Divorced	10%	6%	2%
Never married	4%	4%	3%
Women			
Married	57%	38%	15%
Widowed	26%	52%	76%
Divorced	13%	7%	4%
Never married	4%	3%	4%

Source: Federal Interagency Forum on Aging-Related Statistics, "Older Americans 2008: Key Indicators of Well Being," downloaded from www.agingstats.gov on May 9, 2010; source cited as U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement.

Health status and disability: Health status and the need for support also change by age. The need for help is particularly great after age 80.

As shown in Table 7, the percentage of the population who are disabled increases by age group for the 65 and older group. By age 85, more than 50 percent of the population has at least a mild or moderate disability. Data is shown for 1984 and 1994 and are from an analysis of the National Long-term Care Study database by Eric Stallard. This data was presented at the 2008 Living to 100 symposium.

TABLE 7
Unisex Population Distribution (Percent) by Year, Age and Disability Group[8]

Attained Age	Disability Group					
	I. Non-disabled	II. Mild/ Moderate Disability	III. HIPAA ADL Only	IV. HIPAA CI Only	V. HIPAA ADL + CI	Total
1984						
All ages	76.0	12.9	6.3	1.7	3.2	100.0
65-69	89.3	7.0	2.7	0.4	0.7	100.0
70-74	83.3	10.6	4.0	0.9	1.2	100.0
75-79	74.7	14.8	6.1	1.7	2.8	100.0
80-84	60.2	20.9	9.8	3.0	6.0	100.0
85-89	41.6	24.6	16.2	6.1	11.5	100.0
90-94	20.6	25.8	26.9	6.7	20.1	100.0
95-99	---	25.8	41.7	---	24.8	100.0
Age-standardized	75.3	13.1	6.5	1.7	3.4	100.0
1994						
All ages	77.9	11.8	5.2	1.4	3.6	100.0
65-69	90.0	6.3	2.7	0.6	0.4	100.0
70-74	86.0	9.4	2.7	0.6	1.3	100.0
75-79	78.3	12.8	5.1	1.4	2.4	100.0
80-84	66.6	18.0	7.4	2.3	5.7	100.0
85-89	48.0	23.0	11.5	3.9	13.7	100.0
90-94	29.2	22.7	21.8	4.4	21.9	100.0
95-99	15.9	20.8	25.5	7.3	30.6	100.0
Age-standardized	78.5	11.6	5.1	1.4	3.4	100.0

Notes:
1. Results for 65 and older were age-standardized to the pooled unisex population estimates for all years combined.
2: "---" denotes suppressed cell with fewer than 11 sample people.

Source: Eric Stallard, "Estimates of the Incidence, Prevalence, Duration, Intensity and Cost of Chronic Disability among the U.S. Elderly," paper presented at Living to 100, 2008, and published in SOA Monograph, Table 2. Table notes that author's calculations based on the 1984-94 National Long Term Care Survey (NLTCS).

Eric Stallard also estimated the expected periods of life expectancy in various health states: non-disabled, mild or moderate disability, and more severe disability by age group. Table 8 shows us that females have considerably longer periods of more severe disability than males.

---

8. Health Insurance Portability and Accountability Act (HIPAA) ADL means disabled to the extent that the individual could qualify as a claimant on the basis of activities of daily living in a policy that meets the standards for long-term care insurance set forth in the act. Group IV meets the standards in HIPAA with regard to cognitive impairment (CI) and Group V in both. These are measures of severe disability and indications of eligibility as long-term care insurance claimants. HIPAA is U.S. federal legislation that defines the basis on which long-term care insurance policies can qualify for favorable tax treatment.

TABLE 8
Division of Total Life Expectancy into Three Periods Based on Health Status
(Expected Number of Years of Life Expectancy in Various Health States)

Age	Non-disabled	Mild or Moderate Disability	More Severely Disabled*	Total Life Expectancy
Males				
65	12.34	1.50	1.50	15.33
75	6.77	1.37	1.61	9.76
85	2.89	1.04	1.75	5.68
95	.81	.61	1.91	3.34
Females				
65	13.65	2.97	2.83	19.44
75	6.99	2.55	2.96	12.50
85	2.47	1.74	3.03	7.24
95	.52	.78	2.54	3.84

* More severely disabled includes those with ADL and cognitive impairments that would make them claim eligible under HIPAA-qualified long-term care policies.

Source: Eric Stallard, "Estimates of the Incidence, Prevalence, Duration, Intensity and Cost of Chronic Disability among the U.S. Elderly," paper presented at Living to 100, 2008, and published in SOA Monograph, Table 4. Table notes that author's calculations based on the 1984-94 NLTCS.

Howard Gleckman[9] provides insights into some of the challenges facing families at higher ages: "Those at high risk of entering a nursing home face even more severe financial stress. Among eighty-five-year-olds with no spouse and who need some help with activities of daily living, 74 percent have assets of less than $5,000, and 84 percent do not have sufficient funds to pay for even a year in a nursing home." We should remember this is a group who are heavily dependent on Social Security. If they entered retirement with a plan to work to provide supplemental retirement income, that is almost certainly no longer feasible.

<u>Cognitive impairment and ability to make decisions</u>: As people age, a significant number become cognitively impaired and are less able to make decisions. At some point, they may be completely unable to make decisions. This happens gradually, and often the person who is less able to make decisions may seek to hide the impairment, creating added challenges.

9. Howard Gleckman, *Caring for Our Parents: Inspiring Stories of Families Seeking New Solutions to America's Most Urgent Health Crisis* (New York: St. Martin's Press, 2009), 134.

Research Findings

The issues relating to individual management of risk at high ages must be considered in light of what individuals know, their perceptions and how they behave, the types of assets they have and the circumstances surrounding them. Society of Actuaries research provides important insights with regard to the knowledge, perception and risk management strategies used by the public and also with regard to the important role of housing in the financial situation of older Americans. This section offers some key findings from the Retirement Risk Surveys[10] and from the study "Retirement Risks and Solutions: Segmenting the Middle Market."[11] The 2009 Retirement Risk Survey focused on the implications of the economic downturn, and this section and the next look at longer-term results but also tie them to the economic downturn and the potential for change as a result of the downturn.

Perceptions About Post-Retirement Risk and Its Management: Results of the 2001-09 Retirement Risk Surveys

More than 10 years ago, the SOA retirement research committee became concerned that not enough attention was being focused on the post-retirement period and how resources are managed after retirement. As a result, a multi-faceted approach to understanding post-retirement risks including a series of biennial surveys focusing on public knowledge about post-retirement risk started in 2001. This survey series provides a perspective on how the public views post-retirement risks. Results have been quite consistent over time. The big picture looking at the results over time shows:

- Misperceptions still exist after more than 20-years experience with 401(k) plans and IRAs.[12] Employee education has not made a big impact on these misperceptions.
- It is unclear if the economic downturn will lead to better management and planning.
- Longer-term risk management is very difficult for individuals as is longer-term planning.
- Few workers are prepared for the risk of a sudden and unplanned early retirement. Yet, over the long run, more than four in 10 workers retire before they planned to.
- There is a low appetite for guaranteed income products and a persistent feeling that people can do it on their own.
- Widows and the very old will continue to be vulnerable.
- A strong retirement system must include programs that work effectively for individuals who do not have the personal initiative to build savings and use them well.

10. The Retirement Risk Surveys have been conducted by the Society of Actuaries, working with Mathew Greenwald Associates and Employee Benefit Research Institute (EBRI) in 2001, 2003, 2005, 2007 and 2009. Some questions are repeated and offer trend data, and others are used only each year.
11. Society of Actuaries, 2009.
12. Authorized under Section 401(k) of the Internal Revenue Code, 401(k) plans are tax-deferred retirement savings plans offered in the U.S. workplace. Individual Retirement Accounts (IRAs) are tax-deferred retirement savings plans established by individuals and authorized under U.S. federal law.

- Education is important, but it should not be the primary strategy to address misperceptions and gaps in knowledge because there are limits on what it can accomplish.

The survey series includes a mix of repeated questions and some questions linked to special issues for the specific survey. Some of the questions used in multiple surveys are not repeated in every survey. Overall, the results in 2009 were very similar to the results of the 2007 study with regard to perceptions and management of risk. The 2009 results do show that people believe they have been affected by the financial crisis.

The 2009 Retirement Risk Survey and Surrounding Context

The 2009 survey interviews were conducted in July 2009, and the survey instrument was developed in the spring of 2009. During that period, an economic crisis dominated public thinking about retirement and how it might affect planning for retirement and actions with regard to retirement. A further discussion about the aftermath of the economic crisis follows later in the paper. Understanding the implications of the economic crisis on risk management and perception was a major focus of the 2009 survey. Advocacy for health care reform was also an important agenda item in national public policy, and while it was not a specific focus of the survey, results need to be interpreted considering that health care is an important issue for retirees and pre-retirees and that health care reform as enacted will significantly change the options available to early retirees starting in 2014. For individuals after age 65 who are covered by Medicare, there will be some change in the marketplace and operation of Medicare, but these changes do not change the structure and overall picture with regard to post-retirement risk after age 65. The changes enacted will increase Medicare payment for drugs and change the method of payment to Medicare advantage plans. On balance, it is difficult to predict how individual older retirees will be affected.

The author’s perspective is that, even though respondents indicated the financial crisis had indeed affected how well prepared they were for retirement, the 2009 survey did not show any major changes in the way the public views and plans for retirement. This was surprising. When asked about what actions they had taken to manage risk, however, a higher percentage of the retirees than in prior years indicated they had taken actions such as reducing spending. To sum up, it seemed the crisis had impacted and worsened the financial status of retirees and they had already tried to cut back spending and made some other changes, but their view and ideas about how to manage risk had hardly changed.

As in the four prior surveys, pre-retirees were much more concerned about risk than retirees. Pre-retiree perceptions also seem to be more subject to change based on economic circumstances than those of retirees. From 2001-03, there were several adverse events including the Sept. 11, 2001, terrorism attacks and bad market conditions. In reaction, risk concerns of pre-retirees increased significantly and then reverted back to 2001 levels. From 2007-09, market conditions were very difficult, but there was not the same move in risk perceptions as in 2001-03.

Home Equity and the Retirement Financial Picture

TABLE 9 provides an overview of the results from another study from the Society of Actuaries. This study has served to point out how important home equity is in the financial picture for many middle Americans as they approach retirement. For middle mass and mass affluent households age 55 to 64, nonfinancial assets, primarily housing, were about 70 percent of their total assets excluding the value of Social Security and DB plans in 2004. While some individuals have very good balances in their 401(k) plans, many people have very little.

TABLE 9
Wealth of Middle Income Households—Age 55 to 64 (Analysis Based on the Federal Reserve Board's 2004 Survey of Consumer Finances)

Household Type	Number of Households	Median Income	Estimated Median Net Worth	Nonfinancial Assets	Financial Assets	Nonfinancial Assets (%)
	Middle Mass Household Segments (25-75% of all households)					
Married	5.2 million	$75,000	$348,000	$240,000	$108,000	69
Single female	2.5 million	$28,000	$111,000	$75,000	$36,000	68
Single male	1.4 million	$41,000	$125,000	$89,000	$36,000	71
	Mass Affluent Household Segments (75-85% of all households)					
Married	1.0 million	$132,000	$1,300,000	$884,000	$416,000	68
Single female	.5 million	$58,000	$415,000	$299,000	$116,000	72
Single male	.3 million	$79,000	$465,000	$349,000	$116,000	75

Note: Financial assets exclude the value of defined benefit pensions and Social Security.
Source: Society of Actuaries, "Segmenting the Middle Market: Retirement Risks and Solutions," 2009.

Implications of Research Results for Key Decisions in Different Situations

A review of the research looking at different studies together shows that the decisions of most importance to households vary by situation, and often they are not related to investment of retirement assets. Timing of retirement (and particularly Social Security claiming) and decisions around housing are very important for many households. Some of the biggest concerns about risk management later in life among the actuaries who focus on post-retirement risk for the last decade are gaps in knowledge, not enough focus on risk management and too short a planning horizon. Nothing about the 2009 Retirement Risk Survey results changes these concerns.

Because home values are so important in the financial picture for many Americans, the 2009 Retirement Risk Survey asks respondents about their use of home equity as part of their retirement plan. The results show that, while home equity may be used to finance retirement when all other options are exhausted, few plan to use equity in their home to finance their retirement. Just one in 10 retiree homeowners (11 percent) and two in 10 pre-retiree homeowners (20 percent) plan to use any of their home equity to finance their retirement. Only 6 percent of retirees report they have already tapped into their home equity. Note that the study results do not reflect situations where people downsized earlier to a smaller home or moved to a lower cost area.

The Research Results, Retirement Ages and How We Retire

One of the critical long-term issues for the retirement system in the United States and many other countries is when and how people retire. This has been a topic of the Retirement Risk Survey series and results have been generally consistent over time.

Key findings are as follows:

- Just under a third of pre-retirees indicate that retirement does not apply to me.[13] There is a concern this may be a way to say it is not necessary to save or plan.
- Retirees consistently retired much earlier than pre-retirees say they expect to retire. See TABLE 10 for 2009 results. These are similar to results from earlier studies.
- In Society of Actuaries research and a variety of other studies, more people indicate that they expect to work in retirement than actually do.
- When asked about the financial impact of delaying retirement three years, many people seem to underestimate the impact of retiring later.
- Working on a limited basis has become an accepted part of retirement.
- About four in 10 people retire before they expected to.

TABLE 10
Actual and Expected Ages of Retirement from Primary Occupation

Age Category	% of Retirees Retiring at Age X	% of Pre-retirees Expecting to Retire at Age X
Under 55	28	1
55 – 61	33	24
62 – 64	20	16
65 – 69	14	38
70 or older	3	13
Don't know	3	8

Note: Percentages exclude the 30 percent of pre-retirees who said retirement does not apply to me or that they do not expect to retire.

Source: 2009 Society of Actuaries Retirement Risk Survey.

While actuaries have often been concerned that retirement ages need to adjust to increasing life spans, and while there have been increases in labor force participation rates at higher ages, nothing in the 2009 study indicates a real change in expectations about retirement ages.[14]

---

13. Results are similar in 2007 and 2009.
14. Richard W. Johnson and James Kaminski, "Older Adults' Labor Force Participation Since 1993: A Decade and a Half of Growth," Urban Institute, January 2010. For example, at ages 62 to 64, male labor force participation rates increased from 46.1 percent in 1993 to 55.1 percent in 2009. At 70 to 74, rates were 14.8 percent and 22.5 percent. At ages 75 and older, rates were 6.9 percent and 10.4 percent. Female rates also increased at all ages.

Risk Management Findings

One of the areas of exploration of the surveys on post-retirement needs and risks, and of other research sponsored by the SOA, has been how people say they manage risk post-retirement and what risks they think are most important. Results are generally consistent over time. Some of the key findings are:

- Many people do not focus well on the long term, so planning horizon has become a major concern as we think about retirement planning.
- The 2009 Retirement Risk Survey indicates that retirees look a median of just five years into the future when making important financial decisions. Pre-retirees have a longer median planning horizon of 10 years.
- Retirees and pre-retirees continue to try to protect themselves against financial risks by decreasing debt, increasing savings and cutting back on spending.
- The risk protection strategies adopted by retirees do not specifically deal with very long life, nor do they deal very well with the types of help likely to be needed for people who live into their 90s.
- There is relatively little focus on purchasing risk protection products for older ages except for health insurance supplementing Medicare.

Risk management is particularly important when we think of survival to very high ages. Risk management was an area of major focus for the 2009 retirement risk study.

The 2007 Retirement Risk Survey focused on whether people expected to have a period when they had some limitations and on whether they expected to have a period with major limitations. About two-thirds of both retirees and pre-retirees expect to have a period of limitations when they are much less able to do things they used to do, and a larger percentage expect to have a period of moderate limitations. TABLE 11 provides insights into planning for the later periods when there are limits. Twenty-eight percent of retirees indicate they have done nothing to prepare for increasing needs. Eleven percent of retirees say they have purchased or plan to purchase long-term care insurance. Much planning is focused on the period of retirement when there are no limits, and many advertisements about retirement show people playing golf and fishing, ignoring the periods with limitations.

TABLE 11
Planning for Increasing Needs in Retirement
(Percent of Retirees and Pre-retirees Making Various Preparations for Greater Need; Results of the 2007 Retirement Risk Survey)

Top Mentions (Multiple Responses Accepted)	Retirees (%)	Pre-retirees (%)
Nothing	28	15
Save (more) money	16	37
Invest to make assets last	15	19
Buy long-term care insurance	11	8
Make home modifications	9	8
Cut back on spending	6	4
Stay healthy/improve health	4	4
Pay off debts	2	5
Don't know	7	7

Source: Society of Actuaries, 2007 Retirement Risk Survey.

Most retirees and pre-retirees purchase products to ensure they can pay for adequate health care. About three-quarters of retirees and pre-retirees indicate they have or plan to purchase health insurance to supplement Medicare or participate in an employer-provided retiree health plan. It should be noted that under recently enacted health reform, market options for health insurance are expected to change in 2014. This will be particularly important to early retirees who should find it much easier to obtain health insurance and who are expected to have more options once the state exchanges start to operate.

One aspect of interest in purchasing financial products to help with health and long-term risk is puzzling. Medicare covers a substantial portion of hospitalization and acute health care but very little long-term care. Nevertheless, there is much more interest in buying supplemental health insurance than in buying long-term care protection.

Retirees and pre-retirees also say they recognize the role their own behaviors play in managing health care risk. Virtually all (93 percent each) report they maintain or plan to maintain healthy lifestyle habits, such as a proper diet, regular exercise and preventative care. Some of the oversight group members think that people say they are more active in maintaining health than they actually are.

The Aftermath of the Economic Downturn

Impact of the Economic Crisis on 401(k) Plans/Participation

The Employee Benefit Research Institute[15] (EBRI) analyzed impact on 401(k) account balances.[16] EBRI found the impact varied greatly by size of balance and tenure. They found little impact on those with short tenure. Looking at the period from Jan. 1, 2008, to Jan. 20, 2009, those with more than $200,000 in account balances had a loss of more than 25 percent, as did participants who were 56 to 65 with 20-years service or more.

EBRI also looked at the impact of target date funds. They state, "Had all 401(k) participants been in the average target date fund at the end of 2007, 40 percent of the participants would have at least a 20 percent decrease in their equity concentrations. …" However, some people have criticized target date funds as offering more risk than participants expected.

The recession did not change behavior with respect to these plans. People are continuing to participate and make ongoing contributions.

Impact on Individuals Nearing Retirement

Many people say they expect to delay retirement, but other research shows that four out of 10 Americans retire before they planned to.[17]

There were big declines in 401(k) balances, and these vary greatly by individual. As indicated above, for balances over $200,000, the average decline to the end of January 2009 was more than 25 percent. However, many of these balances have increased and are at a much higher level.

People counting on home values and sale of homes, as well as DC balances, have suffered significant losses. Nonfinancial assets were about 70 percent of total assets excluding Social Security and pensions in 2004 for households in the 25 to 85 percentiles.

---

15. Widely recognized nonprofit group doing benefit research in the United States. Located in Washington, D.C.
16. EBRI Issue Brief 326, February 2009
17. Employee Benefit Research Institute, Retirement Confidence Study series

Impact on Retirees

The biggest impact is for higher economic status retirees. For individuals 65 and older who did not work in 2007, Social Security accounted for the following percentages of income by quartile:[18]

Lowest	86.1 percent
Quartile 2	81.9
Quartile 3	67.4
Highest	33.3

Thirty-three percent of the population age 65 to 67 received pension income in 2007, up from 26 percent in 1975. Corresponding data at ages 78 to 80 is 38 percent and 22 percent. This income should be unaffected by the financial crisis, as is Social Security.[19] People on limited budgets who previously supplemented regular income with use of savings or use of housing values are hurting. It is harder to find work for those seeking to work as part of their retirement.

Housing values are a major part of assets for those retirees in the middle.

Perspective on the Economic Crisis and What the Research Tells Us

It has been well documented that the economic crisis had a significant impact on personal wealth of retirees and pre-retirees and particularly on 401(k) balances by early 2009. That does not mean the impact will be long lasting, but for some who changed direction, it will be. By early 2010, many had recovered significant parts of their losses, but for others who had changed investments, this did not happen. Total retirement account balances were at a high of $8.6 trillion in the third quarter of 2007, and they fell to a low of $5.9 trillion in the first quarter of 2009. By the first quarter of 2010, they were at $7.9 trillion.[20] The people who will have long lasting and very adverse impacts from the economic crisis include:

- People who lost jobs and used their 401(k) balances as an emergency fund
- People who lost their homes through foreclosure
- People who made major changes in investments so as to sell at the bottom and not realize the comeback

It also should be remembered that many Americans who were near retirement or in retirement had little money in stocks, so that market changes did not have a big impact on them. An analysis by Gustman et al. indicates that while early boomers might seem to be especially vulnerable to the twin declines in stock and housing markets because they have little time to recover before reaching retirement age, their actual situation is different from what is often expected. A 2006 survey of nearly 2,500 households in which at least one member was 53 to 58,

---

18. Dallas Salisbury, "Boomer Bust? Securing Retirement in a Volatile Economy," testimony to U.S. Senate Special Committee on Aging, Feb. 25, 2009.
19. EBRI Notes, Vol. 29, No. 11, November 2008, Figure 1.
20. Barbara Butrica and Philip Issa, Retirement Account Balances (Updated 4/10), Urban Institute (downloaded on May 16, 2010). Account balances include defined contribution plan and IRA balances.

conducted as part of the Health and Retirement Study, found these households had an average of $766,945 in total wealth including the value of pensions and Social Security. It should be noted that studies vary with regard to what items of wealth are included. For this group, Social Security was their single largest asset, representing 26 percent of total wealth on average. Defined benefit pensions were the second largest source of wealth: 23 percent on average. Home equity averaged 22 percent. Stocks in defined contribution plans and held directly accounted for only $116,535, or about 15 percent of the total.[21]

A major focus of the 2009 Retirement Risk Survey was the impact of the crisis. The results showed that:

- Two-thirds of retirees (66 percent) and eight in 10 pre-retirees (79 percent) report the recent stock market and economic downturn has affected their financial concerns about retirement.
- A majority of retirees (63 percent) and pre-retirees (77 percent) said their finances have been negatively impacted by the downturn.

Respondents were asked what they needed to do as a result of the crisis. Both retirees and pre-retirees say the downturn has made them feel as though they need to save more money (49 percent of retirees, 72 percent of pre-retirees), do a better job of managing their finances or planning for retirement (51 percent, 61 percent), and go back to work or work longer (23 percent, 64 percent). Nevertheless, it is unclear if the economic downturn will lead to actual changes in behavior, or better retirement management and planning. While retirees and pre-retirees may believe they need to make these changes, few appear to have made plans to do so. For example, the proportions of retirees and pre-retirees who plan to save as much money as they can and work longer are statistically unchanged from their 2007 levels. And despite the economic downturn, the study saw few measurable changes in attitudes and behaviors between 2007 and 2009.

One of the frequent comments made during and after the worst part of the economic crisis is that people will need to work longer, and that it will be vital for people to retire later. The author has also heard anecdotally from diverse sources that people who could were postponing retirement, and that companies had seen a real slowdown in retirements. As discussed above, the retirees retired quite early, and pre-retirees plan to retire much later than the retirees. There was little change in response to questions about the impact of retiring three years later. Over the long term, about four in 10 end up retiring before they planned to, often due to job loss, health and family issues. It is unclear whether the aftermath of the economic crisis will be later retirement, and the 2009 Retirement Risk Survey provides no evidence that it will be.

Other research showed much bigger changes in attitudes and perceptions as a result of the downturn and the differences in results are puzzling. Unlike the 2009 Retirement Risk Survey, other studies showed big shifts in confidence with regard to retirement issues. The 2009 EBRI

21. Alan L. Gustman, Thomas L. Steinmeier, and Nahid Tabatabai, "What the Stock Market Decline Means for the Financial Security and Retirement Choices of the Near-Retirement Population," National Bureau of Economic Research Working Paper No. 15435, October 2009.

Retirement Confidence Survey[22] for which the fieldwork was done in January showed a big drop in confidence. The SOA's study done with LIMRA International Inc. and International Foundation for Retirement Education (INFRE), "What a Difference a Year Makes," for which the field work was done in April, also showed a big difference. This study and the EBRI Health Confidence Study, for which the fieldwork was done mid-year, did not show such changes.

One explanation for the divergence of results may be found in how confident people are about the markets. The Yale University School of Management publishes a "crash confidence index" (http://icf.som.yale.edu/stock-market-confidence-indices-united-states) for individuals and institutions. According to this data, confidence was very low from November 2008 to May 2009, and, by July, individual confidence was up a great deal. It continued to rise through September 2009 and has stayed at relatively higher levels. Yale economist Robert Schiller offers us insights on the topic of confidence: "Unemployment, GDP, manufacturing statistics—what's the best way to tell that we're headed into an economic recovery?" According to Yale economist Robert Shiller, the answer might lie less in the metrics we use to measure economic production than it is in our own minds.

The author was very puzzled at first by the results of the survey, particularly when looked at together with the earlier work, but this explanation seemed to make a lot of sense.

Differences in Impact of the Crisis on Different Age Groups

The Pew Research Center released a study in May 2009 looking at the impact of the recession on different age groups and found large differences.[23] These are highlights of their findings:

> "The ongoing recession has had different impacts on different age groups in America. Adults 65 and older—most of whom have already retired and downsized their lifestyles—have escaped its full fury. Adults in late middle age (50 to 64) have seen their nest eggs shrink the most and their anxieties about retirement swell the most. Younger adults (ages 18 to 49) have taken the worst lumps in the job market but remain relatively upbeat about their financial future."
>
> "The most compelling story to emerge from the survey is that older adults are living through what for them has been a kinder, gentler recession—relatively speaking. They are less likely than younger and middle-aged adults to say that in the past year they have cut back on spending; suffered losses in their retirement accounts; or experienced trouble paying for housing or medical care. They're more likely to report being very satisfied with their personal finances. And

---

22. U.S. national telephone survey of public knowledge about retirement and level of confidence conducted annually by EBRI. There is also an annual health confidence survey.
23. From Pew Research Center Study, "Different Age Groups, Different Recessions," conducted Feb. 23 to March 23, 2009, and released May 14, 2009. http://pewsocialtrends.org/pubs/734/different-age-groups-different-recessions.

they're less likely to say the recession has been a source of stress in their family."

"By contrast, adults ages 50-64 are living through what feels to them like much harder times. Three-quarters of this so-called Threshold Generation say that the nation's current economic problems will make it more difficult for them to afford retirement. Two-thirds of younger adults and 56 percent of older adults share the same concern."

"One reason that late-middle-aged adults feel so vulnerable is that their nest eggs have taken the brunt of Wall Street's meltdown. Two-thirds of adults ages 50-64 say they lost money in the past year in mutual funds, individual stocks or 401(k)-type retirement accounts. Of those who report such losses, two-in-ten say they lost more than 40 percent of their investments' value and nearly four-in-ten say they lost 20 percent to 40 percent. By comparison, far fewer older adults or younger adults report losing money in stocks and retirement accounts in the past year."

The Situation After the Crisis

As noted earlier, total retirement accounts moved back to $7.9 trillion in the first quarter of 2010, moving up from a low of $5.9 trillion. These amounts are not adjusted to reflect new contributions or withdrawals, but they provide a clear indication of partial rebound in value. The assets were at $8.6 trillion at their highest in the third quarter of 2007. It remains to be seen who will have been permanently hurt by the recent financial crisis and for whom this crisis was more like every other recession.

There are also predictions that people will work longer, and they already are. The shift to defined contribution plans is one factor encouraging later work, but this shift will have the greatest influence on future retirees. It is unclear how much longer people will work and what the impact of the crisis will be. To put this issue into perspective, consider labor force participation rates in 1993 and 2009. TABLE 12 shows that at ages over 60, labor force participation rates have increased for both sexes from 1993 to 2009, and that the increases at ages 60 to 64 are particularly dramatic for women.

TABLE 12
U.S. Labor Force Participation Rates in 1993 and 2009

Age	Male 1993 (%)	Male 2009 (%)	Female 1993 (%)	Female 2009 (%)
25-54	92.6	89.7	74.6	75.6
55-59	78.2	78.0	57.1	68.4
60-61	66.1	68.0	45.1	57.5
62-64	46.1	55.1	31.7	44.0
65-69	25.4	36.3	16.1	26.6
70-74	14.8	22.5	7.9	15.0
75+	6.9	10.4	2.8	5.3

Source: Richard W. Johnson and James Kaminski, “Older Adults’ Labor Force Participation Since 1993: A Decade and a Half of Growth,” Urban Institute, January 2010.

Special Issues for Women

Retirement Risks and Special Issues for Women

Earlier in the paper, retirement risks in general were outlined. Women are generally subject to the same risks as men, but they often affect them differently because of differences in life histories and family status. To a large extent, the challenges of the very old affect women much more than men.

TABLE 13
Retirement Risk and How They Affect Women

Risk	Potential Range of Risk
Outliving assets	At age 65, average life expectancy is 17 years for American men and 20 for women. Thirty percent of all women and almost 20 percent of men age 65 can expect to reach 90. [1] It should also be noted that women on average have different work histories than men and in the aggregate have lower pension benefits than men. They are much more likely to live to high ages.
Loss of spouse	Because women have traditionally been younger than their spouses, periods of widowhood of 15 years or more are not uncommon. For many women, the death of a spouse is often accompanied by a decline in standard of living. Women are more likely to lose a spouse than men and, if they lose a spouse, less likely to remarry.
Decline in functional status	The cost of care as older people become frail may amount to millions of dollars for a couple over their lifetimes. Nursing home care costs may exceed $70,000 a year per person. [2] Care may be provided at home, in adult day care centers, assisted living facilities or nursing homes. Women are more likely to need paid care because there is no family member available to help them.
Health care and medical expenses	Medical costs for retirees over 65 not covered by Medicare have been estimated to have an average value of $250,000 per couple for couples reaching age 65 in 2010. In extreme situations, costs not covered by Medicare may exceed $1 million for a couple over their lifetimes.
Inflation	From 1980–2005, annual inflation in the United States for all items has ranged from 1.1 to 8.9 percent, and has averaged 3.3 percent. For medical care, the annual average has been 6.4 percent. [3] Inflation has generally been much higher outside North America.
Investment risk	The volatility of the stock market has been significant. From 1987–2005, annual returns on the S&P 500 Index averaged 9.4 percent but have ranged all the way from -23.4 percent (2002) to +34.1 percent (1995).
Premature retirement risk	A significant percentage of people retire sooner than they expected to because of job eliminations or health reasons.

1. U.S. Life Tables, 2002.
2. Expressed in 2005 dollars.
3. Consumer Price Indices, U.S. Bureau of Labor Statistics.

Source: Table is based on exhibits included in “Key Findings and Issues: The Impact of Retirement Risk on Women,” 2005 Risks and Process of Retirement Survey Report, Society of Actuaries, 2006.

It has often been stated that women are less willing to take risk than men. David Babbel from the Wharton Financial Institutions Center states there are more than a dozen studies demonstrating differences in risk tolerance between men and women.[24] Some of the results cited

24. David F. Babbel, “Personal Finance, Lifetime Income for Women: A Financial Economist’s Perspective,” Wharton Financial Institutions Center Policy Brief: August 12, 2008: 5.

are as follows: "In addition to gender, other factors are related to an individual's risk tolerance, including wealth, income, financial sophistication, knowledge, race and years to retirement. The spectrum of risk tolerance reveals that after taking all of the other demographic/economic factors into account, unmarried males were the most likely to take high financial risk, followed by married males and then by unmarried females. Married females were the least likely to take high risk."

He then points out that unmarried men were 1.4 times as likely to take financial risk when compared to married men and 2.0 times as likely to take risk as married females. Married men were 1.7 times as likely to take financial risk as married females.

Babbel also cites findings indicating that unmarried women are the demographic group least likely to buy stocks, and then women are more likely than men to buy invest in risk-free or low-risk securities.

Older Women in the Future: Adapting to Longer Lives

A discussion at the 2009 World Future Society meeting focused on how women's lives would change in the future.[25] The discussion was somewhat like a focus group with information provided at the start, breakout into small discussion groups and feedback from the groups. Two assumptions set the foundation for the discussion: a high percentage of the very old will be women (often living alone), and the period of life after age 65 is characterized by change.

The context for the discussions also included a case study that presented a couple moving from active work to phased retirement, to full retirement in good health, to widowhood, to a period of moderate limitations and then a period of total limitations. The case study included a geographically scattered family and showed the move from independent living to assisted living and a nursing home. The discussion focused on how the story would have changed in 2025 and 2045.

Here are some of the key points raised by the participants in the discussion.

25. The discussion at the World Future Society meeting was led by Terry Kozlowski, Maria Malayter and Anna Rappaport. Malayter presented a model she has developed to help us focus on many aspects of retirement planning. The model can be found in her book *Boomers: Visions of the New Retirement* and in practice at *http://www.nl.edu/positiveaging/*. The model is a combination of life planning and wellness choices for retirement. Actuaries have heavily focused on planning for retirement, usually thinking about money, risk, work and health. The model reminds us there is more to the story, and that relationships, geography and community are also very important. Kozlwoski presented us with considerations as we think about retirement, and reviewed the challenges of living longer. She helped us focus on managing transitions, helping us think about how to get to where we need to be. For each of the participants, the discussion offered a chance to share ideas with people thinking about the same issues but from a somewhat different perspective.

By 2025, the discussion groups predicted:

- Longer and healthier lives
- Full retirement age between 70 and 75; however, new patterns of work would emerge with good opportunities for work 50 to 75 percent of the time from satellite locations or home
- More communities with an integrated universal design, with an increase in the number of residents affiliated with religious groups
- More small groups of women living together, creating an alternative to formal retirement communities
- More community-based approaches supplementing/replacing those of large institutions
- Increased telecommuting and flexible work options
- Changes in family structure that would include non-blood related people in the family
- Greater use of technology for communication and more use of this technology among older women; the techniques used primarily by young adults today would spread to all age groups
- Less isolation as a result of the greater communication opportunities
- Substantial caregiving and support provided through time exchange programs (the Transition Network offers such a program in New York today)
- Universal health care
- Easier and better options for human enhancement; e.g. knee and hip replacements, but many others as well
- A higher percentage of unmarried women
- Fewer and smaller inheritances
- A smaller wage gap between men and women

And by 2045,

- Even longer working lives and greater use of technology
- Technology would enable much more independent lives for older people
- People in their 60s would be looking at their next career
- Women who had married later in life would be having children in their 60s
- Widespread gene therapy
- Greater mindset of independence; people will be rewarded/punished for good and bad behaviors in systems such as health benefits
- It will be feasible to travel to the moon and many people will do it

A Case Study

The risks and issues discussed in this paper weave together and interact. They may seem very abstract and hard to understand. A case study is set forth in TABLE to help us understand how people's lives change.[26] Note that this case study results in death at age 90, which is higher than average today. The ages are likely to stretch out more in the future.

TABLE 14
Case Study to Illustrate Various Stages of Aging

Age and Family Status	Work and Engagement	Sources of Income and Special Costs	Health Issues	Location, Special Communication Status, Decision-making Ability, Travel and Challenges	Support and Help Needed Plus Comments
Joan, 60 Robert, 65 Married Four children grown and left home, children live in three different cities	Two careers Teacher, Public administrator Investigating when to retire Active in community and attend regular study groups in synagogue	Both salaries	Joan in excellent health Robert doing well but has history of heart disease	Own home in suburbs Regularly use email and have reasonable computer skills for writing and everyday tasks No limits on decision-making ability	No support needed At stage where they are looking at options for the next phase
Joan, 65 Robert, 70 Married	Both careers are in transition: Joan is teaching part-time Robert consults two days per month on average Robert on board of two community mental health groups Still active in community and study groups	Pensions and income from part-time employment plus consulting Social Security benefits Have savings that can provide income	No new health issues Covered by retiree health benefits Take walks nearly every day and work to remain active	Decided not to move but investigating various senior housing options Traveling a lot to reconnect with family and friends they have not seen for many years, including several overseas trips	
Joan, 70 Robert, 75 Married	Slowing down a little but still active in community and study groups and Robert continues on boards	Pensions from both jobs Social Security Have savings that can provide income	Same as at 65	Working hard to see children and grandchildren whenever feasible	Having difficulty managing yard work and house

26. The case study is generally similar to the case study developed for the World Future Society meeting but it has been restructured. The World Future Society Case study was a joint effort of Anna Rappaport, Maria Malayter and Terry Kozlowski.

Age and Family Status	Work and Engagement	Sources of Income and Special Costs	Health Issues	Location, Special Communication Status, Decision-making Ability, Travel and Challenges	Support and Help Needed Plus Comments
Joan, 77 Widowed	Slowing down but still attends occasional study group and meets with a friend to read German every two weeks Plays bridge two times per week and goes to activities including regular exercise class Elected to resident's council of independent living facility where she resides	Same income sources as Robert's pension includes survivor benefits Some of savings used to buy annuity Independent living costs $2,500 per month	Joan slowing down, but no identified problems—goes to exercise class and takes walks Covered by health benefits from Robert's former employer	Moved after Robert died to independent living community; it offers dinner and breakfast, weekly cleaning, activities, transportation Whereas decisions were often made jointly, Joan is now on her own	
Joan, 79 Widowed	Somewhat limited Friends occasionally pick her up for study group but activities scaled back	Same as at age 77	Diagnosed with Parkinson's disease; takes multiple medications No longer drives Takes regular walks	Is having some difficulty with computer Uses regular phone and answering machine	
Joan, 80 Widowed	Activities continue to be gradually reduced	Same	Cognitive problems have been identified Can still take short walks independently	Is having more difficulty with computer and is very limited in its use Uses regular phone and answering machine Beginning to have cognitive difficulties and needs help with decision making as well as regular tasks	Needs help with bill paying, shopping, errands and doctor appointments A helper comes about six hours a week to help with bill paying, errands, etc. (these are tasks that would normally be done by family member if local one was available)

Age and Family Status	Work and Engagement	Sources of Income and Special Costs	Health Issues	Location, Special Communication Status, Decision-making Ability, Travel and Challenges	Support and Help Needed Plus Comments
Joan, 82 Widowed	Continues to decline No longer attending study groups or seeing the friends she regularly saw in previous years	Same income as before but added special costs for helper; is paying helper about $1,500 per month She continues to pay $2,500 to independent living facility	Cognitive and physical difficulties are increasing Parkinson’s disease is causing more problems	Can no longer use answering machine Concern expressed she should move and be nearer to family Cannot use computer at all	Paid helper is now coming three hours per day and added help comes from additional helper who comes about six hours per week
Joan, 83 Widowed	Very limited Moves to assisted living facility to be near two of her children Participates in some activities at assisted living	Same sources of income Assisted living costs $4,000 per month and this includes three meals a day and help with medications and bathing, dressing, etc.	Continues to decline; initially can take short walks near assisted living without the need to cross streets, go into traffic	Has difficulty writing and can speak on phone to very limited extent Increasingly difficult to understand speech when she talks	Family members help two to three times per week Son has very young children and they bring her a lot of joy
Joan, 87 Widowed	Extremely limited; now in a nursing home and no longer able to walk, communicate verbally Nursing home is near another of her children	Same sources of income Nursing home costs about $6,000 per month	Health continues to decline	Confused sometimes; can’t write or speak Cannot use telephone at all	Son visits her almost every day and family members help with many tasks Son often feeds her lunch
Joan, 90	Deceased				

The case study is anecdotal, based on experiences of the people who developed it. It does not reflect statistical averages but rather raises issues that are important in understanding the challenges of aging, particularly if one has a severe disease.

Conclusions and Future Steps

Individuals who live to very high ages are faced with a range of risks and a number of options for management strategies. While Social Security provides a base level of income, and while some families have pensions, many people are largely on their own to manage these risks. The number who are largely on their own will increase in the future.

Managing diverse and overlapping risks is complex and a range of options are available. The challenges are increasing as the pension system is shifting from defined benefit to defined contribution, and lump sums are more common in defined contribution plans. A range of products is available to support such risk management, and new products are emerging. However, at present the products are not very popular and there is no agreement on the best risk management and life strategies.

One method of reducing the amount of money needed for retirement and making it easier to manage in retirement is to retire later. This increases Social Security monthly income and provides more time to earn private benefits and accumulate assets. The author believes this is a major societal issue, later retirement will be increasingly important in years to come and retirement ages are likely to rise one to two years per decade over the next 40 years.

Repeated research by the Society of Actuaries and others has shown gaps in knowledge and that the most favored risk management strategies are reducing spending and saving more, rather than use of financial products. The economic downturn in 2007-09 created challenges for American society and particularly for people nearing retirement. It is too early to tell what the long-term impact of those challenges will be. However, the Society of Actuaries research on post-retirement risks shows little change in risk perceptions and risk management strategies from 2007 to 2009.

These gaps in knowledge are most likely to be felt at very high ages, and it is likely that many people will struggle as they get to very high ages. Women live longer than men and are much more likely to be alone at high ages. A review of the data shows that among the 65 and older population as they age:

- Income from Social Security is fairly constant by age.
- Other sources of income including work decline with increasing age so that the very old are most dependent on Social Security.
- Social Security monthly income can be increased considerably by starting benefits later, but many people do not realize that.
- The chances of being frail and needing help increase with age.
- Women are projected to have longer periods of frailty than men.
- Widows and older women living alone are highly dependent on Social Security and this is likely to continue.
- Married couples are much better off than single people.
- Risk management products are not very popular as a method of managing risks.

Even though life spans are increasing and we are getting healthier, these issues are likely to be with us for years to come.

Dealing with these issues requires action on the part of several different types of stakeholders. At present, there is no agreement about the right answer to many challenges.

The following recommendations for the future are based on the realities described above:

<u>Adjust retirement ages with greater longevity, and regularly update retirement ages.</u> Index Social Security and private plan retirement ages or at least increase them. Indexing retirement ages would mean increasing them a little as life spans increase. Retirement ages that change gradually with changes in life spans would create very different expectations. This recommendation includes most stakeholders.

<u>Change the terminology about retirement ages.</u> While it does not seem practical to get an entirely new term, it is suggested that the terms "normal" and "early" retirement are not helpful in working toward a different world. Social Security would be a logical place to introduce such a change.

<u>Recognize and respond to gaps in individual knowledge.</u> Recognize the limitations surrounding financial literacy and include appropriate defaults in programs.

<u>Help people think about housing and its relationship to retirement wealth.</u> Provide tools to help people understand the options with regard to housing and evaluate strategies.

<u>Encourage use of effective messaging and signals. Use "nudges" to promote retirement security</u>. As a start, show information about Social Security benefits by starting with the age where the monthly benefit is the largest rather than the earliest age at retirement.

<u>Improve financial and health literacy</u>. Try to build a culture of analysis and improve financial and health literacy. Encourage individuals to do more analytical work in retirement planning. Create situations where peers talk about this and where peer groups encourage it. Many tools are already available, and more are coming on the market regularly. A great deal of information is available on websites. Explore if effective, and if not, seek ways to improve.

<u>Encourage long-term and balanced planning</u>. Balance messages about leisure, working in retirement, new retirement with messages about risk, long life and the need for retirement income. Focus on longer-term thinking.

<u>Explain trade-offs</u>. It is clear that many individuals do not make well-informed choices about their retirements and the management of money post-retirement. The trade-offs involved in the choice of a strategy are extremely important and not easy to understand. Better information is needed for all concerned about the range of options available and the trade-offs implied by choices. It should also be remembered that some choices are irrevocable when made, while others can be changed later.

Make individual financial risk protection products more understandable and appealing. Understand why risk protection is not very appealing to many individuals, and whether the products themselves are not what the public wants. Work to improve the comparability and understandability of products and also determine if different products might be more appealing. Some products are available with institutional pricing and distribution, whereas others are not. This is primarily a recommendation for the financial services industry.

Improve employer plans, and rethink default distribution options in DB and DC plans. Even though this paper is primarily about individuals, what they get from their employers really matters, and the method of benefit payment really matters. While DB plans pay income, today lump sums are the common default in DC plans, and life income options are often not available. One of the best ways to offer income options is through rollover IRA approaches. While there has been a great deal of innovation in plan design over past decades, there has not been much innovation in payout management. In the policy arena, open up new possibilities for options and defaults. Public discussion is needed to reach consensus on what should be allowed, what should be required and what should be protected in a safe harbor.

Enable use of DC funds for risk protection. At present, the role of the employer in post-retirement risk protection is minimal. However, many employees still count on their employers for help. Change DC regulatory structure so that 401(k) funds could be a retirement risk protection account, and, after retirement, balances could be used to purchase a variety of risk protection options, either through the plan or through employer offerings on an advantageous basis. Some of the choices should include lifetime income with survivor protection, with or without inflation protection, supplemental health insurance and long-term care benefits.

Explore new options for providing unbiased advice to the middle class. At present, there are many advisors, but the middle class if often not an attractive market for them. Look for models that make advice available to the middle class and address the advice to their specific needs.

Author's Biography

Anna Rappaport, FSA, MAAA
Anna Rappaport Consulting
www.annarappaport.com
anna@annarappaport.com

Anna Rappaport is an actuary, consultant, author and speaker. She is a nationally and internationally recognized expert on the impact of change on retirement systems and workforce issues. She formed Anna Rappaport Consulting in 2005 after retiring from Mercer human resource consulting at the end of 2004 having served 28 years with the firm. Rappaport serves on the boards of the Women's Institute for a Secure Retirement (WISER) and the Pension Research Council. She served as president of the Society of Actuaries in 1997-98 and is currently chair of the Society of Actuaries Committee on Post-Retirement Needs and Risks and has participated extensively in structuring and leading the SOA's research efforts on post-retirement risks since their inception. She has participated in all three prior Living to 100 Conferences and has submitted prior papers to Living to 100. She was appointed to the Employee Retirement Income Security Act (ERISA) Advisory Council in 2010 and serves on the Government Accountability Office (GAO) Retirement Security Advisory Panel. She is passionate about creating a better future for older Americans and improving the retirement system in America, and is particularly concerned about the many women who do not fare well at older ages.