

November 2012, Issue No. 78



**IN THIS ISSUE**

[Chairperson's Corner](#)

[Notes from the Editor](#)

[A View from the SOA's  
Staff Fellow for  
Retirement](#)

[Perspectives from Anna:  
Retirement and Financial  
Advice – What I Heard At  
Two Recent Meetings](#)

[Interesting New  
Resources for Pension  
Actuaries](#)

[Impact of Running Out of  
Money Roundtable: Ideas  
Provided by Joe  
Tomlinson](#)

[A Dialogue with Long-  
Term Pension Actuaries](#)

[GASB Approves New  
Accounting Standards for  
Public Sector Pension  
Plans and Sponsoring  
Employers](#)

[Volatility Management in  
Pension and Retiree  
Health Plan Actuarial](#)

---

CHAIRPERSON'S CORNER

The Pension Section continues to provide significant research of value to pension actuaries. Congratulations to new Pension Section Council members.

[Full Article](#)

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NOTES FROM THE EDITOR

Thanks to authors and check out the Pension Section subgroup on the SOA LinkedIn group.

[Full Article](#)

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A VIEW FROM THE SOA'S STAFF FELLOW FOR RETIREMENT

New projection Scale BB, mortality resources, and longevity issues are discussed.

[Full Article](#)

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PERSPECTIVES FROM ANNA: RETIREMENT AND FINANCIAL  
ADVICE – WHAT I HEARD AT TWO RECENT MEETINGS

Anna Rappaport provides insights to the Pension Research Council symposium on retirement advice and the Financial Planning Association Retreat.

[Full Article](#)

---

INTERESTING NEW RESOURCES FOR PENSION ACTUARIES

[Valuations](#)

[Dilbert Cartoon](#)

[Print Version](#)

**LINKS**



[SOA Pension  
Section Web Page](#)



[20 / 20 Web site](#)



[Contact the Editor](#)



[Calendar of Events](#)

Resources mentioned include retirement security for women, importance of defined benefit plans, and income for life.

[Full Article](#)

---

IMPACT OF RUNNING OUT OF MONEY ROUNDTABLE: IDEAS PROVIDED BY JOE TOMLINSON

Joe Tomlinson provides insights on this issue.

[Full Article](#)

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A DIALOGUE WITH LONG-TERM PENSION ACTUARIES

Anna Rappaport moderated an interview with three prominent actuaries. You will find this interview very interesting.

[Full Article](#)

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GASB APPROVES NEW ACCOUNTING STANDARDS FOR PUBLIC SECTOR PENSION PLANS AND SPONSORING EMPLOYERS

Significant changes coming in public plan accounting. Even if you do not practice in this area, you may want to be current on the concepts.

[Full Article](#)

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VOLATILITY MANAGEMENT IN PENSION AND RETIREE HEALTH PLAN ACTUARIAL VALUATIONS

Richard Joss reviews seven papers included in a single monograph.

[Full Article](#)

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DILBERT CARTOON

Check out Dogbert's retirement planning service.

[Full Article](#)

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PRINT VERSION

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[Full Article](#)

November 2012, Issue No. 78



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Print-Friendly  
NewsletterSearch  
Back issues**IN THIS ISSUE**[Chairperson's Corner](#)[Notes from the Editor](#)[A View from the SOA's  
Staff Fellow for  
Retirement](#)[Perspectives from Anna:  
Retirement and Financial  
Advice – What I Heard At  
Two Recent Meetings](#)[Interesting New  
Resources for Pension  
Actuaries](#)[Impact of Running Out of  
Money Roundtable: Ideas  
Provided by Joe  
Tomlinson](#)[A Dialogue with Long-  
Term Pension Actuaries](#)[GASB Approves New  
Accounting Standards for  
Public Sector Pension  
Plans and Sponsoring  
Employers](#)[Volatility Management in  
Pension and Retiree  
Health Plan Actuarial](#)**CHAIRPERSON'S CORNER***By Penny Bailey*

As my term on the Pension Section Council draws to a close, I am especially thankful for the opportunity to serve in this role. It has been a role that has allowed me to expand my horizons, meet and network with some extremely talented individuals in our profession, and contribute in some small way to the ongoing work of the Pension Section and the Society of Actuaries (SOA).

I mentioned in my first article as chairperson of the council that much of the work of the SOA and the Pension Section Council is carried out by volunteers. I have been asked on several occasions about why I had taken on this role and whether I thought it was worth it. Clearly all of us have had moments when we've been spread too thin, and it is difficult to find the energy and time to take on additional projects. However, no matter how hectic my work and home life have been, my answer is always, unequivocally, that it has been worth it.

So if you've ever considered volunteering with the SOA, I strongly encourage it. If you want to know what you get out of the experience, I would say there are a number of things. We often get so caught up in our day-to-day jobs and in the perspective of our particular employer that we aren't challenged to think outside the box. Participating in the Pension Section Council has given me exposure to many different views on diverse topics. In addition to different views, I would also say that they are broader perspectives. The Pension Section is focused not only on what impacts us in our daily work, but on issues that will impact the profession far into the future. For example, take plan terminations. The Pension Section has sponsored education and research on the topic that covers not only the mechanics of how to complete a termination, but also understanding how annuities are priced, and exploring if the bond supply is adequate to support de-risking strategies.

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Section Web Page](#)[20 / 20 Web site](#)[Contact the Editor](#)[Calendar of Events](#)

I continue to be in awe of the volume and quality of research that is produced by the Pension Section, again by an army of volunteers. Prior to my tenure on the council, I can honestly say that I was completely unaware of the importance and depth of this research. I suspect a number of you reading this article are in a similar position. The research that is completed has relevance to everything I do in my job. I find it phenomenally helpful in discussions with my clients. Through my work on the council, I've not only become exposed to the research, but have had a say in shaping some future projects.

One example of recently completed research is the "Pension Valuation Methods and Assumptions" report. This report contains matrices comparing the guidelines for assumptions and methods used to prepare actuarial valuations for retirement plans in the United States and Canada. The goal is to highlight the differences between pension liability calculations based on geography (Canada and the United States), valuation purpose (accounting, solvency and funding) and plan type (private, municipal, federal and Social Security). As a consultant, this report can be helpful in training new analysts, brushing up on an area of practice that you may not deal with frequently, or helping clients understand the various liabilities we use and their purpose.

Not everyone is going to be willing to commit to serve a Pension Section Council term. However, there are lots of other ways to volunteer to help with the Pension Section activities. You could consider serving on one of the Pension Section committees—Research, Education or Communication—or helping with individual projects of limited duration. We received responses from numerous members volunteering to assist with the section's work in our recent survey. We are currently working through the best way to make use of the new talent and will be getting back to everyone shortly.

I want to especially thank our candidates for the Pension Section Council this year. The following individuals volunteered to serve in this capacity if they were elected:

- Carol Bogosian
- Monica Dragut
- David Kausch
- Martin McCaulay
- Joseph Tomlinson
- Aaron Weindling

We greatly appreciate their willingness to participate and shape the Pension Section. Monica Dragut, Aaron Weindling and Martin McCaulay will begin new three-year terms in October, and Carol Bogosian will serve

a one-year term.

All in all, participating in the Pension Section activities has helped improve my skills as an actuary, as a consultant and as a leader. I hope each of you can find some time in your career to volunteer and perhaps expand your own horizons, and I thank you for this opportunity to serve as chairperson of the Pension Section.

*Penny A. Bailey, FSA, EA, MAAA, is chairperson of the Pension Section Council for 2012. She is a partner with Mercer in St. Louis, Mo. She can be reached at [penny.bailey@mercer.com](mailto:penny.bailey@mercer.com).*



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November 2012, Issue No. 78



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Back issues**IN THIS ISSUE**[Chairperson's Corner](#)[Notes from the Editor](#)[A View from the SOA's  
Staff Fellow for  
Retirement](#)[Perspectives from Anna:  
Retirement and Financial  
Advice – What I Heard At  
Two Recent Meetings](#)[Interesting New  
Resources for Pension  
Actuaries](#)[Impact of Running Out of  
Money Roundtable: Ideas  
Provided by Joe  
Tomlinson](#)[A Dialogue with Long-  
Term Pension Actuaries](#)[GASB Approves New  
Accounting Standards for  
Public Sector Pension  
Plans and Sponsoring  
Employers](#)[Volatility Management in  
Pension and Retiree  
Health Plan Actuarial](#)

## NOTES FROM THE EDITOR

*By Raymond Berry*

A variety of articles are included in this issue, as usual. All of them should be of interest to you.

For one article, we interviewed three long-term, successful, pension actuaries. Candid answers were provided on topics such as personal traits responsible for their success and advice to young actuaries entering the retirement practice area. Sample comments:

- One actuary, after retiring from his primary career, is obtaining a doctorate in economics.
- Another recommends college students take a course in business writing, not creative writing, if such a course is available.
- Another recommends we all focus on international retirement issues, not limiting ourselves to issues in Canada and the United States.

Other topics include financial advice, resources for actuaries, running out of money, a summary of the recently released GASB statements and “Dogbert’s Retirement Planning Service.”

Are you on LinkedIn? If so, please be sure to join the Pension Section subgroup, which is part of the SOA group, and post an article, a link to an article, or a comment or question. Respond to another’s post. This is a great way to connect with other Pension Section members of the SOA.

If you were not able to attend the SOA annual meeting this year, be sure to search for the handouts, which will be posted on the SOA website. Retirement security was one topic presented.

Thanks to all the authors for their contributions to this issue.

[Valuations](#)

[Dilbert Cartoon](#)

[Print Version](#)

#### LINKS



[SOA Pension  
Section Web Page](#)



[20 / 20 Web site](#)



[Contact the Editor](#)



[Calendar of Events](#)

Please send us any articles that you feel may be of interest to others in the Pension Section.

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November 2012, Issue No. 78



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NewsletterSearch  
Back issues

### IN THIS ISSUE

[Chairperson's Corner](#)

[Notes from the Editor](#)

[A View from the SOA's  
Staff Fellow for  
Retirement](#)

[Perspectives from Anna:  
Retirement and Financial  
Advice – What I Heard At  
Two Recent Meetings](#)

[Interesting New  
Resources for Pension  
Actuaries](#)

[Impact of Running Out of  
Money Roundtable: Ideas  
Provided by Joe  
Tomlinson](#)

[A Dialogue with Long-  
Term Pension Actuaries](#)

[GASB Approves New  
Accounting Standards for  
Public Sector Pension  
Plans and Sponsoring  
Employers](#)

[Volatility Management in  
Pension and Retiree  
Health Plan Actuarial](#)

## A VIEW FROM THE SOA'S STAFF FELLOW FOR RETIREMENT

*By Andrew Peterson*

A key theme for the SOA Pension Section over the last year has been mortality improvement and longevity-related topics. In fact I have touched on this topic in both my prior 2012 *Pension Section News (PSN)* columns and will continue to do so for this one.

In the June 2012 PSN we had an article highlighting the new Scale BB Mortality Improvement exposure draft report. The SOA's Retirement Plans Experience Committee (RPEC) has since finalized the [report](#) and it is available on our website. As a reminder, Scale BB has been developed as an interim mortality-improvement scale that may be used by pension actuaries until a formal successor to the widely used improvement scale, Scale AA, is completed. In addition, an updated and expanded [question and answer document](#) (Q&A) is available. The Q&A contains additional background information on the development, application and impact of Scale BB. Finally, thanks to everyone who sent in comments on the Scale BB exposure draft; a summary of the comments and [RPEC's response to them](#) can be found on the SOA website. (If you have trouble with the hyperlinks, the documents can be found at [www.SOA.org](http://www.SOA.org) under Research -> Completed Experience Studies -> Pension)

Another reminder: the Pension Section has developed a mortality resources page on the SOA website that provides a wealth of information on mortality topics. It's an easy to remember Web link: [www.SOA.org/pension-mortality](http://www.SOA.org/pension-mortality). The page is organized topically and includes sections on mortality tables, surveys/introductory articles, mortality models, p-splines/smoothing (for the more technically oriented) and much more. I invite you to check it out, and I also invite submissions of new items to add, as there are constantly new articles and items of research in this area.

[Valuations](#)[Dilbert Cartoon](#)[Print Version](#)**LINKS**[SOA Pension  
Section Web Page](#)[20 / 20 Web site](#)[Contact the Editor](#)[Calendar of Events](#)

Finally, continuing with the longevity topic, I was recently privileged to attend the “Longevity Eight” conference, an international event covering “Longevity Risk and Capital Markets Solutions,” hosted by the University of Waterloo, Ontario, Canada. This event was an interesting mix of industry and academic experts in the field of longevity research and the capital market products that are being designed to manage longevity risk. There was a strong actuarial presence at the event, given our view of the importance of this work, the SOA was a gold sponsor.

The most interesting aspect of the event for me was hearing how the longevity risk market has developed in the United Kingdom (U.K.) and how the products being used there (e.g. like buy-outs, buy-ins and longevity swaps) are now making their way to the North American market. Several of the conference speakers talked about how the U.K. longevity market took off when the participants in the market (plan sponsors, plan trustees and providers) came to a common understanding of the price of mortality risk. This common understanding of pricing has resulted in a market where discussions are focused on the efficacy of managing/transferring longevity risk versus the basic issue of the appropriate price.

From my perspective, I don’t believe the North American market is at this point yet, but it appears to be moving in this direction. The recent announcements by GM, Sears and several other large companies to buy annuities for their participants points in this direction. I expect we will be hearing much more about this in the future and the Pension Section will be seeking to cover this topic through our research and continuing education efforts. If you have interest in reviewing presentations from the Longevity Eight conference, they can be [found here](#).

*Andrew Peterson, FSA, MAAA, EA, is staff fellow – Retirement Systems at the Society of Actuaries’ headquarters in Schaumburg, Ill. He can be reached at [apeterson@soa.org](mailto:apeterson@soa.org).*

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November 2012, Issue No. 78



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Print-Friendly  
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Back issues**IN THIS ISSUE**[Chairperson's Corner](#)[Notes from the Editor](#)[A View from the SOA's  
Staff Fellow for  
Retirement](#)[Perspectives from Anna:  
Retirement and Financial  
Advice – What I Heard At  
Two Recent Meetings](#)[Interesting New  
Resources for Pension  
Actuaries](#)[Impact of Running Out of  
Money Roundtable: Ideas  
Provided by Joe  
Tomlinson](#)[A Dialogue with Long-  
Term Pension Actuaries](#)[GASB Approves New  
Accounting Standards for  
Public Sector Pension  
Plans and Sponsoring  
Employers](#)[Volatility Management in  
Pension and Retiree  
Health Plan Actuarial](#)**PERSPECTIVES FROM ANNA: RETIREMENT AND FINANCIAL ADVICE – WHAT I HEARD AT TWO RECENT MEETINGS***By Anna M. Rappaport*

The 2012 Pension Research Council Symposium at the Wharton School focused on “The Market for Retirement Financial Advice.” This topic is outside of my usual area of work, but I found the meeting to be of great interest. Just after that meeting, I attended my second Financial Planning Association (FPA) Retreat. I again found that the group was very hospitable and welcoming. That meeting also focused on advice, in particular on a number of technical and practice management ideas, and on the future. In this “Perspectives,” I will focus on what I found most interesting at both of these meetings and how the themes weave together.

(The Pension Research Council will be posting presentations at <http://www.pensionresearchcouncil.org/conferences/conf-2012.php>.)

**Context and Different Ways that Advice Is Provided and Regulated**

Retirement savings are located in pension plans, individual retirement accounts (IRAs) and other personal savings. In thinking about retirement resources, it is also important to consider housing values and human capital. My view is that the employer is important in savings—many people would not save without an employer plan, or if they did, they would often save less than they do today. Major portions of American retirement assets are in IRAs, but much of that money came through roll-overs, so the original savings were in employer plans.

The population falls along a wealth spectrum. At the lower end of the spectrum, people have only social insurance benefits, and the private advice market does not serve them. At the higher end, people are mainly concerned about managing and preserving their assets, estate planning,

[Valuations](#)[Dilbert Cartoon](#)[Print Version](#)**LINKS**[SOA Pension  
Section Web Page](#)[20 / 20 Web site](#)[Contact the Editor](#)[Calendar of Events](#)

etc. While many advisors prefer to work in that space, the advice provided is usually not heavily focused on retirement, so that is not where my main interests lie. Instead, I am most focused on the middle market, a group that is underserved by financial advisors.

There are different ways that advice is provided:

- Directly to the individual who hires the advisor: Most of the Pension Research Council papers dealt with this topic. The FPA Retreat dealt primarily with advice delivered one-on-one.
- A variation on this theme is for the advisor to be linked to a mutual fund or financial service company. The individual with assets in the mutual fund of more than a minimum amount has access to the advice and planning services offered by the fund company.
- Through the employer, either using a service with an automated organized process or by hiring individual advisors. The Pension Research Council papers by Jason Scott, and by John A. Turner and Dana M. Muir, addressed employer-provided or sponsored advice.

Note that in ERISA plans (a subset of all employer-based plans), when the employer provides the advice, there are additional legal issues to be considered, and a different regulatory structure.

There are several different types of business and regulatory models in the individual advice market. For a good overview, see Exhibits I and II in the Pension Research Council paper authored by Jason Bromberg and Alicia Puente Cackley of the Government Accountability Office (GAO). The three main types of advisor relationships described there include:

- Investment advisor—subject to fiduciary standard set forth in Investment Advisers Act of 1940 and regulated by the Securities and Exchange Commission (SEC) and states. Regulations regarding “standard of care” require that the advisor has an affirmative duty to render services solely in the best interest of clients, and it requires advisors to disclose material conflicts of interest.
- Broker-dealer—subject to suitability standard and regulated by the Securities and Exchange Act of 1934, rules of the SEC and the Financial Industry Regulatory Authority (FINRA), and individual states.
- Insurance agent—subject to different suitability standards and regulated by state insurance departments.

The fiduciary standard applied to individual advisors requires that the advisor act in the best interest of clients. At the FPA Retreat, I heard discussion favoring the general applicability of such a standard. The

business model of the investment advisor generally calls for payment in the form of a percentage of assets under management, or fees set as a retainer or on an hourly or project basis. By contrast, broker-dealers and insurance agents are generally paid commissions. Some firms may serve in both roles. Some investment advisors and representatives of brokerage firms are salaried.

#### Two Different Ways of Promoting Action—Structural vs. Active Guidance

There are two very different ways of providing “messages” that guide action: one uses system structure and architecture, and the other focuses on personal interaction (structural guidance vs. active guidance or advice).

In a defined-contribution (DC) world, defaults and choices are very important, and the role of advice is very different depending on defaults and plan choices provided. This is extremely important in employer plans. System architecture and structural guidance set up the background for active guidance and advice. “Doing things” for people is often viewed as more effective than educating them. Managed accounts, defaults and target date funds are examples of methods of “doing things” for people. They are a form of structural guidance.

The Pension Research Council discussions focused more on active guidance and advice, but employers often seek to offer structural guidance. Hence advice is more of an add-on, providing support to help participants use the system well. The Kelli Hueler and Anna Rappaport paper presented at the Pension Research Council focused on both forms of guidance.

At the FPA Retreat, there was discussion on the future of technology and on serving the middle market. In both of these discussions, there was focus on structural guidance and on system architecture. The strong message that I heard is that we can expect a shift to much more structural guidance in the future.

#### Issues that Arise as We Think About Advice

There are many different educational programs and designations for those who give financial advice, as well as multiple regulatory systems and roles.

Advisors may be salaried or paid as percentage of assets under management, a retainer, commissions, a project fee or an hourly rate, among other arrangements. Concerns raised in the Pension Research Council discussion included conflicts of interest and lack of transparency.

The legal system uses various methods to mitigate conflicts of interest, including disclosure, prohibiting specified actions and imposing fiduciary duty. These are detailed in the Turner and Muir paper. The legal system is evolving, and there is a lot of controversy about the best regulatory structure for the future.

All of this can be very confusing to the consumer.

#### Different Views

The Pension Research Council paper writers offered widely divergent views on how successfully the system is working today. Several authors pointed out concerns about conflicts of interest, consumer confusion and financial literacy. It appears that much advice is focused on investments, while other issues are equally or more important for the middle market. Decisions related to retirement vary by life stage, and are different during accumulation vs. the period of using funds. The paper by Alicia H. Munnell, Natalia Sergejevna Orlova and Anthony Webb focused on some of the most important decisions, and pointed out that working longer and time of Social Security claiming are very important for retirement success. The Society of Actuaries (SOA), in its "Decision Briefs," highlights issues of importance in the middle market.

There were also several papers on evaluating the effectiveness of financial planning, showing rather mixed results. At the FPA meeting, the focus on implementation included a discussion of the fact that advice that is not implemented is not effective. One of the participants in the middle market focus groups pointed out that his firm uses client meetings, not just to discuss what to do, but to actually do it. For example, if the topic is 401(k) asset allocation, they do the re-allocation in the meeting. If the topic is how to enter data, they enter some of the data.

At the Pension Research Council, there was discussion of how to build a well-functioning system. The study by Andreas Hackethal and Roman Inderst offered ideas for expanding transparency and competition. This paper was written from an international perspective and showed that there are parallel issues in many jurisdictions. The Hueler and Rappaport paper provided an illustration of the range of competitive quotes in annuity bidding, and showed how valuable competitive bidding is. The relative positioning of carriers varies from bid to bid, and the spread between high and low can be considerable.

#### Four Types of "Intellectual Frameworks" that Underlie Advice

A Pension Research Council paper by Paula Hogan and Rick Miller sets

forth four different frameworks for planning:

- Traditional—Accounting/Budgeting/Modern Portfolio Theory
- Rational—Life Cycle Theory of Investing
- Behavioral—Prospect Theory and Family
- Advisor Experience—Life in the Trenches.

These authors noted that the scope of what the advisor does varies depending on the model. Moreover, the traditional model is focused on investment advice and purchase of financial products; a life cycle approach focuses heavily on human capital; and the advisor experience model adds specific focus on a wide variety of life decisions going beyond investment, financial products and human capital. The authors position risk in each of these. For more information on this topic, look at the paper. It will be available on the Pension Research Council website.

#### Focus Groups on the Middle Market

During the FPA Retreat, focus groups were held to understand how planners approach the middle market. The focus groups were jointly sponsored by the FPA, the SOA and the International Foundation for Retirement Education (InFRE). I was very pleased to be able to represent the SOA at the focus groups. The groups included planners who serve the middle market, some of whom have found successful ways to service this market. Others preferred to limit their practice to higher-net-worth people.

Some of the highlights of the focus group discussion included the following:

- Organized and efficient processes are needed for success in this market.
- For this group, planning is more about cash flow and debt management than about asset accumulation.
- Planners differed in their business models. Some charge a flat fee per service; some a retainer; some rely on commissions; and some charge by the hour. Generally, the client will know in advance what to expect for a fee.
- Some middle market clients will build assets and grow into higher-net-worth clients.
- Middle market clients nearing retirement have different decisions to make than higher-net-worth clients.
- Middle market clients generally need insurance.
- Some firms try to match newer planners who have recently joined the firm with middle market clients.
- Newer software allows clients to enter their data, and allows processes where the planner and client can both see the data.
- “Big book” plans are not needed for this group of clients.

It was noted that technology will be very important in the future and that many of the questions and problems these clients face can be solved without extensive research. A full report of the focus groups is to be published later this year.

#### More Ideas

Trust was a major theme of the FPA Retreat. In the opening session, Margaret Heffernan focused on how we think about trust, and how we might rethink making trust work well in the planning relationship. She pointed out that some people are too trusting, leading them to blindly accept what they hear from a trusted source, rather than thinking about it critically. She also pointed out the herd instinct and the danger of following what others do without thinking it through and how it can lead to many mistakes. She suggested the need to frame the relationship so that the advisor and client become “thinking partners” and work together to think through solutions and evaluate them. It seems to me that the idea of “thinking partners” can be applied well in many types of consulting relationships. Heffernan is the author of *Willful Blindness*.

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***Amazon.com's*** description of *Willful Blindness* says:

“Margaret Heffernan argues that the biggest threats and dangers we face are the ones we don't see—not because they're secret or invisible, but because we're willfully blind. A distinguished businesswoman and writer, she examines the phenomenon and traces its imprint in our private and working lives, and within governments and organizations, and asks: What makes us prefer ignorance? What are we so afraid of? Why do some people see more than others? And how can we change?”

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Behavioral finance and how people understand information and make decisions is a key issue. In both meetings there was quite a lot of focus on understanding the way people think about financial and planning issues, and how that affects planners and their clients.

The closing session of the FPA Retreat by Daylian Cain from Yale University discussed behavioral finance. He focused on framing, overconfidence and other ideas, and on how to understand how we think so as not to make mistakes. I was very interested in the focus on how we think and how to use that information to improve financial decision making and client/advisor relations, because actuaries also need to explore the implications of behavioral finance for our practice. Actuaries today must be aware of how to structure programs and build “nudges” into their design. The focus at the meeting seemed to me to be more about how to structure

the relationship, while taking into account recent research on how people behave. There were several sessions during the meeting focused on trust and effective relationship building.

Another theme was getting things done. Concern was raised that people get advice and walk away. Dr. Moira Somers talked about why change is hard, and how to get people to take action. She gave a number of tips to turn ideas into action. Some of the focus group discussion about the middle market also explored this idea.

The FPA Retreat discussions sought to bring together some of the diverse ideas underlying planning, similar to those articulated by Hogan and Miller at the Pension Research Council. The lifecycle and life in the trenches perspectives broaden the role of the planner to think about life planning, and not to be limited to financial matters. Several of the sessions focused on important life planning issues and how planners are incorporating them into their practices. Bonnie Bell is a career planner working within a planning firm and bringing career planning to the firm. Planners also discussed how they consider the nature of the career and stability of earnings, as well as expected future earnings in setting investment strategies and savings goals with clients. There were also sessions focused on planning needs later in life, including caregiving and health issues. This is useful given that SOA research shows that many people have too short a planning horizon. Lewis Walker talked about how he gets clients to focus on periods later in life. He draws a timeline starting with their current age, and then focuses on 10-year intervals, going to higher and higher ages. Walker and Maria Forbes discussed planning for caregiving and long-term care needs. They focused on using team building and management techniques where there are several people in the family to develop an integrated plan for caregiving. They discussed a situation where adult children in a family had to work together for 14 years to help their parents. I was quite impressed with the tools and techniques they use for team building and producing a better result in a difficult situation. Walker has a new book focusing on helping people plan for caregiving. End-of-life issues were also discussed by Susan Fox, a lawyer specializing in advanced directives. She discussed some of the issues in getting them right. These resources helped planners focus on how to find and use resources to provide or recommend more in-depth help on a variety of issues.

#### Future of Technology

Michael Kitces gave an outstanding presentation on the future of technology. That session focused on Blue Ocean Strategies—thinking about firms reinventing processes for a fraction of the cost. Such strategies permit quantum leaps and are not focused on incremental

changes.

Technology has changed planning in many different ways. Here are some examples:

- Some planning is offered totally online.
- Many planners have their clients enter their own data.
- Modern systems permit all of the information to be accessible to both planner and client.
- Meetings can be conducted in person or on the Internet or phone.
- Clients do not need to be in the same geographic area.
- Social networking influences the relationship building of younger clients.
- Technology companies are entering the planning business.
- Niches will grow.

#### An Uncertain Regulatory Future

Two sets of definitions/regulations define who is a fiduciary and set forth standards:

- Those that apply to individual Registered Investment Advisors—SEC
- Those that apply to ERISA plans—Department of Labor (DOL).

The Pension Research Council paper by Arthur B. Laby contrasted the standards that apply to the broker-dealer and the Registered Investment Advisor, and the past attempts to unify them and apply fiduciary standards to all of them. It offered a historical perspective and brought that picture up to date, but it omitted the insurance agent from the picture. It also mentioned the issue of ERISA fiduciary and the overlapping issues of ERISA fiduciary with the standards applied to advisors connected to individuals.

The Turner and Muir paper discussed fiduciary standards and brought in the role of the U.S. DOL. It explained the difference between rules that apply to qualified plans and individuals. It focused on fees, transparency and conflicts of interest, making it germane to this theme.

There have been numerous historical attempts to unify standards or change regulatory structures. While the Laby paper looked at unification of and extension of fiduciary standards, the work by Bromberg and Cackley set forth four alternative regulatory structures.

#### Conclusions

A key question for planners and those using their services is whether the

planner can help the client manage his assets, income and expenditures over the life cycle. Most advisors help with assets, and more are helping with broader issues.

In multiple jurisdictions, common themes can be found. Advice is needed, particularly by the middle class, but there are gaps in how well the market addresses the issues. Transparency, conflicts of interest and competition are issues in the design of systems that will enable individuals to get good information and advice affecting access to financial products and planning. The trend to DC plans makes this more important but does not solve the challenges. Employers continue to have an important role.

Structural guidance and advice should not be forgotten, as they offer promise to help simplify and streamline complex situations. Information and advice are important to actuaries, as they shape how successful the systems that we design will be.

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Back issues**IN THIS ISSUE**[Chairperson's Corner](#)[Notes from the Editor](#)[A View from the SOA's](#)[Staff Fellow for](#)[Retirement](#)[Perspectives from Anna:](#)[Retirement and Financial](#)[Advice – What I Heard At](#)[Two Recent Meetings](#)[Interesting New](#)[Resources for Pension](#)[Actuaries](#)[Impact of Running Out of](#)[Money Roundtable: Ideas](#)[Provided by Joe](#)[Tomlinson](#)[A Dialogue with Long-](#)[Term Pension Actuaries](#)[GASB Approves New](#)[Accounting Standards for](#)[Public Sector Pension](#)[Plans and Sponsoring](#)[Employers](#)[Volatility Management in](#)[Pension and Retiree](#)[Health Plan Actuarial](#)**INTERESTING NEW RESOURCES FOR PENSION ACTUARIES***By Anna M. Rappaport*

Several new books and reports provide interesting information for pension actuaries. This article discusses some of them with some key information.

**Retirement Security: Women Still Face Challenges**

This report from the Government Accountability Office (GAO Report GAO-12-699, July 2012) provides an up-to-date review of retirement security in the United States, and provides data comparing the situation for men and women. The report documents the shift from defined-benefit (DB) to defined-contribution (DC) plans. It reports that working women's access to employer-sponsored pensions has improved relative to men's, but also documents that there are still gaps. It provides DC plan access and participation data by race and gender. The report also looks at the composition of household income for Americans over age 65 by gender. Median income for men in 2010 was \$44,400 compared to \$33,200 for women. These amounts decline by age. For men, median household income was \$53,500 at ages 65-69, dropping to \$37,000 at age 80. For women, it was \$44,100 at ages 65-69, dropping to \$25,000 at ages 80 and over. By marital status, it was lowest for separated women, at \$21,500. In 2010, Social Security accounted for 50 percent of income for men and 54 percent for women. For men, DB pensions accounted for 22 percent of income and DC pensions for 2 percent. For women, the corresponding numbers are 20 percent and 1 percent. Major differences in the composition of income by marital status are also documented. Widows are most dependent on Social Security.

The GAO analyzed data from the Health and Retirement Survey (HRS) to estimate the effect of life events on household assets and income, separately for men and women. They showed the biggest impact from becoming divorced or separated after age 50, and the next most important

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Section Web Page](#)[20 / 20 Web site](#)[Contact the Editor](#)[Calendar of Events](#)

impact from being widowed. Women showed bigger declines in assets and income. They showed a 41 percent decline in household income and assets from being divorced or separated, a 32 percent decline in household assets from becoming widowed, and a 37 percent drop in household income from being widowed. Men had important impacts but fewer than women. Actuaries interested in demonstrating the impact of key risks may be particularly interested in that topic.

The report also reviews a number of policy options and proposals to improve retirement security. They are in the following groups:

- Proposals to expand use of existing tax incentives to save for retirement
- Proposals to expand eligibility and opportunities to accumulate Social Security credits
- Proposals to expand access to retirement savings and strengthen spousal protections
- Proposals to expand opportunities for saving later in life and delay Social Security benefit receipt
- Proposals to ensure lifetime income
- Proposals to ensure income adequacy.

This compilation of proposals reflects proposals made by many different groups and individuals. The GAO report states the proposal and makes an estimate of its potential impact on women. This is an excellent compilation of a range of proposals. This report provides an up-to-date review of the situation. For the full report, go to <http://www.gao.gov/products/GAO-12-699>.

#### The Pension Factor 2012: The Role of Defined Benefit Pensions in Reducing Elder Economic Hardships

Report from National Institute on Retirement Security, authored by Frank Porell and Diane Oakley, July 2012.

Many actuaries are very interested in preserving DB plans and in understanding where they stand. This report from the National Institute on Retirement Security provides an insight into how much income today's older Americans have from DB plans. It offers an analysis of persons age 60 or older with DB pension income in 1998, 2003, 2006 and 2010. It finds that the percentage of individuals with their own or a spouse's DB pension based on former employment dropped from 52 percent in 1998 to 43 percent in 2010. The median pension amount increased from \$11,657 in 1998 to \$14,403 in 2010. The mean pension amount increased from \$16,157 to \$20,493.

The report compares poverty rates among those older Americans with DB

pensions and those without DB pensions. Poverty rates in 2010 among those with their own or spouse's pension income are 1.7 percent compared to 15.5 percent among those with no DB income. The report also analyzes various forms of deprivation among Americans age 60 and over, and compares the situation between those with DB income and those without DB income. The analysis is based on Survey of Income and Program Participation (SIPP) data. For the full report and more research, go to [Nirsonline.org/](http://Nirsonline.org/).

***Money for Life***, by Steve Vernon

*Money for Life, How to Generate a Lifetime Retirement Paycheck from Your IRA and 401(k)* by Steve Vernon, FSA, is coming around Oct. 1, and it will be available on Amazon.com. There are a lot of things I like about this book. A complex set of technical issues has been translated into easy-to-understand language. The issues have been separated into a set of ideas that is actionable for the average person. The jargon has been stripped away, and there are analogies that help real people relate to the issues in the discussion, and trade-offs are explained clearly. The technical issues are separated and presented in Part Two for those who want to study them. I believe that the practical advice on implementation, provided from a neutral point of view, is a significant differentiator for this work. Vernon has done a wonderful job of explaining the options, providing information on implementation, and providing cautions about more expensive options. He has also written other books and is a regular contributor to CBS MoneyWatch. There is a wealth of retirement education information on his website. For more information, look at [RestofLife.com](http://RestofLife.com) or go to [Amazon.com](http://Amazon.com) for a copy of the book.

#### Income Replacement Ratios in the Health and Retirement Study

This article describes the income replacement ratio as a measure of retirement income adequacy and identifies several issues analysts must consider when calculating a replacement ratio. It provides insights into replacement ratios and different ways they have been calculated and used.

The author calculates actual replacement ratios for today's retirees, and the article presents the income replacement ratios experienced by participants in the original sample cohort of the HRS, who were born between 1931 and 1941. Replacement ratios are shown by the respondent's birth cohort, age when first classified as retired in the HRS, and preretirement income quartile. Median replacement ratios fall as the retirement period grows longer. The data presented is a good picture of where today's retirees stand.

The article is from *Social Security Bulletin*, vol. 72, no. 3, 2012. The author, Patrick J. Purcell, is with the Division of Policy Evaluation, Office of Research, Evaluation and Statistics, Office of Retirement and Disability Policy, Social Security Administration. For the full article, see [SSA.gov/policy/docs/ssb/v72n3/v72n3p37.html](http://SSA.gov/policy/docs/ssb/v72n3/v72n3p37.html).

#### Shifting Income Sources of the Aged

This article discusses the implications of pension trends for the measurement of retirement income. Traditional DB pensions, once a major source of retirement income, are increasingly giving way to tax-qualified DC plans and individual retirement accounts (IRAs). This trend is likely to continue among future retirees who have worked in the private sector. We conclude that the Census Bureau's Current Population Survey (CPS), one of the primary sources of income data, greatly underreports distributions from DC plans and IRAs, posing an increasing problem for measuring retirement income in the future. The CPS and other data sources need to revise their measures of retirement income to account for periodic (irregular) distributions from DC plans and IRAs.

*Social Security Bulletin*, vol. 72, no. 3, 2012. Authors are Chris E. Anguelov, Howard M. Iams and Patrick J. Purcell. For the full article, see [SSA.gov/policy/docs/ssb/v72n3/v72n3p59.html](http://SSA.gov/policy/docs/ssb/v72n3/v72n3p59.html).

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Back issues**IN THIS ISSUE**[Chairperson's Corner](#)[Notes from the Editor](#)[A View from the SOA's  
Staff Fellow for  
Retirement](#)[Perspectives from Anna:  
Retirement and Financial  
Advice – What I Heard At  
Two Recent Meetings](#)[Interesting New  
Resources for Pension  
Actuaries](#)[Impact of Running Out of  
Money Roundtable: Ideas  
Provided by Joe  
Tomlinson](#)[A Dialogue with Long-  
Term Pension Actuaries](#)[GASB Approves New  
Accounting Standards for  
Public Sector Pension  
Plans and Sponsoring  
Employers](#)[Volatility Management in  
Pension and Retiree  
Health Plan Actuarial](#)**IMPACT OF RUNNING OUT OF MONEY ROUNDTABLE:  
IDEAS PROVIDED BY JOE TOMLINSON***By Joe Tomlinson*

In March 2012, I participated in a Washington D.C. roundtable on the subject of the “Impact of Running Out of Money During Retirement.” The roundtable was sponsored by the Society of Actuaries, Urban Institute and the Women’s Institute for a Secure Retirement (WISER). Participants included actuaries, members of the academic community, individuals with a business interest in the retirement market, researchers and officials from government agencies, and researchers from “think tank” organizations.

The stated task for the roundtable was: To explore what we know about post-retirement pathways leading to and causes for retirees running out of money today, to identify added research needed, and to identify actions that can help individuals avoid that situation in the future.

A report on the roundtable will be made available later this year.

The general task for the group was broken down into 12 questions. Each participant was asked to submit information in advance, which was shared with the group and laid a basis for the conversation. I chose to address the following question, based on my experience as an actuary, financial planner and retirement researcher. This article shares the information I submitted and represents my opinion, and not the discussion of the group.

What alternative courses of action would have produced a better result?  
And how do we encourage people to take better courses of action?

This question relates to two different types of problems:

1. People who arrive at retirement without sufficient savings or other resources to support retirement.
2. People who have sufficient resources, but don't utilize them in the

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Section Web Page](#)[20 / 20 Web site](#)[Contact the Editor](#)[Calendar of Events](#)

best way, and run into problems.

Finding ways to cure the first problem has been much discussed, and certainly represents a challenge, given that middle class wages have remained stagnant in real terms for at least a generation. Households have coped by working longer hours, having both members of couples work, and by leveraging with credit cards and home equity. However, those sources of additional funds have been tapped out, so it is not surprising that, in the present environment, people are having a hard time saving enough for retirement.

But even those who do save enough face daunting challenges in making the best use of those savings to support retirement. In this article, I will concentrate on this issue.

It can be an overwhelming task to determine the best way to manage savings in order to fund a retirement over an uncertain lifetime. Even experienced financial planners disagree on such fundamental issues as:

- Safe withdrawal rates
- Methods of managing withdrawals—systematic withdrawals, separate management of required and discretionary expenses, or time-based segmentation (buckets)
- Asset allocation—stock-heavy for higher returns or bond-heavy to minimize volatility
- The use (or non-use) of annuity products.

However, despite this confusion among advisors (which should lessen over time as more research gets done), people planning for retirement can still benefit by getting advice from professionals. But then there's the question of how to go about obtaining advice that is of good quality, unbiased and reasonably priced. Unfortunately, if a person just uses the Internet or the yellow pages to look for advisors, there is a much better chance of being ripped off than of obtaining trustworthy advice. Combine this issue with the problem of cognitive decline as people age and the challenges loom even larger.

### Problems

These are some of the problems (in some cases overlapping):

- Middle-income individuals and couples, who need help the most, are underserved in a market where being a successful professional means moving to upscale clients.
- It is actually more challenging and complicated to do planning for people of ordinary means than for rich people. It could be said that it is easier to do retirement planning for Bill Gates than for

someone with \$250,000 in savings. Anna Rappaport has made the point that the retirement planning issues for low income vs. middle vs. rich are completely different. (The Retirement Income Industry Association—RIIA—uses a perhaps more useful categorization: underfunded, constrained and overfunded.) For the upscale market, accumulation planning and decumulation planning are not that different. For example, upscale clients have less need for products with guarantees—like annuities. They can get by with the same types of investments as in the accumulation phase. For the low- and middle-income families, the ballgame changes completely. It becomes a huge challenge to provide planning for middle-market clients that adequately recognizes individual needs, and does so in a cost-effective manner.

- The delivery of financial services provides many instances of market failure because of asymmetry of information—buyers vs. financial salespeople. (An example is that high-commission/high-priced annuity products sell much better than low-priced products.)
- Too often, in the middle market, the delivery of advice ends up being no more than the salesperson pushing his or her favorite product rather than providing a service that recognizes the needs of the individual buyer, and offers alternatives.
- Buyers come to the purchase of financial products with a whole host of cognitive biases that affect choices and decision making (see Daniel Kahneman's book, *Thinking, Fast and Slow*). Unfortunately, the financial services industry has not done very much to help people overcome these biases and make better decisions (too few examples of Richard Thaler's book, *Nudge in action*). There are far more examples of financial service companies exploiting the biases. The promotion of active investment management with higher costs and poorer performance than low-cost index funds is an example.
- From the perspective of the financial services industry, there is an excess of manufacturing capacity and a scarcity of productive salespeople. Insurers and investment companies often end up viewing the salesperson as their customer, and catering to the needs of the sales force. Attempts to introduce lower-cost delivery options are often thwarted by the power of the sales forces.

### Fixing the Problems

There are initiatives attempting to provide better retirement planning services, with a focus on middle-market needs: examples include Garrett Planning Network, Kent Smetters' Veritat, Kelli Hueler of Income Solutions® and her work with employer plans, services offered by Vanguard, Fidelity, Schwab, eTrade and TD Ameritrade. However, the needs are much greater than the initiatives can deal with. Also, for many of the initiatives, there is a bias favoring regular stock and bond

investments, so products with guarantees like annuities are not recommended.

There are a number of potential alternatives to consider that may address parts of these problems. Possibilities include:

- Doing more to encourage employers to provide advice services by removing liability barriers and possibly offering incentives. However, this may have more potential with large employers than with small employers.
- Providing tax subsidies for those using financial advice. Yale professor Robert Shiller has proposed this idea.
- Implementing innovative programs like the Security Plus Annuity—a program proposed by Pamela Perun and colleagues at the Aspen Institute's Initiative on Financial Security—that would utilize Social Security offices to both encourage optimal timing of Social Security claiming and offer add-on annuities as well.
- Perhaps considering a national program like the UK's NEST (National Employment Savings Trust), which will:
  - Offer a standardized and simplified menu of funds for employee retirement savings
  - Require contributions from employers, employees and the government (with automatic enrollment, but allowing opt-outs).

It is worth raising the question of whether a NEST-like program would be more effective than Auto-IRAs proposed by the current administration. We should also consider whether we need a mandated solution like Teresa Ghilarducci's Guaranteed Retirement Accounts (GRAs), described in her book, *When I'm 64*.

- Making better use of social networking as a medium for discussing financial issues. Groups like Bogleheads work well for sophisticated do-it-yourself investors. Perhaps, over time, applications will develop for the average investor. Standardization and simplification, as will be done with NEST, would create more opportunities for shared interests in social networking.
- Finding better ways to take the vast amount of academic research devoted to retirement planning issues, and connecting it to the development of practical applications. We are long on ideas and short on implementation.

It would probably make sense to try initiatives in pilot programs, carefully monitor performance and adjust, before going to full national rollouts. The problems are big, but there are solutions waiting to be tried.

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Back issues**IN THIS ISSUE**[Chairperson's Corner](#)[Notes from the Editor](#)[A View from the SOA's  
Staff Fellow for  
Retirement](#)[Perspectives from Anna:  
Retirement and Financial  
Advice – What I Heard At  
Two Recent Meetings](#)[Interesting New  
Resources for Pension  
Actuaries](#)[Impact of Running Out of  
Money Roundtable: Ideas  
Provided by Joe  
Tomlinson](#)[A Dialogue with Long-  
Term Pension Actuaries](#)[GASB Approves New  
Accounting Standards for  
Public Sector Pension  
Plans and Sponsoring  
Employers](#)[Volatility Management in  
Pension and Retiree  
Health Plan Actuarial](#)**A DIALOGUE WITH LONG-TERM PENSION ACTUARIES***By Raymond Berry***Introduction**

The following interview with three prominent pension actuaries was moderated by Anna Rappaport, FSA, MAAA, of Anna Rappaport Consulting. I am most grateful to Anna and Sue Martz of the Society of Actuaries as these two completed most of the work for this article. Stephen Bonnar is a Canadian actuary. Donald Segal and Ethan Kra are American actuaries.

Stephen Bonnar, FSA, FCIA, spent most of his career with Towers Perrin.

Donald Segal, FSA, EA, FCA, MAAA, spent most of his career with The Segal Company.

Ethan Kra, FSA, CERA, EA, FCA, MAAA, MSPA, spent most of his career with Mercer.

ANNA: You've had a long and successful career. What personal traits do you think contributed to this?

Steve: Intellectual curiosity. Actuaries need to keep up with practice development, but beyond that, be interested in moving into subsidiary fields. I moved into investment consulting and it gave me the opportunity to do something different. I also moved into financial stochastic modeling. That I think is a key characteristic that helped me be more valuable as an employee, and made my career more interesting for me.

Don: Finding a job you enjoy doing. I was a physics major but I wound up in a field I enjoyed and that I was good at. The ability to communicate with people was an important personal trait when I got into consulting. Also, having a sense of humor in dealing with clients and in the workplace often

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[SOA Pension  
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helps move things along ... not being overly serious. I can truly say that I was one of those people who really loved their work and every day was an intellectual challenge. As a result, it was a stimulating and challenging career.

Steve: I agree. To be successful, you have to work hard, but it doesn't seem like you're working hard when you enjoy your work.

Don: Communication skills are very important, so that clients understand what you're saying. Actuaries have a reputation for being notoriously poor communicators. Talk in language that your audience understands.

Steve: In addition to getting your ideas across, it's how you present them. Give answers up-front and all the background after. Peel the onion. If a client asks a specific question, give a two-sentence answer. They probably want more than that, so then you provide more background around that number. Check if that satisfies their need for detail. In this way, you give the client control over how much they want to listen to and how much they want to pay for.

Don: To be a successful consultant, answer the question that should have been asked, not what's been asked. You, as the consultant, have to determine what answer will help this client. Respond first by, "why are you asking me that?" If you want to help a client, you have to understand what their problem is. Understand what they really need. Listening ... develop the skill. Observe and see how others do things and adapt it into your own way of doing things.

Steve: One mistake I made—I selected courses at university where I didn't have to write essays. This is a change I'd make if I could do it all over again. Because of this choice, I had to work hard on the job to become an effective writer.

Anna: Steve, that is a great point. Going to Toastmasters helped me develop by learning management and oral communications skills.

Ethan: Passing the exams and getting fellowship and enrollment. Putting in the hours to study. There are no short cuts. Really concentrate to get through the exams.

You also need a quantitative background ... such as physics, mathematics, operations research or statistics: you need to study a very challenging field. Then you can get through the exams more easily. In college, you don't need to learn specific material; rather you need to learn how to think, study and solve problems.

Get a good business writing course. Most college courses are on creative writing, not good business writing. Take a course on how to explain business concepts in writing ... a critical skill set. I didn't learn that until I was a half dozen years into my career. I was mentored on this, and it was a critical skill for advancing. Each mentor you have will teach you different skill sets. I had many, and they were all invaluable.

Another skill set ... to be able to conceptualize the big picture of a problem without attacking the weeds. Figure out the architecture of the problem. Very often there will be a complex problem with the pieces streamed together. You need separate modules to solve the problem. Don't try to solve the problem in one module. Break it into bit-size pieces and attach the pieces.

Anna: Don, Steve and Ethan have given us a great focus on what we need to do the work. A second set of personal traits relates to skills that help us navigate the organization and build contacts. It is very important to be able to sell your skills and to get work done. Both of these tasks require knowing how to work effectively in your environment.

It is also very valuable to know to whom to ask questions and who can help. Building up the right networks is another important skill for success.

ANNA: What was the most significant event in the retirement industry in your career?

Don: ERISA. I was a pre-ERISA actuary. It changed the assumptions and funding method from being the client's choice to being the actuary's choice. As the law developed over time, a lot of our judgment has been limited.

Ethan: ERISA, which created a regulatory environment for pensions with a lot of structure. The accounting profession made a big impact with FAS-87 and 88. They provided requirements for funding and accounting that required a lot of attention to pension plans along with nondiscrimination testing. A lot of high-quality thought was required. The second ... the emergence of finance economics or pension finance. A total transformation of understanding of risk and the underlying finances of a pension plan. Went from an era in the '80s where everything was ... the more risk you took the higher the interest rate and the lower the perceived cost. Risk has a cost that has to be factored in that was ignored. Risk increases the volatility of the cost.

Steve: In the mid-1980s, the Dominion Stores case was a situation where the plan sponsor applied to the regulator for a surplus reversion from an ongoing pension plan. The regulator approved the reversion. A

subsequent court case overturned the approval and strongly castigated the regulator for failing to do its job. Since then, surplus reversions have essentially been eliminated. This caused most plan sponsors to fund their plans on a very minimal basis, which has not served subsequent generations of plan participants very well.

Anna: For me, globalization was also a huge change, although a gradual one.

ANNA: With many defined-benefit (DB) plans being frozen, would you recommend a young actuarial student enter the pension field?

Don: I'm not sure. I personally think DB plans will come back, but if a young actuary was looking to work purely as an enrolled actuary, opportunities will be limited. Ultimately, opportunities may be largely working with small- and medium-sized plans. There is a larger role for an employee benefit actuary though. In the future, a retirement actuary needs to know about cash benefits, health benefits and long-term care, and maybe about personal financial planning. The SOA's Living to 100 and post-retirement risk efforts provide insights. You will not be able to focus on one narrow area and be successful.

Anna: I think a broader focus on retirement is important. You need to think about different stakeholders: individuals, regulators and the financial service industry. But to me the huge question will be: How do I convert that into a good career?

Steve: In my mind, there are still prospects for DB actuaries but largely on the financial management side. If every organization with DB plans decided to close them down overnight, the Canadian annuity market couldn't absorb what sponsors would want to lay off to them. It would take the annuity market about 15 years to absorb all of the demand. The DB actuary of the future will focus on risk management and have less contact with the human resource side. I think there's plenty of work for an extended period of time. HR used to have the main management responsibility for retirement plans. Now it's usually shared with or transferred to finance.

In any case, managing the financial risks of the pension plans can't be done by the clients themselves, so there is still work for actuaries. I see opportunities in the arena spanning the bridge between investment and retirement consulting and in helping clients with policy development. My advice to new actuaries is you need to be prepared to transition to the asset side and to other new areas. Be prepared for a variety of opportunities.

Ethan: DB plans will come back, but the time horizon is very long. For a young college graduate, from the time he enters the field, it will be too late for him. I advise young students to avoid pensions. The demand in the next five to 10 years will be very limited. Promotion opportunities are limited. It will be 10 to 15 years before the environment changes. Right now, the very elderly in the United States retired with DB benefits. Younger retirees were in defined-contribution (DC) plans. In 15 years, when they are elderly and have spent their IRAs, there will be a reawakening for the need for DB plans, and Congress will stop attacking the golden goose. When the super-elderly finish depleting their DC accounts, the environment will change, and DB plans will come back in a more limited way. It will be so far out, though, that someone coming out of school today will not benefit from that transformation. DB plans have a better chance in local, not global companies.

I tell kids coming out to go casualty. Look at the number of enrolled actuaries who enrolled/re-enrolled from 2008 to 2011 &hellip numbers are down 20 percent.

ANNA: What are the major social issues relating to the changes in the retirement industry and what role should pension actuaries be playing?

Steve: Demography and longevity. As the baby boom generation moves into retirement, social programs will stress government finances. The population shift will also affect other aspects of government spending. There will be fewer younger people and therefore less education spending. In Canada, the overall dependency ratio is not expected to rise as high as it was in the mid-'60s. Actuaries have not spent enough time on this. We've ceded this area to academics. On the longevity side, there is a huge social issue of helping to change the cultural mind-set that age 65 was the end of work. It's a concept of retirement that needs to change. The retirement age should probably be raised, and the design of employment programs needs to be altered. (e.g., working hard one day and being retired the next is not the way of the future).

Don: Up to now, focus has been on "will you outlive your money?" There has been very little emphasis on the real period of later years, starting at 80 to 85, and the related support needs plus long-term care and health costs. We have to focus on "it's more than just income." We need to redefine what retirement means.

Ethan: The average American (1) doesn't have a good perception of life expectancy and longevity risk, (2) has no clue of how much money is needed for a reasonable retirement, and (3) has no idea of the value of a DB promise. People are approaching retirement with inadequate

resources and spend down too quickly. They underestimate the return on their money. Retirees should take 100 minus the age of the younger spouse and divide this into assets. For example, a 60-year-old would get 2.5 percent (100/40). That's the percentage of assets that retirees can spend each year. There are gaps in knowledge, and many workers refuse to cut their standard of living while working to save more retirement. People in their 50s spend too much on vacations, going out to eat and flat-screen TVs. They do not save enough.

Anna: We have focused on what people know and how they make decisions, what they focus on, longevity and demography. We have not focused on a changing value system. To me, a huge change has been the rise and fall of paternalism. From early in the 20th century through nearly the end of the century, large employers increasingly focused on meeting employees' financial security needs. There has been a huge shift away from this to much more individual responsibility. A key challenge for the actuary is recognizing the implications of the shift to personal responsibility and DC plans, and trying to find ways to improve retirement security in light of this shift.

ANNA: What does the evolving definition of retirement mean to you personally?

Don: In my life, retirement is no longer receiving a paycheck but it doesn't mean you're not thinking and contributing. I still am involved and have knowledge. What can I do for society with my knowledge and background?

Steve: Retirement means—leaving your primary career. However, I'm still very active with the Canadian Institute of Actuaries. On the other hand, I've actively tried to avoid consulting. I'm working on a Ph.D. in economics, to keep myself and my mind active.

ANNA: What suggestions do you have for the regulatory and legislative bodies regarding appropriate retirement policies?

Don: Congress should support and encourage DB plans. It needs to get creative in approaches to help strengthen the retirement system. Today, 401(k)s are popular. How about a DB match in a 401(k) plan? We have to find ways to encourage DB plans. We may need accounting rules changes. With the increasing number of older people, you can't rely on the government to provide too large a share of the retirement benefits and the costs of care.

Ethan: Congress should ban lump sums from DB plans. Mandate that all

employer contribution matches must be annuitized. Mandate an option of a life annuity (or 100 percent joint & survivor annuity) with 20 years certain. Such an option will provide additional lifetime income and at the same time remove the fear of losing money on early death. Put these three elements together and in the long run you can improve retirement security.

Steve: I agree with the point of having government encourage DB plans. What changes can be made in Canada? We need to reassess the dual valuation approach. In general, the purpose of funding is the stability of contributions and benefit security. Let the government/regulators focus on benefit security only. What really scares me is the financial state of public sector pensions. There have not been sufficient provisions made for many public sector pensions.

Anna: An issue that is often forgotten is to think carefully about the implications of the DB to DC shift, and the gaps it creates. In a DC environment, disability can really destroy retirement plans, and policymakers need to facilitate closing that gap.

ANNA: What should the SOA and Pension Section be focused on in the next several years?

Steve: There needs to be a way to support and facilitate the expansion of what pension actuaries do relative to financial issues. The depth of knowledge that new actuaries have in accounting and risk management is often quite limited. That is an area to strengthen the support provided by the profession. The SOA should also reenergize interest in and response to demographic topics. It is becoming more and more important for pension/retirement actuaries to have good grounding in both of these areas.

Ethan: Do a study showing how the elderly dissipate lump sums too quickly. Demonstrate to Congress and regulators that lump sums are a bad option. People spend money down too quickly and then the government has to support them. It would be very helpful to have a study that shows how the money disappears so quickly. (Editor's note: The SOA Committee on Post-Retirement Needs and Risks research includes a study on Running Out of Money to be released before the end of 2012.)

Don: Think about what makes actuaries different ... it's not just about the numbers. We give results context, risk parameters and ranges. We need more emphasis on risk management, especially in the retirement area. The Pension Section also needs to get more involved in what's going on in the international arena. We have to be less North American focused and think more about what's happening in the rest of the world because it may

foretell what will happen in North America.

ANNA: How long do you plan to stay professionally engaged?

Don: At least until October 2013. I will still want to be aware of what's going on, but I probably won't be as actively engaged as I am now. I need engagement to keep my mind active though. I doubt that I will ever totally disengage.

Steve: I can't imagine complete disengagement. Only physical or mental difficulties would do that.

Ethan: Probably for another two to five years, and then I'll just teach or go back to school. I'd teach one course and advise students on careers ... make sure they have the right skill sets.

ANNA: What advice do you have for younger actuaries?

Ethan: Look at your field within the actuarial community. Make sure there's adequate demand for your services. Look at people who have been there for five to seven years and see how it's going. There are different parts of the actuarial profession in which a person can have better career opportunities and growth than in others. If you pigeon-hole too early, it can stunt a career. You need to expand your knowledge. Learn about investments, ERM, so that you have a bigger picture. Learn about retiree medical if you're a pension actuary so that you have more skill sets.

Because of the psyche of the buyer, individuals need good quality advice ... advice on insurance, annuities, retirement strategy, executive benefits. There are a lot of people giving advice who get a commission. Good advice costs money. Actuaries can provide that advice. In the long run it's often cheaper to pay a fee and do the right things. If the SOA could educate the public to the need to hire good-quality advisors on a fee basis and do some training to help actuaries become expert in giving that advice, that would be a useful social good and benefit the membership.

Actuaries should take financial planner exams but not to become commissioned salesmen. Educate the public to the value of independent advice.

Don: Keep your mind open. Enjoy what you do. Find your calling. Take charge of your own career—the biggest single thing. Don't wait for things to be handed to you. Go find and pursue your own opportunities. Learn to manage your career.

Steve: Intellectual curiosity is the key. Be open to learning. Consider

different areas. There is nothing more stimulating than working in a different area and applying your skills in different ways.

Anna: Don't forget about developing key relationships inside and outside of your organization. Networks are key.

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November 2012, Issue No. 78



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Back issues**IN THIS ISSUE**[Chairperson's Corner](#)[Notes from the Editor](#)[A View from the SOA's  
Staff Fellow for  
Retirement](#)[Perspectives from Anna:  
Retirement and Financial  
Advice – What I Heard At  
Two Recent Meetings](#)[Interesting New  
Resources for Pension  
Actuaries](#)[Impact of Running Out of  
Money Roundtable: Ideas  
Provided by Joe  
Tomlinson](#)[A Dialogue with Long-  
Term Pension Actuaries](#)[GASB Approves New  
Accounting Standards for  
Public Sector Pension  
Plans and Sponsoring  
Employers](#)[Volatility Management in  
Pension and Retiree  
Health Plan Actuarial](#)**GASB APPROVES NEW ACCOUNTING STANDARDS FOR PUBLIC SECTOR PENSION PLANS AND SPONSORING EMPLOYERS***By Kim Nicholl and Paul Angelo*

The Governmental Accounting Standards Board (GASB), the organization responsible for establishing accounting and financial reporting for the public sector, has issued new accounting and reporting standards for pension plans provided through state and local governments and their sponsoring employers. GASB Statement 67, *Financial Reporting for Pension Plans*, will replace GASB Statement 25 and will apply to state and local pension plans established as trusts or similar arrangements. GASB Statement 68, *Accounting and Financial Reporting for Pensions by State and Local Governmental Employers*, will replace GASB Statements 27 and 50 and will apply to governments that sponsor or contribute to state or local pension plans.

The statements establish standards for measuring and recognizing liabilities, including the actuarial cost method, the discount rate and the amortization methods. In addition, the statements specify financial statement note disclosure and required supplementary information. Statement 67 will be effective for plan fiscal years beginning after June 15, 2013, and Statement 68 will be effective for employer fiscal years beginning after June 15, 2014. GASB's new standards make significant changes to pension accounting and reporting for pension plans and for state and local governments that sponsor pension plans.

In applying governmental accounting and financial reporting standards, GASB makes distinctions between different types of pension plans and their participating employers:

- *Single-employer pension plans* provide pensions to the employees of only one employer.
- *Agent multiple-employer pension plans* provide pensions to

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Section Web Page](#)[20 / 20 Web site](#)[Contact the Editor](#)[Calendar of Events](#)

employees of multiple employers. The plan assets are pooled for investment purposes but separate accounts are maintained for each individual employer so that each employer's share of the pooled assets is legally available to pay the benefits of only its employees.

- *Cost-sharing multiple-employer pension plans* provide pensions to employees of multiple employers. The pension obligations for all employees are pooled, and plan assets can be used to pay the benefits of the employees of any employer that provides pensions through the pension plan.

This article summarizes the key components of the statements.

### Key Components of the New Standards

#### Divorce of Pension Accounting from Funding Measures

Unlike GASB's current accounting standards, which provide a close link between pension accounting and funding measures, the new accounting standards have divorced financial reporting from any contribution requirements. Under the current standards, while the annual required contribution (ARC) is actually the accounting expense, it serves as a de facto funding standard for many plans because one of the disclosures is a historical comparison of the actual contribution made to the ARC. GASB does not and never did establish funding standards for public pension plans, and the new accounting standards make that clear by formally divorcing accounting from funding.

In some cases, the new standards do provide for a disclosure similar to the old ARC, but do not require it. *For single and agent employers and for the pension plans of single and cost-sharing employers*, if an actuarially determined contribution (ADC) is calculated, the required supplementary information will show comparison of the actual contributions made to the ADC. *For single, agent and cost-sharing employers and for the pension plans of single and cost-sharing employers*, if an ADC is not calculated and the contributions are statutorily or contractually required, the required supplementary information will show comparison of the actual contributions made to the statutory or contractually required contribution. The comparison of actual contributions to the ADC or statutory/contractual contributions is not required for cost-sharing multiple employers or their pension plans.

The ADC is defined as "A target or recommended contribution to a defined benefit pension plan for the reporting period, determined in conformity with the Actuarial Standards of Practice based on the most recent measurement available when the contribution for the reporting period was

adopted.”

*Single and agent employers* whose pension plans do not determine an ADC should consider a review of their funding policy in order to develop an ADC.

#### Net Pension Liability

*For single and agent employers*, the balance sheet in the basic financial statements will include a measure of the unfunded (or overfunded) pension obligation, called the net pension liability (NPL). The NPL is equal to the total pension liability (TPL) minus the plan’s fiduciary net position (GASB’s term for the market value of plan assets). *Single and cost-sharing pension plans* will report the components of the NPL in the notes to the pension plans’ financial statements. The NPL should be measured as of a date no earlier than the end of the employer’s prior fiscal year.

The TPL is the actuarial value of projected benefit payments attributed to past periods of service, including projected salary increases, projected service, automatic cost-of-living adjustments (COLAs), and *ad hoc* COLAs to the extent that they are considered substantively automatic. All plans are required to use the entry age actuarial cost allocation method to determine the total liability as of the reporting period: projected benefits are discounted to their present value as of employees’ hire ages and then attributed to employees’ expected periods of employment as a level percentage of projected payroll. Many states and local pension plans use the entry age actuarial cost method for funding purposes. However, for funding purposes, the discount rate is based upon the long-term expected rate of return on plan investments. The TPL is based upon a discount rate that may in part be based upon a municipal bond rate. The derivation of the discount rate is described in detail below.

#### Discount Rate

If current and expected future plan assets (related to current plan participants) are insufficient to cover future benefit payments for current employees and retirees, the basis for discounting projected benefit payments to their present value would require using a “blended” discount rate. The long-term expected rate of return can be used to discount only those projected benefits that are covered by projected assets. Any projected benefits that are not covered by projected assets would be discounted using a yield or index rate for 20-year tax-exempt municipal bonds with an average rating of AA/Aa or higher. The blended discount rate, which GASB calls the single discount rate, is determined as follows:

- Project annual future benefit payments for current employees,

inactive employees and retirees.

- Project the annual value of plan assets including current assets, projected employer and employee contributions, and investment earnings. Note that projected contributions intended to finance the service cost of future employees are excluded. Projected contributions from future employees are also excluded unless those contributions are projected to exceed the service costs for those employees.
- Discount projected benefits using the long-term expected rate of return to the extent that the projected assets exceed the projected benefit payments.
- Discount all other projected benefits using the municipal bond rate.
- Determine the single discount rate that, when applied to all projected benefits, equals the sum of the two present values using the long-term expected rate of return and the municipal bond rate.

Note that if contributions are established by contract or statute or if a written funding policy related to employer contributions exists, professional judgment should be applied to project employer contributions based on those contractual, statutory or policy provisions. Professional judgment should consider the most recent five-year contribution history and should reflect all known conditions. Otherwise, the projected contributions are limited to the average of the most recent five-year period and may be modified based on consideration of subsequent events. This is another reason employers should consider establishing a funding policy if one does not currently exist.

#### Pension Expense

*For single and agent employers*, pension expense in the current reporting period is based on changes in the NPL during the period. Most annual changes in NPL are immediately recognized as pension expense when they occur. These changes include:

- Service cost (*i.e.*, normal cost under the entry age actuarial cost method (+))
- Interest on the TPL (+)
- Projected earnings on the plan's investments (-)
- Actual member contributions (-)
- Administrative expenses (+)
- Changes in TPL due to changes in benefit provisions (+ or -) Other changes in the NPL are included in pension expense over the current and future periods. These changes include:
- Changes in TPL due to assumption changes or gains and losses are recognized over a closed period equal to the average of the expected remaining service lives of all employees that are provided with benefits through the pension plan, including active

employees, inactive employees and retirees.

- Differences between assumed and actual investment returns on pension plan assets are recognized as pension expense over a closed five-year period.

Pension plans do not recognize pension expense.

### Cost-Sharing Employers

Under current GASB accounting standards, a cost-sharing employer's pension expense is its contractually required contribution to the cost-sharing pension plan. The balance sheet liability is the accumulated difference (if any) between the contractually required contribution and the actual contribution. The majority of cost-sharing employers contributes to the contractually required contributions to the plan and therefore have no liability for pensions on their balance sheet.

### ***Net Pension Liability***

Under the new standards, an employer participating in a cost-sharing multiple-employer pension plan would report an NPL in its own financial statements based on its proportionate share of the collective NPL for the entire plan. The NPL for the entire plan is determined using the methods described above for single and agent employers. An individual employer's proportionate share of the collective NPL is determined using a method that is consistent with how the cost-sharing plan determines the contributions for the cost-sharing employers. A method that is based on the employer's projected long-term contributions to the pension plan as compared to the total projected long-term contributions of all employers is encouraged. The method could be based on the individual employer's share of the total employer contributions, payroll, or the method used by the cost-sharing plan to determine employer contribution.

### ***Pension Expense***

Consistent with reporting NPL, a cost-sharing employer's pension expense will be its proportionate share of the collective pension expense for the entire plan. In addition, if there is a change in the employer's proportion of the collective NPL since the prior measurement date, the net effect of that change is recognized in pension expense over the remaining service lives of all employees, inactive employees and retirees. Similarly, the annual difference between an employer's actual contributions and its proportionate share of total contributions is recognized in pension expense over the remaining service lives of all employees, inactive employees and retirees.

### Special Funding Situations

The new accounting standards address special funding situations, when an entity (called a nonemployer contributing entity) that does not employ plan participants is legally responsible for making contributions directly to the pension plan. The nonemployer contributing entity must recognize an NPL and expense determined by applying the cost-sharing measurement described just above to the collective NPL and expense. The employer then recognizes a reduction in NPL and expense equal to the nonemployer contributing entity's proportionate share of the collective NPL and expense.

#### Measurement Timing and Frequency

The measurement date of the NPL is as of a date no earlier than the end of the employer's prior fiscal year. Actuarial valuations that determine the TPL must be performed at least every two years, although more frequent valuations are encouraged. The TPL as of the measurement date is determined either by:

- An actuarial valuation as of the measurement date, or
- Use of update procedures to roll forward from an actuarial valuation performed as of a date not more than 30 months plus one day prior to the current fiscal year-end.

#### Effective Dates and Transition

The new accounting standards are effective for pension plans (Statement 67) in fiscal years beginning after June 15, 2013. For employers (Statement 68), the standards are effective for fiscal years beginning after June 15, 2014. If practical, employers are required to restate prior financial statements. Otherwise, employers should reflect the cumulative effect of the new accounting standards in the financial statements as a restatement of beginning net position.

#### Implications

Current GASB standards base pension expense on the ARC, which requires amortization of the unfunded liability over a period no greater than 30 years. In addition, funded status does not appear in the financial statements, but does appear in the footnotes. GASB's new accounting standard may have significant consequences for state and local governments:

- Reporting the NPL on the entity's financial statements (rather than just any unfunded ARC) will change the focus of the statements from the entity's commitment to fund its obligation to a funded status snapshot in time.

- Immediate recognition of changes in liability due to plan amendments and accelerated recognition of changes in liability due to actuarial gains and losses and changes in actuarial assumptions will result in a pension expense very different from the contribution amounts and will likely cause confusion between pension expense and pension funding.

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November 2012, Issue No. 78



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Back issues**IN THIS ISSUE**[Chairperson's Corner](#)[Notes from the Editor](#)[A View from the SOA's  
Staff Fellow for  
Retirement](#)[Perspectives from Anna:  
Retirement and Financial  
Advice – What I Heard At  
Two Recent Meetings](#)[Interesting New  
Resources for Pension  
Actuaries](#)[Impact of Running Out of  
Money Roundtable: Ideas  
Provided by Joe  
Tomlinson](#)[A Dialogue with Long-  
Term Pension Actuaries](#)[GASB Approves New  
Accounting Standards for  
Public Sector Pension  
Plans and Sponsoring  
Employers](#)[Volatility Management in  
Pension and Retiree  
Health Plan Actuarial](#)**VOLATILITY MANAGEMENT IN PENSION AND RETIREE HEALTH PLAN ACTUARIAL VALUATIONS***By Richard Joss*

Volatility in pension fund investments creates a significant problem for plan sponsors. The investment volatility can lead to unacceptable levels of contribution volatility and to relatively wide swings in the plan's perceived funded status. In addition, specific issues related to retiree health plans also create significant volatility concerns for plan sponsors. To address this topic, the Society of Actuaries (SOA) issued a call for papers that afforded practitioners the opportunity to share various perspectives on this important facet of pension or retiree health plan management. These papers have now been gathered into a single monograph titled "[Volatility Management Monograph](#)." Below is a brief summary of the content of each of the seven published papers. Actuaries are encouraged to visit the website for more details. The seven papers are:

1. "Analyzing the Impact of Pension Plan Management on Corporate Profitability," by Doug Andrews, Ph.D., CFA, FCIA, FSA, FIA
2. "TIPS, the Triple Duration, and the OPEB Liability: Hedging Medical Care Inflation in OPEB Plans," by Michael Ashton, CFA
3. "Plan Design Approaches to Volatility Management in Retirement Plans," by Richard Joss, Ph.D., FSA
4. "Modeling Defined-Benefit Pension Plans: Basic Dynamics," by Robert McCrory, FSA
5. "Modeling Defined-Benefit Pension Plans: Basic Metrics," by Robert McCrory, FSA
6. "Volatility Management in Defined-Benefit Pension Plans: Basic Optimization," by Robert McCrory, FSA
7. "Mitigating Volatility of Retiree Health Valuation Results," by Jeff Petertil, ASA, FCA, MAAA and Justin Petertil

"Analyzing the Impact of Pension Plan Management on Corporate Profitability"

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This paper establishes a framework to analyze the volatility of corporate profits as a result of variability in accounting for pension plans. Under current accounting practice, a variety of asset-smoothing techniques are permitted. These techniques have been criticized because they make adjustments to market values, and may give the users of financial statements an incorrect impression of a plan's true funded status. In the interests of greater accounting transparency, there is a move to adopt mark-to-market results and to remove most, if not all, asset-smoothing techniques.

One concern with the removal of the smoothing techniques is that volatility will be introduced into the corporation's income statement. Since the variable component of many executives' compensation is dependent upon results in the income statement, volatility, especially volatility that reduces income, would be considered undesirable. This paper creates a model Canadian corporation to study the impact that various smoothing techniques would have on corporate accounting, and the potential resulting impact on executive pay.

The paper considers different investment policies, different levels of funding, and modest variations in the plan design to study the potential resulting volatility in corporate income statements. The approach of the paper is to create an income statement for a hypothetical corporation which is similar to a large Canadian corporation with a significant defined-benefit pension plan and a relatively mature workforce, assume that the smoothing techniques currently used by the accounting regulations are removed, and examine the impact on corporate income statements.

The results of the exercise show that various smoothing techniques do affect corporate income, and that this issue should be studied carefully before all smoothing techniques are removed. The author concludes the paper by suggesting that actuaries and accountants involved in setting accounting standards discuss the impact of any proposed changes on both funding and accounting practices to make sure that any difference is justifiable.

"TIPS, the Triple Duration, and the OPEB Liability: Hedging Medical Care Inflation in OPEB Plans"

This paper notes that the adoption of FAS 158 forces sponsors of post-employment health benefit plans to consider how to manage the volatility that changes in medical care inflation create in the other post-employment benefits (OPEB) liability. By choosing carefully how the nominal discount rate is decomposed into real return and inflation, the author illustrates that the true exposure to an OPEB plan is the spread of medical care inflation above (or below) the overall inflation rate. The implication is that an

effective immunization strategy exists that can eliminate most of the volatility in the OPEB account.

The paper discusses medical care inflation generally and how it affects the OPEB liability. The author then offers some notional approaches to addressing the problem of open-ended medical care inflation exposure. The paper offers some practical steps that can be taken to ameliorate this particular risk. An OPEB liability often has a natural offset to a large part of the perceived medical care inflation risk.

The key point is to recognize that the positive duration of the OPEB liability with respect to medical care inflation partly offsets the negative duration of the OPEB liability with respect to overall inflation. When looked at in detail, it turns out that the salient risk is not medical care inflation, but the spread between medical care inflation and overall inflation. This suggests the use of a reasonable and basic portfolio which, when combined with a defensible strategy for valuing the spread, defeats the major risks of the OPEB liability and virtually eliminates the balance sheet and income statement volatility caused by changes in medical care inflation expectations over time.

#### “Plan Design Approaches to Volatility Management in Retirement Plans”

This paper approaches the volatility management question from purely a plan design perspective. The goals of the approach are to allow the plan sponsor and plan participants to remain exposed to the possible benefits of equity investing while sharing the potential downsides. Under traditional defined-benefit plan designs, the sponsor is the one who reaps all the risks and reward, whereas under traditional defined-contribution plans, it is the employee participant who gains any rewards but suffers any losses. This paper suggests alternative plan designs where the risks and rewards can be shared, offering that this may be a more preferable solution to one where the exposure to equity investments is eliminated altogether.

The paper offers two different basic plan designs for consideration. But given that each approach can be weighted and combined with more traditional plan designs, the potential range of options is limitless. The two basic designs are a floor plan and a variable annuity plan.

Under the floor plan concept, the participant for the most part earns benefits under a defined-contribution scheme. There is a wraparound defined-benefit component that guarantees the participant a minimum annuity benefit. The approach brings the full investment responsibility back under the control of the employer, hence exposes all pension investment decisions to full-time professional investment advisors.

Under a variable annuity approach, participants receive a portion of their standard defined-benefit annuity in terms of variable annuity units. As markets rise, the participants' actual monthly payments will rise. However, should equity markets fall short of targeted levels, the participants' monthly payments will be reduced. This plan design represents a true sharing of the risks associated with equity investing.

With these types of designs it is possible to retain the highest level of professional money manager involvement, continue to maintain a relatively high exposure to potentially higher-returning equity investments, yet pool some important key retirement risks such as the longevity risk.

#### "Modeling Defined-Benefit Pension Plans: Basic Dynamics"

This paper explores the dynamics of a pension plan over time in an uncertain environment. The paper adopts the technique of simulating the behavior of a model plan in a stochastically varying economic environment. While both the model plan and the model environment are simplified, the model plan displays interesting behavior suggesting policy considerations that should be included in the design and funding of defined-benefit pension plans. The goal is to answer the question of how a pension plan is likely to behave in a stochastic environment, with randomly fluctuating asset values and inflation.

The dynamic behavior of a pension plan is most important in the area of governance. For example, the model plan exercise shows that there could be enormous uncertainty in the amount required to pay for guaranteed benefits. Given the amount of uncertainty, a conservative approach to setting of benefit levels seems warranted.

As an example of an observation gained from studying the model plan, it was noticed that average cost of the model plan stays relatively stable for about 10 years, but then gradually decreases. The author suggests a likely source of this dynamic is the exclusive benefit rule, which precludes the return of funds from an overfunded plan to the plan sponsor. This dynamic creates an asymmetric contribution environment. Contributions are required to be increased in times of poor returns and underfunding, but in times of good returns and overfunding, assets cannot be withdrawn. The result is that the overfunding is compounded rather than corrected during times when there is a series of favorable returns. Overfunding will continue to grow until the actuarial cost becomes zero, and then it is often compounded after that. On average, this asymmetry pulls the mean and median plan costs down over time.

The author also uses the model plan approach to study investment risks and funding risks. With regard to investment risks, the model plan

approach is helpful in seeing the risk/reward trade-off of different investment strategies. With regard to funding risk and volatility, it is noted that the contribution volatility is highest for the plans that are the best funded.

The author concludes by noting that defined-benefit pension plans are complex dynamic systems. They often display complicated and counterintuitive behavior. He points out that the actuarial cost of the model plan is neither level nor stable (even when the actuarial assumptions turn out to be right overall), that the level of funding can vary over a wide range, that riskier investments bring more cost volatility, and that cost variability increases to a maximum when the plan is roughly 100 percent funded.

#### “Modeling Defined-Benefit Pension Plans: Basic Metrics”

This is the second of three papers submitted by Robert McCrory. The purpose of this paper is to explore pension plan metrics by measuring the behavior of a defined-benefit pension plan in an uncertain environment with the eventual goal of evaluating the quantitative impact of competing policy choices. By creating a model plan, and testing it under a variety of simulated environments, the paper identifies the metrics that are particularly useful in evaluating pension policy choices.

As noted in the paper, defined-benefit plans are sponsored by employers to provide retirement security to their employees. One administrator posed a simple question to the paper’s author: “What do we manage to?” The paper answers that question by presenting a set of potential measurements, or metrics, of pension plan performance, and then testing these various metrics in simulated actual economic environments.

The competing policy choices include plan design, investment strategy and actuarial funding methodology. Various policy choices are compared using different metrics that are specifically selected for their ability to differentiate amongst the policy choices. If the metric yields roughly the same value for all policy choices, then the metric would be of little value.

For example, one of the policy decisions to be evaluated might be the corridor around market value of assets for selecting an asset-smoothing algorithm. Corridors might range from 0 percent, meaning that assets are always valued at market, to a relatively high value such as 30 percent or 40 percent, meaning that during times of market upheaval, the actuarial value of assets could be allowed to differ significantly from the market value of assets.

Once a particular policy is selected, it is then evaluated by the use of

metrics. The key metrics are the level of cost, predictability of cost, variation of cost, intergenerational equity, and minimum and maximum funded levels. The paper concludes that many of the usual metrics—mean and standard deviation in particular—may not be particularly helpful due to instability over time and a relative insensitivity to policy changes. The paper introduces other measures that may be more useful in evaluating policy decisions, at least under certain circumstances. There are always trade-offs in any policy decision, and plan managers and sponsors need to compare the potential impacts of various choices. This paper lays out a framework for making such policy decisions.

#### “Volatility Management in Defined Benefit Pension Plans: Basic Optimization”

This is the third paper submitted by Robert McCrory. In this paper, the author notes that a traditional method for managing contribution volatility in defined-benefit pension plans has been the use of an actuarial value (or smoothed value) of pension plan assets for the purpose of determining plan contributions. This approach has been based on the assumption that asset gains and asset losses will tend to offset one another over time. The goal of this paper is to develop a methodology for measuring and evaluating the quantitative impact of competing asset smoothing techniques. The ultimate goal, quite naturally, is to determine if it is possible to identify an optimal smoothing policy.

The paper meticulously compares the impact of various smoothing strategies by looking at incremental changes in the gain/loss smoothing period and the corridor around market value. Different strategies are then tested using a model plan and model economy to see which strategies appear to develop the most desirable results in terms of stable contributions, predictable contributions and funded ratios.

The key conclusions based on the research are that, after longer time periods, asset smoothing tends to increase plan costs, but that smoothing provides a much higher level of predictability to plan costs. Furthermore, by weighing each of the various metrics, it is possible to design an asset-smoothing policy that could optimize the specific desires of a given plan sponsor recognizing the trade-offs involved between contribution stability, funded ratio, difference between market value of assets and actuarial value of assets, or other metric.

The paper concludes by noting that real pension plans differ radically from one another and involve a variety of factors that can affect the decision as to which smoothing policy is the “best” one for the plan. When this concern is added to the labor/management or other political realities surrounding the plan, the selection of an appropriate smoothing method can be difficult.

But by introducing quantitative metrics to the process, the paper adds a new element to the decision-making process.

#### “Mitigating Volatility of Retiree Health Valuation Results”

This paper deals specifically with volatility in retiree health valuations. While at times retiree health accounts have volatility problems that are similar to those in pension plans, retiree health plans also have volatility concerns related to changes in the benefit level, fluctuations in benefit cost level, and alterations in eligibility for or duration of the benefit. This paper focuses primarily on these causes and offers specific suggestions for mitigating the volatility concerns.

The first key difference between volatility issues for pension plans and for retiree health plans is that the benefit level (cost-sharing arrangements between the retiree and the plan sponsor) may change from year to year. For example, the retiree may face new levels of deductibles or copayments, be subject to new plan benefit maximums or out-of-pocket payments, or be subject to new lifetime reimbursement limitations. A second key difference between pension and health volatility is the volatility related to the variation in claim payment. The health care cost trend becomes a critical assumption that is not present in most pension valuations. Finally, the plan sponsor may have the right to limit coverage either by requiring increased service to qualify for benefits, by limiting the duration for which benefits may be paid, or in some cases precluding new hires from receiving any benefits at all.

The paper then proceeds to illustrate various methods to mitigate volatility concerns. It compares the impact on claim cost by considering the number of experience periods included in the claim history, and several different weighting schemes to account for changes in the claim cost experience. In addition, the paper outlines the differences that various different accounting rules will have on retiree health valuations.

But the biggest impact included in the paper is the suggestion that health actuaries specifically reflect a plan sponsor's right to rescind benefits. Especially in those situations where a sponsor has demonstrated a clear pattern of benefit scale-backs or increased employee cost participation, a direct reflection of possible future changes can have a material impact on the volatility from one valuation to the next. The specific reflection of the employer's right to rescind is illustrated with a variety of examples.

In summary, to aid in mitigating the year-to-year volatility in retiree health valuations, the authors target two specific sources of that volatility. For claim cost problems, the authors recommend a weighted average of historical experience along with realistic projections for health care trends.

For right-to-rescind-type changes, the authors propose an uncertainty premium operating by way of a higher discount rate. This technique offers sponsors the ability to gain a more realistic and predictable expense pattern for their retiree health plans.

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