

Perspectives on SOA Post-Retirement Risk Research and what it tells about the implications of long life

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Introduction

This paper reviews selections from the 15 years of Society of Actuaries (SOA) post-retirement risk research and discusses its implications with regard to a long life. The research has been organized around major topics and the findings related to the challenges in older life. Practical suggestions are included. Other research is brought in where it fills in the picture and supplements the SOA work. Discussions about the relationship between different projects and the rationale for the work are based on my recollections. I have been involved with this work since its inception. All of the work of the Committee on Post Retirement Needs and Risks (“the Committee”) is available on the [SOA website](#).

The paper combines the results of the research with the opinions of the author. The paper begins with a discussion of the SOA research program and highlights major projects. The Committee has defined major risks in *Managing Post-Retirement Risks*. The Retirement Risk Surveysⁱ are a key component of this research, and the most important findings from the six surveys to date are highlighted. The surveys build on the definitions of the risks. Insights are provided about planning, the planning process and perceptions about longevity. Finally, results are grouped around major issues including the importance of Social Security, age at retirement and working in retirement, family issues, health and long-term care, the importance of housing, and challenges related to finding advice. The next section of the paper provides research findings on risk management. The paper then offers an overall summary of key conclusions, and some recommendations for the future. A review of the risks and a discussion of special issues for women are in the Appendix. One of the interesting features of this research is that the results of different projects complement each other. Most of the research focuses on middle income marketⁱⁱ Americans, but several studies focus on people with above average wealth. The studies considered are based on samples of the general population and not linked to specific financial service companies or employers.

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Post-Retirement Risk Research from the SOA

Overview of the Research

The SOA has a multi-faceted program related to retirement issues and the post-retirement period. The reports from this research are available on the SOA website and are available to the public.

The major ongoing research is the *Risks and Process of Retirement Survey*. From 2001-2011, this has been conducted biennially as a telephone survey series sponsored by the SOA with EBRI and Mathew Greenwald and Associates. The studies include a mix of repeated questions and areas of special emphasis. This article draws on both the basic study and areas of special emphasis. The populations studied are retirees and pre-retirees, who must be age 45 or older. The respondents are selected to be representative of the general population. Starting in 2013, these studies will be conducted online. The 2013 study results should be available early in 2014.

Areas of emphasis from the studies lead to special reports. Special reports have been prepared on a variety of topics including the economy, women's issues, phases of retirement, working in retirement, longevity, and health and long-term care. See Figure 2 for a listing of special reports.

In addition to the risk survey, the Committee has engaged in other research and informational projects. Many of them are listed in Figure 1. All of them can be found on the [SOA website](#) page for the Committee. All of the work is designed to be useful to participants in the retirement system, whether they be employers sponsoring benefit plans, financial service companies producing products and services, individuals managing on their own, or advisors. Care is taken throughout to be balanced, and where there are trade-offs and a range of approaches, to present them fairly and not be biased in favor of a particular product.

Overall, the work of the Committee is heavily focused on the middle segments of the population from an economic perspective. As discussed in the paper, they have different issues than the most affluent and it is believed that they are underserved by the traditional providers of advice. This differs from much research done by some not-for-profits focused on lower income Americans. Many lower income and lower asset Americans depend primarily on public programs, and public policy and the structure of these programs is outside of the scope of the Committee work. Many business entities in the private sector focus on the more affluent. This group is not the primary concern of the Committee, and none of the work of the Committee oversamples the affluent. The risk surveys are based on the total population. Other survey work that has been done to understand how assets are invested includes a modest minimum asset level. Some of the focus group work on retirement decisions excludes higher asset level participants.

Not included in this paper or the work of the Committee is a discussion of a very important issue: tax strategies for retirement savings and income. This issue is important to retirement security, but it is beyond the scope of Committee work. It is an important area of focus for financial advisors.

Summary of Selected Projects

The program includes several other research projects, some of which are included in the references to this article. The Committee works with several partners. All projects use multi-disciplinary teams. The *Running Out of Money* study examines the issues surrounding using up all assets except for Social Security. *The New American Family* study sought to understand if different types of families viewed post-retirement risks differently. Some studies, such as *The Financial Recovery for Retirees Continues*, focus on a subset of the population. This study series started with retirees who had at least \$100,000 in investable household assets. The *Retirement Plan Preferences* survey focused on what types of retirement programs employees prefer, and what features of these programs are important to Americans. Figure 1 shows some of the major projects of the Committee, partners, and general methodology.

**Figure 1
Selected SOA Post-Retirement Risk Committee
Survey, Focus Group, and Quantitative Research Projects**

| Project | Description and methodology | Comments |
|---|---|---|
| Retirement risk survey series (conducted with Mathew Greenwald & Associates and EBRI) | Survey of public to learn about what they know about post retirement risks – telephone survey from 2001 to 2011; on-line survey starting in 2013. Sample set to represent American population. | Includes a mixture of repeated questions and special issues; special issues may be covered in more than one survey but after skipping a period. See Figure 2 for special issue topics by survey year. One similar survey conducted in Canada (2010). |
| Approaching the Underserved Middle Market: Insights from Planners (2012) | A report of two focus group sessions with financial planners who are active in some part of the middle market. | This project was cosponsored by INFRE and the Financial Planning Association. The discussion sessions were held at an FPA meeting and the attendees were invited based on experience. |
| The New American Family (2012) | An Internet-based survey to learn how different types of families differ in financial planning and how they view post-retirement risk. | This project was sponsored by the MetLife Mature Market Institute with assistance from the SOA Committee |

| Project | Description and methodology | Comments |
|---|---|---|
| <p>Research on use of retirement assets</p> <p>2008 – Will Assets Last a Lifetime?</p> <p>2009 – What a Difference a Year Makes</p> <p>2011 – The Financial Recovery for Retirees Continues</p> | <p>A series of three surveys conducted using an Internet panel to learn how retirees are investing their assets and how they made their decisions.</p> <p>The first survey was done in 2008, the second in 2009, and the third in 2011. This enabled the Committee to see how retirees had responded to the economic turmoil during the period.</p> | <p>The SOA partnered with LIMRA and INFRE for these three surveys.</p> <p>The individuals surveyed in 2009 and 2011 were a subset of the individuals surveyed in 2008. Some of the questions from the first survey were repeated.</p> <p>For this survey, there was a minimum of invested assets.</p> |
| <p>Spending and Investing in Retirement: Is There a Difference (2006)</p> | <p>A focus group study. The members of the focus group were retirees who had assets to invest and the purpose was to understand their decision making.</p> | <p>The SOA partnered with LIMRA on this project. This project laid a foundation for the surveys on investment of retirement assets described above.</p> |
| <p>Canadian and U.S. Risk Survey Comparison</p> | <p>A report comparing the 2009 SOA risk survey with a 2010 Canadian risk survey.</p> | <p>Questions in the two surveys are very similar, but the SOA survey was a telephone survey and the Canadian survey used an Internet panel.</p> |
| <p>Segmenting the Middle Market: Retirement Risks and Solutions (2009 and 2012 publication dates)</p> | <p>There are three reports in these series – the first offers middle market segmentation using the 2004 Survey of Consumer Finances data.</p> <p>The second focuses on pathways to solutions for the identified segments.</p> <p>The third is an update of the first using 2010 SCF data. The update showed reductions in assets between 2004 and 2010, but did not change conclusions.</p> | <p>The SOA contracted with Milliman, Inc. for this research.</p> <p>Segments are identified for mass middle and mass affluent Americans at ages 55-64 and 65-74. This report demonstrated that non-financial assets, primarily housing, are much greater than financial assets for all of the segments.</p> |
| <p>Retirement Plan Preferences Survey(2004)</p> | <p>This report focuses on whether people prefer DB or DC plans. The survey was a telephone interview survey.</p> | <p>The SOA partnered with the American Academy of Actuaries for this project. It turned out that people seemed to prefer the type of plan they had.</p> |

Starting with 2003, each of the risk surveys has short reports on the overall results and at least one special topic. Each of these reports combines survey results with some added information from other sources to provide a focused approach on a topic. Some of these reports include commentary from members of the project oversight committee, and some include commentary from individual Committee members. The special topic reports to date are shown in Figure 2.

Figure 2
Special Issue Topics for Retirement Risk Survey Short Reports
(the Special Issue Topics are in Addition to the Risks in Retirement Reports)

| Year | Special Issue Topics | Comments and Notes |
|-------------|---|---|
| 2013 | | TO BE ADDED BEFORE PAPER FINALIZED – INFORMATION SHOULD BE AVAILABLE BY JULY 1 |
| 2011 | Longevity Working in Retirement The Impact of the Economy on Individual Retirement Risks | Longevity report focuses on how well the public understands longevity. The longevity and working in retirement reports build on 2005 special reports. The impact of the economy report repeats a topic from 2009 and responds to the events of recent years. |
| 2009 | Process of Planning and Personal Risk Management The Impact of Retirement Risk on Women The Impact of the Economy on Retirement Risks | The process of planning and personal risk management is a core concern of the Committee. As the survey has consistently shown gaps in knowledge, this is particularly interesting. The report on women builds on a similar report from 2005. The Women’s Institute for a Secure Retirement (WISER) is a partner for this report. |
| 2007 | Phases of Retirement Health and Long-term Care | The phases of retirement report focuses on what changes during retirement. It includes information on planning for change and also a discussion of various life changes during retirement. These factors do not change much and are often overlooked in retirement planning. The health and long-term care report focuses on planning for these risks. |

| Year | Special Issue Topics | Comments and Notes |
|-------------|---|---|
| 2005 | <p>Impact of Retirement Risk on Women</p> <p>Phased Retirement and Planning for the Unexpected</p> <p>Longevity and Retirement Risk</p> | <p>The report on women shows where risk perceptions differ by sex. The report also shows how life circumstances differ by sex. WISER was a partner in this project.</p> <p>The process of retirement report looks at how people are retiring and focuses on phased retirement.</p> <p>The phased retirement report focuses on factors that may influence retirement ages in the future and phased retirement.</p> <p>The report on longevity focuses on how well people understand longevity risk and how they plan for it.</p> |
| 2003 | Process of Retirement | This report focuses on how people retire and includes some questions on phased retirement. |

The Committee also has produced two major projects to define risks and organize information around decisions that must be made. The Committee has issued several monographs based on paper calls and written some research papers. Figure 3 describes these projects

Figure 3
Selected SOA Post-Retirement Risk Committee Projects
Public Education Projects, Research Papers and Paper Calls

| Project | Description and methodology | Comments |
|---|--|--|
| Managing Post-Retirement Risks (risk chart) | <p>Document identifying 15 key risks and their characteristics, and giving general strategies for managing them</p> <p>This document is a foundation for much of the work of the Committee</p> | <p>Document is suitable for professionals and thoughtful individuals</p> <p>Holistic thinking is encouraged</p> <p>This report is now in its third edition</p> |

| Project | Description and methodology | Comments |
|--|---|---|
| Retirement Decision Briefs (2012) | <p>A series of 11 decision briefs on specific areas of retirement decision making targeted at people close to the time of retirement or in retirement</p> <p>Briefs present issues, questions, and considerations. While briefs are set up issue by issue, they encourage holistic thinking</p> | <p>Builds on Managing Post-Retirement Risks</p> <p>Group working on briefs believed that many of the issues are often overlooked</p> <p>Designed for thoughtful individuals and professionals</p> |
| Middle Market Retirement: Approaches for Retirees and Near Retirees (2013) | A paper that summarizes a number of conceptual approaches to planning for the middle market and fits them to the issues identified in the segments defined in “Segmenting the Middle Market” | |
| Running Out of Money (2012) | <p>A roundtable of experts who discussed the outlook for running out of money, issues, and possible solutions. Abstracts of submitted materials are included in the report.</p> <p>Provides a broad overview of issues and unifies many of the topics discussed by the Committee</p> | <p>The SOA partnered with WISER and the Urban Institute for this project</p> <p>Major concerns identified and discussed include health and long-term care risk, the need for better advice for the middle market, and concerns about lifetime income.</p> |
| Retirement Security in the New Economy (2011) | <p>Monograph providing a broad range of papers focusing on holistic approaches, paradigm shifts, and new ideas</p> <p>Papers vary between those that focus on a single topic and those that focus on the bigger picture</p> | Multi-disciplinary group of authors |
| Housing in Retirement (2009) | Monograph providing papers on financial and life-style issues related to housing and success in retirement | Multi-disciplinary group of authors |
| Managing Retirement Assets (2004) | Monograph providing a series of papers on the payout period | Multi-disciplinary group of authors |
| Retirement Implications of Family and Demographic Change (2002) | Monograph providing focus on family issues and also on phased retirement | Papers include perspectives from several different countries |

The Committee also completed some additional projects as shown in Figure 4. The Software research is particularly important because it offers insights about how these risks are considered in the real world.

Figure 4
Selected SOA Post-Retirement Risk Committee Projects
Other Projects

| Project | Description and methodology | Comments |
|---|--|---|
| Research reports: Retirement Planning Software (2003) Retirement Planning Software and Post-Retirement Risks (2009) | Two studies were conducted to understand how retirement planning software handles post-retirement risks. Both looked at samples of software, and found significant gaps in what was reviewed, and relatively little changed between the first and the second study. | LIMRA and INFRE were partners for the first project, and the Actuarial Foundation was a partner for the second project Both projects used outside researchers |
| Thinking about misperceptions studies: Public Misperceptions about Retirement Security (2005) Public Misperceptions about Retirement Security: Closing the Gap (2007) | Two research reports were published: The first report provides a unified discussion of a number of misperceptions looking at a range of research. The report is organized by topic. The second report focuses on ideas for addressing the challenges raised by the misperceptions. | Joint projects between the SOA, LIMRA and Mathew Greenwald & Associates My opinion is that the misperceptions identified in this 2005 paper are still a problem in 2013. |
| Longevity and Financial Planning (2011) | Presentation that explains longevity concepts to financial planners and brings together actuarial thinking with the thinking of the financial planning profession | Collaboration with NAPFA, a group of fee-based financial planners |

How Projects are Chosen and Conducted

The Committee participants are multi-disciplinary and from many organizations. They represent the actuarial profession and other professionals and organizations such as government, think tanks, academia, not-for-profits, the financial services industry, advisors, and retirement plan sponsors. Some are from outside of the United States.

Each year there is a planning meeting. In recent years, 20-30 members of the group gather in person and share their major concerns with regard to the post-retirement period. From their shared concerns, topics are grouped and then further discussed. The members participating in the planning process vote on topics for new projects. These projects are in addition to the risk

survey which is ongoing. Two to three topics for consideration for new projects are chosen each year. Partnerships are encouraged.

Projects use a number of different methodologies. Some are surveys or focus groups. Others are research projects for which an RFP is issued and a researcher is selected. The Committee has done one all-day roundtable, and has had several over the phone roundtable conversations. Paper calls have been used on several occasions.

Author's Long-term Perspective on Key Issues

Societal responses to post-retirement risk operate in overlapping areas. They include the individual actions and decisions, employer and public programs that offer benefits, the financial services industry, the delivery of financial advice and guidance, and individual knowledge and perceptions. The Committee work operates in some parts of this mosaic but not others. It is heavily focused on individual actions, decisions, perceptions, and influences on the individual.

The fifteen years of work of the Committee includes a variety of projects focusing on understanding the issues and situation, attempting to help the public, and on solutions. As mentioned earlier, the key target is the middle market. The earlier work largely focused on understanding the situation, and more of the work since then has focused on solutions.

Issues to be studied are selected each year through a discussion of the Committee members who attend the annual planning meeting. The same issues have been raised with the Committee repeatedly, largely because the challenges are long term in nature. The greatest challenge for the Committee has been the projects focused on defining solutions. I will share some of those here and also some comments on why I think it has been so challenging.

My view today is that there are multiple reasons why it so difficult to find solutions. These are a few of them:

- Many of the people in the middle market do not have sufficient financial resources to make it through retirement including utilizing risk management tools. Some will have nothing left late in life other than Social Security. Many of those who experience serious long-term care shocks will depend on family or friends and/or the social safety net.
- While “retirement security” offers a huge business opportunity to the financial services industry, the economics of the situation make it much more profitable to serve customers with more income and wealth. The economics of the industry are not well aligned with meeting many of the needs of the middle market, particularly for those individuals with minimal or no financial assets. Some decisions are relatively complex, and personal guidance would be very helpful to the individual receiving that advice, but it is not clear who would bear the cost of such services and how they would be paid for.
- The reality is that many people lack sufficient knowledge and numeracy skills when it comes to financial and other retirement decision making. In addition, people are influenced by the framing of issues and solutions and have a variety of different decision biases. There has been significant recognition in the last few years of the importance of behavioral finance and how it affects retirement decision making.

- This lack of knowledge is accompanied by a number of misperceptions. The Committee issued a report “*Public Misperceptions about Retirement Security*” in 2005. Sadly, most of the same misperceptions continue to exist today, while the retirement planning environment has grown more complex and difficult.
- Many people do not focus on the long term, and many do not understand longevity risk or the need to plan for the rest of life. The result is they are planning for a much shorter horizon when compared to the actual horizon they are going to experience.
- Careful planning works best when one is able to estimate needs for future consumption and the level of future expenses, but such estimates can be very difficult to make. Some people have no idea what the right amounts are. It is more difficult to make estimates for periods that are further into the future.
- There is no consensus agreement from an academic perspective of what is best for some of these decisions. Rules of thumb are promoted that encourage misperceptions as people generally do not know how to assess if the rule actually applies to their situation.
- Some of the biggest decisions with regard to financial advice involve big trade-offs, complexity, and no best solution. Even when there is total agreement about the options and trade-offs, preferences affect the right solution for an individual.
- Advice is badly needed by many people. The individuals who provide advice on a personalized basis on financial matters are best able to make a living by serving the more affluent parts of the population. And many individuals who would be well served by having professional help are either not willing or able to pay a fair price for that advice. There is a huge gap in the availability of helpful advice for many in the middle market, particularly those with lower asset amounts.
- Financial products are an important part of the solution for many people. They can be complex and the market can be difficult to navigate. There are a range of different ways that connections are made between buyers and financial service firms. Two examples are competitive purchasing processes and a sales process based on sales people representing a specific firm. “Financial advisors” may connect clients to financial products in different ways, be paid in different ways, and be subject to different types of regulation. These connections at times are influenced by incentives and serve as a barrier to careful examination of a range of solutions. The influence of incentives is important.
- Traditional retirement portfolio management often does not consider the need for and development of lifetime annuity income. People often have a decision bias against annuitizing any of their assets to secure their income for a lifetime.
- Annuitization of defined contribution balances or lump sums from defined benefit plans is often presented as an “all or nothing” decision. A much better approach is often partial annuitization, possibly over time, by incorporating the annuity into the total retirement portfolio. In addition, the market for newer products, such as so-called longevity annuities, is quite thin.
- Adequate disability coverage to protect retirement savings is often lacking so that disability can derail retirement security. Many people underestimate the risk of disability. Disability is a cause of a substantial numbers of early retirements, and it can easily derail retirement security.

- In some cases, the interests of all the major system stakeholders are aligned. In other cases, they are in conflict. This is particularly a problem with regard to solutions for the post-retirement period.

Some of the projects in the search for solutions have included:

Segmenting the Middle Market: Part I of this project provided information on the segments, and Part II focused on laying out ideas for solutions. The ideas are a step toward solutions, but only a small step.

Monograph on Retirement Security in the New Economy: Paradigm Shifts, New Approaches and Holistic Strategies: This paper call sought out new ideas for solutions and offered a chance to share ideas on a wide range of topics.

Middle Market Retirement: Approaches for Retirees and Near Retirees: This paper discusses a number of different conceptual approaches to planning, general issues, and provides information about which types of issues fit well with different types of approaches. It uses the segments defined in *Segmenting the Middle Market* and defines common problems for the segments. It then maps the approaches to the issues matched to segments. The paper does not identify specific software or provide any listing of which software fits into which approach. It should be helpful in focusing users on the types of options that are available, and provide ideas that will enable the user to ask questions and see if there is a good fit between tools and needs.

Approaching the Underserved Middle Market: Insights from Planners is a report on a focus group discussion with two sets of planners who are active with the middle market to get their insights and ideas. It is recognized that the middle market is underserved, and there are some leaders in the profession who seek to expand coverage of the middle market. To do so on an economically viable basis requires using a systematized process and being efficient. The discussion focused on understanding what is working well for people and why they are doing it. The individuals participating in this discussion differed in how they are approaching this issue and what works well for them.

Monograph on Housing in Retirement: This paper call recognized the importance of housing and retirement from a financial, lifestyle, and support perspective. The papers bring together a range of different perspectives on the topic. The monograph recognizes that the value of housing is a huge part of retirement assets for many people, and that this is money that many people will eventually need to use to help fund their retirements. Housing can also be integrated with long-term care. There is also a Decision Brief on the link of housing and retirement. Prior to the housing downturn in the last few years, many people invested much of their assets in housing, creating severe challenges when housing prices dropped and it became much harder to sell housing. This is an area where work is needed to define and develop tools, and to help people integrate housing into their retirement planning.

Studies on retirement planning software: Both of these studies were focused on how software helped users in addressing post-retirement risk. Both studies found considerable gaps.

The projects in process at the time this paper is being written are further steps in the search for solutions.

Moving Beyond the United States

Nearly all of the work of the Committee is based on the U.S. environment. In this paper, terms have been defined to help audiences from outside of the U.S. understand key issues.

The Canadian Institute of Actuaries, working with the SOA, administered a similar survey as the U.S. *2009 Retirement Risk Survey* for Canada in 2010. A report comparing the results of the situation in the two countries using the two surveys and other information is available on the SOA website.

It is my view that the fundamental issues related to managing post-retirement risks and that the challenges in making decisions about post-retirement risk management apply in many different countries. The specific situations vary depending on the public and private employee benefit systems, and products that are available in each marketplace. It is hoped that the work of the Committee and this paper will help actuaries and retirement professionals in other countries as they work to address similar risks. The Living to 100 project offers an opportunity to present these ideas to an international audience.

Key research findings

Highlights of Risk Survey Results

Most important post-retirement risks and trends in risk preferences

Key Finding: Pre-retirees are generally more concerned about risks than retirees and the top three risk concerns appear repeatedly.

This has been a major finding from the *SOA Retirement Risk Surveys* in all years, and cuts across the different areas of risk. The survey oversight group has discussed the reasons for this and believes that retirees have become accustomed to their situation and adjusted accordingly. However, the oversight group has not found a way to verify this point.

The risk survey results have been remarkably stable over the six surveys. Over the entire period, pre-retirees were consistently more concerned than retirees. The areas of most concern for retirees and pre-retirees have consistently been concern about paying for adequate health care in retirement, concern about not having enough money to pay for a long stay in a nursing home or a long period of care at home, and concern that the value of savings and investments will not keep up with inflation. Figure 5 shows the top three risks for the entire risk survey series. The relative positioning of the top three risks changes, but these risks are the persistent top three.

Figure 5
Percent of Retirees Very or Somewhat Concerned about Major Risks

| Year of Survey | Health Care Risk | Long-Term Care Risk | Inflation Risk |
|-----------------------|-------------------------|----------------------------|-----------------------|
| 2011 | 61% | 60% | 69% |
| 2009 | 49 | 46 | 58 |
| 2007 | 51 | 52 | 57 |
| 2005 | 46 | 52 | 51 |
| 2003 | 46 | 48 | 57 |
| 2001 | 43 | NA | 55% |

Percent of Pre-retirees Very or Somewhat Concerned about Major Risks

| Year of Survey | Health Care Risk | Long-Term Care Risk | Inflation Risk |
|-----------------------|-------------------------|----------------------------|-----------------------|
| 2011 | 74% | 66% | 77% |
| 2009 | 67 | 55 | 71 |
| 2007 | 69 | 63 | 63 |
| 2005 | 75 | 61 | 65 |
| 2003 | 79 | 66 | 78 |
| 2001 | 58 | NA | 63 |

Source: 2001 to 2011 SOA Retirement Risk Surveys

The areas of greatest concern switch in order from year to year. There were somewhat increased concerns about risk on the part of pre-retirees in 2003 (after the terrorist event in 2001 and the market conditions in 2001-2002) and again in 2011 on the part of both pre-retirees and retirees. 2011 follows several years of market instability, historically low interest rates and depressed housing prices, as well as higher unemployment. The changes from 2001 to 2003 seemed to be temporary and had essentially disappeared by 2005. 2005 was much more like 2001 than 2003. It is unclear whether the levels of concern expressed in 2011 will persist. It is puzzling why the increased concern that was found in 2011 did not appear in 2009. It is unclear whether recent economic conditions are the main driver of increased concern in 2011.

The Committee has also explored whether risk perceptions vary by family type. *The New American Family* study has looked at concerns with regard to post-retirement risk by family type. This study found that the main retirement concern of families was about maintaining a reasonable standard of living for the rest of their lives. Families were very concerned about paying living expenses, health care and long-term care expenses. The results were reviewed by family type and it was found that married couples were generally less concerned about the risks that non-couples. However, they are also economically better off. While there are differences in planning issues between first marriage and later marriage couples, there were not significant differences in risk concerns. The results were generally compatible with the *Retirement Risk Survey* series. One issue that was included in *The New American Family* study was the effect that changes in taxes and government programs such as Social Security and Medicare would have on financial resources for retirement. This concern ranked high for all groups. The *Retirement Risk Survey* series has not included this issue.

Practical Issues: There is an important role for employers, financial service providers, public agencies and the actuarial profession in helping to expand awareness of post-retirement risks and the need to consider them in planning. There is an opportunity for actuaries to help people expand their understanding of the importance of making assets last for a lifetime.

Perceptions about Post-Retirement Risks: Results of the 2001 to 2011 Retirement Risk Surveys

The work of the Committee includes a multi-faceted approach to understanding post-retirement risks including a series of biennial surveys started in 2001 and focusing on public knowledge. This survey series provides a perspective on how the public views post-retirement risks. Results have been quite consistent over time. A big picture look at the results over time provides several lessons:

- Longer-term risk management is very difficult for individuals as is longer-term planning.
- 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.
- Education is important, but it should not be the primary strategy to address misperceptions and gaps in knowledge, since there are limits on what it can accomplish.
- Widows and the very old will continue to be vulnerable.
- Misperceptions still exist after more than 20 years experience with 401(k) plans and IRAsⁱⁱⁱ. Employee education has not made a big impact on these misperceptions.
- Few workers are prepared for the risk of a sudden and unplanned early retirement. Yet over the long run more than four in ten 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.

In 2005, the Committee did a special project titled *Public Misperceptions About Retirement Security*. That report identified 10 misperceptions based on multiple research sources. It unified findings from the SOA risk surveys and other sources. My view is that not much has changed with regard to areas of misperception.

Insights into planning and planning horizons

Key Finding: Many people near and at retirement age have planning horizons that are much shorter than the remainder of their expected lifetimes and many people underestimate their longevity.

In addition, too many do not engage in much long-term planning. Gaps in planning have been documented in different sources including the risk survey series and the *Financial Recovery for Retirees Continues*. In the 2011 SOA Retirement Risk Survey, 57% of retirees (up from 44% in 2005) have a plan for how much money they will spend in retirement, and where the funds will come from. In 2011, 35% of pre-retirees (up from 31% in 2005) have such a plan.

Planning for retirement was an area of special emphasis in the 2009 SOA Retirement Risk Survey. It showed that many retirees and near-retirees have a planning horizon shorter than their life

span. In 2009, 49% of retirees and 37% of pre-retirees have a planning horizon of less than ten years. By 2011, this had decreased to 48% and 32%, respectively. In 2009, only 13% of pre-retirees and 7% of retirees say they look 20 years or more into the future when they plan. By 2011, the number looking 20 years or more into the future had increased to 19% of pre-retirees and 7% of retirees. The *Financial Recovery for Retirees Continues* study asked retirees whether their assets and investments need to last at least 20 additional years^{iv}. In 2008, 65% said yes, but this dropped to 48% in 2009 and 45% in 2011. The aging of the sample in that study could account for a small part of the change, but overall this is a significant change. The panel for that study was retirees age 55-75 in 2008.

Understanding of longevity was an area of emphasis in the *2011 SOA Retirement Risk Survey*, updating an area of emphasis from 2005. The research showed that many people underestimate life expectancy or do not understand what it is. Some people will die tomorrow or next month, but others will live to age 100 and beyond. Life expectancy provides an average of how long people at a particular age are expected to live. About half will live longer than expected life spans, and it is impossible to identify at earlier ages who will have a longer than average life span. Figure 6 and Figure 7 show the probability of living from age 65 to various ages and how that changes with an alternative mortality scenario as well as the differences between men, women and couples.

Figure 6
Probability of Living from Age 65 to Various Ages
Based on Social Security Mortality Tables (representative of the total population)
(Survivor represents the remaining spouse after one dies in a married couple)

| Age | Male | Female | Survivor |
|-----|------|--------|----------|
| 80 | 60% | 71% | 88% |
| 85 | 40 | 53 | 72 |
| 90 | 20 | 31 | 45 |
| 95 | 6 | 12 | 18 |
| 100 | 1 | 3 | 4 |

Source: *Key Findings and Issues, Longevity*, 2012. SOA. Originally from an American Academy of Actuaries webinar titled “Lifetime Income—Risks and Solutions” sponsored by the Academy’s Lifetime Income Risk Task Force. Presented March 7, 2012.

Figure 7
Probability of Living from Age 65 to Various Ages
Based on 75% of Social Security Mortality Tables
 (representative of a more healthy group than the general population)
 (Survivor represents the remaining spouse after one dies in a married couple)

| Age | Male | Female | Survivor |
|-----|------|--------|----------|
| 80 | 68% | 77% | 93% |
| 85 | 50 | 62 | 81 |
| 90 | 30 | 42 | 60 |
| 95 | 13 | 21 | 31 |
| 100 | 3 | 7 | 10 |

Source: *Key Findings and Issues, Longevity*, 2012. SOA. Originally from an American Academy of Actuaries webinar titled “Lifetime Income—Risks and Solutions” sponsored by the Academy’s Lifetime Income Risk Task Force. Presented March 7, 2012.

Based on average population mortality as shown in Figure 6, there is a 72% chance that one spouse in a couple where both are age 65 will live to age 85 and a 4% chance that one will live to age 100. Using the improved mortality table shown in Figure 7, the 72% increases to 81% and the 4% increases to 10%. Using the population mortality table in Figure 6, 31% of women and 20% of men age 65 can expect to live to age 90. With the improved mortality in Figure 7, that increases to 42% and 30%. While many people find it difficult to think very far into the future, one way of focusing attention on long life is to ask people if they knew anyone (especially a family member) who lived to a very high age. Recent television advertisements from Prudential offer an illustration of asking people the highest age of a person they know. The 2011 survey showed that half of people underestimate population longevity and there was a very small improvement in understanding of life expectancy. The 2011 survey showed that the majority of both retirees and pre-retirees expect to live well into their 80s.

Practical Issues: More work is needed to help individuals understand expected life spans and their variability, and to focus on desirable planning horizons. Anyone providing retirement education should remind couples that they need to plan for the life of the longer lived spouse. Case studies and stories can be helpful in thinking through issues related to long life.

The SOA partnered with NAPFA’s continuing education program “NAPFA University” to produce a presentation for financial planners on understanding longevity and explaining longevity concepts to clients. Note that typical planner clients would often be in the more healthy group with longer life expectancies.

The Economic Foundation for Thinking about Retirement Preparation

Key Finding: Ability to support consumption in retirement is a useful way to measure preparation for retirement.

The SOA *Running Out of Money* project starts with a theoretical foundation which is based on both theory and analysis of extensive population data^v. While income replacement rates are the

most common metric for assessing the adequacy of retirement preparation, many researchers argue, however, the ability to fund desired consumption is a more appropriate measure than income for measuring economic well-being. They recognize that incomes will often decline in retirement. However, if retirees can maintain their pre-retirement consumption, then they are no worse off. Thus, the real question is whether individuals have the economic resources to consume at the same level before and after retirement. Both assets and income should be considered in measuring the adequacy of resources. The *Running Out of Money* analysis builds on a working paper for the National Bureau of Economic Research (NBER), in which Michael Hurd and Susan Rohwedder assess whether individuals are financially prepared for retirement. They start with a complete inventory of economic resources, and consider the risk of living to advanced old age and the risk of high out-of-pocket spending for health care services. They focus on and define a consumption replacement rate. In their simulation modeling, they account for taxes, widowhood, differential mortality, and out-of-pocket health spending risk.

Practical Issues-Focus on spending needs: The economic foundation analysis reminds us how important it is to focus on spending needs in retirement. Planners have a role in helping people understand what they are spending, teaching them to budget if they do not know how to do this, and in helping them identify options for managing expenses to fit resources.

The basic economic analysis showed that 71% of older adults are adequately prepared for retirement according to their definition, but that outcomes vary substantially by marital status—80% of married adults are adequately prepared compared with only 55% of single adults. This assumes a 10% reduction in consumption. Without a 10% reduction in consumption, they find that 77% of married couples and 49% of single adults would be adequately prepared.^{vi} The analysis also found that outcomes differ substantially by other demographic characteristics. For example, only 29% of single older women without high school degrees are adequately prepared for retirement. The economic analysis also showed that spending tends to go down at higher ages, but not all spending. An exception was gifting, which generally goes up with increasing age.

Major issues

Importance of Social Security and Claiming Strategy

Key Finding: For many middle income households, Social Security claiming age is a vital issue in long-term retirement security. This can be particularly important for the surviving spouse after a higher earning member of a couple dies.

The monthly income provided by Social Security is about 75% higher for people who claim at age 70 vs. those who claim at age 62. There are a variety of issues that relate to claiming for couples. The SOA 2012 publication *Deciding When to Claim Social Security*, a part of the Managing Retirement Decisions series, sets forth many of the issues. The decision brief can be located at <http://www.soa.org/research/research-projects/pension/research-managing-retirement-decisions.aspx>.

Some of the key issues in claiming strategy include:

- Social Security benefits are reduced if claimed before Social Security full benefit age, which is gradually increasing to age 67
- Social Security benefits are increased if claimed after Social Security full benefit age, up until age 70. There are no further increases after age 70.
- The reductions and increases were approximately actuarially equivalent when established, not considering spousal benefits and widow benefits. However, they are fixed and do not vary as the interest rate environment changes.
- When someone collects benefits and works prior to normal retirement age, benefits are adjusted in accordance with the earnings test. Benefits above a certain amount are reduced for earnings. After normal retirement age, there is no restriction on working and collecting benefits.
- A non-working spouse gets a benefit equal to half of the benefit of the working spouse. Reductions for claiming before full benefit age impact the spousal benefit.
- Where both spouses have earnings records, the lower earning spouse gets the greater of a benefit based on personal work history and a spousal benefit. This benefit is further reduced if claimed before the full retirement age of the person claiming.
- When a married recipient dies, the survivor gets the larger of the benefit based on personal work history or the benefit of the deceased spouse including the impact of reductions for claiming before full retirement age.
- Couples can get the best benefit by coordinating their claiming strategies. In some cases, the best idea is for the higher earner to claim late, and the lower earner to claim early. (Mahaney, 2012)

Various studies have shown that for someone who wants to increase their guaranteed life income, claiming Social Security later is more cost effective than buying an individual annuity for the first tier of increased income amount. The value of late claiming has increased with low interest rates. There are different opinions about how to perform such an analysis.

Practical Issue: Tools are needed to help advisors and individuals evaluate options. A number of tools are available, but users should be careful in choosing to make sure that they handle benefits paid to both spouses correctly and that they consider the circumstances of the specific couple.

Role of Social Security and other income sources

Key finding: Reliance on Social Security income increases with age.

As illustrated in Figure 8, median income among the total older population is lower than for higher age groups. This reflects changing sources of income by age, and different earnings history for different cohorts. Social Security is the only source of inflation adjusted income provided to most of the population. The amounts of income are very different for married couples than single persons. With less total income at older ages and Social Security remaining relatively stable with age, more elders over the age of 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% or more) of their income from Social Security.

Figure 8
Median Total Income and Reliance on Social Security by Age
Married Couples and Unmarried Persons Age 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 persons | 15,928 | 19,000 | 16,120 | 15,900 | 14,650 |
| Percent relying on Social Security for: | Reliance on Social Security – Couples and unmarried (Percent) | | | | |
| 50% or more of income | 58% | 41% | 55% | 63% | 71% |
| 90% or more of income | 29 | 20 | 27 | 32 | 37 |
| 100% of income | 20 | 15 | 18 | 21 | 24 |

Source: National Academy of Social Insurance, [When to Take Social Security: Questions to Consider](#), January 2010 ~ Social Security Brief No. 31, Table 5

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. Figure 9 shows that the percent of people receiving pensions at ages 70 and over is significantly higher than at 65 to 69, while the percentage of people with earnings from work is significantly higher at 65-69 than at later ages.

Figure 9
Percent Receiving Sources of Income by Age
Couples and Unmarried Persons Age 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 persons | | | | |
| 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](#), January 2010 ~ Social Security Brief, 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 65-69 had income from earnings in this study compared to 13% at ages over 80. For single persons, 34% had earnings a 65-69 compared to 4% at ages over 80.

There are also differences in the average amount of pension income between married couples and unmarried persons, and between individuals receiving governmental and private sector pensions. Figure 10 illustrates how income from Social Security, pensions, and earnings varies by age group. Social Security benefit amounts do not vary much by age group, pensions decrease somewhat, and earnings decrease rapidly from the 65-69 age group to the 75-79 age group. Few individuals have earnings over age 80, but for those that do, they are larger than the earnings for the 75-79 age group.

Figure 10
Income from Social Security, Pensions, and Earnings by Age
Couples and Unmarried Persons Age 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 persons | 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 persons | 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](#), January 2010 ~ Social Security Brief, Appendix Table B

Even though Social Security is extremely important to many Americans, some people do not feel secure about it. The top area of risk concern in *The New American Family* study was concern that “My financial resources in retirement will be reduced due to changes in government programs such as Social Security or Medicare.” More than half of the respondents were concerned about this. There is no parallel question in the SOA Retirement Risk Survey series. A recent study from the AARP indicates that there are significant gaps in knowledge about Social Security among people who are near or at claiming age but have not yet claimed benefits.^{vii}

Practical Issues: Anyone providing retirement education or advice should inform people about the importance of the Social Security claiming decision and the long-term consequences of the decision. There are a range of on-line tools (both free and fee-based) available to help people evaluate the issue. The key message is to help them focus on the issue and carefully consider the alternatives.

While Social Security benefits are indexed for inflation, most private pensions in the United States are not inflation indexed. It is also important to remind people that some sources of income may be for a limited period so that they may stop part way into retirement, and that income from work if they are working may decline, so that the total amount of their retirement income may decline with age. It is important to focus their retirement planning on the importance of understanding sources of income and how long they are likely to continue.

For more information, see the SOA’s Decision Brief on *Deciding When to Claim Social Security*.

Age at Retirement and Working in Retirement

Key Finding: There is a big difference between the age at which current retirees retired and the age at which pre-retirees say they expect to retire. Part of this is the result of unplanned early retirement. There are also big differences in the reasons given by retirees for retiring and the expectations of pre-retirees.

In the 2011 Risks and Process of Retirement survey, 31% of retirees had retired before age 55, 51% before age 60, and 82% before age 65. In contrast, 12% of the pre-retirees expected to retire before age 60, and 37% before age 65. Thirty-five percent of pre-retirees stated that they do not expect to retire, up from 29% in 2009. Retirement is defined as retirement from your primary occupation. Similar findings have been found in prior years. Other research^{viii} documents that about 4 to 5 out of 10 individuals retire earlier than expected.

The 2011 study included a question focusing on what specific event or situation caused retirees to retire or what pre-retirees indicated that they expected would be the reason for their retirement. The expectations of pre-retirees are very different than the actual experience of retirees. Figure 11 shows the reasons retirees and pre-retirees state as the triggers for retirement.

Figure 11
Reasons for Retiring (top mentions)

| Event or situation | Retirees | Pre-retirees |
|---|-----------------|---------------------|
| Health problems/disabled | 27% | 4% |
| Met age/years of service requirement | 19 | 19 |
| Stopped working completely | 17 | 18 |
| Started receiving pension/Social Security | 9 | 20 |
| Got tired of working/had enough | 9 | 9 |
| Had enough money to stop working | 8 | 24 |

Source: 2011 SOA *Risks and Process of Retirement Survey*.

The 2007 and 2009 risk surveys focused on understanding the impact of retiring three years later. In 2009, 35% of retirees and 49% of pre-retirees said it would make them a little more secure. Only 14% of retirees and 9% of pre-retirees said it would make them a lot more secure. Forty-six percent of retirees and 37% of pre-retirees said it would make them no more secure. Respondents were given various reasons for making them secure, and they clearly focused on continuing to receive employer health insurance, but focused very little on the other reasons.

I believe that many individuals underestimate the value of retiring later. This is an area for personal, advisor, and employer action. Employers can offer tools and information to help employees evaluate the impact of retiring at different points in time. This is an issue of critical importance for middle income market Americans.

The New American Family study indicated that half of couples and fewer non-couples have a clear idea of what they hope to experience in retirement. More couples than non-couples feel that they have planned well enough that they can face problems when they arise. This is a potential opportunity area for advisors. Some may want to partner with other professionals who bring in different expertise, such as specialized knowledge in working later, planning a life portfolio, or care management.

For more information about how people retire, see the report, *2011 Post Retirement Risk Survey, Key Findings and Issues: Working in Retirement*. This report, published in 2012, updates the report from the 2005 Retirement Risk survey on phased retirement. The monograph, *Retirement Implications of Demographic and Family Change* includes papers on phased retirement.

Practical Issues: Anyone providing retirement education can provide assistance to the people they are helping by helping them evaluate the impact of working longer and retiring later.

Unplanned early retirement is a common event. Planning for this risk makes sense. Two of the SOA Decision Briefs that can help in this area are *Big Question: When Should I Retire?* and *When Retirement Comes Too Soon*. <http://www.soa.org/research/research-projects/pension/research-managing-retirement-decisions.aspx>

Method of payment of benefits after retirement

Key issue: the method of drawing down accumulated retirement funds is one of the most important lifetime financial decisions an individual will make.

Some of the key issues with regard to income decisions in retirement include:

- There are major trade-offs between choices.
- Experts do not agree on the right answer, and it is very dependent on personal choice.
- This can be one of the most important financial decisions of people's lives.
- What people say they want and what they do often do not match.
- There is a need to clear up the misunderstandings and have people understand the options better. The word "annuities" is used to apply to a wide range of products, and that adds to the confusion.

- Where annuities are used, the method of purchasing can have a significant impact on the financial result.
- More focus on barriers is needed.
- Delaying claiming Social Security is a very cost effective way to increase guaranteed, inflation-indexed lifetime income. It is desirable to do this before buying annuities in the marketplace.

In a world where defined contribution plans are increasing in importance, and they are often the primary retirement vehicle, the method of drawing down funds during retirement is one of the most important decisions that an individual will make. There are major differences and trade-offs between options from the perspective of the individual. Figure 12 indicates some features of major retirement income funding options:

Figure 12
Trade-offs between Post-Retirement Options

| Features | Income Annuity | Other Products with Guarantees | Withdrawals |
|---|---------------------------------|---|--------------------|
| Guaranteed income for life | Yes | Yes, but at lower level than income annuity | No |
| Mortality leveraging* | Yes | Some | No |
| Liquidity/access to funds | Not in most products | Yes, within limits | Yes |
| Remaining account value goes to heirs if early death | No—unless refund option elected | Yes, after fees for guarantees | Yes |
| Owner can control funds in the account while income is being paid out | No | Yes, within limits | Yes |

*Mortality leveraging means that early deaths among people receiving payouts from the pooled annuity funds subsidize the payouts for those who live longer. This pooling effect enables higher payouts than if taking systematic withdrawals.

Source: Adapted from SOA, *Designing a Monthly Paycheck for Retirement*, 2012

The SOA is interested in understanding choices with regard to post-retirement resource use and has focused on this in different studies. In the SOA sponsored study *Can Annuity Purchase Intentions be Influenced?*, Behavioral Research Associates conducted an on-line experiment with four different informational interventions. That research suggested that the window of opportunity to influence annuity decisions was prior to retirement. The results also indicated that none of the interventions had a significant impact on annuity purchasing.

When given a choice of a lump sum or a life annuity, most people will choose the lump sum, even if it is not a good deal. However, when asked about the preferred method of payment and the importance of various pension plan characteristics, respondents say that lifetime income is very important. This issue was explored in the SOA *Retirement Plan Preferences Survey*. Some of the key findings on this topic are as follows:

“Given a choice of equal value, two-thirds of workers overall (57% of workers with a defined contribution plan and 71% of those with a defined benefit plan) indicate a preference for taking their retirement income as a life annuity. Just 12% say they would prefer to receive a lump sum.

When choosing a payout option from their retirement plan, workers and retirees say they are primarily concerned with ensuring their money will last throughout their lifetime.

Control and access are very important to smaller proportions of participants. The features cited as very important by participants are:

- Receiving a guaranteed amount monthly during retirement no matter how long they live (69% of workers and 86% of retirees)*
- Ensuring they do not outlive their money during retirement (69% and 77%)*
- The ability of the income to keep up with inflation (65% and 75%)*
- Being able to maintain control of their retirement savings (61% and 54%)*
- Having money they can access for emergency purposes (38% and 30%)*
- Being able to leave money to heirs from their retirement savings (31% and 19%).”*

The study also indicated that regardless of whether they received benefits from a defined benefit or defined contribution plan, retirees were most likely to indicate that a guaranteed stream of lifetime income is a *very* important feature of a retirement plan (85% of those with a defined benefit plan; 71% of those with a defined contribution plan).

In *The Role of Guidance in the Annuity Decision Making Process*^{ix}, the authors identify several important factors with regard to annuity purchasing and decision making:

- There is a lot of misunderstanding surrounding these topics.
- Guidance matters, and it can be either a boost or a hindrance to annuity purchasing. Advisors and benefit representatives may encourage a specific approach or type of option. In some cases, advisors are paid differently depending on the type of option selected. More investigation is needed to understand whether and to what extent this influences their advice.
- Competition by different annuity providers matters and it can make a significant difference in the outcome for the purchaser.
- All or nothing decisions that require either 100% annuitization or no annuitization are not desirable and can be a barrier to annuitization. For people who choose annuities, they will normally want to do this with part of their assets.
- Many of those people who buy annuities prefer to do so after they have retired.
- It is important for participants to understand the range of options and know the pros and cons, including what decisions are irrevocable.

Note there are some regulatory barriers to the use of annuity options in defined contribution plans today. This was a topic of exploration by the 2012 ERISA Advisory Council. The Council made recommendations to the Department of Labor to ease some of the barriers.^x

There is no agreement about the desirability of annuitization. Many actuaries and economists believe that the guarantees are very important and tend to favor annuitization. Financial planners and advisors are much more likely to favor investing the funds and gradually drawing down the money. However, those who favor the life cycle theory are more likely to include benefits with guaranteed features in the portfolios they recommend. Different types of people who offer various forms of advice may be paid differently depending on the advice given. In addition, annuitization may decrease the assets available to respond to so-called “shock events,” such as uninsured medical or long-term care costs. The area of conflicts of interest needs further exploration.

For more information on this topic, there is a series of papers in the monograph *Managing Retirement Assets*, and there are additional papers in the monograph, *Retirement Strategies for the New Economy: Paradigm Shifts, New Approaches and Holistic Strategies*. This was also a topic of discussion at the *Running Out of Money* roundtable.

Practical issues: There is a role for employers and financial advisors in helping employees and clients define and implement well thought out post-retirement options. Employers have a number of choices with regard to the role they assume.

Possible employer roles include:

- Create a culture focused on the importance of paycheck replacement
- Provide illustrations that focus on paycheck replacement during working years
- Offer in-plan income options: Lifetime income can be offered through competitive purchasing platform or through choice of a single insurance company
- Serve as purchasing agent: Offer purchase of lifetime income through use of competitive purchasing platform
- If defined benefit plan is offered, permit rollover of defined contribution money to the defined benefit plan
- Permit employees to leave their funds in the plan post-retirement or termination, and offer investment options, and/or managed accounts, and installment payouts. Investment options which work well pre-retirement may not work well post-retirement, and vice-versa
- Offer education with regard to payment options and considerations – both before retirement and at time of retirement
- Ensure that plan administration providers understand the employer’s philosophy and are supporting it in implementation
- Offer advice either through an advice service, or by hiring advisors to work individually with employees.

For more information related to planning for post-retirement income, see the SOA Decision Brief: *Designing a Monthly Paycheck for Retirement*, 2012

Impact of Death of a spouse

Key finding: There is a widespread misunderstanding of the economic impact of the death of a spouse.

Many people do not plan adequately for widowhood. Research indicates that a single individual needs about 75% of the amount needed to live as a couple^{xi}. The majority (about 6 in 10) of respondents to the 2009 and 2007 SOA post-retirement surveys indicate that they think the survivor will be about as well off financially as before the death of his or her spouse.^{xii} About the same percentage thinks that the survivor will be better off vs. worse off. Yet many widows have a decline in income and economic status after the death of their husbands. About four in ten older women living alone have virtually no money other than Social Security. There are a variety of ways to help protect spouses including joint and survivor options for payment of pensions, life insurance, retaining asset balances that can be transferred to the survivor, and long-term care insurance.^{xiii}

Practical issues: Don't forget about survivor benefits, life insurance, and the impact of Social Security claiming on the spouse who survives longer. Employers should not view education about survivor issues as limited to pre-retirement life insurance communication.

Remember to keep beneficiary designations on life insurance, defined benefit and defined contribution plans, IRAs, and other personal assets up-to-date; designations should be reviewed periodically for accuracy and life changes.^{xiv}

Family issues and retirement planning

Key issue: Families are important in retirement security. A retired household may get help from family members, but they may also be helping them as well.

Couples are often better off than single persons, and on an average basis, they are much better off. Family status changes by age group and is very different for the two genders. Figure 13 shows 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 ages 85 and over. At age 65-74, 78% of men and 57% of women are married. The second largest group is persons who are widowed, and this includes 8% of men and 26% of women. By age 85 and over, 60% of men and 15% of women are married, whereas 34% of men and 76% of women are widowed.

Figure 13
Percentage of the population by age and marital status

| | Age 65-74 | Age 75-84 | Age 85 and over |
|---------------|------------------|------------------|------------------------|
| 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 | | 3 | 4 |

Source: 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

The New American Family study offers insights about different types of families and how they differ with regard to important planning issues. That analysis points out that married couples represent only 48% of American households in 2010, down from 55% in 1990. Of the 48% husband-wife households, 28% include children, and 20% do not include children. One person households increased from 25% of households in 1990 to 27% in 2010. ^{xv}

This study provides insights into how various types of families differ. There were 2,522 adults aged 45 to 80 who responded to the survey. Some of the key differences between household types for families who had any children from a current or prior marriage are shown in Figure 14.

Figure 14
Differences in Households with Children by Family Type
Family Characteristics and Retirement Planning Responses

| | First Marriage with Children | Second Marriage with Children | Unmarried Couples with Children | Divorced or Separated with Children | Widowed with Children |
|--------------------------------|-------------------------------------|--------------------------------------|--|--|-------------------------------|
| Average age | 59.5 | 59.3 | 55.2 | 58.5 | 66.2 |
| Avg. household income | \$69,000 | \$65,000 | \$57,000 | \$39,000 | \$34,000 |
| Avg. household assets | \$236,000 | \$189,000 | \$148,000 | \$102,000 | \$117,000 |
| Percent owning homes | 88% | 84% | 60% | 57% | 71% |
| Avg. number of children | 2.5 children and 4.6 grandch. | 3.7 children and 5.7 grandch. | 3.7 children and 4.8 grandch. | 2.6 children and 4.4 grandch. | 2.7 children and 5.6 grandch. |

| | First Marriage with Children | Second Marriage with Children | Unmarried Couples with Children | Divorced or Separated with Children | Widowed with Children |
|---|-------------------------------------|--------------------------------------|--|--|------------------------------|
| Percent on track to meeting retirement goals | 37% | 30% | 23% | 16% | 29% |
| Percent who say they are behind | 41 | 46 | 43 | 45 | 35 |
| Percent with strong family culture of helping one another | 55 | 57 | 45 | 54 | 60 |
| Percent who feel family needs are a barrier to retirement security | 38 | 44 | 36 | 34 | 26 |

Source: *The New American Family: The MetLife Study of Family Structure and Financial Well Being*, 2012

The data for the reported family groups without children is shown in Figure 15.

Figure 15
Family Characteristics and Retirement Planning Responses for Other Households
(Households Generally without Children, but results combined for never married singles)

| | First Marriage | Divorced or Separated without Children | Widowed without Children | Singles (with or without children) |
|---|-----------------------|---|---------------------------------|---|
| Average age | 58.2 | 58.4 | 62.4 | 54.6 |
| Avg. household income | \$67,000 | \$31,000 | \$39,000 | \$32,000 |
| Avg. household assets | \$224,000 | \$104,000 | \$178,000 | \$110,000 |
| Percent owning homes | 85% | 51% | 71% | 43% |
| Percent on track to meeting retirement goals | 40 | 22 | 31 | 17 |
| Percent who say they are behind | 35 | 32 | 39 | 36 |
| Percent with strong family culture of helping one another | 42 | 41 | 45 | 49 |
| Percent who feel family needs are a barrier to retirement security | 32 | 26 | 19 | 31 |

Source: *The New American Family: The MetLife Study of Family Structure and Financial Well Being*, 2012

The New American Family study results did not show big differences between blended families and first marriages. It turned out that the biggest differences were between couples and non-couples, and not between those with children and those without children. Between 40% and 60% say they are from families with a strong culture of helping each other. For retired individuals, this can work two ways - they can help children, grandchildren, siblings or others, or they can be the recipients of help. It appears that family issues are often not considered in planning, and there is an opportunity to do much more in that regard. Different and special issues in blended families likely exist, but the survey results did not document these issues.

Family diversity and the role of the family – Most respondents in *The New American Family* study have children and grandchildren. The presence of children is both a financial burden (half of those with adult children have provided them some financial assistance) and a potential source of support (one-fourth of respondents expect children to help retired parents in need). The results did not show any clear differences between first marriages and blended families in the roles of parents and children supporting each other, but there appears to be relatively little planning for such support in either type of family.

The New American Family study results indicated that 19% of households would plan to turn to children for financial assistance if needed, 12% to spouses, and 11% to extended family. My experience is that when other types of assistance, such as help with chores and decisions, and caregiving are included, more people turn to family, although they may not expect to or plan for doing this. Respondents were asked two risk questions related to families - were they concerned that they would not be able to turn to children or other family members for assistance, and were they concerned that they would not be able to leave money to children or heirs. Neither was a major concern. Rather, in a list of more than 20 concerns, these were well below the middle. An additional question was asked if people were concerned that helping family members would deplete resources. This was one of the very lowest concerns.

The most dramatic differences between families are between couples and non-couples. Economically couples are better off than non-couples, and couples can help each other out. The majority of older non-couples are women who live longer than men and are less likely to remarry after divorce or widowhood. *The New American Family* study indicates that non-couples are more concerned about risks generally than couples, which fits with the difference in economic status.

As mentioned above, married couples are no longer the majority of households. Couples in their first marriages overall are better off than second and later marriage couples. Many couples in their second and later marriages have children from prior marriages. Risk perceptions did not differ between first and second married couples. *The New American Family* study results indicate that while many families have a culture of helping each other, planning for the role of the family does not appear to be a significant focus in retirement planning. My personal experience, however, is that as people age and need help, it is quite common for family members to help out with chores, decisions, caregiving, and sometimes financially. I know a number of people who made choices about where to live based on the proximity to family.

The New American Family study focuses on implications by family type and on actions that all families should take, and some that differ by family type. Keeping legal affairs in order is important for all, but there are important differences by family type. Blended families need to consider whether all children are to be treated equally, or whether each spouse considers their children differently when it comes to bequests. More importantly, if one spouse dies, and the survivor needs help from children, will the children of the spouse who died help the survivor? This might be summed as thinking about: When are the children “our children” vs. “your children or mine”? There are also planning issues when helping children. Many people help children and grandchildren and can deplete retirement resources doing so. Domestic partners, non-married couples of opposite or the same sex, have many special planning issues. They do not have legal rights to Social Security or possibly employer plan survivor benefits, and may not have access to health benefits based on the partner’s employment. If either partner has children, there are different family and legal issues.

There is another set of issues for divorced individuals. They may have residual rights and obligations that relate to retirement and impact retirement planning.

Practical Issues: An opportunity for retirement professionals is to learn more about family issues and how to integrate them effectively into a retirement plan.^{xvi} Family issues are important to many people, and if overlooked, that can lead to the plan results diverging from the reality.

Addressing family issues may require a team with different expertise. Employee assistance programs can be helpful in addressing some of the issues. Employers may offer a program to help the employee secure legal services. The employer/plan sponsor needs to decide how far they wish to go in addressing family issues, and how they wish to do it. Employers seeking to address financial wellness are likely to go further than others.

While families can be a source of help, family members can also be a threat. Family members are a source of potential elder abuse.^{xvii}

Advisors also need to decide which of these issues they will address and what type of team they need to work with. They will often work with the clients’ attorney.

Research results and puzzling issues about long-term care

Key Finding: Many people have not focused well on the expected costs and consequences of long-term care.

Among pre-retirees, the SOA Risk Surveys show more concern about paying for acute health care costs in retirement than for long-term care, even though Medicare pays for most acute health care. Among retirees, there is recently a little more concern about paying for long-term care than for acute health care.

These findings are puzzling. While Medicare pays for a major share of acute health care expenses, there is no similar general public program to cover long-term care expenses. (Medicaid programs pay for a significant part of these expenses, but only for those with

extremely low income and little wealth.) Part of the problem may be that many people do not realize that Medicare does not cover most long-term care. These gaps in knowledge are important and are a message to those helping people plan for retirement about the importance of educating their clients on long-term care risk.

The *Running Out of Money* study reinforced the fact that shocks are a fact of life. It was reported in that study that 67% of men and 76% of women age 70 and older experienced one or more shocks in a nine year period. The shock that has the biggest impact on assets is entering a nursing home.

The research on family issues does not seem to be focused on the implications of caregiving when considering retirement security. A MetLife Mature Market Institute and National Alliance for Caregiving Study focused on caregiving and the impact of employees in a larger manufacturing firm. This study showed that nearly 12% of the respondents report caregiving for an older person. The study shows that caregiving has an impact on the caregiver including for some, higher health care costs, and for some an impact on the caregiver's employment.^{xviii} At any time, there are likely to be a group of employees who are involved in caregiving for an older person, but the members of the group will change from time to time.

Practical issues: Planning for long-term care includes issues of financing, access to care, and the role of the family. Relatively few households have long-term care insurance and the market is shrinking. This is an area needing more attention.

People managing and planning for retirement can be affected not only by their own and their spouses long-term care needs, but also by the needs of parents and other family members.

Long periods of illness can have a major impact on the other spouse, and on that individual after the death of the person who was ill.

One of the SOA Decision Briefs [Taking the Long Term Care Journey](#) is a resource on this topic.

Health status and disability: Key Issue: Health and disability continue to be major factors in planning for retirement. While Medicare covers a substantial part of health care expenses after eligibility, remaining health care costs have a big impact on retirees.

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

As shown in Figure 16, the percentage of the population who are disabled increases by age group for the over age 65 group. By age 85, more than 50% of the population have 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.

Figure 16
Population Distribution (Percent) by Year, Age, and Disability Group^{xix}

| Attained Age | Disability Group | | | | | Total |
|------------------|------------------|------------------------------|---------------------|-------------------|-------------------|--------|
| | I. Non-disabled | II. Mild/Moderate Disability | III. HIPAA ADL only | IV. HIPAA CI only | V. HIPAA ADL + CI | |
| 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 |

Note 1: Results for age 65+ were age-standardized to the pooled unisex population estimates for all years combined.

Note 2: "---" denotes suppressed cell with fewer than 11 sample persons.

Source: Stallard, Eric, *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 1984-1994 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. Figure 17 shows that females have considerably longer periods of more severe disability than males.

Figure 17
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: Stallard, Eric, *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 are based on the 1984-1994 NLTCS.

Practical Issues: Long-term care is a bigger issue for women.

Employers need to decide whether they will offer any long-term care insurance or other support for long-term care and whether they will offer any health care support after retirement. They need to decide if employee assistance programs will offer support.

Developing strategies to address shocks and deciding which types of insurance to buy are important roles for both plan sponsors and advisors. Medicare eligible individuals have important choices about which plan to select. Pre-Medicare individuals without employer coverage have to find suitable medical coverage on their own. While health care options will change with the implementation of the Affordable Care Act, additional advice will be needed to understand new options and make wise choices.

Home equity and the retirement financial picture

Key Finding: Non-financial assets are a major part of the assets of the middle market segments. Housing is a major asset as well as an area of expense, and it can be integrated with care. Housing is also a major life style issue.

Figure 18 provides an overview of the results from another study from the SOA: *Segmenting the Middle Market*. This study has served to point out how important home equity is in the financial picture for many middle market Americans as they approach retirement. For middle mass and mass affluent households age 55-64, non-financial assets, primarily housing, were about 70% of

their total assets excluding the value of Social Security and defined benefit plans in 2004. While some individuals have significant balances in their 401(k) plans, many people have very little.

Figure 18
Wealth of Middle Income Households – Age 55 to 64
Analysis based on 2010 Survey of Consumer Finances

| Household Type | Number of Households | Median Income | Est. Median Net Worth | Non-Financial Assets | Financial Assets | Non-Financial Assets (%) |
|--|----------------------|---------------|-----------------------|----------------------|------------------|--------------------------|
| Middle Mass Household Segments (25% to 75% of all households) | | | | | | |
| Married | 5.7 million | \$82,000 | \$277,000 | \$181,000 | \$96,000 | 65% |
| Single Female | 2.7 million | 32,000 | 41,000 | 34,000 | 7,000 | 82 |
| Single Male | 1.8 million | 44,000 | 76,000 | 63,000 | 13,000 | 83 |
| Mass Affluent Household Segments (75% to 85% of all Households) | | | | | | |
| Married | 1.1 million | \$146,000 | \$1,241,000 | \$671,000 | \$570,000 | 54% |
| Single Female | .5 million | 64,000 | 185,000 | 117,000 | 68,000 | 63 |
| Single Male | .4 million | 85,000 | 339,000 | 214,000 | 125,000 | 63 |

Source: SOA – *Segmenting the Middle Market: Retirement Risks and Solutions*, Phase I Report Updated using 2010 Survey of Consumer Finances data. Updated report published in 2013.

Note: Financial assets exclude the value of defined benefit pensions and Social Security.

The Committee has also addressed housing related issues through a monograph with papers presented in response to a paper call, and in a roundtable discussion. Questions about use of housing assets were also included in a risk survey report, but without much response.

Housing choice creates another planning concern in the retirement portfolio. Housing is not easy to convert to an income producing assets. As a significant portion of the retirement assets, housing creates an undiversified position that can be significantly affected by a housing downturn, such as we recently experienced. In addition, the emotional attachment to current housing is often very strong and creates barriers to choosing alternative options. Last, with declining health, a retiree may not be able to properly maintain the property and the property value may decline at the same time the retiree most needs to convert it for long-term care concerns.

Reverse mortgages are a product that can be used to produce income from housing assets and this topic needs further study. Reverse mortgages are complex and easily misunderstood by the retiree. One of the papers submitted in response to the Committee’s call for papers on housing and retirement looked at reverse mortgages and found them to be expensive.^{xx}

Practical issues: One of the Decision Briefs is on the topic of where to live in retirement. It presents considerations with regard to housing decisions, both financial and non-financial.

Issues surrounding advice

Key issue: While middle market Americans need advice, it is not always easy to find. And when advice is found, it may not address the issues of most concern to those who need it.

Challenges surrounding advice for the middle market: The *Running Out of Money* roundtable participants indicated that advice is one of the major issues of concern in helping middle market people do better. The discussants also suggested that the advice industry does not adequately meet middle market needs. For many advisors it is very difficult to make an adequate income working with middle market clients. Some advisors are heavily focused on asset management and paid based on assets under management. As many middle market people have relatively low assets, such a planning model does not fit the needs of either the client or the advisor. The middle market challenges should be considered realizing there are significant gaps in knowledge, planning, and actions. Planning horizons are too short. People underestimate how long they will live and how much money they need in retirement. Some people do not plan at all. When the unmet needs in addressing middle market individuals planning issues are considered together with the gaps in knowledge, planning, and action, they present both a serious challenge and a real opportunity to do better. That opportunity can be addressed several different ways including planning approaches targeted to the middle market, product improvements, support tools, education, and employee benefit programs.

Observations about how advice can help or be a barrier to good results: The *Running Out of Money* roundtable also pointed out that while advice can be very helpful if tailored and targeted to the right issues, it does not always work out well. Some advisors represent specific products or services and do not give broad advice. Individuals needing advice may be confused about whether an advisor is a fiduciary or a broker focused on more specific products. There is some potential for conflicts of interest when an advisor's income is linked to what products are sold.

This topic is a major area for study in 2013 and moving forward. One of the new topics for study in 2013 has a heavy component related to financial advice. A second topic is Best Practices, which will focus on improving advice.

Practical Issues: One of the SOA Decision Briefs provides information about finding advice.

Some employee benefit programs offer access to advice or embedded advice. With any advice, whether secured through an employer program or as an individual, it is important to understand the incentives to the advisory entity, and how the advice is paid for. It is important to understand that some people who give advice are fiduciaries and are obligated to act in the best interest of the client, but others are brokers and sales people and they are subject to a different standard. However this is not always disclosed.

It is also important to understand the scope of the services provided and viewpoint of the advisor. If one is interested in evaluating alternative sources of transportation, one may find information or an advice source that can provide information about public and private transportation, about cars, bicycles, trains, etc. But if you visit a car dealer, you know that the sales person has as his or her goal to sell you a car that the dealer sells. That is clear and there is no ambiguity. The difficulty is that if you talk to a financial advisor you may not know if he the equivalent of a "transportation consultant," a "car salesperson," a "bicycle salesperson," a "travel agent," or a "ticket agent for the railroad."

Risks and Risk Management

Risk management research findings

Key finding: There are major gaps in risk management when long life is considered.

One of the areas of exploration of the SOA 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:

- 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.
- Retirees and pre-retirees continue to try to protect themselves against financial risks by decreasing debt, increasing savings, and cutting back on spending.
- There is relatively little focus on purchasing risk protection products for older ages except for health insurance supplementing Medicare.
- 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.

Further complicating the challenges of risk management is the fact that many people enter retirement with debt. Many houses were refinanced as values increased up to about 2006, and this leaves more retirees with mortgages to repay. Another complication is that while some people are disciplined in how they spend money, many others are not.

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 than they used to do, and a larger percentage expect to have a period of moderate limitations. Figure 19 provides insights into planning for the later periods when there are limits. Twenty-eight percent of retirees indicate that 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.

Figure 19
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: SOA, 2007 Retirement Risk Survey

Most retirees and pre-retirees purchase products to help 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. However, the costs of this coverage may still be quite high.

One aspect of interest in purchasing financial products to help with health and long-term risk is puzzling. As indicated earlier, 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 for which Medicare does not provide long-term coverage.

Retirees and pre-retirees also say they recognize the role their own behaviors play in managing health care risk. Virtually all (93% 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.

Practical Issues: Declining health and cognitive issues are a major concern as people live a very long time. People who can manage very well may want to focus on back-up plans and support should they need them. While investment management is generally beyond the scope of this paper, different methods of managing resources may be needed as people age.

Social Security currently provides fully inflation indexed benefits, but there is discussion about changing the type of indexing in a way that would reduce benefits later on. Social Security claiming is vitally important with respect to long life since Social Security is increasingly important as people age. More consideration should be given to both immediate annuities and to advanced life deferred annuities, which provide income starting at a very high age.

Housing that provides support services can be very helpful at later ages, but it can also be expensive.

Debt management is an important issue for some retirees. For those who have not practiced budgeting and expense management, this also is important in retirement. Getting spending under control can be an early step in managing retirement finances.

A wide variety of tools and software is available, but it may not be easy to figure out which are most helpful and how reliable they are.

What research says about plans for risk management

Key findings: Use of financial products is not a popular method of risk management. The respondents to the SOA risk surveys are more focused on eliminating debt and cutting back on spending rather than using financial products.

Risk management strategies have been a repeated focus of the Risk Survey series, and they were the subject of a special report linked to the 2009 Risk Survey series. They were also a subject of the special report, *The Financial Recovery for Retirees Continues*. Both studies focus on the importance of paying down debt. Top areas for risk management are consistently elimination of debt, trying to save more, and cutting back spending. Buying financial products for risk management is generally much lower on the priority list. Figure 20 and Figure 21 provide insights into risk management from the 2011 study.

Figure 20
Use of Risk Management Strategies for Financial Risk Management (Percent)

| Strategy | Retirees: Already done | Retirees: Plan to do | Pre-Retirees: Already done | Pre-Retirees: Plan to do |
|--|-----------------------------------|---------------------------------|---------------------------------------|-------------------------------------|
| Eliminate all of your consumer debt | 56% | 27% | 49% | 41% |
| Try to save as much as you can | 61 | 20 | 52 | 37 |
| Cut back on spending | 62 | 14 | 54 | 29 |
| Completely pay off your mortgage | 47 | 28 | 26 | 56 |
| Buy a product/choose plan option with income guaranteed for life | 33 | 6 | 27 | 13 |
| Postpone taking Social Security | 25 | 10 | 7 | 37 |

Source: 2011 SOA Risks and Process of Retirement Report: *Understanding and Managing the Risks of Retirement*

These results document the relatively low preference for buying financial products to protect against longevity and other risks. One interpretation of the data is given the number of risks and the inability of most people to protect against all of them, that it is not surprising that they do not buy risk management products.

Figure 21
Use of Risk Management Strategies for Health Risk Management (Percent)

| Strategy | Retirees: Already done | Retirees: Plan to do | Pre-Retirees: Already done | Pre-Retirees: Plan to do |
|--|-----------------------------------|---------------------------------|---------------------------------------|-------------------------------------|
| Maintain healthy lifestyle habits | 82% | 10% | 79% | 15% |
| Purchase supplemental health insurance or participate in an employers' retiree health plan | 65 | 14 | 25 | 51 |
| Save for the possibility of having large health expenses or needing long-term care | 33 | 13 | 17 | 28 |
| Buy long-term care insurance | 25 | 11 | 19 | 22 |
| Move into or arrange for care through a continuing care retirement community | 2 | 10 | 1 | 11 |

Source: 2011 SOA Risks and Process of Retirement Report: *Understanding and Managing the Risks of Retirement*

Practical Issues: Employers should consider their role in helping employees manage risks.

Supplemental health insurance is used much more often than long-term care insurance, and both are used more often than annuity and life insurance products to protect against longevity risk. Given what is covered by Medicare, this may not be a logical choice for many employees.

Consideration should be given to paying off mortgages.

Conclusions and Recommendations

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 as more people retire without lifetime income other than Social Security.

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. Lump sums are offered in nearly all defined contribution plans and they are also becoming more common in defined benefit 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 that this is a major societal issue and that later retirement will be increasingly important in years to come, and that retirement ages are likely to rise 1-2 years per decade over the next 40 years.

The surveys raise a number of issues about planning for retirement. The results can be thought of together, and in many cases, the same issue will appear in multiple studies. Key insights are as follows:

- Top risk concerns have been consistent over the last decade, and include concerns about inflation risk, health care costs, and long-term care costs.
- Risk management is more focused on cutting expenses, paying off debt, and increasing savings rather than on the purchase of risk management products such as annuities and long-term care insurance. However, a large majority of retirees purchase supplemental health insurance.
- While people say that lifetime income is very important, they are more likely to choose lump sums. It is important to understand the barriers to lifetime income and work to address them. There are very important trade-offs between options for managing assets post-retirement and there is no one right answer nor is there an agreement on the best strategies.

- Planning horizons are too short and this probably leads to a failure to plan well for the later years of retirement, and in some cases, to consider the needs of the surviving spouse.
- There is considerable misunderstanding of life spans and their variability. This may be a contributing factor to planning horizons that are too short and to limited focus on post-retirement risk management.
- Retirement ages are very important for the security of middle income market Americans, but many do not understand the financial impact of retiring later. There is a huge difference between when people retire and when they expect to retire, with retirees having retired much earlier than pre-retirees expect to retire.
- It is unclear which employees prefer defined benefit vs. defined contribution plans except that public employees prefer defined benefit. Past research indicates that employees seem to prefer what they have and are familiar with.
- Couples are better off than single persons.
- While different family types have different specific planning issues, they have similar risk concerns.

Repeated research by the SOA 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.

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 over age 65 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 persons.
- 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. We have repeatedly

learned that incentives matter, and that the interests of stakeholders may be aligned at some time, but at others, they may be opposite.

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

Adjust retirement ages with greater longevity and regularly update retirement ages—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.

Change the terminology about retirement ages—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.

Recognize and respond to gaps in individual knowledge—Recognize the limitations surrounding financial literacy and include appropriate defaults in programs.

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

Encourage use of effective messaging and signals and use “Nudges” to promote retirement security—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.

Improve financial and health literacy—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.

Encourage long-term and balanced planning—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. Reliable accepted tools are an important support for such planning. One of the problems that consumers have is distinguishing between what is good and what is bad.

Explain trade-offs—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. Rethink default distribution options in defined benefit and defined contribution 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 defined benefit plans pay income, today lump sums are the common default in defined contribution plans, and life income options are often not available. One of the best ways to offer income options is through rollover IRA approaches that offer access to institutionally and competitively priced income options. 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 defined contribution 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 defined contribution 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 and improve existing options for providing unbiased advice to the middle market American—At present, there are many advisors, but the middle market is often not an attractive market for them. Look for models that make advice available to the middle market and address the advice to their specific needs. Consider how incentives and conflicts can influence advice and try to make incentives consistent with consumer needs. Better disclosures and education are needed to help consumers understand how the interests of different advisory sources align with their own interests.

Appendix: 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. Figure 22 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 SOA publication, *Managing Post-Retirement Risks*.

Figure 22
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) | <p>Joint and survivor life annuities, life insurance</p> <p>Long-term care insurance helps protect assets that may be left to spouse.</p> <p>Later claiming of Social Security increases benefits to survivor if survivor was the lower earner.</p> | <p>Social Security offers a base layer of protection.</p> <p>For women, periods of widowhood of 15 years and more are not uncommon.</p> <p>Social Security is the only significant source of income for four out of ten older women living alone.</p> |
| Inability to find job, loss of job | No way to pool on a longer-term basis. | <p>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.</p> <p>Work is probably most feasible earlier during retirement. Relatively few people work after age 70, and work is very unlikely after age 80.</p> <p>However loss of a job in the 50s or 60s and/or inability to find one may well lead to depletion of assets prior to the end of life.</p> |
| 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 |
|--|--|---|
| <p>Outliving assets</p> <p>(Impact of this risk is most often at the high ages and for couples it is often experienced by the survivor after one dies)</p> | <p>Annuities, including joint and survivor annuities and deferred annuities commencing at higher ages such as 85 (longevity insurance).</p> <p>An OECD report focuses on programmed withdrawals and longevity insurance starting payments at age 85 as a good combination.</p> <p>Defined benefit plans often automatically provide life income.</p> <p>Defined contribution plans can provide direct life income options, but usually do not.</p> <p>Risk transfer not needed if investment income without using assets exceeds expenses.</p> <p>A few inflation adjusted annuities are available, and annuities without inflation adjustment provide only partial protection.</p> <p>Claiming Social Security late increases monthly income and is somewhat like an annuity purchase.</p> <p>Programmed withdrawals and bond ladders offer other strategies to produce long-term income, but not income guaranteed for life.</p> | <p>Consideration of the needs of both spouses is needed in designing a strategy.</p> <p>The decision to purchase an annuity involves significant trade-offs.</p> <p>Programmed withdrawals are more popular than bond ladders. Note that programmed withdrawals can be combined with longevity insurance.</p> <p>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.</p> <p>An alternative to more regular income is to reduce expenses. One way to do this is to pay off a mortgage.</p> <p>This risk links to retirement ages, since retirement age drives the point at which retirement resources start to be used for support.</p> <p>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 without guarantees but with some resources for heirs.</p> |

| Risk | Products and Approaches for Risk Transfer and Potential for Pooling | Comments |
|---|--|---|
| <p>Cost of disability and long-term care</p> <p>(Can be at any age but long-term care most likely at higher ages, particularly after age 80</p> <p>Disability before retirement age can derail retirement security)</p> | <p>Long-term care insurance</p> <p>Continuing care retirement communities</p> <p>Medicaid^{xxi} pays for the cost of long-term care for many people without assets or income.</p> <p>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.</p> <p>Disability coverage for pre-retirement disability including protection to allow continuation of savings is important to retirement security.</p> | <p>Nursing home costs can exceed \$70,000 per year today.</p> <p>Care can be provided at home, in an assisted living facility, adult day care center, or nursing home.</p> <p>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.</p> <p>Some people advocate buying long-term care insurance only on the wife, as she is more likely to need paid care than the husband.</p> |
| <p>Cost of acute health care</p> | <p>Medicare^{xxii} for those who are over age 65</p> <p>Medicare supplemental insurance including employer-sponsored retiree health benefits.</p> | <p>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.^{xxiii}</p> <p>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.</p> |

| Risk | Products and Approaches for Risk Transfer and Potential for Pooling | Comments |
|---|--|--|
| Investment risk, inflation and interest rate risk | <p>Investment strategies can reduce risk; some products provide minimum guarantees.</p> <p>Inflation protected bonds</p> <p>Annuity products with cost of living adjustments</p> | <p>Strategies that work well when assets are being built may not work well during the period when assets are being used.</p> <p>Experts disagree on what is the best approach for investment of assets during the spend-down phase.</p> <p>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.</p> |

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. Figure 23 defines special risk issues for women.

**Figure 23
Special Risk Issues for 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% 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. |

| Risk | Potential Range of Risk |
|----------------------------------|---|
| 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 | Over the period 1980–2005, annual inflation in the United States for all items has ranged from 1.1% to 8.9%, and has averaged 3.3%. For medical care, the annual average has been 6.4%. [3] Inflation has generally been much higher outside North America. |
| Investment Risk | The volatility of the stock market has been significant. Over the period 1987–2005, annual returns on the S&P’s 500 Index averaged 9.4%, but have ranged all the way from -23.4% (2002) to +34.1% (1995). |
| Premature Retirement Risk | A significant percentage of people retire sooner than they expected to either 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: Exhibit is based on exhibit included in *Key Findings and Issues: The Impact of Retirement Risk on Women, 2005 Risks and Process of Retirement Survey Report*, SOA, 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 that there are more than a dozen studies demonstrating differences in risk tolerance between men and women.^{xxiv} Some of the results cited 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 women are more likely than men to invest in risk-free or low-risk securities.

References:

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Decisions, Decisions: Retirement Plan Choices for Public Employees and Employers, 2011. National Institute on Retirement Security and Milliman. Examines actual experience with public sector retirement plans in the United States and includes discussion of individual plans.

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About the Author

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Anna Rappaport is an actuary, consultant, author, and speaker, and is a nationally and internationally recognized expert on the impact of change on retirement systems and workforce issues. Anna is a past-President of the SOA and chairs its Committee on Post-Retirement Needs and Risks, which sponsored the research being presented. Anna has been a contributor to every

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ⁱ Retirement Risk Surveys is used to refer to the SOA Risks and Process of Retirement Survey, conducted every two years starting in 2001. These surveys are discussed throughout this paper and in other articles and on the SOA website. Each survey has several reports as explained in this paper. At times, other terminology such as post-retirement risk surveys is also used to describe this work.

ⁱⁱ There is no common definition of middle income market, but the SOA *Segmenting the Middle Market* study looks at the 25% to 75% percentiles by wealth as middle mass and the 75% to 85% percentile as middle affluent.

ⁱⁱⁱ 401(k) plans are tax deferred retirement savings plans offered in the U.S. workplace, and authorized under Section 401(k) of the Internal Revenue Code. Individual Retirement Accounts (IRAs) are tax deferred retirement savings plans established by individuals and authorized under U.S. Federal law.

^{iv} The *Financial Recovery for Retirees Continues* was the third in a series of three studies that looked at the same respondents and repeated questions. The studies were conducted in 2008, 2009 and 2011.

^v Economic foundation is drawn from a paper from Rand. Hurd, Michael and Rohwedder, Susann. July 2011. Economic Preparation for Retirement. Working Paper #17203, National Bureau of Economic Research.

^{vi} Based on the analysis by Hurd and Rohwedder. Other groups use different methodology to show gaps in preparation, with varying results. However, it seems clear that there is a group not adequately prepared.

^{vii} AARP, "The Impact of Claiming Age on Monthly Social Security Retirement Benefits: How Knowledgeable Are Future Beneficiaries?" February, 2012. <http://www.aarp.org/work/social-security/info-02-2012/social-security-claiming-age-retirement-benefits.html>. This study surveyed 2000 adults ages 52-70 who are eligible for Social Security, have not yet claimed benefits, and expect to claim benefits within the next 15 years.

^{viii} EBRI Retirement Confidence Study Series

^{ix} Paper by Kelli Hueler and Anna Rappaport, presented at the 2012 Pension Research Council symposium and published as Working Paper WP2012-11 by the Pension Research Council

^x ERISA Advisory Council report, Examining Income Replacement During Retirement Years In a Defined Contribution Plan System, Department of Labor, report of the work of the 2012 Council published in 2013

^{xi} Author's estimate.

^{xii} The question about the welfare of spouse's after one dies was not repeated in 2011 as the 2007 and 2009 results were very similar.

^{xiii} For more information on managing risks, see SOA, *Managing Post-Retirement Risks*, 2011

^{xiv} The 2012 ERISA Advisory Council studies beneficiary designations and managing them well.

^{xv} Census Bureau, 2010 Census

^{xvi} At the 2012 Financial Planning Association Retreat, there was a session by Lewis Walker on helping families work together to provide family support and manage caregiving.

^{xvii} National Center on Elder Abuse, Administration on Aging, Statistics/Data: Those who Abuse, <http://www.ncea.aoa.gov/Library/Data/index.aspx#abuser>

^{xviii} The MetLife Study of Working Caregivers and Employer Health Care Costs, Feb. 2010, sponsored jointly by the MetLife Mature Market Institute, the National Alliance of Caregivers and the University of Pittsburg Institute on Aging.

^{xix} 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 HIPAA. Group IV meets the standards in HIPAA with regard to Cognitive Impairment 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 which defines the basis on which long-term care insurance policies can qualify for favorable tax treatment.

^{xx} Zedlewski, Sheila, Brendan Cushing-Daniels, and Eric Lewis “How Much Could Reverse Mortgages Contribute to Retirement Incomes?”, Urban Institute, Retirement Policy Program, Brief Number 23, September 2008

^{xxi} Government program in the U.S. (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.

^{xxii} Federal program in the U.S. providing health care for Americans over age 65 and for the severely disabled.

^{xxiii} 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 maybe 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.

^{xxiv} Babbel, David F., Wharton Financial Institutions Center Policy Brief: Personal Finance, Lifetime Income for Women: A Financial Economist’s Perspective, August 12, 2008, page 5