



SOCIETY OF
ACTUARIES

RETIREMENT
SECTION

ISSUE 94 FEBRUARY 2018

Retirement Section News

3 Chairperson's Corner

By Randall Dziubek

**5 A View from the SOA's Staff Fellow
for Retirement**

By Andrew Peterson

**6 Perspectives from Anna
20 Years of Post-Retirement Risk
Research: Some Learnings and
Observations**

By Anna M. Rappaport

**11 Upcoming Changes in Actuarial
Standards of Practice**

By Julie Curtis

**12 Credibility Theory: An Application
to Pension Mortality Assumptions**

By Julie Curtis

**15 Sharing the SOA's Post-Retirement
Needs and Risk Research
An Interview with Carol Bogosian**

**17 Written Statement On Mandated
Disclosure for Retirement
Plans—Enhancing Effectiveness
for Participants and Sponsors**

By Carol Bogosian

Credibility
Theory: An
Application
to Pension
Mortality
Assumptions

By Julie Curtis

Page 12

Retirement Section News

Issue Number 94 • February 2018

Published three times a year by the Retirement Section of the Society of Actuaries.

475 N. Martingale Road, Suite 600
Schaumburg, Ill 60173-2226
Phone: 847-706-3500 Fax: 847-706-3599
www.soa.org

This newsletter is free to section members. Current issues are available on the SOA website (www.soa.org).

To join the section, SOA members and non-members can locate a membership form on the Retirement Section webpage at <https://www.soa.org/retirement/>

This publication is provided for informational and educational purposes only. Neither the Society of Actuaries nor the respective authors' employers make any endorsement, representation or guarantee with regard to any content, and disclaim any liability in connection with the use or misuse of any information provided herein. This publication should not be construed as professional or financial advice. Statements of fact and opinions expressed herein are those of the individual authors and are not necessarily those of the Society of Actuaries or the respective authors' employers.

Copyright © 2018 Society of Actuaries.
All rights reserved.

Publication Schedule

Publication Month: May 2018
Articles Due: Feb. 5, 2018

2018 SECTION LEADERSHIP

Officers

Randall Dziubek, ASA, EA, MAAA, Chairperson
Deborah Tully, FSA, MAAA, EA, FCA, Vice Chairperson
John Eng, FSA, EA, and Mathieu Laurendeau, FSA, FCIA, Secretary
Ruth Schau, FSA, EA, FCA, Treasurer

Council Members

Laurie Alook, FSA, FCIA
James D. Anderson, FSA, MAAA, EA
Bonnie Mudd Twohig, FSA, MAAA, EA
Nathan Zahm, FSA
Brett Dutton, FSA, EA, FCA
David R. Cantor, ASA, EA, Appointed Member
Faisal Siddiqi, FSA, FCIA, Appointed Member

Newsletter Editor

Mathieu Laurendeau, FSA, FCIA
mathieu.laurendeau@aonhewitt.com

Program Committee Coordinators

Brett Dutton, FSA, EA, FCA
2018 SOA Annual Meeting & Exhibit Coordinator

SOA Staff

Andy Peterson, FSA, EA, MAAA, Staff Partner
apeterson@soa.org

Jane Lesch, Section Specialist
jlesch@soa.org

Julia Anderson Bauer, Publications Manager
jandersonbauer@soa.org

Kathryn Baker, Staff Editor
kbaker@soa.org

Julissa Sweeney, Graphic Designer
jsweeney@soa.org

Chairperson's Corner

By Randall Dziubek

I'm honored to serve as the chairperson of the Retirement (formerly Pension) Section Council for the 2017–2018 year. Over my two previous years serving on the council I've had the privilege of working with some of the best our profession has to offer—dedicated and brilliant professionals with a commitment to giving back to the profession and contributing to the retirement security of millions.

I'd like to thank our outgoing elected members, Judy Ocaya, Dave Cantor, and Chairperson Grace Lattyak. I've learned a lot from all of you, and your contributions to the council were numerous. Also, special thanks to Drew Luchies who chaired the council's continuing education efforts. Drew will be stepping down and turning over the reins to Brett Dutton this year.

During the upcoming year, the council and I will continue to focus on supporting a broad range of research and educational activities in the retirement and closely associated areas. We will also look for new and creative ways to benefit the profession and



increase the interest and involvement of our members at large. For example, the council has been discussing the possibility of creating one or more subgroups within the Retirement Section. This has been done with success in the SOA Health Section. A strong candidate for such a subgroup within the Retirement Section might be defined contribution plans. The subgroup would solicit volunteer pension actuaries and arrange regular conference call meetings. Activities of the group could result in webcasts, papers and other activities aimed at contributing to the knowledge base of the group's topic. It would help the council to know if many of our members would be interested in participating in such a group. If you are interested, please send an email to my address provided at the end of this article, as well as any suggestions for other specific subgroups.

Other specific projects/areas that we have been working on include:

- longevity pooling
- optimizing retirement income
- quantitative evaluations of DB, DC and hybrid plans
- retirement benefit adequacy
- communicating risk in retirement plans

Keep an eye open for various outcomes of these projects, including tools, papers and articles.

Over the past 15 years of my career I have worked exclusively with public sector retirement systems. Twelve of these years were as a consulting actuary at Gabriel Roeder Smith & Company, and the last three have been with the California Public Employees' Retirement System (CALPERS). I will admit to experiencing a little culture shock upon first entering this strange new world of public pensions. While at first I may occasionally have questioned the rules of the game (or lack thereof), I rarely had reason to doubt the commitment or integrity of the public-sector actuaries with whom I collaborated. They genuinely operate from a deep concern regarding the interests of plan members and taxpayers.

While there has been some controversy within our profession regarding aspects of how public pension plans are governed and financed, I have been encouraged and pleased with the SOA's diligence in providing thoughtful and research-based perspectives on the issues as well as a platform for actuaries to express alternate opinions and potential solutions. The most recent *Pension Forum* from January 2017 is a great example of this.

Which brings me to a project of the council's that I am very excited about.

In August of 2017, a Call for Models for Public Pension Plans was issued by the Pension Section. This activity is a follow-up

to the very successful, thought- and idea-provoking *Retirement 20/20* initiative created by the SOA in the early to mid-2000s.

As we all know, many state and local governments and other public entities continue to provide defined benefit pension plans. As these plans continue to mature, challenges are growing related to ensuring the security and stability of the plans, while keeping costs affordable. While the detractors of public sector DB plans have generally been quick to point out what they believe to be the problems, proposed solutions that appear feasible and would improve members' retirement security while providing value for taxpayers were rarely if ever put forth by the critics. So we thought it was time to ask interested parties—both supporters and detractors alike—to submit their best ideas for improvements.

To date, we have received over a dozen statements of intent from a variety of professionals. Qualifying entrants will have until Jan. 31, 2018, to provide detailed models, which will be evaluated, challenged and accordingly strengthened, and from which the

best ideas will be selected for dissemination through the SOA and other media sources.

We are very excited by the number and quality of the entries so far, and are looking forward to seeing the detailed models, which will be studied, vetted and enriched by a diverse, multi-disciplinary panel of experienced practitioners.

We hope you will stay tuned for the results of the evaluation process and be sure to look for the winning entries, which we anticipate will have some great ideas from which we can all benefit. ■



Randall J. Dziubek, ASA, is deputy chief actuary of valuation services at CALPERS. He can be reached at randall.dziubek@calpers.ca.gov.

 **SOCIETY OF ACTUARIES**

Listen at Your Own Risk

The SOA's new podcast series that explores the thought-provoking, forward-thinking topics across the spectrum of risk and actuarial practice. Listen as host Andy Ferris, FSA, FCA, MAAA, leads his guests through lively discussions on the latest actuarial trends and challenges.

 Visit SOA.org/Listen to get the podcast.

A View from the SOA's Staff Fellow for Retirement

By Andrew Peterson

“What’s in a name? That which we call a rose
By any other name would smell as sweet.”

Hopefully, you may remember this famous quote from Shakespeare’s *Romeo & Juliet*, perhaps from reading it in your freshmen English class. Juliet suggested that it is not the name that matters (i.e., Romeo being from the Montague family) and in fact the name is an artificial convention versus the person behind the name, in this case, her love, Romeo. But as Juliet and Romeo both found out, names (and the accompanying background) do matter.¹

So why this little diversion into literature to start my column for this issue? In case you haven’t noticed yet, the Pension Section has been renamed to the Retirement Section. This change was made effective Nov. 1, 2017, and this is the first issue of our newly branded *Retirement Section News!*

Names are important and typically changing a name, whether for an individual, a company or an organization, is only done after much thought. The section council did give this significant thought, although section members will likely be glad to know that we did not spend financial resources on a consultant or market research. Simply put, the goal of the name change is to better reflect the evolving focus and mission of the section.

While moving away from being the “Pension Section” may bring a certain sadness, nostalgia and pining for the “good old days” of defined benefit (DB) plans, this change is intended to reflect the reality of the broadening role of actuaries working in this space.

Certainly the word *pension* can apply to a broad section of retirement plans, including defined contribution (DC) plans, but the word has historically been associated most often with traditional DB plans that pay retirees a monthly lifetime benefit. As other types of retirement plans have become increasingly common in the past decades, actuaries who have formerly specialized in traditional DB pension plans have expanded their practice and research to include many other types of retirement plans.

The change to the Retirement Section recognizes the council’s belief that actuaries have a role to play in retirement issues, regardless of the type of plan (DB, DC, hybrid, risk-sharing, etc.). We certainly welcome comments and feedback you might have on this change.

As I conclude this column, I’d like to echo the comments the new Retirement Section Council Chair Randy Dziubek made in his column thanking the outgoing council members: Judy Ocaya, Dave Cantor, Grace Lattyak and Drew Luchies, for their service on the council. It’s a privilege as staff partner to the Retirement Section to be able to get to know so many SOA members and dedicated volunteers like these actuaries.

Also, a reminder that we can always use more volunteers for the activities of the section. In particular, we could use more members for our Retirement Section Communications Team. You don’t have to be a writer to be on the team; just have a willingness to actively participate in the broad area of helping the council better communicate with our members, whether in newsletters, email updates, podcasts, social media or the next new medium. Contact me if you have interest. ■



Andrew Peterson, FSA, EA, MAAA, is senior staff fellow—Retirement Systems at the Society of Actuaries. He can be reached at apeterson@soa.org.

ENDNOTES

- 1 My apologies to any Shakespeare experts who may wish to take issue with the interpretations and deeper meaning of this quote.

Perspectives from Anna

20 Years of Post-Retirement Risk Research: Some Learnings and Observations

By Anna M. Rappaport

The SOA started a specific focus on post-retirement needs and risks 20 years ago. It was also 20 years ago in 1997 when I took office as president of the SOA. During that year, I encouraged more focus on the aging society, and I have been working on these issues ever since. The focus of the Committee on Post-Retirement Needs and Risks (CPRNR) work is the individual, and the primary focus is on middle-income Americans.¹

This column will focus on some highlights, experiences and interesting findings from the work. As the work progressed over the years, we learned a lot as a group, and that produced new ideas for topics to pursue. The topics “built” upon each other and fed into a variety of different projects.

A VARIETY OF PROJECTS AND PARTNERS

The CPRNR has conducted a survey of public perceptions of post-retirement risk every two years from 2001 to 2017. While there are many organizations that have looked at the public’s knowledge and attitudes about retirement and retirement planning, the SOA studies have been different because the SOA has focused on the post-retirement period. The SOA surveys include repeated core topics and topics of special emphasis, which vary from study to study.

The SOA has also conducted focus groups and in-depth interviews with retirees at various points during retirement, with the most recent step in this process being a focus in 2017 on individuals over age 85. That study is discussed later in this article. The results from these studies in the aggregate, together with the risk survey, provide a picture that moves through the retirement period.

2017 is the third year that the SOA has issued a call for essays. The 2016 topic was financial wellness,² and those essays were presented at the 2017 annual meeting. The 2015 topic was diverse risks.³ There have also been several calls for papers.

The committee has also focused on consumer education, producing several different types of materials. Some of these materials are discussed later in this article. The CPRNR has also sponsored a variety of research reports.

The ideas of interest have fed into the various types of projects. We have tried to fit the project type to what would be most effective to the idea. (I have bolded some of the words that reflect the ideas being pursued.)

During the period of the CPRNR’s work, we partnered or worked jointly with a number of organizations, including the Stanford Center on Longevity, EBRI, LIMRA, WISER, INFRE, FPA, Financial Finesse, the Social Security Administration, and the MetLife Mature Market Institute. The project teams are usually a mix of actuaries and other professionals, and the involvement of multidisciplinary teams has added a great deal to the projects.

Scott Page gave the keynote speech at the 2017 Annual Meeting & Exhibit presidential luncheon. He focused on diversity and the value created by having work teams that offer diverse ideas. The CPRNR has been applying these ideas to its work teams. People who have worked on CPRNR projects have experienced how people with different backgrounds approach issues differently, and can produce a more interesting result than a team where everyone has the same background. Diversity can be defined by personal traits such as ethnicity, by type of educational background and by type of employment. The teams have included demographers, economists, attorneys, public policy experts and others, as well as actuaries. Members of the group are employed in consulting, the financial services industry, government, academia, professional associations, and as financial advisors, etc.

RESEARCH ON LONGER-TERM RETIREES

Longevity risk is a major concern of the CPRNR. We are also concerned about the **impact of shocks** and **how well people are doing later in life**, particularly since many reach retirement age with fewer resources than experts feel are needed to maintain living standards.

In 2017, the CPRNR focused on age 85-and-over individuals. In-depth interviews were completed with individuals age 85-and-over and adult children of age 85-and-over individuals in the United States and Canada. The report on the interviews is available on soa.org.⁴ There were many similarities between individuals in the United States and Canada, but there are some



key differences. The market for long-term care services is quite different in Canada and the services are less expensive. Health care financing is also very different in the two countries, but for the age 85-and-over individuals, there did not seem to be many other major differences. The retirees in both countries relied heavily on the public programs and had most of their acute care covered by these programs as well as supplemental insurance.

Two recent articles—one from The Conference Board Human Capital Exchange⁵ and one from *Forbes*⁶—offer information about the study for employers sponsoring benefits and for individuals planning for their future.

This research followed up on focus groups⁷ conducted in 2015 with individuals retired 15 years or more. When taken together, the two sets of research offer some very interesting observations:

- People's preferences and actions do not fit traditional planning paradigms.
- Many of the retirees seem quite able to adjust to many different circumstances, and dealt with a variety of circumstances with flexibility and resilience. They spend significantly less than they did earlier in retirement.
- Financial management is most often short-term cash flow management focused. Many of the retirees try to avoid spending down assets and withdraw only the required minimum distribution from tax-deferred retirement accounts. They adjust their spending to their income as much as possible.
- The majority are not prepared for a major long-term event—requiring assisted living, nursing home care or a lot of paid care at home. These events can easily lead to spending down of assets.

- While family is often not included in planning, when people need help at high ages, the first source of help usually comes from family members. Where there is no spouse, adult children are the next source of help. Women are more likely to be alone in old age and less likely to have a family member to help them.

This work encourages us to think more about long-term planning and identifying needs for success at higher ages. The age 85-and-over interviews are being followed up by two surveys, one of individuals age 85-and-over and one of children. Those results should be available early in 2018.

NEXT STEPS FOR THE 2017 RISK SURVEY

Every two years, the CPRNR sponsors a survey of public perceptions of post-retirement risk. The preliminary results of the 2017 survey were presented at the 2017 SOA Annual Meeting & Exhibit. The survey included repeated core questions and three topics of special interest: **housing, long-term care and caregiving**, and **financial wellness**. Reports on the topics of special interest are coming in 2018, and these reports will include some findings from the interview study with age 85-and-over individuals.

THE BIGGEST DECISIONS FOR MANY MIDDLE-INCOME PEOPLE

The CPRNR studied the middle-income retired and near retired population over the past decade. In its initial Segmenting the Middle Market report,⁸ the CPRNR learned that middle-income families at these age groups had **substantially more housing equity than financial wealth**. Many individuals had very little financial wealth, and single people were much less well-off than couples.

The findings of this work changed the way I thought about retirement planning and decisions. I came to realize that many people approach and reach retirement without many financial assets, and discussions about how to invest their money were not relevant to these individuals. It also became clear that major issues for these people included **when to retire** and **when to claim Social Security**. Social Security is the major, and sometimes only, source of income for many retired households. The amount of monthly income is 75 percent greater if benefits start at age 70 versus the initial claiming age of 62. When people reach their 60s without much in the way of retirement assets, **working longer** can make a big difference in what resources they will have in retirement and in how long the resources need to last.

Most families do not want to use their home equity to help finance retirement, but at the same time, it may be an asset that they can use to help pay for long-term care or other emergencies.

This research made me realize that all of these issues needed to be considered in retirement planning, and that savings and investments are just a part of the story. I also came to realize that as decisions are made, it is important to remember that there are people without assets who will also be making such decisions.

Concern over whether middle-income Americans had the information they needed to make good retirement decisions led the CPRNR to venture into producing information for consumers, including employees covered by benefit plans. The CPRNR produced a series of 12 decision briefs⁹ to help people nearing retirement understand the issues involved in making retirement decisions. Six of these briefs were updated in 2017. Supplementing these briefs are some infographics¹⁰ to help with understanding longevity. The CPRNR is also partnering with Financial Finesse to offer retirement literacy publications. The second, *Retirement Health and Happiness*,¹¹ reminds people that retirement is about more than money. It offers practical tips and access to resources. Actuaries are encouraged to share these materials with co-workers, friends, family, and community groups.

HOW ADVICE AND FINANCIAL WELLNESS FITS IN

A variety of studies, including SOA research, documents gaps in financial literacy. When we started the post-retirement risk research, I believed that most of the CPRNR would have said that thinking about advice and sources of advice was outside of the scope of what we would be doing. But retirement planning involves many issues and calculations and is complex. **Decisions involve trade-offs** and some are time sensitive. Discussions of issues frequently end with “consult your personal advisor” or a similar comment. And everyone has specific circumstances that should be considered.

While there is a large financial advice industry, many middle-income Americans do not get retirement planning advice or guidance beyond what is provided through their employers. And the advice industry is diverse, with some practitioners paid a fee for advice and others primarily earning commissions for selling financial products and services. Some practitioners are **fiduciaries** and some are not, and **conflicts of interest** have been an issue. Evidence of conflicts as well as a discussion of the different models for providing advice was presented at the 2012 Pension Research Council symposium on the market for retirement financial advice. These issues were discussed in my perspectives article in the September 2012 *Pension Section News*, “Perspectives from Anna: Retirement and Financial Advice—What I Heard at Two Recent Meetings.” They are also discussed extensively in the 2012 Working Papers¹² from the Pension Research Council.

With so many decisions being required when defined contribution benefits are the principal retirement benefit, advice is important in helping people plan for retirement. Several years

ago, the CPRNR chose advice as one of the topics on which it would focus. This led to two projects in 2014 and 2015:

- A paper on retirement advice, “Models of Financial Advice for Retirement Plans: Considerations for Plan Sponsors,”¹³ and
- “Investment and Retirement Advice—A Guide for Employers.”¹⁴

This work incorporates a number of ideas. There are many **different things that employers can do to help employees make better decisions** and that influence the decisions employees make. The guide views these actions broadly by defining a spectrum that includes education, plan design features, communication and the provision of guidance and advice to employees, both online and one-on-one. Facilitating employee savings and helping employees do a better job with their investments are seen as critically important.

Many employers have moved from programs that focused on retirement education and savings to a broader focus on **financial wellness**. With the large number of employees facing financial stress and having trouble paying regular bills, having problems managing debt, and using high cost types of debt, employers recognized that it was an important business imperative to help employees meet some of these challenges. Employers also increasingly recognize that employees will not save effectively for retirement until these problems are addressed. The CPRNR selected financial wellness as one of its topics of focus in 2016 and also issued a call for essays on that topic. The essay collection¹⁵ is available on the Aging and Post-Retirement website; the prize-winning essays were published in the *Pension Section News* in 2017, and the essays were presented at the 2017 SOA Annual Meeting. Financial wellness is one of the special topics in the 2017 Survey of Post-Retirement Risks.

SOFTWARE AND SUPPORT FOR RETIREMENT DECISIONS

We will now take a detour to an early point in the quest for ideas and support for retirement planning. **Calculations of retirement security require software** and/or assistance for support. When advice is provided, the advice generally depends on software, used directly or by an advisor. When software is not available, the individuals need advice from a professional for these calculations. It is confusing to users. There are many pieces of software available, designed to respond to different questions and with varying degrees of reliability. The user may have difficulty determining what is reliable and may not even know if the software focuses on the right questions or which questions need to be asked. The CPRNR has identified the importance of software and wanted to understand how it influenced the treatment of post-retirement risks.

The SOA completed two studies of how post-retirement risks were treated by retirement planning software. In the first study, a variety of case studies were run through a selected sample of software. Some of the software was designed for use by individuals and some for use by professionals. The study showed large variation in the results for the same calculation, and also large variation in capability and quality control. Individual circumstances vary and the ability of software to consider specific circumstances varies as well. The second study was set up differently, but it found a variety of problems with the software it reviewed. For example, there were big differences in the way Social Security benefits were calculated, and some of the calculations failed to recognize individual circumstances. But for average Americans, Social Security is their major source of income. The software research reports are available on soa.org.¹⁶

Assumptions about age at retirement, the length of life, investment returns, inflation, levels of withdrawals from plan assets, method of withdrawal, etc. are extremely important to long-term calculations of post-retirement security. Some software includes the post-retirement period and some goes only to the point of retirement. Savings rates, investment return and investment returns are critical to the pre-retirement calculation. Some software builds in assumptions and some have the user specify assumptions. In either case, this is not an easy matter. Software varies in whether it does reasonable checks and provides warnings when assumptions seem strange.

With so many decisions being required when defined contribution benefits are the principal retirement benefit, advice is important in helping people plan for retirement.

Although there were several years between the first and second studies, it did not seem that things had improved much. There is concern that the same issues are probably relevant today.

Software can come from individuals who are sharing what they do, financial services companies, government agencies, benefit plan administrators and software companies. There is no governmental or private service that provides any “seal of reliability” on such software. There is no licensing or regulation of the software providers. One of the services that plan sponsors can provide to their employees is helping them identify good tools to understand their particular situation. As more employers are sponsoring financial wellness programs, this makes sense.



But one of the concerns expressed by plan sponsors I have talked with is that they also have no way to know which tools are reliable. There is a critical need for an organization that is in a position to comment on specific software and who can name the source to review and comment on such software. Ideally it could certify that software meets a defined standard and possibly offer an “underwriters laboratory”-type seal of approval.

GETTING READY FOR NEW PROJECTS IN 2018

The CPRNR changed its planning cycle and met in September to select topics to explore for 2018. **Tools**, building on the concerns about software, is again on the agenda for 2018.

The family and its role in retirement security is another topic for potential study. The post-85 interviews told us that while many people do not include the family in their retirement planning, it is often the first place that people turn to when they need help. The financial wellness essays included an essay on the family. There was also a joint project several years ago with the MetLife Mature Market Institute on the New American Family. That survey looked at how different types of families thought about retirement planning. Two topics of particular interest to be included in this project are blended families and people without families, and how they manage.

Our third subject is **life planning and decisions over the life cycle**. This topic attempts to integrate many of the topics we have studied before.

Small groups have been set up for each of the three topics to decide how to pursue the topic and get the projects started.

CONCLUSION

This exploration shared with you some of the work and ideas of the CPRNR. As we move into 2018, we are looking to further grow and expand our work. The very good news is that today a lot of people are interested in our work. In contrast, when we started, the CPRNR felt very lonely because not too many were focused on the post-retirement period. The bad news is that as

the population is aging, employers have greatly reduced their commitment to retirement benefits and public benefit systems are under a lot of stress. And as benefit structures change, individual efforts and decisions have become more important. So there is a lot more need for our work. I feel very gratified that the CPRNR has had very devoted and outstanding volunteers who have made major contributions to the work. Thank you to all of you and there is a lot more for us to do. ■



Anna Rappaport, FSA, serves as chairperson of the Committee on Post-Retirement Needs and Risks (aka the Committee on Post-Retirement Risk).

ENDNOTES

- 1 All of the work of the Committee on Post-Retirement Needs and Risks (CPRNR) can be found on the SOA website under Aging and Post-Retirement Research. <https://www.soa.org/research/topics/aging-ret-topic-landing/>
- 2 <https://www.soa.org/essays-monographs/2017-financial-wellness-essay-collection/>
- 3 <https://www.soa.org/essays-monographs/2016-diverse-risk-essays/>
- 4 <https://www.soa.org/resources/research-reports/2017/2017-post-retire-exp-85-years-old/>
- 5 <https://hcexchange.conference-board.org/blog/post.cfm?post=6484>
- 6 <https://www.forbes.com/sites/pensionresearchcouncil/2017/10/06/planning-for-success-at-older-ages/&refURL=&referrer=#74cd0d7c7318>
- 7 <https://www.soa.org/research-reports/2016/2016-post-retirement-experience-15-years/>
- 8 <https://www.soa.org/research-reports/2009/research-segmenting-market/>
- 9 <https://www.soa.org/research-reports/2012/research-managing-retirement-decisions/>
- 10 <https://www.soa.org/research/age-wise/>
- 11 <https://www.soa.org/research-reports/2017/2017-retirement-literacy/>
- 12 <https://pensionresearchcouncil.wharton.upenn.edu/publications/papers/>
- 13 <https://www.soa.org/research-reports/2014/research-models-finance-advice/>
- 14 <https://www.soa.org/research-reports/2015/2015-investment-retirement-advice/>
- 15 <https://www.soa.org/News-and-Publications/Publications/Essays/2017-financial-wellness-essay-collection.aspx>
- 16 <https://www.soa.org/research/topics/research-post-retirement-needs-and-risks/#other>



MARK YOUR CALENDAR

UPCOMING SOA EVENTS

ERM Symposium

April 19–20, 2018 • Miami, FL

China Annual Symposium

May 28–29, 2018 • Beijing, China

Valuation Actuary Symposium

Aug. 27–28, 2018 • Washington, DC

Life and Annuity Symposium

May 7–8, 2018 • Baltimore, MD

Health Meeting

June 25–27, 2018 • Austin, TX

Annual Meeting & Exhibit

Oct. 14–17, 2018 • Nashville, TN

Asia-Pacific Annual Symposium

May 24–25, 2018 • Seoul, South Korea

Underwriting Issues & Innovation Seminar

July 29–31, 2018 • Chicago, IL

Learn more at [SOA.org/Calendar](https://www.soa.org/Calendar)



Upcoming Changes in Actuarial Standards of Practice

By Julie Curtis

During my career as a pension actuary, I have rarely given much thought to how our standards of practice were developed and how they have evolved over the years. My main concern was that I understood them well enough to incorporate them into my practice, and when faced with a difficult issue, I used them for guidance.

This year, I moderated the Annual Meeting session on Pension ASOPs that discussed the standards, and I had the privilege of meeting three pension actuaries who participate in their development. Faisal Siddiqi is currently the chair of the Canadian Institute of Actuaries' Practice Council. Tammy Dixon is a current member of the Pension Committee for the Actuarial Standards Board, and Mitch Serota recently finished his six-year term on that committee and is currently a member of the Pension Committee for the American Academy of Actuaries.

While working with the presenters, I realized how committed the Practice Council (in Canada) and the Standards Board (in the United States) are to staying abreast of current developments and how much effort they expend to anticipate current and future needs of practitioners. It is difficult enough to describe expectations and requirements in the current environment, but accommodating possible future developments is a daunting task.

The session first described the governance of the Practice Council and the Standards Board and how they fit in the overall structure of the CIA and SOA. Then the presenters described recent and emerging standards. The new standards reflect how quickly the pension and retirement plan environment is evolving.

On the Canadian side, the council has recently released an update on how lump sums should be calculated. The standard, which is not yet final, reflects the increasing prevalence of lump sums, reflects the credit quality of the plan and addresses situations created by underfunded multiemployer plans. The Council is also working on guidance for stochastic models to accommodate the increased emphasis placed by provincial regulators: Ontario and Quebec are requiring actuaries to incorporate a provision

for adverse deviations in their plan funding, while New Brunswick and Alberta/British Columbia are requiring stochastic funding to monitor the funding of their target benefit plans.

In the United States, the Pension Committee of the Standards Board is working on several standards that they plan to update soon. The committee is pledged to develop practice standards that apply to practitioners of all sizes and types of plans: private, public and multiemployer. However, Tammy and Mitch mentioned that the updates will likely focus on improving practice in the public pension plan arena. Topics currently under consideration include:

- ASOP 4, Measuring Pension Obligations and Determining Pension Plan Costs or Contributions: disclosure of a solvency or settlement value and additional guidance on amortization periods
- ASOP 27, Selection of Economic Assumptions for Measuring Pension Obligations
- ASOP 35, Selection of Demographic and Other Noneconomic Assumptions for Measuring Pension Obligations: guidance on mortality table selection

Tammy also discussed the current Risk ASOP that was recently released as ASOP No. 51, "Assessment and Disclosure of Risk Associated with Measuring Pension Obligations and Determining Pension Plan Contributions." The standard defines risk as "The potential of actual future measurements deviating from expected future measurements resulting from actual future experience deviating from actuarially assumed experience." The deviation can be either positive for the interested parties or detrimental. The standard focuses on identifying risks, emphasizes disclosing methods and key areas where risks may emerge, and provides guidance on disclosing specific aspects of risk and placing the components into a larger framework for each plan.

When hearing an explanation of the Risk ASOP, I realized that the standard represents much about the ever-expanding requirements we all face as practitioners: better disclosure of and rationale for selecting methods, assumptions and results, and a more thorough analysis of risks inherent in the measurement of each plan's financial status. The environment we face is increasingly challenging, as are the demands upon practitioners, but the emerging standards are being developed to help us face the challenge. ■



Julie A. Curtis, FSA, is a retired pension actuary and former chairperson of the oversight group for the Credibility Educational Resource for Pension Actuaries. She can be reached at Julie.curtis@comcast.net.

Credibility Theory: An Application to Pension Mortality Assumptions

By Julie Curtis

Almost all societies, at least in recent history, seem to be concerned with mortality, both current experience and future trends. That's understandable, considering Ben Franklin's observation that mortality is one of life's two certainties (the other being taxes—a topic we won't address here.)

For pension actuaries and plan sponsors, mortality trends are particularly important, in large part because of their impact on future cash flows to retirees and beneficiaries. When the fact that demographic data is becoming increasingly easy to obtain is combined with the large financial impact that mortality assumptions have on determining pension liabilities, many plan sponsors are now strongly motivated to modify commonly accepted (or government prescribed) mortality tables.

In past decades, only a few pension plans have been large enough and had enough data to deem their experience credible. Sponsors for those plans sometimes developed their own tables or modified existing ones. However, those plans were an exception. Until recently, relatively few pension actuaries had a need to use credibility theory in their practice. As a result, there has not been much literature available for use by a practicing pension actuary.

In light of increasing focus on the mortality assumption by regulatory agencies, especially in the United States, Canada and the United Kingdom, credibility theory has become more relevant for pension actuaries. An example of its newfound relevance is found in the final regulations that the U.S. Department of Treasury published in October 2017. For the first time, U.S. pension regulations permit plan sponsors to modify the prescribed pension mortality tables even when the plan data is too small to be fully credible. In other words, plans no longer need to have very large numbers of lives and deaths to modify the tables and to

reflect their own plans' mortality experience, at least to some degree.

In order to help pension actuaries better understand and refresh their knowledge of credibility theory, the Retirement Section has published two papers on the topic. The first is an education resource written by Irina Pogrebivsky in August 2017. The second paper, written by Gavin Benjamin in 2008, provides a more theoretical approach to the topic. Both papers can be accessed on the home page of the SOA Retirement Section website and are listed at the end of this article.

OVERVIEW OF THE EDUCATION RESOURCE

Pogrebivsky's Education Resource was written to help practicing actuaries apply credibility theory.

The paper's objectives are

- to provide an overview of credibility theory
- describe and compare the standard approaches
- provide guidance on how to apply the theory with respect to mortality
- show example of situations that can be used as a basis for evaluating relevant application based on a specific scenario
- provide a list of resources on credibility theory that exist within the actuarial profession

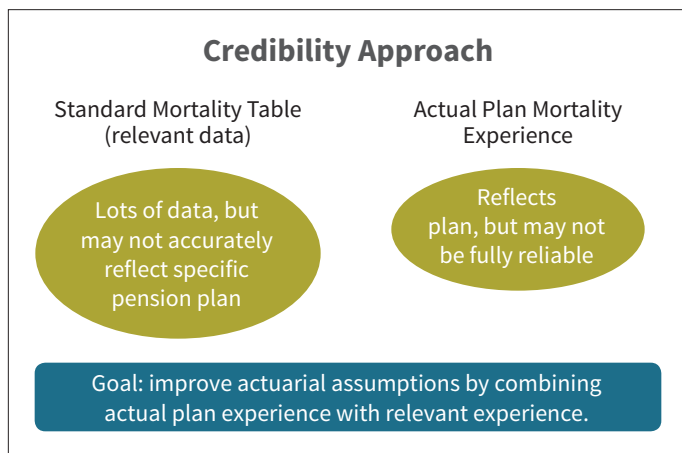
Although this paper was published two months before the U.S. Treasury's final regulations and the supporting Revenue Procedure 2017-55, the concepts presented in the paper are helpful in providing background for the approach described in the regulations and Revenue Procedure.

The remainder of this article summarizes some of the key concepts developed in the paper. For anyone who intends to use credibility theory or to adjust mortality table assumptions in their practice, the paper provides a more thorough background and development of the underlying theory.

WHAT IS CREDIBILITY THEORY?

To quote the paper, "Credibility procedures use statistical approaches to adjust relevant experience-based assumptions." Credibility is a way to combine the experience of one relatively small, stand-alone group, such as the experience of one pension plan, with the relevant experience of a broader group. The goal is to improve the estimate for the smaller group. Life and property and casualty actuaries have historically used credibility in setting premiums for various classes, for instance, groupings of risk with similar characteristics.

Figure 1
Credibility Approach



One of the key aspects of the paper is its focus on setting the base mortality table assumption. Future mortality improvements are not addressed. This is consistent with the final regulations and procedure.

In theory, an actuary could build a mortality table from scratch as follows:

- For each age x , estimate q_x using the plan’s experience
- But how much experience would be needed at a given age x for the estimate of q_x to be fully credible?
- If \hat{q}_x is the estimate of q_x , then \hat{q}_x can be considered fully credible when:

$$\Pr[(1 - r)q_x \leq \hat{q}_x \leq (1 + r)q_x] \geq p$$

where p = confidence level and r = margin of error.

In other words, there is a $p\%$ probability that \hat{q}_x is within $r\%$ margin of error.

- Once r and p are selected, you can calculate the minimum number of deaths needed for \hat{q}_x to be considered “fully” credible.

The preceding approach is straightforward, but the number of deaths required for each age would prove impractical in almost all cases. For example if p (the confidence level) were 0.9 and r (the margin of error) were 0.05, the number of deaths for each age x would need to be 1,082. (The paper explains the derivation of the 1,082, which assumes a standard normal distribution for the sample.) Since the probability of death is small at most ages, the amount of data needed is very large. For example, at

age 75, if the probability of dying is 2.5%, then that age would need at least $1,082/0.025$ or 43,280 life years of experience to claim “full” credibility. Instead, it is more practical to adjust an existing table to reflect a plan’s experience using a credibility approach.

COMMON CREDIBILITY APPROACHES

The paper describes two main approaches: the Greatest Accuracy Credibility Theory (GACT) and the Limited Fluctuation Credibility Theory (LFCT). The paper reviews the merits of the two approaches and how the two differ. The LFCT is not as theoretically rigorous as GACT, but it has the advantage of requiring far less data and therefore being more practical. Most of the paper describes how to apply the LFCT in real-life situations.

SHIFTING THE BASE TABLE

The LFCT approach “shifts” a standard mortality table up or down based on a plan’s experience; in other words it adjusts mortality rates for all ages by the same ratio.

The amount of the shift depends on the ratio of actual to expected deaths (using the aggregate experience of all ages) and the credibility factor is assigned to that ratio.

PENSION AMOUNTS VERSUS LIVES

Mortality experience studies can be conducted using either lives or pension amounts. Most studies are conducted using amounts, and the new regulations also require using amounts. In addition, most standard mortality tables such as RP 2014 are based on amounts-weighted analysis.

Amounts-weighted mortality rates are often viewed as a proxy for weighting mortality rates by pension liabilities and are often lower than the rates produced by lives-based analyses.

- For amounts-weighted analyses, the estimate of q_x =

$$\frac{\text{Sum of pension amounts for actual deaths age } x}{\text{Sum of pension amounts for exposures age } x}$$

THE CREDIBILITY THEORY MODEL USING LFCT

For plans that do not have enough data to have fully credible experience, but have enough experience to be partially credible, the mortality rate at each age is a blend of actual plan experience and the expected experience of the standard table. The amount of weighting assigned to the actual plan experience is the credibility factor, called Z .

$$q_x^E = Z \times [\hat{f} \times q_x^S] + [1 - Z] \times q_x^S$$

where

- $\hat{f} = \frac{\text{Sum of pension amounts for actual deaths across all ages}}{\text{Sum of pension amounts for expected deaths across all ages}}$
- q_x^S = mortality rate at age x based on the standard table
- Z = credibility assigned to the plan experience
- q_x^F = final mortality rate at age x, which reflects the results of the experience study

HOW TO DETERMINE Z

First, the actuary needs to determine how many lives are required to achieve full credibility. To do that, the actuary needs to decide on p (the confidence level, often decided to equal 0.9) and r (the margin of error, often decided to equal 0.05).

For a lives-based analysis, $Z = 1$, or \hat{f} is assigned full credibility, if the total number of study deaths is at least equal to 1,082 (for $p = 0.9$ and $r = 0.05$)

*For a amounts-weighted analysis, $Z = 1$, or \hat{f} is assigned full credibility, if the total number of study deaths is at least equal to 1,082 (for $p = 0.9$ and $r = 0.05$) \times **Benefit Dispersion Factor***

Where

Benefit Dispersion Factor = $\frac{[\text{Expected number of deaths during study period}] \times [\text{Sum of the mortality-weighted square of the benefits}]}{[\text{Square of the sum of mortality-weighted benefits}]}$

If there are not enough total study deaths to assign full credibility to \hat{f} :

$$Z = \sqrt{\frac{\text{total number of study deaths}}{\text{number of study deaths needed for full credibility}}}$$

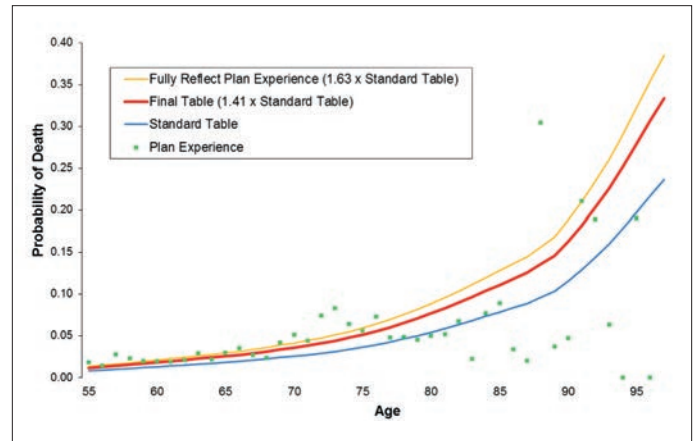
Once Z is determined, the actuary can construct the customized table using the preceding key formula:

$$q_x^F = Z \times [\hat{f} \times q_x^S] + [1 - Z] \times q_x^S$$

EXAMPLE OF A CUSTOMIZED MORTALITY TABLE

After completing the credibility analysis, the result is often a table that better reflects a plan's experience. Figure 2 shows an example of a typical plan whose experience differed substantially

Figure 2
Adjusted Mortality Rates



from the standard table and whose data was large enough to be partially credible.

The figure shows a comparison of four sets of data:

- The expected mortality rates based on the standard table (blue line)
- The actual mortality experience of the plan (green dots)
- The mortality rates if the standard table were fully adjusted to reflect the actual mortality experience of the plan (yellow line)
- The final, blended rates based on partial adjustment (red line)

The preceding example demonstrates how partial credibility can improve the fit between expected and actual mortality rates. For further reading on the subject, please see the references at the end of this article. ■

REFERENCES

Credibility Educational Resource for Pension Actuaries by Irina Pogrebivsky, FSA, <https://www.soa.org/Files/static-pages/sections/pension/credibility-resource-pension.pdf>

Selecting Mortality Tables: A Credibility Approach by Gavin Benjamin, FSA, <https://www.soa.org/Files/Research/Projects/research-2008-benjamin.pdf>



Julie A. Curtis, FSA, is a retired pension actuary and former chairperson of the oversight group for the Credibility Educational Resource for Pension Actuaries. Julie can be reached at Julie.curtis@comcast.net.

Sharing the SOA's Post-Retirement Needs and Risk Research

An Interview with Carol Bogosian

The SOA has just completed the ninth biennial Survey of Post-Retirement Needs and Risks, and it has been sponsoring a wide variety of other research on post-retirement risks for 20 years. All of the reports are publicly available and can be found at <https://www.soa.org/research/topics/aging-ret-topic-landing/>. Carol Bogosian has presented the results of this work to diverse audiences and helped increase interest in the work. Carol is a pension actuary, a member of the Committee's steering group, and a recent member of the Retirement (Pension) Section Council. She is one of several committee members who have presented this work and who participate in press interviews about the work. The committee seeks to get its work shared with actuaries, financial planners, employee benefit plan sponsors, the press, the public and anyone else interested in retirement.

With what types of groups have you shared the work of the Committee on Post-Retirement Needs and Risks?

Over the last five years, I have enjoyed presenting the research of the SOA Committee on Post-Retirement Needs and Risks to a variety of organizations including investment professionals, financial planners, human resource professionals, government regulators, attorneys, accountants and actuaries. I have also been able to present testimony based on our research to the Department of Labor ERISA Advisory Council to help inform them on specific projects. Most often the interest in our research begins based on professional learning and the ability to apply the material in people's working lives. However, often the research hits a note with people on a personal level and I find them inquiring about more individual issues and concerns.

What do you think the significance of this work is for the public and why?

The significance of the research is that we actually provide feedback from pre-retirees and retirees in a manner that is unique and informative. We often find the initial feedback in



one project leads the committee to move the research forward to better understand an anomaly discovered in earlier research. Therefore, the body of work produced by the committee over 20 years builds upon all prior research to produce a more complete picture of how people are handling risks and satisfying their needs in retirement.

Another significant part of the research is the professionals working together on the projects. Our committed group of volunteers of interested parties and members on the committee are from a widely dispersed field of interest in retirement issues. This diversity often brings spirited discussions but has guided the material to a broader focus on the retirement issues. In addition, I have grown and learned much from the exposure to these professionals and their knowledge in areas I may have not considered otherwise.

What are some of the most important parts of the work for the public? How can the work be accessed?

Recently, the committee moved into research focused on the information and communications needed for an individual to make decisions in retirement. Our consumer-focused research interests me due to my personal concern with the level of financial literacy and ability to manage retirement assets as the industry continues to move to accumulation of assets rather than pensions in the retirement portfolio. The consumer research has expanded into 12 Decision Briefs on Managing Retirement Decisions,¹ four Age Wise Infographics on Longevity,² a Guide on Retirement Literacy³ and a Risk Chart that outlines many risks faced in retirement and some strategies for managing them. These materials are well received by the audience when presented at my various speaking engagements and are readily available for distribution on the committee's website.

How can people get involved?

I always encourage distributing the material to other interested parties—clients, employees, family and friends—to make others aware of the retirement needs and risks. Use the material when appropriate in presentations to decision makers and regulators to help inform their decisions. The committee makes certain presentations available for your use, providing proper credit is given to the SOA. Assist clients and human resource professionals to understand the issues and develop employee programs that build long-term retirement security. If you are interested in getting involved in the committee and our research more directly, then please contact Anna Rappaport or me. ■



Carol Bogosian, ASA, is a pension actuary, a member of the committee's steering group, and a recent member of the Retirement (Pension) Section Council.

ENDNOTES

- 1 <https://www.soa.org/research-reports/2012/research-managing-retirement-decisions/>
- 2 <https://www.soa.org/research/age-wise/>
- 3 <https://www.soa.org/resources/research-reports/2017/2017-retirement-literacy/>



Section Membership Pays for Itself

With 20 sections to choose from, you're bound to find one that covers topics related to your current position or future interests.

New in 2018, sections members will get \$25 off most webcasts that are sponsored by their section!

Section Benefits



Join a section today
Visit SOA.org/Sections



AUGUST 23, 2017

Written Statement On Mandated Disclosure for Retirement Plans—Enhancing Effectiveness for Participants and Sponsors

By Carol A. Bogosian, ASA

Editor's Note: The RSN has decided to reprint the presentation Carol Bogosian made to the ERISA Advisory Council. This statement aimed at giving observation to the council on some of the research sponsored by the SOA.

On behalf of the Society of Actuaries (SOA) and myself, I would like to thank you for the opportunity to present observations from research sponsored by the SOA. The following is a summary of the research conducted with pre-retirees and retirees on their perception and management of risks in retirement. The information is presented to inform the ERISA Advisory Council on their review of “Mandated Disclosure for Retirement Plans—Enhancing Effectiveness for Participants and Sponsors.”

SOA POST-RETIREMENT NEEDS AND RISKS RESEARCH

The SOA Committee on Post-Retirement Needs and Risks (CPRNR) has been working for nearly 20 years to identify and understand the way Americans manage their finances post-retirement. This work includes eight biennial surveys of the public's knowledge and perceptions about post-retirement needs and risk management. A major finding from this work is that planning often tends to be short term and cash flow focused, and that many people do not focus on risk or plan for shocks.

In 2015, the SOA-sponsored retirement risk research consisted of three components: a Survey of Post-Retirement Risk and the Process of Retirement (surveying U.S. pre-retirees and retirees),

focus groups looking at experiences of U.S. and Canadian individuals who had been retired 15 years or more and were resource constrained in the amount of assets and regular income they had in retirement, and in-depth interviews with caregivers of people who need substantial care and would not have generally fit into the focus group population.

In 2013, the SOA sponsored a series of focus groups with people who had retired in the prior 10 years and who self-described they chose to retire (i.e., not forced to retire due to health, disability or job loss) and were resource constrained in the amount of assets and regular income they had in retirement. The study discovered a lack of planning and a general tendency to adjust to events as they occur.

The research of the CPRNR can be obtained from the SOA website at <https://www.soa.org/research/topics/research-post-retirement-needs-and-risks/>. The research findings presented in this article are taken from reports found in the tab for Retirement Risk Survey Series.

FINDINGS FROM THE RESEARCH

When people are planning for retirement, many risks in retirement must be considered. Three key items that are basic to retirement planning are to plan for a long time horizon (i.e., to end of life), to consider daily expenses along with other non-daily expenses that will most likely occur, and to have sufficient assets and income to cover these items. Based on the survey and personal responses in interviews and focus groups, the research documented the following items of concern:

- Planning for retirement is short term and cash-flow focused:
 - Three top concerns consistently appear, namely, inflation, health care expenses and long-term care expenses—although planning for these is not necessarily considered.
 - Retirees retired at a median age 60, but pre-retirees expect to retire at a median age 65—creating a gap in knowledge between the groups.
 - Planning horizons of a median 10 years are short for a retiree’s potential longevity.
 - Risk management strategies for retirees are to reduce their spending, increase their savings and pay off debt.
- Financial shocks and unexpected expenses are not fully considered in their planning:
 - Home repairs and major dental expenses are unexpected expenses most mentioned—both of which could be expected.
 - The rising costs of housing, especially taxes and upkeep, are also mentioned.
 - Multiple shocks accumulate to a bigger problem than a single shock—the effect of shocks may take time before they create a crisis in living standards.
 - Due to financial shocks, the research indicates:
 - o Assets were significantly reduced for one-third of the retirees.
 - o Spending was significantly reduced for one-tenth of the retirees.
 - Very few have emergency funds set aside for unexpected expenses:
 - o About one-fifth could not spend more than \$1,000 without harming their security.
- Retirees are resilient:
 - At least three-fourths of retirees were able to manage somewhat in their new financial constraints.
 - Long-term care and divorce were shocks that caused the most significant issue.
 - Children needing longer-term support was also a major issue.
- They do not want to spend down their assets—spending their Required Minimum Distributions was not considered spending down their assets.
- They adjust to events as they occur and reduce spending if needed to preserve assets.

DEFICIENCIES RETIREES ARE FACING

Retirees may hold some misperceptions about retirement security. A decline in their cognitive abilities as they age may serve to complicate these misperceptions and the issue of retirement security more. The SOA-sponsored research on this topic indicates there are gaps in knowledge and is summarized as follows:

- Retirees may save too little before retiring and create the need to rely more on Social Security.
- Retirees may underestimate how much money is needed for retirement. Often retirees conduct very little or ineffective analysis of their finances before deciding to retire.
- Retirees may underestimate their longevity and plan for a shorter time horizon than their expected lifetime. Thus they risk living longer than they planned and a potential crisis in their living standard later in life.
- Most retirees are self-insuring for a long life. They do not purchase annuities to protect their income, or insure, or consider the costs of living assistance and long-term care.
- Many retirees do not fully plan for income and expenses throughout their retirement in one or more of the following ways:
 - Only basic living costs are fully considered and inflation may not be included in their planning.
 - Emergency funds are lacking and unexpected expenses may not be included in their planning.
 - Reliance on Social Security plus Minimum Required Distributions becomes their default income plan.
 - While they desire to preserve their assets, they do not have a real plan in place to do so.
 - Some are spending retirement assets on children and grandchildren without considering their own long-term needs.
- Many do not have the financial literacy to handle managing finances over the long term:
 - Many lack an understanding of investing for income over long periods of time, and many retirees lack basic math skills to understand investing concepts.
 - Many lack understanding of asset allocation and investment risks.
 - Many lack a basic understanding of annuity products and the annuity marketplace.

HOW RETIREES MAKE DECISIONS

As mentioned previously, retirees are resilient and attempt to manage within their financial constraints. Some of the ways they manage are:

- They carefully manage regular expenses—many considered themselves to be thrifty and frugal and manage to their “needs” more than their “wants.”
- They attempt to live from regular income (annuities, Social Security and investment income) and spend their Required Minimum Distributions.

EFFECT ON EMPLOYEE COMMUNICATIONS AND DISCLOSURES

The views and opinions expressed in this section are based on my own perspective only and are not statements of nor endorsed by the SOA as a whole.

Based on my experience, the following are some ideas that I personally have to aid employers and regulators in designing employee communication programs and plan disclosures.

- The material needs to be part of a broader approach to financial wellness. In designing and positioning the material, employers could:
 - Position the SPD and other employee communication as part of financial wellness education
 - Improve the financial analysis of people before they choose to retire, to allow for them to better plan and prepare for retirement
 - Consider the level of knowledge and misperceptions of the intended audience—documents written in a manner that alludes their level of knowledge are ineffective and similar to reading in a foreign language
- Plan material should emphasize the benefits claiming decisions with the intentions of making people think more about how and when they are choosing their benefits:
 - Consider education on Social Security and benefit claiming options
 - Educate on need for reliable income in retirement and annuities as an option

- Communications should encourage long-term planning:
 - Emphasize the need to start saving early and increasing saving over time
 - Integrate other monies held by participants into the planning process
 - Discuss longevity and planning for a longer horizon
- Communication should encourage people to set aside emergency funds beyond saving for retirement:
 - Educate on the effects on retirement income of borrowing from their retirement assets
 - Educate on the effects on retirement income of withdrawing and spending their retirement assets

I encourage you to review this research and am available to discuss this information and to assist you in locating other information from the CPRNR research. ■

Carol A. Bogosian, ASA
President, CAB Consulting

The ERISA Advisory Council on Employee Welfare and Pension Benefit Plans is an advisory council to the Secretary of the U.S. Department of Labor (DOL). The council provides recommendations with regard to the Secretary's functions under ERISA, the major U.S. federal legislation governing employee benefit plans. Council members are selected from the public and they seek input from a wide variety of stakeholders on issues of importance to the Department.



SOCIETY OF ACTUARIES®

475 N. Martingale Road, Suite 600
Schaumburg, Illinois 60173
p: 847.706.3500 f: 847.706.3599
w: www.soa.org

NONPROFIT
ORGANIZATION
U.S. POSTAGE
PAID
SAINT JOSEPH, MI
PERMIT NO. 263

