

2019 CCA Annual Meeting Summaries

This document contains the session summaries from the 2019 CCA Annual Meeting held October 27-30, 2019 in San Antonio, Texas.

THANK YOU TO OUR SESSION ASSISTANTS

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Serving as a Session Assistant is an excellent way to network into other continuing education opportunities, gain exposure within the profession, and potentially participate in speaking opportunities. Actuaries new to the profession, or to CCA, are especially encouraged to consider serving in this capacity to build contacts and experience in coordinating an educational session.

Duties include writing a brief description of specific sessions, collecting continuing education forms, and other duties as requested by the moderator.

Sign up now to volunteer for next year's Annual Meeting at www.ccactuaries.org.

Session 103:

Making Your Savings Last in Retirement

Speakers:

- Kenneth Steiner – Retired
- Thomas Totten – Nyhart
- Ross Krinsky – Fidelity Investments

Session Coordinator: Sue Simon – Buck Global, LLC

With Defined Contribution (DC) Plans becoming an increasing source of retirement income, this session covers prevalent spend-down strategies for DC and other accumulated savings accounts.

Workers and retirees are somewhat interested in guaranteed income, but in practice, they overwhelmingly choose a lump sum over an annuity. Of those that choose a lump sum, they deplete the lump sum on average in five (5) years. Those who choose an annuity are almost unanimous in satisfaction with their choice. Offering lifetime income in plans won't matter if no one uses the feature.

Reasons people choose a lump sum over an annuity:

1. Social Security is an annuity and many consider this their "base"
2. Wealth illusion – the size of the lump sum gives people a false sense of wealth
3. People don't like insurance companies to keep asset after their death
4. Annuities and the attached options are confusing

In 2014, changes to Required Minimum Distribution Rules introduced the Qualified Longevity Annuity Contract (QLAC). The QLAC is a deferred annuity that begins no later than age 85 with a total premium limited to the lesser of \$130,000 or 25% of the retirement plan account balance. The QLAC allows participants to better budget in the pre-deferral period because they are dealing with a known period of time while enjoying affordable lifetime income beginning at the deferral age.

Future design opportunities will focus on ways to convert retirement account balances into retirement income. The mechanism to accomplish this will need to include:

1. A pooled managed payout fund
2. A fund that allows for partial withdrawals
3. A QLAC

Using Sound Actuarial Principles for Personal Financial Planning

An ERISA Industry Committee 2018 Report on lifetime income solutions in DC plans concluded: "No single product or plan design is likely to address decumulation needs for all DC plan participants." The ultimate responsibility for managing retirement income lies with the individual. Most individuals with a DC account balance will use a Strategic Withdrawal Plan (SWP) because it's easy to understand. However, the SWP doesn't work well when the individual has different sources of income to consider.

A better approach is to develop a Strategic Spending Plan (SSP) which integrates all income sources by comparing the present value of all assets with the present value of all liabilities in retirement, including:

1. Comparing assets with spending liabilities to develop a current year spending budget
2. Doing an annual valuation to adjust for gains and losses
3. Modeling “What If” scenarios to stress test your SSP

Session 105

All Things Medicare – But Not Medicare for All

Speakers:

- Dave Tuomala – Optum
- Joe Altman – United Healthcare
- Dan Hoffman – Optum
- Joann Bogolin – Bolton Health Actuarial

Session Assistant: Annie Brown – Annie Brown, Consulting Actuary, PLLC

Background

The Affordable Care Act (ACA) brought significant changes to the funding and delivery of care for seniors. What is new? What has changed? This session provides an update on Group Medicare Advantage Plans (Group MA), Medicare Part D proposals, Risk Score changes and the Medicare Advantage landscape.

Medicare Advantage

Medicare Advantage continues its explosive growth with 22 million members covered under Individual and Group sponsored plans for 2019. Employers sponsoring Group MA plans are seeing significant savings. For many employers these plans are less expensive than a fixed dollar approach under which retirees choose their own plans on Medicare Exchanges. Is Group MA now the lowest cost solution? ACA changed the way in which MA plans are reimbursed. Plans receive CMS subsidies that are conditioned on a rating system (incentivizing improved outcomes) and MA payments are adjusted for age morbidity, effectively subsidizing the cost of aging, which cost is borne by the member under the Medicare Supplemental model. Group MA PPO plans can combine the best features of Med Supp/Part D and Individual MAPD plans including low cost and access to all Medicare docs. Retiree groups with plans with 4-star ratings are seeing improved quality and engagement as a direct result of these ratings. Will subsidies to Group MA plans continue? With super-majority bi-partisan support in Congress opposing cuts to MA payments and 22 million members (and growing), it appears so.

Medicare Part D

Medicare Part D prescription drug expenditures have increased significantly since Part D inception in 2006. The Medicare Payment Advisory Council (MedPac) suggests that current Part D design has little incentive to steer members to low cost alternatives. Under the current model, there is limited liability in the coverage gap and catastrophic phases with higher cost drugs providing larger rebates. Current proposals from the House and Senate aim to reduce member cost by restructuring the role of drug rebates and implementing drug spend price controls. Both proposals reduce member maximum out of pocket (MOOP) cost, Senate to \$3,100, House to \$2,000. Under the Senate version, if drug costs rise faster than CPI, manufacturer is forced to pay rebate with rebate paid to Medicare Supplementary Insurance Trust Fund. The House bill would require the Secretary of HHS to negotiate prices of 35-250 drugs, with caps tied to

an international price index of 6 foreign countries. Drug cost would be capped at CPI, with rebates and penalties going to Medicare and, possibly, to fund other benefits like dental and vision. The impact of either bill would be to increase plan liability and member premiums. Price controls would reduce rebates, but that could potentially have adverse consequences with manufacturers incentivized to charge as much as possible for new drugs since there won't be limited future increases. It is unlikely the bills will be acted upon in 2019.

Risk Score Model Changes

CMS uses risk scores to determine payments made to MA Plans, with higher subsidies going to plans with higher risk members (higher risk scores). In 2019 CMS added new risk categories (HCCs) for certain comorbidities and conditions. In 2020 CMS is implementing a new model that uses payment condition count as an add-on payment, applicable only to Encounter Data System (EDS) based risk scores. Currently (2020) 50% of total risk is EDS based, by 2022 100% will be EDS based. The new model increases risk score starting at 4-6 HCC (up to 10) and recalibrates risk scores to an average of 1.0.

CMS Medicare Advantage Landscape

CMS landscape files for 2020 MA Plans are now available on their website. Analysis of highest and lowest premiums by county, along with the number of plans offered indicates there are a significant number of zero premium plans and plans with high premiums found in counties with fewer plans.

Supplemental Benefits for the Chronically Ill (SSBCI) in MA Plans

CMS has historically considered the statute as requiring that Supplemental Benefits be those not covered by original Medicare, be primarily health related, and require the MA plan to incur a non-zero direct medical cost. For CY2019, CMS expanded the definition of "primarily health related" to items or services that would either be used to diagnose, compensate for physical impairments, act to ameliorate the impact of functional/psychological impact of injuries (or health conditions) or reduce avoidable emergency and healthcare utilization. For CY2020 CMS has similarly expanded the definition of supplemental benefits that MA plans may provide to chronically ill enrollees. Examples include meals furnished beyond a limited basis, transportation for non-medical needs, pest control, indoor air quality equipment and services and benefits designed to address social needs.

Session 107

ALM for Public Plans

Speakers:

- Christopher Hanson – Executive Director, City of Austin Employees’ Retirement System
- William Hallmark – Consulting Actuary, Cheiron, Inc.
- Evan Inglis – Independent Consultant
- Koren Holden – Colorado Public Employees’ Retirement Association (PERA)

Session Assistant: Adrienne Ostroff – Deloitte Consulting LLP

Background

Theoretically, plans should strive to balance their goals of achieving the highest returns possible on pension assets while still ensuring that the assets in the trust will be sufficient to pay benefits to the plan participants. In order for a plan administrator to understand the push-pull of these goals, the advice of their actuary should supplement the advice of their investment professional. We will review this concept from the viewpoints of a public plan administrator, an actuary, and an investment consultant.

Public Plan Administrator Viewpoint

The City of Austin Employees’ Retirement System (COAERS) is a defined benefit pension plan providing retirement, disability, and death benefit programs for regular full-time City of Austin employees. COAERS is governed by a Board of Trustees (Board), who, according to State of Texas statute, maintains sole responsibility for all investment decisions. The Board regularly reviews the investment policy for the fund, with the most recent asset-liability study occurring in 2018. This study resulted in the implementation of a new strategic asset allocation, the “Austin Model.” The Model incorporates a variety of testing scenarios and stress test criteria to illustrate a full range of risks to the Board in order to properly inform their decision and establish their investment risk framework, premier list, and investment beliefs. Christopher Hanson, Executive Director of COAERS, insisted on bringing the plan actuary into the initial discussions with the Board to do a presentation on the key characteristics of the liabilities. This step was critical to shifting the mindset of the Board members from chasing higher returns to focusing on benefit security for the plan participants.

Actuary Viewpoint

As was demonstrated with the actuary’s involvement in the COAERS asset-liability study, it is important for the actuary to be brought to the table early and often in order to educate key decision-makers on the unique characteristics of the liability for which the assets are intended to support. Investment consultants understand the plan assets, but often do not understand how the plan liabilities can change in certain economic environments or how contributions are affected by investment losses. Often times, this can lead to mistaken or incomplete conclusions by the plan administrator and increase the risk borne by the trust. It is important for the plan actuary to introduce the key concepts of the plan

demographics, while also relying on stochastic and deterministic analysis to depict specific interactions between the plan and the economic environment that would otherwise not be reflected, including inflation risks, impact of market interest rate movements, and economic growth or stagnation.

Investment Consultant Viewpoint

When consulting a plan administrator on the investment policy of the trust, it is important to keep in mind the two key objectives for risk management: secure member's benefits and avoid financial distress. In order to achieve these goals, it is important for the investment consultant to work with the plan actuary to understand how to best manage, and potentially optimize, the investment strategy with consideration of the plan demographics. Once the asset-liability study is complete, two key metrics can be used to manage the effectiveness of the policy:

1. Fixed income % of retiree liability
2. Net (unhedged) liability % of revenue

These metrics provide a quick read on how well the assets are performing relative to the plan liabilities they are intended to support.

Conclusion

The consistent theme between the three viewpoints is that the complexities of pension liabilities require teamwork between the investment professionals and plan actuaries in order to accurately capture the risks that the plan is exposed to and determine the best way to manage them. Examples where the actuary has been included in the education and modeling components of asset-liability studies have proven to be successful and should be revered as a "best practice" in the industry, where possible.

Session 108

Data Visualization

Speakers:

- Tom Terry – The Tom Terry Group
- Jon Schwabish – The Urban Institute

Session Assistant: Todd Kanaster – S&P Global

Background and Summary

We actuaries rely heavily on charts and graphs to tell a story. This fun and engaging session, led by a professional in the data visualization field, provides real-life examples of how to transform standard visuals to dramatically improve the intended message.

Know your audience

The audience of an actuarial presentation is typically less inclined to decipher a spreadsheet than the actuary presenting the information, so it is vitally important to understand the mindset of the recipients and think critically about delivery. Replacing a dense table of numbers with small charts or other images can deliver a message at a quick glance, allowing the presenter to maintain the audience focus for additional context. Infographics merge numbers with charts so that the visual combination is easily recognized and recalled. Especially in cases where the audience or reader may not be familiar with a graph type, it is useful to provide information about how to read and understand the information before asking the reader to move to the content. Strategies for visualization and presentation slide design are important to efficiently communicate a desired message.

How to focus attention and take the audience with you

Show pertinent data: The first step in focusing the attention of the audience is to strip down the presentation of all extraneous information and graphics. Labels, lines, and non-essential data are removed and the minimum of what is needed gets brought back. If a table of data is the starting point, consider other modes of communication. Graphs can be more effective than tables for showing relationships, outliers, or trends, but it is important to use the type of chart that most efficiently carries the point. For simple messages, a pie chart can be useful, but should include typically no more than three slices and the total of those segments should be easily identified increments such as 25%, 50%, or 75%. It's even possible that a simple conclusion is most efficiently delivered without a table or chart at all.

Reduce clutter: Is the audience learning anything or simply enjoying the artwork? With recent technological advancements, there are a lot of interesting graphics that can be used to convey data, but these often just add confusion for the audience. For example, 3-D charts may be visually appealing from a distance, but in truth usually distort the representation of the data. Patterns and other illustrations, if not directly tied to the message, can be distracting.

Integrate graphs and text: The practice of ‘layering’ slides—building up a message one element at a time—is one way presenters can transform a complex message into a leading narrative. The idea is to focus the audience’s attention by utilizing the color gray, which tends to fade to the background, and highlight the current point or data element. As the points are discussed in order, the color moves and the refined message is delivered in a more linear fashion. When a map is used, it may be enhanced if paired with another visualization, such as a bar chart. When a table is shown, it’s perhaps useful to illustrate a small line chart or up/down arrows if direction is the point of the story. Chart color palettes and styles should be uniform throughout a presentation to keep the audience focused on the message itself, as opposed to spending energy trying to understand each new chart.

Volcanoes and cats illustrate blockchain technology

An example is discussed of a presentation on blockchains where a slide showed nothing but pictures of a volcano and a cat. The entire profound message was delivered orally and anyone viewing the slides alone might not understand the complete message that was being conveyed. People who miss the presentation often request slides with the expectation that they will get the same quality of information as if they’d attended, but it must be understood that presentations are fundamentally different from a written report. Another example is layered slides, as discussed above, which could lead to a really long slide deck that is hard to read. It might be useful to put together a separate slide deck for this specific purpose that eliminates the layering effect and replaces piecewise-delivered charts with a more detailed slide that includes all information. Notes under each slide can be used to deliver talking points and conclusions to help focus the attention of the reader.

Simple data visualization can be used to find and exploit insights to increase efficiency of message delivery. Actuaries have a complex story to tell, and the ability to communicate it may be as important as the story itself.

Session 109

Variable Defined Benefits for Multiemployer Plans

Speakers:

- Ken Kent – Cheiron
- Robert Kurak – Segal Consulting
- Josh Shapiro – Groom Law Group

Session Assistant: Nancy Teague Lee – Venuti & Associates

Background

This session aims to educate the consulting actuary about Variable Annuity Plans (“VAPs”) for multiemployer plans. VAPs are emerging as a potential solution for multiemployer plans which are struggling with how to provide meaningful benefits to participants while better managing risk.

Summary

VAPs date back to the 1950s but are emerging as a solution for multiemployer plans and may be attractive to plans as a way to share risk between employers, unions, and active members and retirees. Employers are concerned that underfunding is affecting their business and that withdrawal liability is becoming an issue while unions are concerned that pension economics is dominating collective bargaining and that pension plans are becoming a barrier to organizing. Active members and retirees are concerned about the security of their benefits and the potential for plan failures.

Traditional defined benefit plans may not be working well under traditional investment models. In 2019, negative cash flows are at all-time highs while benefit cuts in deeply underfunded plans are happening more frequently. A VAP can provide a meaningful guaranteed lifetime benefit for members while minimizing the chance of unfunded liabilities and sharing the risk among all parties. In summary, a VAP has several primary goals: shared financial risk, lower financial volatility, enhanced retirement security, pooled mortality risk, and professionally managed investments with lower risk tolerances.

Under one approach, a VAP benefit is the greater of two benefits: a Floor Defined Benefit and an Adjustable Benefit. The Floor Defined Benefit is a traditional defined benefit plan using a low discount rate or the floor rate which is typically 3.5% to 4.5%. The investment strategy should have a high probability of achieving the floor rate. The Adjustable Benefit is where participants accrue a benefit unit each year and the benefit earned is equal to the benefit unit multiplied by a unit value. The unit value increases or decreases based on actual earnings compared to the floor rate. The floor rate, benefit unit, and unit value are determined at inception of the plan.

A VAP establishes the floor or “hurdle” rate which will be compared to the investment return each year to determine the unit value or the amount of the Adjustable Benefit. For example, if the hurdle rate is

set at 5.0% per year and the return on assets for the plan year is 8.0% the basic unit value will be adjusted by $1.08/1.05 = 1.0286$. The adjustment can apply to all units earned including those earned in prior years. The hurdle rate along with the contribution level will determine the initial benefit level. ERISA and IRS regulations are generally interpreted to require that the hurdle rate is not less than 3.0% and not greater than the expected long term asset return. A hurdle rate is typically set between 4.0% and 6.0%. The hurdle rate and initial benefit amounts should be set at a level that the contributions into the plan can support.

There are concerns with VAPs from a benefits perspective. Benefits may be volatile and unpredictable and with some plan designs the accrued benefit can decrease. To manage these issues, the investment policy should be set while considering the hurdle rate. A floor or minimum benefit can be provided to ensure a participant's accrued benefit will not fall below a certain amount. Benefits could still decrease but not below the minimum. The benefit can be fixed at the point of benefit commencement to minimize volatility for retirees. However, fixing the benefit at commencement could cause retirees to lose the potential for future benefit increases or benefits may be locked in at a lower level after poor investment returns. Some plan design features include providing for a funding reserve to be built which would hold back a portion of returns above the hurdle rate which then could be used to shore up the funded status of the plan or preserve benefit levels when investment returns fall below the hurdle rate.

When implementing VAP benefits, liabilities should be modeled both deterministically and stochastically. While VAP's have advantages, they are not a 100% solution to all issues facing multiemployer plans.

Session 204

Retiree Health Per-Capita Costs by Age

Speakers:

- James J. Rizzo – Gabriel, Roeder, Smith & Co.
- John J. Schubert – Deloitte Consulting LLP
- Jim Whelpley – Rael & Letson

Session Asstant: John Mallows – Deloitte Consulting LLP

Background

This session aims to help the consulting actuary determine when per-capita costs by age are required and when they are not, how per-capita costs by age are calculated, considerations to be made, data sources, and what the auditors are looking for.

Summary

Mr. Whelpley leads off the discussion with a real-life example demonstrating what is meant by implicit subsidy. There is the potential for an implicit subsidy when the experience of different groups is blended to develop a cost that is used as the basis for contributions. The most common example of an implicit subsidy is when the low experience of active employees is blended with the higher experience of non-Medicare retirees to produce a midlevel cost, in which case we say that the actives are implicitly subsidizing the retirees. Mr. Schubert then goes over some important definitions that an OPEB (“Other Post-Employment Benefit”) actuary needs to know when developing per-capita claim cost assumptions.

The group discussed community rating. Mr. Rizzo walks through a few community-rated examples and explains how to determine when a group is community-rated. Mr. Schubert talks about community rating from an audit perspective, then goes on to explain where to get the data to produce a table of aging factors (noting how the SOA’s Yamamoto study is currently the gold standard for such data).

Mr. Whelpley provided slides to give more detail on what is meant by age-specific costs. Mr. Rizzo continues with a discussion of the Actuarial Standards of Practice (ASOPs) that apply to per-capita costs by age, including the four exceptions for pooled health plans. Mr. Rizzo stresses that the exemption for “no age-related implicit subsidies” doesn’t automatically apply to a plan with no actives because cross-subsidies can occur even in retiree-only plans. An example of when that exemption would apply is for a benefit provided through a spending account which the retiree uses to purchase coverage in the marketplace. Mr. Rizzo finishes this section by reviewing written guidance from the Actuarial Board for Counseling and Discipline (“ABCD”) on how qualifying for the “sustainability” exception should be extremely rare.

Mr. Whelpley discussed an example of per-capita cost calculation, including a method to allocate child costs, after which Mr. Rizzo outlines the challenges in obtaining pooled health plan data. Mr. Schubert

ends the session with a discussion of what auditors are looking for when they review an actuary's per-capita cost assumptions.

Session 205

SOCIAL DETERMINANTS OF HEALTH – USING PREDICTIVE ANALYTICS

Speakers:

Yi-Ling Lin, FCA, FSA, MAAA – The Terry Group

Jim Dolstad, ASA, MAAA – Optum

Ed Dean – Optum

Session recorder: Steven Parsons, FCA, MAAA – Findley, Inc.

Background on Session:

Yi-Ling Lin from the Terry Group introduced the speakers and provided a summary of the session. What impacts health outcomes? Individual health status is a combination of genetics, behavior and the environment. This session explored how health is influenced by factors such as where you live, your economic class, ethnicity and education through predictive analytics. The speakers provided a general overview of the Social Determinants of Health and provided a demo of a predictive analytics project including framing the question to be studied, data preparation, descriptive analytics, understanding the statistical output, and identifying the primary drivers of the outcomes.

Section 1 – A Overview of Social Determinants of Health

Jim Dolstad from Optum provided an overview to the question, What impacts health outcomes?

Genetics only impacts 30% of health. The remaining 70%, as follows

1. individual behavior represents at 40%
2. access to health care at 10%
3. social/environmental factors at 20%.

Thus, 60-70% is lifestyle and/or behavioral based in which we can focus future population health strategies. Access to new data and the ability to leverage new data analytics tools can be a powerful combination.

The issue is data has not been available or easily integrated into a payers or providers population health strategy. This certainly is a foundational issue for both payers and providers.

Historically claims and enrollment data has been available for quite some time and it is being integrated with clinical data from the providers. Most predictive models run best on 12 months of data. However, 35% to 45% of commercial and Medicaid members have less than 12 months of data available. Social determinants of health and pharmacy risk groupers allow actuaries to address this shortfall in data.

As new data sources become available insights are provided into the individual's needs and wants, the community they live in and their socioeconomic status. This new data is emerging from publicly available data and "big" data. The key is to use this data to better understand the member to improve outcomes and engagement. As an example, you improve readmission statistics if you can predict if the type of setting a member is likely to get discharged to allows them to successfully recover or not. Members discharged who have housing security and/or social isolation issues are often at a higher risk of re-admission.

Given the emerging access to data, payers and providers are identifying areas of opportunities for consumer analytics and use of social determinants of care:

1. Utilization – reducing hospital admissions (traditional and emergency)
2. Care management- developing a more sophisticated means for engagement for clinical and behavioral programs
3. Quality – improving quality of care and medication adherence
4. Risk Profiling – using non-clinical characteristics to develop more robust risk profiles
5. Underwriting – using non- clinical characteristics to inform underwriting decisions
6. Benefit Designs - using non- clinical characteristics to develop more effective benefits

Thus, payers and providers are adding social determinants to create new pathways to help predict health outcomes. The social determinants of health include:

1. Race, ethnicity, and culture
2. Social-economic status
3. Neighborhood
4. Mediators and moderators – (language, transportation, support)

Accessing social determinants of health data will identify opportunities to predict a population’s health outcomes which will help us with better plan designs to address behaviors, use of care, medical diseases and conditions. A key take away is the opportunity to shift from “patient approach” to “customer approach” to engaging members in different communities.

The ability to construct a holistic data set will enhance plan designs and a population’s profile. These can be summarized in three categories of data:

1. Individual Factors – what’s going on in the home
2. Community Factors – what’s going on in the community (crime rates, access to food, transportation and access to care)
3. Social/Economic Factors (% below poverty, social associations, youth engagement, education levels)

Again, providers and payers will likely shift from “treating patients” to “servicing customers”. This may be a key take away from utilizing new data to improve and enhance population health strategies and toward value based care.

Mr. Dolstad provided a sample set of data on social isolation. It shows that there is significant cost of care and diseases when comparing two social tiers – Highest Isolated group vs the Lowest. There is nearly 80% higher use of the ER, and diseases related to the circulatory and respiratory systems are more than 70% higher between the two groups. Clearly, this data could be useful in designing care management strategies and plan designs for both the payors and the providers by identifying the social determinants of health for various populations.

The balance of Jim’s slides addressed identifying hidden risk members, enhancing member profiles, and variance in provider group patient bases. The key is the ability to collect new data and leverage analytics to improve operational, clinical and financial performance across all lines of business. Actuaries can leverage both the descriptive and predictive capabilities to assist their clients in addressing a wide range of business problems and to better understand the underlying change in risk over time.

Section 2 – Demonstration using data tools to enhance predictive analytics

Ed Dean from Optum provided a demonstration using live data modeling. Ed provided a demo using a data analytics tool called R Studio which is an open source and enterprise ready professional software for data science. A member in the audience commented how much more powerful R Studio is providing an analogy that it was much more powerful than Excel. The point of this data was to show how new data science tools can help us leverage multiple data sets such as those discussed in Mr. Dolstad's presentation to provide insights into a population to enhance and improve population health strategies for both payors and providers.

Session 207

ASOP 51 in Practice for Public Sector Plans

Speakers:

- Lance J. Weiss – Gabriel, Roeder, Smith & Company
- Brian B. Murphy – Gabriel, Roeder, Smith & Company
- Sherry S. Chan – New York City Office of the Actuary
- Rick Reed – California State Teachers' Retirement System

Session Assistant: Joseph Kropiewnicki – Deloitte Consulting LLP

General Information

ASOP 51 is effective for any actuarial work product with a measurement date on or after November 1, 2018. This session provides detail on ASOP 51 and describes examples of actual ASOP 51 disclosures used at New York City and CalSTRS.

ASOP 51 Background

Risk is defined as the potential of actual future measurements deviating from expected results due to actual experience that differs from the actuarial assumptions. ASOP 51, effective starting November 1, 2018, applies to actuaries when performing a funding valuation of a pension plan, a pricing valuation of a proposed plan change, and a risk assessment that is not part of a funding valuation or pricing valuation. The actuary should identify the risks that may significantly affect the plan's future financial condition, and assess quantitatively or qualitatively the potential effects of the risks on the plan's financial condition.

Examples of key risks applicable to many plans include investment risk, contribution volatility and amount risk, salary and payroll risk, longevity risk, and other demographic risks. While this list covers many key risks, each plan faces its own unique set of risks. For example, a fixed rate plan or a gain sharing plan may face specific risks that other plans don't experience.

Next, this session describes how to disclose these risks in a report and reviews different disclosure examples, including maturity measures, scenario testing, stochastic modeling, and disclosures of historical information. We look at a sample disclosure of historical information for a funding valuation and a sample disclosure of plan maturity measures for a pricing valuation, and see commentary that can arise from these disclosures. ASOP 51-type disclosures can greatly enhance the understanding of risk for the plan and can lead to strong risk-related discussion among key stakeholders.

Examples in Practice – New York City Police Pension Fund

The New York City Police Pension Fund provides us with two examples of ASOP 51 in practice, both for a funding valuation and a pricing valuation. For the funding valuation, the Fiscal Year 2019 Actuarial

Valuation Report for the plan includes a section titled “Risk and Uncertainty.” Risks facing the plan are classified into “High,” “Medium,” and “Low” risks depending on the Actuary’s professional judgment. High risks include Investment Risk and Maturity Risk, and the medium and low risks include a multitude of other risks. For each risk identified, the report contains a description of the risk and a qualitative and/or quantitative assessment of the risk.

For the pricing valuation, we walk through a Fiscal Note, which details the impact of a proposed plan change. This Fiscal Note includes a section titled “Risk and Uncertainty,” which contains cautionary language that the costs presented in the Fiscal Note are sensitive to a variety of risks and actuarial methods used.

The New York City Police Pension Fund has additional planned improvements regarding ASOP 51 material, including additional commentary, quantitative studies, customized studies, comparisons to industry standards, expanding ASOP 51 for pricing valuations, and educational outreach. Educational outreach, in particular, is very important, as it helps key stakeholders better understand the risks faced by the plan.

Examples in Practice – CalSTRS

The discussion of risk at CalSTRS has been gaining momentum since around 2010. After 2014, investment staff, actuarial consultants, and internal actuarial staff have been working more closely together, and the risk discussion has become much more complete and comprehensive.

Since 2016, CalSTRS has published a Risk Report, a comprehensive report covering several types of risks applicable to the funding of the plan. We review the 2018 Risk Report, which includes detailed discussion and quantitative analysis of plan maturity and volatility measures, historical and projected funded status, investment risks, risks of membership declines, charter school impacts, recession risks, and mortality risks. The quantitative analysis includes historical data, deterministic projections, and stochastic projections.

In addition to the Risk Report, the 2018 Actuarial Valuation includes a section titled “Risk Disclosures” with additional commentary and analysis on risks facing the plan.

Both the New York City Police Pension Fund and CalSTRS give us strong examples of ASOP 51 disclosures in practice, and demonstrate the value that discussion and disclosure of risk can bring to the plan.

Session 301

Develop Your Core

Speakers:

- Stacey Marie Schmid - Prudential Retirement
- Matthew Sampogna - Principal Financial Group
- Andrew Marcus - Fidelity Investments
- Lauren Meyer - River and Mercantile

Session Assistant: Chad M. Little - Freiman Little Actuaries, LLC

Develop Your Core is an interactive session that allows attendees to test their Enrolled Actuary's knowledge from recent exam questions. The attendees are provided questions one at a time and given a reasonable amount of time to work the problem and submit their answer via their smart phone or tablet. Attendees are given points for correct answers and how quickly they are able to answer the problem.

At the conclusion of each question, the session speakers lead a discussion on the problem and what the key information is in each problem as well as what are some of the "traps" that could lead to an incorrect answer. Discussions of potential mistakes are illustrated by how many attendees may select the same incorrect answer.

For example, one question involves determining the transition percentage for determining funding targets as follows:

Data: A plan is in at-risk status for only the following plan years: 2013, 2015, 2016, and 2017.

Consider the following true/false statement: For the 2017 plan year, the transition percentage for determining the funding target is 80%.

Answer: The transition percentage is 20% for the first year, 40% for the second year, 60% for the third year, 80% for the fourth year, and 100% for the fifth year. The potential mistake is to answer true because 2017 is the fourth year the plan was at risk. However, the transition percentage is phased in over five consecutive plan years. Since the plan was not at risk in 2014, the phase in starts over in 2015 and the correct answer is a transition percentage of 60%.

Questions cover a variety of topics from prior Enrolled Actuaries Exams, including but not limited to at risk status, funding targets and calculations, and 410(b) testing. Overall the session was a fun interactive way that attendees could work through old exam problems and recall a handful of the various pitfalls that they may encounter as they work through their own client situations.

Session 303

Special Retirement Consulting Considerations in Working with Not-for-Profit Organizations

Speakers:

- Robert Bruechert – Willis Towers Watson
- Robert Cippola – McGuireWoods LLP
- Sonja Coffin – Fidelity Investments
- Sarah Bassler Millar – Drinker Biddle & Reath LLP
- Ruth Schau – TIAA

Session Assistant: Eric Foster – GuideStone

Non-profits can include many types of organizations, including healthcare systems and institutes of higher education, plus also cultural associations, trade groups, and religious bodies. Working with these kinds of businesses requires special knowledge and insight into how they differ from for-profit enterprises.

Working With Not-for-Profit Clients

While the differences are not universal, there are some common traits shared by many non-profits. Their pace is often slower, as they skew towards consensus-building over majority rule; as such, less directive consulting may be more effective. They frequently have their own lingo, and often have different views about what types of workers and/or what kinds of benefits should be included in their plans. Even the players may be different; instead of typical business professionals, they may be educators, doctors...even nuns, priests, or other ministers.

The plan types are often different as well, particularly on the savings side, with 403(b) programs being the norm over the ubiquitous 401(k) plans. Though they are quite similar today, they still have some notable differences, and very divergent histories, particularly in the world of education from where not-for-profit savings plans began to evolve over 100 years ago. Of note, 403(b) programs were formally created 20 years earlier than their 401(k) counterparts (1958 versus 1978), are only available to non-profits, are not subject to ADP testing, and have a unique service-based catch-up contribution option (though that last novelty is often problematic in practice). Also, educational institutions frequently, and other non-profits at times, have multiple vendor setups for their 403(b) offerings, a practice that can cause its own issues.

Trends and Prevalence in Healthcare and Higher Education

In the healthcare market, using 403(b) “stretch” matches is popular—e.g., a 50% match on up to 6% of pay, instead of 100% to 3%—to incent higher savings levels. Academic medical centers have achieved the best retirement participation results within healthcare, though not quite as good as among more generalized higher education institutions. Some parts of the public higher education sector, however,

have been somewhat slower to modernize here than have healthcare non-profits and their private education peers, at times due to institutionalized limitations like participation in state-run defined benefit plans with often less-than-desirable funding; but this segment is increasingly embracing matching and automatic features in their 403(b) programs as well. Finally, there is growing interest in exploring Multiple Employer Plans (MEPs), particularly among some individual states' private schools, including some recent decisions to create a few closed forms of this plan type. More regulatory guidance is desired here, as elsewhere, which could facilitate even more growth in this area.

Mergers and Acquisitions

This is of particular interest in the non-profit healthcare industry, where M&A activity is common. System mergers and hospital purchases continue and acquisitions of alternative delivery methods like urgent care and hospice facilities are becoming more common. When benefit plans are being assumed, the differences are a distinctive challenge. For-profit areas lurking within an organization—such as physician groups—is another potential trap. It is key to remember that 403(b) plans can only be applied to non-profit employers. While higher education institutions typically don't prey on "competitors" in the same sense, smaller school mergers can be beneficial in some cases. State schools may also have good reason to come together such as to provide administrative efficiencies.

Executive Compensation

Executive compensation isn't particularly as unique for non-profits, other than executives in theory are being paid less due to the lack of actual profits. Nonetheless, the same types of compensation creativity can generally be brought to bear, including 457(b) eligible deferred compensation and 457(f) nonqualified deferred compensation programs—though church and church-controlled organizations are not "eligible employers" for these—with common considerations like substantial risk of forfeiture, noncompete provisions, excess benefit transactions with potential IRC 4958 intermediate sanctions, and IRC 4960 excise taxes. Also available are split-dollar life insurance (SDLI) arrangements which are actively marketed by brokers. A SDLI may be an attractive concept, but, unfortunately one that will not always work due to the underlying arbitrage basis sometimes not keeping SDLI above water as needed.

Other Considerations

Fiduciary and Governance Issues

As with operating the plans of for-profit organizations, care must be taken in differentiating between settlor and fiduciary functions for non-profit organizations, as well as establishing, documenting, and consistently carrying out procedures in these two areas. A particular concern is the selection of providers which can be a bit different in the multiple vendor 403(b) environment. Also, it was noted that the spree of excess fee litigations focused on higher education plans continues, though with mixed results that suggest this particular offensive might be losing steam.

Church Plans

Church plans, similar to government plans, are exempt from much of ERISA, including the protections of Title I (DOL) and Title IV (PBGC), plus much of the IRC and related IRS regulations that govern single

employer and other ERISA plans. In particular, current IRC requirements that do not apply include 5500 reporting directives, SPD and SMM mandates, minimum participation, vesting, funding specifications, and survivor benefit standards. Also, only good faith interpretation pertains to some areas of the IRC statutes, in lieu of the regulatory guidance, such as with defined benefit nondiscrimination determinations. Still, pre-ERISA rules and/or state laws apply in all of these various vacuums.

Of recent interest has been another wave of litigations focused on a group of these programs, particularly challenging the validity of church plan assertions among healthcare providers, and even the validity of the church plan status itself. The initial round went to those plan sponsors in mid-2017 via the 8-0 *Stapleton v. Advocate* decision, a narrow ruling that favorably settled the “established” versus “maintained” point of the claims. Left undecided, however, were matters of how close of a tie with a church or church-controlled organization is sufficient to be considered “associated” with church or church-controlled organization, as well as whether a benefits committee or the like can indeed be held as a “principal purpose organization” under the law (as has been previously affirmed by the IRS and DOL for decades), plus claims in regard to unconstitutional “accommodation” of these church plans. Cases that focus on these remaining points are also working up towards the Supreme Court. It was noted that most of the original cases targeted in this initiative have been settled, or at least effectively decided, though some remain open and a few have been added.

Resources

Reporting is less available for non-profit organizations and their plans—especially church plans, due to their lack of plan filings—but some specific sources do exist. For the Healthcare sector, these include Becker’s Hospital Review and CFO Report, plus S&P’s Global Credit. For non-profits that borrow funds, financial statements can be found on the EMMA and DAC Bonds websites. Also, executive compensation information can be gleaned from IRS Form 990 filings, plus Sullivan & Cotter does plenty of healthcare executive compensation consulting that could potentially be accessible.

Session 308

“It depends...”

- Thomas S. Terry – The Terry Group
- Elena V. Black – The Terry Group
- Riddhi Patel – AT&T
- Lisa A. Dietrich – Mercer

Session Assistant: Victoria L. Sefcik – Willis Towers Watson

Introduction

The role of an actuary has evolved immensely since the anecdotal “good old days” - when providing a client with a numerical answer to the question they asked was not only a job completed, but a job well-done. Problem solved. As time has passed, clients’ business needs have grown increasingly complex and varied and the role of an actuary has kept pace. It has evolved from a role with a black and white objective to one of more and more grey area as clients dig deeper into their specific business issues and look to actuaries for insightful perspectives.

Clients are interested in knowing not just “the numerical answer” but what the value of that answer is in a larger business context. They are interested in knowing how a proposed strategy would have performed for them in the past, how the proposed solution compares to what the peers are doing, or the “true” return on an investment (ROI) associated with that decision – all beyond just financial implications.

In some cases, even if that ROI or value-add breaches a pre-determined threshold, it may not be enough to execute on a project. With considerations beyond those items that are tangibly measurable, a strong argument may be made not to move forward. Therefore, it’s important to begin the answer to most of the questions we encounter as actuaries today with “it depends...”

A Case for Backtesting

To start off the discussion, Lena Black presents her perspectives on the effective use of the tool called backtesting, to potentially assess if proposed solutions would have worked in the past, for example.

Models are foundational tools used by actuaries in a wide array of disciplines. Although they are simplified mathematical presentations of reality – they can become very detailed and nuanced as actuaries constantly refine the models to develop insights from increasingly complex data. These insights may then inform future decisions. However, there are dangers with building models – overfitting the data can lead to overconfidence in the model’s results and the lack of flexibility of the model to adapt to future scenarios.

To combat this danger, Lena suggests *backtesting* is critical to model development. For example, splitting the historical data into two sets: one prior to a set point in time to develop the model and the other – after that point in time – to test for the model accuracy and other attributes, is one way to accomplish this.

Lena cites many different types of models in which she used this method of backtesting to test accuracy or stability and examine the balance between the two. A few examples include: yield curve construction, mortality improvement models/scales, investment strategies such as liability driven investment (LDI) or dynamic asset allocations (DAA), forecasting capital market assumptions' models and healthcare risk scoring models.

The major take-away from Lena's approach is that building sophisticated models has a time and place, but without consideration around how that model would have performed in the real world – and if that performance isn't meaningful – then don't rule out the consideration of adjusting or even disregarding that model.

Beyond Benchmarking

Next, the topic of benchmarking showcases that finding the real value in using comparators is driven by good data. Let's face it – in today's world, sometimes it's easy to assume you can just "google" everything. Lisa Dietrich discusses how important it is to use actuaries and consultants in certain key benchmarking areas because "nothing is black and white" when it comes to interpreting data and using benchmarking results to solve company problems.

Lisa walks through several examples of how benchmarking can be used to assess executive compensation, retirement benefits and employee satisfaction. She also discusses some of the shortcomings of public reporting of retirement benefit values in proxy statements and tax filings.

After a few examples, it is clear that this exercise is more than just "googling" – in actuality, the results may vary based on numerous factors, such as organization structure (e.g., publicly-traded vs. tax-exempt), industry, size and employee demographics. In other words, "it depends", perhaps, on identifying the peer group and the appropriate segmentation of the population to gain useful insights.

The Scope of the Stakeholder and ROI in the Real World

Before the final speaker, Riddhi Patel, provides the client perspective on how decisions are made for developing best-in-class, meaningful benefits for her employees, she provides a backdrop for a societal change that is starting to take place on truly defining the stakeholder. This idea was showcased in a recent update to the [Business Roundtable](#)'s purpose statement. The business roundtable was focused on evolving the corporate purpose and may represent a shift in focus from "what" (investor return) to "how" (employee, customer, community, business partner treatment).

Considerations around value for customers, investing in employees, fostering diversity & inclusion, dealing fairly and ethically with suppliers, supporting the communities in which we work, and protecting the environment may all be equally as important as increasing profits.

Riddhi wraps up the discussion by addressing the considerations around designing a best-in-class, meaningful benefits package for her employees by focusing on the value of the investment, rather than the return. For example, making selections around what benefits to offer go beyond the price tag provided by insurers and focus on the participant needs, talent attraction and retention, diversity and inclusion, options based on historical claims, and optimization opportunities. As you can see, it's clear the answer depends on what the goals are and who is driving the benefit design.

Conclusion

From model construction to benchmarking data to making design decisions that affect people at a very real level, actuaries and those they advise must consider a wide variety of factors when making decisions. After all, you never know what or who may depend on it.

Session 309

PBGC Proposed Withdrawal Liability Regulations

Speakers:

Darren French – PBGC

James McKeogh – The McKeogh Company

Jay Egelberg – First Actuarial Consulting, Inc.

Moderator: Mitchell Hofing – Dexter Hofing, LLC

Session Assistant: Michael I. Helmer – Segal Consulting

Presentation Overview

The Multiemployer Pension Reform act of 2014

PBGC proposed Regulations on Withdrawal Liability February 6, 2019 and Review of published comments on regulations

Other guidance regarding Multiemployer plans

Final PBGC Regulations for terminated and insolvent Multiemployer Funds issued May 2, 2019

PBGC Report on orphaned participants

MPRA Withdrawal Liability Provisions

MPRA affected Withdrawal liability such that Benefit Suspensions are disregarded for withdrawals within the first ten years when determining unfunded vested benefits (UVBs). MPRA also changed PPA '06 rules so that certain Rehabilitation Plan and Funding Improvement Plan increases in contribution rate or contribution requirements are disregarded in both – the allocation of UVBs to individual employers AND the calculation of annual withdrawal liability payments.

For withdrawals that take place within the 10-year period following the end of the plan year in which a Benefit Suspension takes place, plan must disregard the.

Proposed PBGC Regulation – Key Dates

MPRA Effective Date – for withdrawals occurring in plan years beginning on or after December 31, 2014.

Proposed Effective Date of Regulations - For simplified methods to be used for allocation of an employer's share of unfunded vested benefits and determining an employer's annual withdrawal liability payment – for withdrawals occurring after the effective date of the final rule, and for changes relating to MPRA suspensions and contribution increases for determining employer's withdrawal liability and changes relating to surcharges after December 31, 2014 – plan years beginning after December 31, 2014.

Simplified Rules for Benefit Suspensions

Static Value Method – Value of the benefit suspension is calculated once

Adjusted Value Method – Present value is recalculated each year during the 10-year period.

Under either Simplified method, "A+B" calculation is required where "A" is the employer's allocable share of UVBs determined under Section 4211 and "B" is the employer's allocable share of value of the benefit suspension. 20-year cap and de minimis rules are applied to the total only.

Treatment of Red Zone/ Yellow Zone Plan Contribution Increases

Contribution increases after the “Freeze Date” are excluded from withdrawal liability calculations, except for: increases related to Collective Bargaining; Increases which are used to provide an increase in benefits, either associated with plan amendment or integral part of the plan formula (a “benefit bearing” increase); increases due to unfunded vested benefit allocations under Direct Attribution Method; and increases after the plan exits Yellow/ Red zone status. Under the May 2, 2019 regulations contributions to Unfunded Liability do not get included in withdrawal liability. Only the contributions towards the benefit improvement are included.

Simplified Rules for Allocation Fraction

Simplified method for the numerator – The numerator is based on the withdrawing employer’s contribution rate at the Freeze Date times the CBUs for the applicable future year. If any contribution increase required to be counted has occurred after the Freeze Date, the total sum of such increases at the end of each plan year must be added to the rate at the Freeze Date.

Simplified method denominator (Method #1) – same calculation as for the numerator, but done separately for each employer still contributing at the end of each applicable period

Simplified method denominator (Method #2 – proxy group method – recognizes that some plans have multiple contribution increase schedules and many contributing employers that would make Method #1 not practicable.

Proxy Group Method

Adjust actual denominator in each year (as otherwise permitted to be calculated) downward based on percentages calculated for a sample group – or “proxy group.”

What Happens when Red Zone / Yellow Zone Plans Emerge?

Under Section 305(g)(4) of ERISA:

- *For Unfunded Vested Benefit allocation purposes* – for withdrawals after a certain date, all contribution increases are included (even for years while Red/ Yellow zone)
- *For annual payment purposes* – only contribution increases still in effect in plan years after plan emerges from endangered or critical status are counted.

Simplified Date for Unfunded Vested Benefit purposes:

- Method 1 – As of the expiration date of the first CBA requiring contributions that expires after the plan’s emergence from critical or endangered status
- Method 2 – For withdrawals beginning AFTER the first full plan year after a plan is no longer in critical or endangered status, OR, IF LATER, the plan year containing the expiration date of the first CBA requiring contributions that expires after emergence.

Simplified method for withdrawal liability payment purposes:

For any calculation date after a plan is no longer in critical or endangered status, the highest rate is the greater of:

- The rate in effect on the Freeze Date for the withdrawing employer plus required increases due to associated increases in benefit accruals, or

- The highest contribution rate for the withdrawing employer for the plan year after the first expiration date of the CBA (covering that employer) occurring after emergence, or, if earlier, the date as of which the withdrawing employer negotiated a new contribution rate following emergence.

Terminated and Insolvent Multiemployer Plans and Duties of Plan Sponsors (PBGC Regs published May 2, 2019) – Cover terminated and insolvent multiemployer plans; and duties of those pension funds’ sponsors. Intent to streamline administrative and compliance procedures for these funds to help save money. If these pension funds save money then ultimately PBGC saves money.

Valuation requirements for Mass Withdrawn Terminated Pension Funds

PBGC regulations on Termination of Multiemployer Plans (29 CFR part 4041A) establishes rules for administration of multiemployer plans that have terminated by mass withdrawal; and, basic duties of plan sponsors of plans terminated by mass withdrawal.

Plan sponsors must value fund’s vested benefit liability and assets as of the last day of the plan year in which a plan terminates and the last day of each plan year thereafter.

Sponsors of critical status pension funds must also make determination of plan solvency. If pension fund is expected to be insolvent for a plan year, then plan sponsor must file notice with PBGC and include most recent valuation. PBGC uses annual valuation to estimate its liabilities when pension fund becomes insolvent for purposes of its financial statements.

Previous PBGC regulations allow sponsors of terminated multiemployer pension funds with vested liabilities less than \$25M to conduct actuarial valuations ever 3 years. In order to save administrative fees, new regulations effective for plan years ending after July 1, 2019, allow one valuation conducted every 5 years if the liabilities were less than or equal to \$50M. If vested liability is greater than \$50M then plan sponsor continues to conduct valuations annually.

Plan sponsor must continue to monitor annually anticipated date of fund insolvency using cashflow projections. If valuations are not performed annually, a fund risks a Qualified opinion from its auditor and DOL audit that may cost more than the annual valuation itself.

Valuation requirements for INSOLVENT Mass Withdrawn Terminated Pension Funds

PBGC is adding annual valuation requirements for plan sponsors of insolvent pension funds receiving financial assistance from PBGC (whether terminated or not terminated); and, plan sponsors of pension funds terminated by plan amendment that are expected to become insolvent.

Disclosure of Withdrawal Liability Payments

Plan sponsors of all multiemployer pension funds are required to collect withdrawal liability in accordance with ERISA 4219. Plan sponsor assesses withdrawal liability then notifies employer of amount of employer’s liability, and schedule of payments. Plan sponsor of pension fund terminated by mass withdrawal must file with PBGC a certification that notices have been provided to employers. PBGC in turn uses information about withdrawal liability to estimate its multiemployer liabilities for purposes of its financial statements and to provide financial assistance to plans. PBGC looks for all sources of available funding given its declining financial position of its multiemployer program.

In the year ended September 30, 2018 there were 78 insolvent plans receiving financial assistance, and 64 terminated plans, but not insolvent, not yet receiving financial assistance.

PBGC requires plan sponsors of pension funds subject to valuation requirements to file with PBGC information regarding withdrawal liability – in the aggregate; by employer and whether pension fund has or has not yet assessed withdrawn employers.

PBGC Orphan Report

PBGC found - Less than 30 percent of plans report any value at all on Schedule R; and large plans far more likely to report than small plans. PBGC estimates total orphan population of 1.6M to 2.5M (out of 10.3M in total).

Session 401

Plan Administration – Beyond the Basics

Speakers:

- Ellen Keinstuber – Bolton
- Amy Krajci – Willis Towers Watson
- Christopher Snell – Colgate Palmolive
- Malcolm Merrill – Nyhart
- Carol Zimmerman – Internal Revenue Service

Session Assistant: James Franken – Pacific Benefit Services

Background and General Information

Defined Benefit Plan Administration has become a complex practice area, full of potential pitfalls, requiring attention to detail. This session speaks to many of the different facets and solutions to certain problems that client companies encounter.

Good Governance

It is important for the Plan to maintain written processes and procedures. Always read the Plan Document (PD) and Summary Plan Description (SPD). Involve all stakeholders, including management, outside Administrator, Actuary, ERISA Counsel, Trustees, etc. Deal with mistakes immediately and capture all known instances.

Dealing with Mistakes

Common potential failures include missed benefit notices, calculation errors, wrong definition of compensation, missed amendment adoption, and failure to file timely required reports. Solutions for resolving failures depend on its type. Generally, there are four (4) types: PD, Operational, Demographic, and Employer Eligibility. The Employee Plans Compliance Resolutions System (EPCRS) exists to address/resolve these failures. The Self Correction Program (SCP) can be used to correct errors without direct IRS involvement. The Voluntary Correction Program (VCP) offers a means to have IRS review and approve proposed correction procedures. The Audit Closing Agreement Program (Audit CAP) resolves issues discovered by IRS on review or audit, and penalty fees may be issued. Finally, the Department of Labor (DOL) offers its Voluntary Fiduciary Correction Program (VFCP) to self-correct ERISA fiduciary violations.

Actuarial Equivalent (AE)

Actuarial Equivalent (AE) factors are used for many purposes including early retirement reductions, late retirement increases, optional forms of payment, and QDRO benefit allocations. One needs to be careful when changing the AE basis due to anti-cutback rules.

Paying Retiree Lump Sums (RLS)

Paying Retiree Lump Sums (RLS) is an area of recent interest. Before 2015, both Ford and GM offered RLS windows and received approval under IRS Private Letter Rulings (PLR). IRS will not be issuing further PLRs here, but we expect they will be evaluating whether RLS offerings satisfy requirements of the Code. Regarding administration, all the usual notifications and consent requirements apply: special tax notice, QJSA explanation and spousal consent. Mandatory cash-outs are not permitted. Adjusted Funding Target Attainment Percentage (AFTAP) must be at least 80% after the RLS window. Top-25 Restriction rules still apply. Logistical concerns include verifying marital status, confirming beneficiary still surviving, and verifying who is a Highly Compensated Employee (HCE).

415 Benefit Limits

The 415(b) annual benefit limit for defined benefit plans excludes employee contributions. However, employee contributions count toward the 415(c) limit for defined contribution plans. For vested terminations, the 415(b) dollar limit and compensation limit may be adjusted after termination. For retirees, the 415(b) dollar limit and compensation limit can be increased prospectively.

AutoRollovers

DB Plans are able to force distributions without participant consent. Distributions under \$1,000 can be cashed out directly, while amounts between \$1,000 and \$5,000 can be rolled over to IRAs. The plan administrator must notify the participant in writing that the benefit will be rolled over if no election is received and identify the new IRA Custodian. The Plan Sponsor will not be deemed as failing to provide notice to the participant if mail is returned as undeliverable. Plans should consider performing periodic sweeps to maintain clean data, as well as processing terminations timely. Administrators can streamline mandatory cashout kits by eliminating other payment forms, and the QJSA Waiver.

Top 25 Restrictions

The Top-25 Restrictions rule is still with us, preventing HCEs and their beneficiaries from receiving accelerated distributions when the plan's funded level after taking into account the distribution is less than 110%. Restrictions end at plan termination, or when funding level is greater than 110%. Gray Book guidance says "Target Liability" is a reasonable interpretation for "Current Liability." Top-25 includes all nonexcludable HCEs ranked in order of highest year of total compensation, spanning the controlled group, for actives and former employees. Once on the list, the individual remains there, after commencement, until pushed off by another individual with greater compensation.

Participant Overpayments

The Plan Sponsor should review circumstances and consider whether to recoup overpayments. EPCRS Section 6 covers recouping overpayments, with an exception for small (less than \$100) payments. Alternative remedies include doing nothing with small payments, asking participant to repay, offsetting future benefits by actuarial value of overpayment, and retroactively amending to confirm operations to actual practice. Ms. Zimmerman notes that the IRS no longer requires a sponsor to ask a participant to repay. Sponsor may consider making a contribution with interest equal to the unrecouped overpayment

to the plan based on the plan's actual rate of return. A good documenting procedure includes detailed rules for handling overpayments, and creating a log for historic tracking.

Annuity Start Date

Annuity Start Date is defined as the date as of which the pension benefits are calculated. The QJSA explanation is due at least 30 days, but not more than 90 days, before the ASD. If the QJSA explanation occurs after the ASD, then a retroactive annuity start date results (RASD) may be available if provided for under the plan. A participant can choose between current ASD or RASD.

Multiple Annuity Start Dates are defined as a new election of a second ASD. Examples include disability retirement, partial distributions, and residual distribution after benefit restrictions. Retiree LS considerations at second ASD are whether to adjust for prior payments, spousal consent, possible new spouse, and 415 limits. Good practices include knowing your data, conducting periodic death/address searches, staying in touch with terminations, considering force-outs, and setting up communications for "approaching 65" and "approaching 70.5".

Missing (Lost) Participants

It is important to maintain contact with former employees who leave the company. Pension communications continue for vested termination and retired participants (e.g., Annual Funding Notice (AFN), SPDs, and SMMs). Lost Participants may eventually miss their Required Minimum Distributions (RMDs). The Social Security Administration ended their "forward letter" program years ago. Fortunately, third-party vendors are prevalent, with many offering inexpensive search/find solutions. Possible new approaches – not in common practice – may include using personal email addresses.

Session 402

Retiree Medical Topics and a Primer on Nondiscrimination Testing for Health and Welfare Plans

Speakers:

- Jeremy P. Olszewski – Fidelity Investments
- Stuart H. Alden – Aon
- Richard D. Stover – Buck
- Hope C. Manion – Fidelity Investments

Session Assistant: Steven D. Draper – Ernst & Young, LLP

Summary

This session focuses on three special retiree medical topics of interest to practitioners. First, a review of assumptions specific to retiree medical plan valuations - such as draw-down assumptions for account-based plans and reconciling pre-65 expected benefit payouts; second, the funding retiree medical plans through VEBA trusts, 401(h) accounts, and 420 transfers as well as how to determine the maximum tax-deductible contribution; and third, a primer on non-discrimination testing for health and welfare benefits under sections 105(h), 125, and 129.

Retiree Medical Assumptions

Many assumptions can be used for pension as well as OPEB valuations, but the significance can be much greater such as spouse age differences. Modified PUC is to full eligibility, but standard PUC is to first eligibility. HRA utilization assumptions are becoming much more common and rollover assumptions for unused balances are needed.

Spend time with the client discussing the details of their plan in order to properly understand both the implicit and explicit subsidy. It is no longer sufficient to ask if there have been any changes in the past year. A good discussion of actual versus expected benefits payments can be included. It is important to discuss the differences with the client so that they do not book premiums that are not adjusted. The slides show a great summary of the components of Medicare Parts A, B, C, D, Medigap, Medicare Advantage, and Part D acronyms.

Retiree Medical Assumptions

Funding of retiree medical plans is analogous to pension funding prior to ERISA – there are funding vehicles, but there are no mandates. The reasons to fund include controlling cash flow, accelerating deductions and balance sheet help. Funding is rare as there is a preference to keep cash in the business and it also leaves more flexibility to cut benefits in the future. Stranding assets in a trust is a real risk.

Alternatives to funding include 401(h), unchanged since 1962, which includes a subordination test and qualification test. It can be no more than 25% of total assets (i.e. contribution is no more than 1/3 of the pension amount). See slides for a real-world example of funding. There is also a maximum tax deduction test. It is necessary to use the assets as designated.

IRC Sections 419 and 419A are used for both active and retiree benefits for VEBA funding. Unrelated Business Income Tax (UBIT) is paid by the trust. Miscellaneous rules include nondiscriminatory \$50K life insurance grandfathering. IRS field guidelines permit funding over working lifetime or full funding for retirees. The entry age normal actuarial cost method fits well with the Internal Revenue Code for deductible contributions. If a collective bargaining agreement (CBA) is present, then the funding can be up to the present value of future benefits less the plan assets. VEBAs are the most common funding vehicle. The discount rate is an after-tax expected return on assets (EROA). It is important to coordinate the funding of both the 401(h) and the VEBA. There are various ways to avoid stranded assets.

Non-Discrimination Testing (NDT) for Health & Welfare Plan

All plans are subject to NDT other than insured health care plans. The ACA eliminated the exception for fully insured plans, but the IRS has delayed enforcement of that provision. Very few employers test all their plans while many test a subset of the plan. The elements of testing include a designation of Highly Compensated Employees and non-Highly Compensated Employees. (HCEs vs. NHCEs). The lack of regulations provides significant flexibility in interpretation. See the slides for the four prongs of the test. Note that the 55% test is the most used test that works to get to passing results. It also makes sense to build in some margin in case the IRS starts to audit the calculations. HCEs can also be the top 25% of income individuals.

Key questions to answer are: “What does it mean to ‘benefit’ under the plan?,” “Does eligibility qualify as a benefit?,” and “Is participation required to benefit?.” All active plan rules also apply to retiree plans. Age and service rules can be deemed to be discriminatory as they exclude the lowest paid employees from participation. Employers need to decide who will perform the testing.

Session 405

Healthcare Trailblazers: How Do They Stack Up?

- Stephanie Calandro - Willis Towers Watson
- Brooke Brownlow - H-E-B
- Mac McCarthy - MorningStar Actuarial Consulting, LLC
- Courtney A. Stubblefield - Willis Towers Watson

This session was comprised of short presentations from three speakers followed by a panel discussion.

Presentation Sessions

Ms. Courtney Stubblefield, a Senior Director and the National Health Care Delivery Practice Leader at Willis Towers Watson spoke first. Courtney described the landscape of market disruptors, including healthplan+PBM combinations and the Amazon+Berkshire Hathway+Chase plans to disrupt the delivery of health care. Courtney provided examples of the following elements of health care delivery, with the intent being to improve the patient experience, quality of care rendered, and the cost of care:

- Virtual care
- High value primary care
- Steerage
- Networks
- Condition-based strategies
- Direct contracts

Ms. Stubblefield concluded by describing critical indicators for evaluating innovative solutions:

- Critical Quantitative/Actuarial indicators include network contracting and performance guarantees
- Critical Network and Provider Strategies include access, steerage, high value primary care, centers of excellence models, data sharing, and administration
- Critical Clinical Performance indicators include outcomes, population health measures, patient satisfactions, and opportunities for financial improvement
- Critical Qualitative program characteristics include member engagement, innovation, data analysis and reporting, commitment, operational excellence, administration, and pharmacy integration

Mr. Mac McCarthy, ... at MorningStar Consulting then described actuarial-focused considerations in vendor evaluations. Mac first described his process cycle for establishing the value of a program:

1. Understand current state
2. Establish guiding principles
3. Identify success metrics
4. Select appropriate methodology
5. Results compared to success metrics

Mr. McCarthy provided examples of actuarial, clinical, and other success metrics and acknowledged that all are important although the remainder of his presentation would focus on actuarial assessments.

Ms. Brooke Brownlow, ... at H-E-B and President of Magenta Health described H-E-B's approach to evaluating health care vendors, as follows:

- H-E-B generally does not work with consultants other than for large RFPs. It has a robust analytical team internally that evaluates the methodology and calculations proposed by vendors
- Although H-E-B has flexibility to make multi-year investments, the solutions it implements must be projected to have a favorable ROI at the onset
- ROI is a prerequisite, but it is not everything. The solution must have a strong underlying mission, make sense from A to Z, have the capacity to positively impact a large cross-section of H-E-B's members' lives, have capabilities aligned with H-E-B's needs, and have clear measurable outcomes

Panel Discussion

Q: To Ms. Brownlow, in what areas are consultants missing the mark or completely falling short such that you prefer not to work with them?

A: Ms. Brownlow described some minimum criteria for consultants and vendors she is willing to work with

- Acknowledge that per head savings may have a limiting threshold for a large population; i.e., 115,000 employees multiplied by a PEPM savings figure often times generates an aggregate annual savings figure that is unreasonable for any population, no matter how large
- Admit "I don't know" or "We'll look into it and get back to you" when that is the truth. Do not respond to questions with sales and marketing pitches that are not pertinent to the question(s) asked
- Know your audience
 - Try to understand characteristics of the grocery/retail business and visit a H-E-B store
 - Success for a sales pitch is not getting through your PowerPoint presentation. It is having a real two-sided conversation to understand H-E-B's needs and what services they are seeking
 - Mission is to make a whole lot of people's lives better in a meaningful way. Programs with the capacity to impact only a handful of members is not Brooke's present focus

Q: Describe any pitfalls you have encountered in implementing new innovative vendors

A: There will always be hiccups in any implementation. What is most important is that a vendor demonstrates a willingness to be a true partner and work with an employer to resolve those issues as they emerge. E.g.,

- Ensuring on the front end that the necessary data will be available
- Demonstrating that the vendor is ready and well-apt to scale its solution to service a large employer

Q: What approaches do you employ to estimate or validate savings when a vendor's book-of-business and/or Medicare data is not an appropriate benchmark for an employer's specific population, or alternately when an emerging solution is too new to have any track record?

A: The panelists discussed the following approaches

- Best approach is to model savings on client-specific data if it is feasible to obtain it
- Otherwise, need to develop reasonable assumptions as with any actuarial work
- Having a measurement strategy in place to measure program outcomes and monitor changes (ideally improvements) in program outcomes over time is critical
- Forums such as EHIR have been valuable for vetting potential programs and also learning about other employers' experiences working with specific vendors
- A program's purpose, premise, and approach to what it is trying to solve for must make sense. The pieces need to hold together and you must be able to envision how it could work effectively. Founding story should include a passion to improve the issues being addressed; building, growing, and selling startup companies does not equate to making people's lives better

Q: To Ms. Brownlow, can you talk about the business decision to transition from being a purchaser of medical services to a provider of medical services with H-E-B's near site clinics and any pushback you got from leadership in charging that effort?

A: Ms. Brownlow described that being privately held, H-E-B has flexibility to invest in longer-term initiatives. H-E-B leadership buys into the notion that some investments take several years for any associated cost impact to become evident. This was the mindset H-E-B took with first implementing near site clinic(s).

They initially worked with a clinic vendor whose focus was on wellness, whereas H-E-B desired to expand to primary care. They then switched to a second clinic vendor who was not entirely aligned with H-E-B's strategic objectives for the clinics. Ms. Brownlow described that when she found herself thinking "This could be better. There has to be a better way," it occurred to her that she would have to figure out how to run a medical clinic. It was not an easy or small undertaking, but it also was not insurmountable—she and her team figured it out.

Session 407

ALM for Public Plans

Speakers:

- Todd Tauzer – Segal
- Bill Hallmark – Cheiron
- Keith Brainard – NASRA
- Paul Angelo – Segal

Session Assistant: Adrienne Ostroff – Deloitte

Society of Actuaries' (SOA) US Public Pension Plan Contribution Analysis

The SOA published the US Public Pension Plan Contribution Analysis in February 2019 as a comparison of public pension plan contributions to benchmarks for 2003-2017. The goal of the study was to determine if contributions to public plans are sufficient to cover the benefit payments when they will become due.

The primary benchmarks used in the study were tri-fold:

1. Target Contribution - Actuarially Determined Contribution (ADC), Annual Required Contribution (ARC) or Fixed Rate Contribution
2. Amount necessary to reduce unfunded liability as a dollar amount
3. Amount necessary to reduce unfunded liability as a percentage of payroll

Unsurprisingly, the 2008 market crash was the strongest differentiator between the years when plans generally exceeded benchmarks and years when plans fell short. However, most public plans have partially rebounded and currently receive sufficient contributions to reduce their unfunded liability as a percentage of payroll. Some plans persistently fail to meet this benchmark (#3 above) and it is not unusual for a plan to fail this benchmark, particularly after a market downturn. More than 40% of the plans that fail to meet benchmark #2 are contributing their Target Contribution or more, insinuating that Target Contributions are not a proper target for achieving the plan's goals in many cases.

NASRA's Study of State and Local Government Contributions to Statewide Pension Plans

Similar to the 2019 SOA Study, NASRA published a study examining the contributions to Statewide Pension Plans for the period 2001-2013, with annual updates via an issue brief. The NASRA study focuses on the comparison of actual contribution amounts received by the plans to ADC or ARC. The study revealed that plans with an explicit or implicit requirement related to the ARC or ADC contributed 98% of the requirement, on average. Plans with a fixed rate contribution policy contributed 79% of the ARC or ADC, on average. Both arrangements out-performed the alternative arrangements, with an average contribution rate of 68% of the ARC or ADC. Similar to the findings of the SOA study, contribution requirements are increasing. NASRA determined that the primary causes are declining investment return assumptions, updated mortality assumptions, insufficient contributions for most

plans causing downstream correctional increases, and legacy unfunded liabilities. States are getting creative with the best way to address these rising costs by increasing employee contributions, shifting plan design, establishing dedicated funding sources, and requiring a commitment to publish a plan to achieve full funding.

CCA Public Pension Funding Policies Whitepaper

As indicated by the SOA and NASRA studies, current times call for plans to get creative on their approach to reach full funding. A third whitepaper, published by the CCA Public Plans Community on Public Pension Funding Policies, outlined and discussed the merits of a variety of funding policies. For amortization, the whitepaper outlined the best practices for model Unfunded Actuarial Accrued Liability (UAAL) amortization periods based on source. Ultimately, layered amortization was determined to be the most effective manner by which to balance goals of reducing volatility and ensuring benefit security. Furthermore, reviewing the timing of the expiration of these layers and shifting the end points to manage volatility can be an additional manner in which to promote smooth contribution patterns over time.

Conclusion

The three papers discussed depict the history of funding practices, the current state, and promote several best practices for the future. While plans have generally rebounded from the 2008 market crash, current trends still show many plan sponsors failing to make the contributions required to secure future benefits. The longer this trend continues, the more severe the funding deficiency will become. Plans with inadequate contributions should start considering options now to course-correct before it is too late.

Session 408

Total Wellbeing

Speakers:

- Patricia Rotello – Willis Towers Watson
- Ruth Hunt – Buck
- Jane Jensen – Willis Towers Watson
- Joseph Adams – Winston & Strawn LLP

Session Assistant: Robert Bacher – ConocoPhillips

Background

Organizations have started moving from the traditional total rewards approach to a more holistic total wellbeing approach which includes physical, financial, emotional, social and other areas when engaging with their workforce. This session will share how forward-thinking organizations are working to enhance the employee experience through a more complete approach that is an extension of their current programs, policies and culture.

Summary

Pat opened the session sharing the evolution of total wellbeing, starting from the 50's through the today. Initially, and for many decades much of wellbeing center around exercise and physical health. In the 2000's the focus expanded to include elements such as tobacco cessation, weight management, Employee Assistance Program (EAP) and biometric screenings. Today we are seeing more companies take a holistic approach, captured in various ways such as the following four pillars of health: 1) physical, 2) emotional/social, 3) financial and 4) awareness.

Pat shared details of various examples within the four pillars, which included under the physical pillar, exercise, acute and chronic care management, prevention to avoid chronic health issues and proper nutrition. Emotional/social included work/life balance, community, sleep, relationships and the management of depression and anxiety. Planning/budgeting, health care and retirement savings, investing and debt management were discussed under the financial pillar. Finally, the awareness pillar included EAP, rising to the challenge, employee benefits and wellness warriors.

Next Ruth shared an overview of what “total wellbeing” is and the results of a recent global wellbeing survey conducted by Buck. Total wellbeing will mean different things to different people, but generally included professional – enjoy what they do, have a sense of purpose; physical and mental/emotional – get annual exams, eat healthy, get sleep, manage stress; financial – control over daily finance and debt, on track to meet financial goals; social – meaningful relationships, positive support network, engages in life; and community – gives back, both at the individual and community level.

Ruth shared highlights of the survey which included the impact of stress on health and the need to drive behavior changes through health literacy. Achieving a culture of wellbeing through a company's differentiated Employee Value Proposition (EVP) is a top aspiration and seen as a competitive advantage for many forward-thinking companies. Using technology and data analytics to prioritize areas of focus. Many employers are moving from Return on Investment (ROI) to a Value on Investment (VOI) approach to measure success.

Ruth provided a summary of wellbeing objectives and how they compared globally versus the US. Unlike global results, the US #1 issue was reducing health care cost, tied with improving employee engagement/morale which was the global #1 issue. Wellbeing priorities differed globally, but both global and US responses had stress as number one. For the US, physical activity and addressing the obesity epidemic also were top priorities. More companies are increasing efforts in culture-building and seeking input from employees through surveys and focus groups. Financial distress was at the topmost impact of financial challenges, with many citing financial instability and inadequate financial protection concerns. With this context, many companies are focusing on providing support to their employees on money management, budgeting, and financial health assessments that address current financial challenges, as well as the longer-term focus on retirement planning. Data and technology are evolving on the topic of wellbeing, but it remains somewhat difficult to find vendors with proven results and a global platform.

Ruth turned it over to Jane who shared the importance of focusing on the employee perspective, rather than the employer, in developing wellbeing offerings. It is important to consider "moments that matter" for an employee and "what's in it" for the employee. Jane shared the importance of having management support, engagement and accountability in the process of shaping the desired culture and programs. A holistic approach, that leverages technology, provides employees with access to tools and resources and allows analytics and insight to provide direction on areas of focus. Companies are appreciating the importance of a healthy and engaged workforce and are wanting to provide programs that will support and help in their attraction and retention needed for the company's success.

Jane shared that physical wellbeing still matters and it is often a journey of education and awareness among employees and their family. A goal of having employees thrive and understand what they can do to better to manage their health and avoid more chronic or catastrophic health conditions. Next Jane shared the importance of emotional wellbeing, starting with self-awareness and maintaining mental health. The ability to be resilient and manage stress, coping with positive and negative triggers and dealing with life crisis. Companies are offering various programs, including EAP, resiliency coaching, stress management and mental health/substance abuse benefits and access. Finally, Jane shared the move to an outcomes and impact basis in evaluating the addition of new programs rather than looking at it only through a financial lens, or ROI.

Joe took the podium and shared how student loan debt has become a concern for many employees and an area of focus for employers. Balances of outstanding student loans in the US have reached \$1.6 trillion and more than 25% of that is held by people under 30. The American Institute of CPAs published

data that the average loan balance is over \$33,000 and a recent TIAA-MIT AgeLab study found that 73% of student loan borrowers delay maximizing retirement savings to pay off their debt. This has a profound implication of employee's ability to retire in a world of Defined Contribution pension plans as the primary retirement savings vehicle.

Joe shared that in 2019, 8% of US employers offer some form of student debt program, which is more than double the 2015 level and that 32% of companies are considering introducing a similar benefit by 2021. Companies are seeing this as an important area to compete for talent and help young workers faced with large debt burdens. Initial programs focused on assisting employees consolidate debt payments and access to lower interest rates. These programs tended to be little or no cost for employers, unless they choose to subsidize interest rates or reimburse employees a certain amount. Joe shared that some companies have provided cash payments, in the range of \$2,000 to \$10,000 to employees. This does create an additional cost, which can be challenging and does create "fairness" issues among employees, those with student debt received a benefit and those without did not. Other thoughts explored include allowing employees to utilize their Personal Time Off (PTO) allowance and receive cash in-lieu (up to 5 days) and at least one employer has received a Private Letter Ruling from the IRS to allow employees to receive matching contributions to the company 401(k) plan when providing proof of making student loan debt payment rather than an employee contribution to the plan. However, the rules and regulations in place today do not make this easy to accomplish.

Joe concluded his presentation talking about some anticipated administrative and legislative relief in the area of student debt. The IRS has shown a willingness to issue generally applicable guidance and a there is discussion of some student loan legislative relief proposals that appears to have broad bi-partisan support.

Session 501

Not Your Average Plan Termination Session

Speakers:

- Joseph C. Anzalone – River and Mercantile
- David Allan Sawyer – Retirement Horizons, Inc.
- Kaushik Mehta – Mercer

Session Assistant: Michael Clark – River and Mercantile

In this session, the speakers looked beyond the plan termination process to provide the audience with practical tips for avoiding issues during a plan termination. This information was supplemented with comments that were provided by the PBGC regarding common issues that they encounter, especially upon audit, of which they want the consulting community to be aware.

Project management was the first area that the speakers addressed. They shared examples of situations where the project management budget was overrun early in the process due to the number of calls and the people involved in those calls. The lesson learned was to not underestimate the amount of project management time that is needed to keep everyone in the loop during the process. In addition, an example was shared of a treasurer that didn't realize he needed to liquidate the plan investments to pay for the lump sums – which was in advance of the annuity purchase by a few months. Another example was shared where a plan's ERISA counsel had not been involved in the review of the various notices and forms until just before they were to be mailed. This ended up causing a delay due to the changes that counsel requested for the various documents. These examples highlighted the need to keep critical personnel informed of what needs to be done by whom and by when.

Maybe the biggest takeaway from the session came from the PBGC comments. The PBGC representatives strongly suggested that practitioners involve the right PBGC personnel when there are questions. They did emphasize the need to review the instructions, but that for nuanced situations (which there always seem to be) that they are more than willing to help consultants come to agreeable resolutions, as long as the PBGC is engaged before nuances become problems.

The next section of case studies dealt with data quality. A plan termination requires significantly more detailed data than the typical annually recurring project. This is true for the Notice of Plan Benefits, Form 6088 pay data, participant addresses, additional fields for the annuity purchase, etc. One of the speakers provided an example of a plan sponsor who was emphatic that they had clean data only to realize that there was a section of data (prior to a digitization project) that would still need to be collected.

Another example was shared regarding the data fields needed to highlight to the insurers bidding on the annuity purchase the nature of the workforce (i.e. blue collar). Without those fields, the annuity purchase bids came in reflective of a white collar population increasing the cost to the plan sponsor. Other comments were around the need to collect beneficiary data, including Social Security Numbers, dates of birth for joint and survivor benefits, and certain period start dates. Additionally, the point was made that in M&A transactions sometimes historical data for accrued benefits may not be passed to the new company; however, this needs to be resolved and should be on the radar of any consultant that is involved in these transactions. The PBGC is able to subpoena prior providers to help track down this information if other parties do not cooperate.

The PBGC also called out de minimus lump sums and uncashed checks, and noted that, once the plan termination process starts, these participants need to be included in the PBGC Missing Participant program. They also commented that the PBGC will take missing participants even if their data records are incomplete.

The final conclusion for this section was that plan sponsors need to understand what data will be needed in advance of the plan termination, and that some historical data can be hard to come by without substantial effort.

The next section of the session addressed plan documentation including historical documents, amendments and board resolutions, and election forms. One of the first examples shared in this section dealt with an ERISA attorney that didn't see the need to include specific language around the lump sum window for active and vested terminated participants in the termination amendment. Even after the consultant explained why it would be necessary, both the ERISA attorney and the plan sponsor decided to leave the amendment as is. In this case, the consultant required in writing direction from the Plan Administrator with the details for implementing the lump sum window (timing, assumptions, etc.).

The next examples were around benefit calculation audits, especially for special or unusual cases. The point was made that, in the event that corrections via a VCP filing are needed, the VCP process needs to be finalized before starting the plan termination process. This was also a point the PBGC made, as their timelines are not contingent on any IRS timelines that involve VCP filings.

The panel also discussed the need to ensure that the plan document contains all necessary provisions such as language providing for annuity purchases and deemed cashouts; it was also recommended that the plan be reviewed for provisions that could be amended out (e.g. underutilized or redundant forms of payment, disability benefits), as this can help ease the termination process.

The PBGC comments on plan documentation focused around making sure that the actual plan document provisions match the administrative practice. They also commented that they see scrivener errors especially around restatements that need to be resolved. They also look for spousal consent documentation on election forms where the participant elected something other than the QJSA or QOSA options.

The final section of the session dealt with the final payouts as part of the plan termination process. One of the case studies presented addressed a similarly themed project management issue. The case study focused on the need to involve the trustee in timeline discussions to ensure they have the proper time to process distributions in a timely manner. This also led to a case study dealing with the need to keep the plan's trust open until all final items are resolved, including the potential for a refund adjustment from the selected insurer.

The PBGC comments on this area focused on the need for annuity contracts to match the plan provisions. The example they shared was that of a plan that had an ongoing lump sum optional form of payment, but that form of payment was not written into the annuity contract. The other comment PBGC made was in relation to the PBGC Form 501 requirement to provide documentation of the payouts. They said that it was not sufficient to provide a listing of participants that received lump sum payments unless that listing was paired with the election forms so they could verify that participants received the amounts they elected. For annuity benefits, the annuity certificates would be sufficient. PBGC also commented that non-majority owners, even if they are family members of a majority owner, cannot waive benefits.

PBGC also recommended that consultants obtain commitments from the insurers prior to starting the plan termination and before paying out lump sums. This will avoid plans ending up in a situation where there is no insurer willing to bid on the annuities and the plan sponsor potentially having to unwind the termination. They also reiterated the timelines and the need to ensure liquid assets to pay benefit payments and finally to ensure that payments are actually made.

To summarize the main points of the session: preparation is key, especially as it relates to timelines, data, and plan documentation. During the plan termination process, it's imperative to follow the instructions and involve PBGC ahead of time if there are nuanced issues.

Session 503

Hot Topics in Pension Accounting

Speakers:

- Richard O Goehring – Richard O. Goehring, Inc.
- Lisa G. Ullman – PricewaterhouseCoopers LLP
- Nick C. Thornley – Ernst & Young, LLP
- Philip Bonanno – Grant Thornton, LLP

Session Assistant: Urmi Nayak – Ernst & Young, LLP

This session covers the latest trends in pension accounting, including a few deep dives.

Best estimate

Each individual assumption used in a valuation should be a best estimate of future experience with respect to that assumption. It is company management's responsibility to choose their assumptions and provide a rationale for how each assumption was developed. The auditor's responsibility is to determine if an assumption has a sound basis and is a reasonable best estimate. Auditors typically consider the past experiences of the company, management's view of the future, and assumptions used by other similar entities to determine if an assumption has a sound basis for use in the client's financial results.

Acceptable assumptions need to follow accounting rules or principles; the financial results must follow these rules and principles. Under most accounting standards, the approach for selecting specific assumptions can be easily refined; however, changing the method requires additional steps to be followed to obtain required approvals. It is important for management to set up controls around their assumption selection process. They can rely on their actuaries as specialists but need to allow for sufficient professional skepticism.

Assumption setting

During the assumption setting process, the focus is on the key assumptions. ASOPs 27 and 35 provide guidance on the selection of key assumptions. Since the ASOPs provide guidance and not stringent methods for setting assumptions, it is possible for two different actuaries to review the same data and develop different recommendations. Therefore, it is imperative to apply professional judgment and provide an appropriate rationale and basis for the selection of each assumption. Additional considerations for consistency between assumptions and business decisions that affect the pension plan and its population need to be made. For example, a known plan freeze could impact the retirement and termination experience for a plan.

The purpose of any assumptions that are prescribed by government agencies (for example: segment interest rates for pension funding, mortality for use for lump sum benefit payments, etc.) or selected by

other parties should be disclosed. If the actuary is unable to evaluate the reasonableness of an assumption or where there are disagreements regarding the assumption, then that should be noted within the report as well. If no exception is noted, it is assumed that the actuary deems the assumption to be reasonable. For non-prescribed assumptions selected by the actuary, there is usually a higher level of support furnished. Actuarial communications should disclose which party(ies) is/are responsible for the assumption selection. Providing a high level of detail is beneficial when the client or auditors have any questions.

Company management is ultimately responsible for the assumptions reported in the financial statements. Due to a greater focus on process and controls for public companies, many companies are taking control of their assumptions. Management typically relies on the plan's actuary and other professionals to provide expert advice during this process. Key considerations made by management include assessing the relevancy and reasonableness of each significant assumption on an ongoing basis and having supporting documentation around the process for the determination of each assumption.

The actuary is responsible for assisting management to determine and understand each key assumption and provide any requested details by the auditors. ASOP 41 suggests that each actuarial communication provide complete information on which to enable another actuary to opine. It is acceptable to reference another document for certain portions that may have been communicated previously. Panelists noted that disclosure items that are commonly deficient include the method of application of the segment interest rates, use of annuity substitution, actual lump sum conversion rates and lump sum mortality utilized in the valuation system, etc.

Methodology considerations

In general, the basis of estimate for actuarial assumptions is considered only when new ideas emerge in the market or during merger and acquisition activities. The basis of estimate for actuarial assumptions can have a significant impact on financial results but is regularly overlooked by actuaries since they relate to accounting and are also overlooked by clients since they relate to actuarial results. Accounting implications for changes in basis of estimate for actuarial assumptions are based largely on facts and circumstances, and for public companies may require additional documentation.

Accounting principles (i.e. accounting methods) determine how information is reported. Change in accounting principles require justification that the proposed change is preferable to that previously utilized. It therefore requires retrospective application (but not necessarily a restatement).

An accounting estimate is an approximation of information. Changes in accounting estimates result from new information; for example, a change in the estimated obligation based on new census data or updated assumptions.

The actuarial cost method used to develop the liability is generally projected unit credit under US GAAP. Cash balance plans may have additional considerations based on the plan provisions. If the plan uses a fixed interest crediting rate, it may be appropriate to use the account balance or any other acceptable

method. If a method change is due to a plan change, it can be argued that it is made due to new information. Hence, depending on the facts and circumstances, a change in the actuarial cost method may be viewed as a change in estimate.

When a change in the method of calculating the asset value is considered, fair market value is preferred as it is more accurate; it may be difficult to move to a smoothed approach or move to a method with smoothing over a longer period. An additional consideration for using a smoothed approach is that asset gains and loss must be systematically recognized over a maximum of five years. Mark-to-market accounting expects gains and losses to be recognized in expense in the year in which they occur. Since mark-to-market is considered the most precise method, moving away from mark-to-market accounting may be difficult.

A change in the method of developing the discount rate may be a change in principle or a change in estimate based on the facts and circumstances. If a newly hired actuarial firm no longer has access to previously used proprietary yield curves, the change in the yield curve used would likely constitute a change in estimate. In the case of a change from a yield curve approach to a bond match approach, it could be argued that the change is now preferable and appropriate based on new information not available for previous valuations. A move to the spot rate (granular) method is typically viewed as a change in estimate inseparable from a change in principle. Such a change usually requires justification of preferability as well as retrospective disclosures.

Changing the period for amortizing gains and losses from average future service to average future lifetime can have a big impact on the net periodic expense. ASC 715-30-55-48 references all or almost all inactive participants as the driver for the use of average future lifetime. In the situation of a plan freeze or a dwindling active population, it is necessary to consider whether the percentage of actives would only decrease going forward and that now is the justified time for such change.

Administrative expenses are commonly accounted for by reducing the expected return on assets assumption, loading service cost, or inclusion in the operating income outside of pension accounting such as in selling, general and administrative expenses (SG&A). With regard to ASU 2017-07, loading service cost should be carefully considered as it would treat administrative expenses differently within company earnings than other approaches.

De-risking

Common de-risking events include plan freeze, adding a lump sum option, adding a lump sum window, including a glidepath asset allocation approach, purchasing buy-in annuities and buy-out annuities, terminating the plan, etc.

A plan freeze can have different flavors – closing to new entrants, soft freeze with only salary or service frozen, or hard freeze with the accrued benefit frozen. A plan amendment eliminating future service may trigger a curtailment. The timing of the curtailment is based on when management makes the decision to freeze the plan as long as they inform the plan participants within a reasonable time frame.

Adding a lump sum option is viewed as a plan change or an assumption change since it provides an alternate method for settling the obligation. Adding a lump sum window is like adding a lump sum option for a temporary period. The lump sums paid may trigger settlement accounting, so it is important to monitor the cumulative lump sums paid against the accounting for settlement threshold. If administrative expenses are included in service cost, it may or may not be included in the calculation of the settlement threshold.

Companies are increasingly utilizing glide paths to set their long term expected return on assets assumptions. Based on the regulations, the long term expected return on assets is based on the plan's current asset allocation. Glide paths systematically increase the fixed income allocation within the asset portfolio as the funded status of the plan improves. Considerations need to be given to using appropriate benchmarks for higher fixed income assets in lieu of incorporating alpha (active management) and the effect of drastic changes in asset allocation during the year on the expected return on assets assumption.

A settlement is an irrevocable transaction that eliminates significant risk and relieves the plan sponsor of the benefit obligation responsibility. Buy-in annuities would not be considered a settlement if the contract is unallocated as it does not relieve the employer of its responsibility. Buy-in annuities eliminate some risk and are treated as investments within the plan's assets. Buy-out annuities are comprised of allocated contracts with certificates provided to the participants. They relieve the employer of responsibility and eliminate significant risk. They are considered a settlement.

Session 507

DB/DC Debate for Public Plans

Speakers:

- Paul Angelo – Segal Consulting
- David Draine – Pew Charitable Trusts
- Leonard Gilroy – Reason Foundation
- Dan Doonan – National Institute for Retirement Security

Session Assistant: Phillip Souzek – Deloitte Consulting LLP

Background:

This session focuses on the ongoing discussion in the retirement community between the merits of Defined Benefit (DB) plans and Defined Contribution (DC) plans, and how that discussion has changed in recent years. The panelists frame the discussion of plans differences based on 1) lifetime income options, 2) economic efficiency, 3) accrual of benefits and 4) risk-sharing attributes. Hybrid plans are also discussed.

Lifetime income options are generally viewed as an important component of a defined benefit plan. The availability of annuitization options in defined contribution plans can provide the income security for life traditionally offered by defined benefit plans. Whether Defined Contribution plans offer an annuity, and default participants into an annuity option or otherwise constrain the payment form choice made by participants, may depend on the degree to which plan sponsors are paternalistic. Whether public sector employers will continue to be relatively paternalistic compared to their commercial counterparts is not known. Different assumptions used to annuitize account balances can result in varying benefit levels, a topic that also impacts economic efficiency.

Defined Benefit plans have historically been at an advantage relative to Defined Contribution plans in investing assets to capture returns above the risk-free rate and keep administrative costs low, resulting in greater economic efficiency. Studies also indicate that annuitization is more efficient within retirement plans than in the commercial market. Hybrid plans such as Cash Balance plans or defined contribution plans otherwise annuitizing account balances can avoid the relatively inefficient annuitization by offering an annuity within the plan. Earning returns that can compete with pooled-risk defined benefit plans will continue to be difficult. The rate at which cash balances are annuitized could create a benefit to participants within a Cash Balance or Hybrid plan, if a favorable rate is selected.

Benefit accrual differences between traditional defined benefit plans and defined contribution plans accumulating an account balance are well-documented. Defined benefit plans offer lower benefit accrual rates early in a career and higher rates closer to retirement. The lower accrual rates of a defined benefit plan early in a career makes it less valuable to public sector employees in positions with high turnover, including corrections officers. Other public sector positions experience lower turnover rates than the commercial sector. The plan offered by a public sector entity should reflect its desire to retain employees at varying age and service combinations.

While some defined contribution plans are incorporating features of defined benefit plans, the reverse is also true. Defined benefit plans can transfer investment risk to participants by a variety of means,

including ad-hoc or variable (potentially negative) benefit increases in retirement. Employee contributions can also be used to pay down unfunded liability, a form of sharing the risk of plan economic and demographic experience.

Session 607**Teachers Never Die: Pub-2010 in Practice**

Speakers:

- Elizabeth Ann Wiley – Cheiron, Inc.
- James G. Berberian – Buck Consultants
- Robert Andrew Blough – Indiana Public Retirement System
- Joseph Pace Newton – Gabriel Roeder Smith & Company

Session Assistant: Jolene Roe – Deloitte Consulting LLP

Now that they have been released, how have the Pub-2010 public retirement plans mortality tables affected practice?

Background and General Information

This session aims to help actuaries examine the impacts on liabilities, contributions, considerations of the fit of the tables vs. experience, and administrative issues such as purchase and option factors due to the implementation of the Pub-2010 mortality table.

Pub-2010 Rates Versus Plan Experience

The session began with considering how plan experience plays a role in the fit of mortality tables. An example was illustrated using a female teacher annuitant data set with four years of experience and known life years and benefits exposures. This is a medium-sized population with partial credibility. One option is to use the Pub-2010 Teachers mortality table and see if that's a good fit. One should first begin by looking at the actual over expected (A/E) mortality. Under this option, we determine that the A/E is 116%. Additionally, using the Limited Fluctuation Creditability Theory, we identify the data is only partially credible at 69%. We customize the mortality by blending the reference table and the A/E value times the reference table. Thus, under option 1, we move 69% of the way towards 116% times the reference table. Option 2 identified is to look at the Pri-2012 White Collar mortality table. Under option 2, the A/E is 87% with a 69% partial credibility. Is option 1 or is option 2 a significantly better fit to the experience data? Comparing the two options graphically, one would see the Pri-2012 table overestimates death and the Pub-2010 table underestimates deaths. Overall, based on the standard graphical approach, there doesn't seem to be much difference between the two adjusted options, however, there are many other methods to consider if one is still a better fit. One such method would be to graph the tables under a log scale or use a regression system if one has it. For this example, we used the log scale method. If this is all we had, then the adjusted Pub-2010 Teachers Mortality table seems to be the best fit.

Pitfalls of Using just Aggregate A/E Ratio to Compare Data

Now we throw everything out the window and discuss why just using A/E ratio is not always a good idea. First, we'll look at an example of a Texas experience study for female retirees. This study used the RP-2014 mortality table with Scale BB projection and one can see that it's not a bad fit to the data. The example continues with the experience of the same female retiree data five years later. There is a 13% improvement for these later five years. This improvement is partially because the System had significant growth in active employees throughout the 1980s, and thus are now experiencing rapid growth in the retiree population and many of these new retirees are working another job and not actually retired.

When looking at the experience, one needs to consider if the dataset is credible but immature. Is the experience going to change over time? The key is to not presume your historical data and proportions will be the same as the future, but also don't presume all proportions will converge. One should build a process based on their philosophy and be consistent. Under this mindset, we also looked at the new experience study using only data for those retired for five years and more and again for those that retired within the last five years. Removing the recently retired data now get's us much closer to the previous experience study. Clearly there is some form of "select" period immediately after retirement for those recently retired.

Another way to look at the data is by comparing life expectancies. The example compared the all client data, to the client data of those retired five years or more ago, and to another more mature client dataset. Again, we see that removing recent retirees produces data closer to a more mature plan. By turning your experience study data into life expectancies, you can view the patterns in the same way the valuation program will, and ultimately your gain/loss calculations. This is just another way to look at your dataset instead of looking at A/E ratio. To the extent there is a select/ultimate pattern, the overall A/E could be understated compared to longer term patterns once the population is more mature.

Optional Form Factors and Service Purchase Impacts

In addition to the mechanics of choosing a mortality table, there are also administrative issues such as optional form factors and service purchase impacts due to implementation of the Pub-2010 mortality table that one must consider. How do these changes effect participants and what is the best way to communicate these changes? For example, consider a plan where the normal form is a single life annuity. The prior mortality table is the IRS 2013 Applicable Table projected five years with Scale AA, blended 50/50 male/female. The new table is the PubG-2010 Retiree table projected to 2035 using MP-2018, blended 50/50. The discount rate is 6.75%, with no COLA, and husbands are assumed to be three years older than their wives. The example continues by graphically comparing a \$1,000 monthly life only annuity converted to a joint and survivor 50% annuity over time under the two mortality tables to see how the benefit amount changes. We notice the PubG-2010 table is pushing the benefit up. Under varying optional forms, if one starts a benefit in the early 50's, the baseline line IRS 2013 table started out higher, thus the PubG-2010 tables was less expensive for employers. In this example, most gained with the new mortality change, but some lost. Increases and decreases like this are not intuitive to non-actuaries, however, the non-actuaries are the ones communicating these types of changes to participants.

When it comes to service purchases, there are a wide variety of practices and rules. Generally, cost equals present value after purchase minus present value before purchase. Changing mortality tables changes these present values. The expected effect and timing of such changes need to be communicated to stakeholders. The section continues by looking at a service purchase example using the same assumptions from the prior example, except, the payment form is now single life annuity deferred to 65 and the COLA is 2.5%. The change in the new mortality to the prior mortality is shown in a chart. In the example, at the initial years there is a percentage increase around 10%, but it trails off to about 6-7% in later years. It is clearly seen that mortality changes can have big impacts on benefits.

All in all, communication of the changes and the impacts of the changes is key. Client contacts probably understand some actuarial concepts, but the communications staff and regular members frequently do not. One needs to go back to basics when explaining the impact on changes to non-actuaries, such as what is a mortality table and why is it changing. The average person can't answer a lot of these basic questions, but the communication professionals need to know the answers because they will be the ones explaining it to members. The communications team will address how to communicate information, but it is our job as actuaries to help them understand the big picture.

Session 608

GUIDING CLIENTS THROUGH BANKRUPTCY

Speakers:

- Phillip A. Merdinger – October Three
- Joseph R. House – PCA Pension Advisory
- Joel I. Krasnow – Milbank

Session Assistant: Kelly Karger – Willis Towers Watson

Background

The U.S. economy is in a long recovery. At some point a recession will come and inevitably so will bankruptcies. How do consulting actuaries help their clients through bankruptcies with respect to pension and healthcare plans?

We start with some key terminology

Creditors and debtors are terms thrown about with ease in bankruptcy. Creditors are all entities that are have a claim against the assets of a company, while the debtor is the individual or company who initiates the bankruptcy case.

Defined benefit (DB) plans

The session starts with Joe House setting the stage discussing underfunded DB plans during bankruptcy. DB plans often play a major role in the outcome of reorganization through bankruptcy. Think about the automakers, airlines, retail, and other organizations where the outcome of their reorganization through bankruptcy hinged on satisfactory resolutions with the PBGC on their underfunded pension obligations.

As a creditor, the PBGC (being the backstop for US employees) will immediately enter notice of appearance on behalf of the DB plan. In the beginning, the debtor will be working to “court” the PBGC and other large creditors to get them on board with their plan of reorganization. Being on the creditor committee, the PBGC will be most directly involved with the qualified DB plan, but will also have interest in the other creditors as part of the overall creditor committee interest.

Practical guidance on DB plans

In its goal to protect the interests of both the plan participants and the PBGC, the agency is proactively working to identify companies on the path to distress. This includes employing a dedicated group of financial analysts that monitor the highest exposures in terms of number of participants, and underfunding, reviewing publications regarding the plan sponsors as well as their credit ratings. Through this monitoring, the PBGC is able to begin early conversations with companies on the distressed path.

However, they are sometimes still surprised with a company going into bankruptcy that didn't hit their radar in advance.

The PBGC's first request is to understand the debtor's plan. They will be looking for plain, transparent disclosures of the current and projected status of the plan. Key documents include 5-year projected schedules of contributions, government forms, asset and liability values, and plan documents. Enhanced data requests tend to expand the projection period to 10-years, as well as projections under some hypothetical scenarios (plan closure or freeze, application of funding waivers, etc.). Typically the cost of performing such studies would be trust payable expenses and the PBGC understands the need for actuarial analysis. But keep in mind they will review fees for reasonableness. From this information, the PBGC will file contingent claims covering unfunded liabilities, due and unpaid minimum required contributions, and premiums owed to the PBGC. Recall, under ERISA plan sponsors are required to continue making contributions up to and through the bankruptcy, but court approval would be needed for payments after the filing.

Bankruptcy does not automatically terminate a DB plan. It is possible for a DB plan to be unaffected by a bankruptcy, and the plan could "ride through" the process without any disruption. From a debtor's perspective, having a DB plan riding through the bankruptcy is different than the treatment of other obligations. Other contracts and agreements are being terminated or refused. Ultimately, in instances where the plan terminates, the parties will enter into an agreement with regards to the plan underfunding and priorities, driven by the necessity of the bankruptcy process.

What surprises DB plan sponsors

DB plan sponsors are sometimes surprised to hear that while they have a sense of the underfunding of the plan for financial reporting purposes, they do not have an understanding of how much larger the PBGC will view the underfunding. Mid-size plan sponsors (those with roughly \$50M to \$125M in underfunding) often don't have a plan when they start conversations with the PBGC, adding a significant amount of analysis very quickly upon receiving the request from the PBGC.

Other plans and programs

Joel changes focus to discuss other plans and programs including Retention, Incentives, and Retiree Welfare.

Retention plans (also known as KERPs – Key Employee Retention Plans) tend to be for the rank and file employees because under bankruptcy regulations, payments to "insiders" are prohibited. However there is no definition of "insider", so in practice this is applied as "you know it when you see it".

Incentive plans (also known as KEIPs – Key Employee Incentive Plans) must have payment tied to performance. KEIPs cannot have a primary purpose of retention. Objections can be raised if the KEIP has a retentive effect. In the bankruptcy process, the debtor's existing equity will be cancelled and upon emergence there is often a reserved portion of reorganized company shares to provide equity

compensation to employees and directors. Under these Management Incentive Plans (MIPs) the size, share reserve, and allocation are determined in consultation with substantial creditors.

Retiree welfare plans are subject to special rules in bankruptcy. While Section 1114 of the Bankruptcy Code specifically addresses procedural requirements for modifying these benefits during the bankruptcy case, there is a difference of opinion among the Circuit Courts as to whether these rules are applicable to all OPEB benefits or only to those that cannot be contractually amended.

What's next?

As a final parting comment, Joel speculates that the next level of activity in bankruptcy may be in the multiemployer plan space given the condition of many (not all) of these plans. No matter where the activity is next, actuaries play a vital role in educating our clients about the status of programs, and strategies for managing obligations during the critical timeframes: before bankruptcy filing, during bankruptcy proceedings, and after emergence.

Session 609

Administrative Issues with Multiemployer Plans

Speakers:

- Jay K. Egelberg – First Actuarial Consulting
- Deborah K. Brigham – Segal Consulting

Summary submitted by: Deborah K. Brigham – Segal Consulting

Plan actuaries sometimes find themselves as the first line of defense in both the detection and correction of fund administrative issues that may not even be actuarial in nature.

In some Funds, the roles of the Trustees, administrator, counsel and actuary are clearly defined, while in other Funds, the roles are blurred. When the expectations are less clear, the actuary may discover that the other professionals involved rely on him or her to catch underlying administrative or legal issues. As a result, the actuary could end up blamed when a non-actuarial mistake is uncovered.

Valuation Data

Retirement plan actuaries receive participant data from fund administrators, and generally perform enough scrubbing to identify any significant questions that the administrator needs to answer. Once the answers are received, the data is deemed sufficient for valuation purposes. However, that file may not be adequate for other purposes, such as benefit statements or benefit calculations. Often there are holes, and estimates are used. The client needs to be aware of the limitations of the data that is used for actuarial valuations.

That said, the actuary may be able to point out missing data to the administrator, and thereby help the administrator to avoid missing or lost participant issues. The actuary can encourage that death checks be performed. In addition, the actuary can alleviate minimum distribution concerns, by identifying participants who are over 70½ and not in pay status. All of these items can improve the quality of the administration and benefit the client, especially in the event of a DOL audit.

Withdrawal Liability

Actuaries should not be the first line of defense in identifying withdrawals. It is unusual for the actuary to know which employer for whom each active participant works. Actuaries are unlikely to know when an employer's obligation to contribute has stopped. Even when a withdrawal has been identified, generally the actuary will not maintain the information needed to determine the withdrawal liability for a withdrawn employer and will require historical data on that individual employer's contribution dollars and contribution base units from the fund administrator.

Partial withdrawals slip by even more easily, and possibly more frequently, than complete withdrawals. A partial withdrawal occurs when there is a 70% decline in contribution base units (CBUs) for an employer, or a partial cessation of the employer's obligation to contribute. The latter generally happens when the employer ceases obligation to contribute under one or more, but not all, of its collective bargaining agreements or facilities. An actuary may not get annual CBU information, since there is no need until an actual withdrawal occurs. When partial withdrawals are not quickly identified, the Plan may experience delayed income from withdrawal liability assessments, or possibly lose the income altogether due to employer bankruptcy in the interim.

A withdrawal liability committee should be monitoring the active and withdrawn employers for a Fund. There should be documentation of reallocated amounts and amounts deemed collectible. The committee can also evaluate settlement proposals. ERISA §4224 provides plan sponsors with some latitude regarding the satisfaction of an employer's withdrawal liability. Under that provision, a plan may adopt rules for other terms and conditions for the satisfaction of an employer's withdrawal liability if such rules are consistent with ERISA and PBGC regulations. Although not required, plan trustees may seek assurance from PBGC that such alternative terms and conditions are consistent with Title IV of ERISA. If PBGC review is sought, PBGC's policy statement (issued in April 2018) should be reviewed as it provides insight on the information PBGC finds helpful and the factors PBGC considers in reviewing multiemployer plan proposals for alternative terms and conditions to satisfy withdrawal liability. Even if PBGC review of a settlement is not sought, the policy statement helps frame issues for consideration by the Trustees.

Employee Plans Compliance Resolution System

When mistakes are made with respect to a defined benefit pension plan, the IRS's Employee Plans Compliance Resolution System (EPCRS) may be used to remedy them. The EPCRS has several general underlying principles:

- Encourage administrative practices and procedures that ensure operation in accordance with the Code and the Plan Document;
- Plan failures should be corrected voluntarily and timely;
- Fees should reduce uncertainty regarding potential tax liability and create incentive to correct promptly;
- Sanctions for plan failures identified on audit should be reasonable in light of the nature, extent and severity of the violation; and
- Sponsors should be able to rely on the availability of EPCRS in taking corrective actions to maintain the tax-favored status of their plans.

If errors are found, there are various ways that they can be addressed. The Self Correction Program (SCP) permits correction of certain plan failures without contacting the IRS or paying any fee. The Voluntary Correction Program (VCP) permits fee payment and IRS approval for correction of plan failures, if caught prior to audit. The Audit Closing Agreement Program (Audit CAP) permits plan failure correction and sanction payment while under audit.

Correction principles under EPCRS are as follows:

- Full correction is required for all participants and beneficiaries and all years;
- Restore the Plan, participants and beneficiaries to the position they would have been in had the failure not occurred;
- Methods should be reasonable and appropriate to the failure, and should be applied consistently;
- Corrective distributions should account for delayed payment;
- Burdensome corrections do not relieve the need to fully correct; and
- Corrective distributions should be properly reported.

Plans that submit a request for voluntary correction frequently are able to make the case for a more flexible fix than is described in the correction principles, provided that such proposals are well-supported. Flexibility is built in to EPCRS, but a plan has to request that flexibility.

The IRS issues a Compliance Issues Top Ten List for defined benefit plans that can serve as a roadmap to common mistakes. Some can be self-corrected and others not, but the plan's options are most limited if an issue is found on audit.

Benefit Calculations

Benefit calculations seem to make the Top Ten List of Compliance Issues every year. There are various approaches to benefit calculations among multiemployer plans. Sometimes the Fund does all of the calculations, sometimes the actuary does them all, and sometimes the actuary does some specific calculations, such as late retirements, QDROs, etc.

It is important to monitor any actuary-created calculator that may have been deployed to the Fund, as the administrator may rely on it too much and not perform their own checks. If the calculator is not properly secured, the administrator could make changes that the actuary does not know about.

Any actuarial factors being used should also be reviewed regularly, and updated as necessary. In addition, be certain that the election forms properly reflect the Plan's current benefit offerings.

Errors in benefit calculations are usually technically very easy to correct, as they might involve an incorrect benefit level, a missed actuarial increase, or the like. The Fund should consider how widespread the error might be, and whether or not it rises to the level of formal correction under the EPCRS. Underpayment errors might involve increasing future payments, or providing a lump-sum catch-up payment, with interest. For overpayment errors, future payments are usually reduced to recoup the overpaid amount, or sometimes the participant may repay the amount, with interest.

Consideration should be given as to whether the valuation and Schedule MB require revision by the actuary to reflect the correction.

Suspension of Benefits/Late Retirements

Suspension notices frequently seem to be an issue for administrators, and it is unlikely that the actuary knows whether the notices have been sent or not. If an actuary is completing a calculation for someone who is over Normal Retirement Age, it is recommended that the communication back to the client include a caveat such as, "In performing this calculation, we have assumed a Suspension of Benefits Notice was sent." Failure to send the notice entitles an active participant to an increased benefit amount. For inactive vested participants, late increases are granted regardless of whether or not a suspension of benefits notice was sent, unless the person has been working in disqualifying employment.

Administrators have various ways to monitor suspendible employment, including monitoring retiree contributions, retiree self-reporting, requiring retirees to provide affirmative attestation of non-work status, and requiring periodic submission of Social Security Earnings Reports. Actuaries are less likely to be able to spot violations, unless the valuation data has retirees show up as active, or has hours included as a data field for retirees. An actuary is likely to spot inactive vested participants who are past the Normal Retirement Age.. Although it is unlikely to be a service included under a contract for actuarial services, it may be prudent to point out these individuals to the administrator in data questions, and to the Trustees either in the report itself or in the valuation presentation to the Board.

Suspension failures have to be corrected. The most common correction is to provide actuarial increases for the period between the Normal Retirement Date and the date that a notice is provided. Note that if the Plan Document does not have a suspension provision and no notice is provided, a Plan must pay both additional accruals and actuarial increases (2009 Gray Book Q&A 39).

Lost Participants

Plans have a fiduciary duty to deliver notices, disclosures, benefit payments, etc. to all participants, and follow the terms of the Plan Document. However, many large plans have older Participants who cannot be found, and notices and forms are returned undeliverable after multiple attempts. The DOL has made lost participants a focus of their plan audits in recent years.

As mentioned in the prior section, the actuary may want to point out to the administrator the existence of inactive vested participants beyond Normal Retirement Age. However, for valuation purposes, an assumption may need to be made to phase them out of the liability calculations at some point. While they are being valued, using an age 65 benefit is not enough; late retirement provisions should be taken into account. And these can become expensive, hence an assumption to phase them out of the liability calculations at some point becomes practical.

Session Takeaways

Trustees have the ultimate decision-making responsibility on how to deal with administrative issues. Once an error is identified, the scope and cost should be determined, and then a correction method selected and implemented. For the future, prevention strategies should be implemented.

If plan professionals work together collegially, and communicate regularly, the frequency of errors can be minimized. Consulting actuaries play a role in that, and it is important that each of us balances our contracted actuarial responsibilities with good consulting.

Session 701

ASOP 51 for Private Plans

Speakers:

Julie Ferguson – Mercer
Larry Scherer – Findley
Suzanne Wyatt – Willis Towers Watson

Session Assistant: Jody Carreiro – Osborn, Carreiro & Associates

Overview

The presenters review how the application of Actuarial Standard of Practice 51 (ASOP 51) is developing in private plan practice through a review of the definitions of risk, the scope of the ASOP and various deliveries of this data. The session includes three (3) case studies and audience feedback through live polling.

ASOP 51 provides guidance regarding the assessment and disclosure of risk that future measurements may differ significantly from expected outcomes for funding related valuations. There are certain types of work that the ASOP specifically excludes. The risk disclosures apply to actuaries when performing funding valuations and pricing valuations, as well as risk assessments. ASOP 51 does not provide a definition of risk assessment. One interpretation could be that a risk assessment is any deliverable the principal relies on in order to assess plan risk or to make a policy decision for the plan.

Application and Tools

The audience provided input on various actuarial deliverables and if, in general, they felt that ASOP 51 applied. About half of the group feels that asset/liability studies, pension risk transfer estimates, calculations of contributions to meet funded status thresholds, and projections of funding costs are areas where ASOP 51 clearly applies. Less than one third have the same opinion about plan termination estimates and accounting results and projections. Only about 40% of the audience have a formal, standardized, company tool at this time to organize ASOP 51 requirements. Two examples of tools are shown as ways to organize the thought process about the most significant areas of risk to be discussed.

ASOP 51 provides examples of areas of risk that should be considered. In the case of private plans some of the other demographic risks that should be considered are retirement rates and lump sum provisions of the plan. About 85% of the audience also thinks that the effect of the wear-away of stabilized rates is a risk that should be considered. Contribution risk is different for a private plan that must pay a minimum contribution than it is for public plans or even multi-employer plans. But, almost 100% of the audience still reports that contribution risk should be considered and discussed as part of the funding valuations. One takeaway from this discussion is that a sponsor who always puts in the minimum required contribution needs to understand that there is a very high risk the minimum could increase significantly in the future.

There is a large variety of ways to disclose the various risks a plan is facing. ASOP 51 allows for both qualitative and quantitative discussions of the risk assessed. ASOP 51 discusses methods to assess risks including scenario, sensitivity and stress testing, and stochastic modeling. The actuary should consider the nature, scale and complexity of the plan and may consider the usefulness, reliability and cost efficiency of additional assessments. The actuary should recommend additional assessments if they are

“significantly beneficial” for the intended user. As part of that discussion, the audience was almost unanimous that a plan that is twice as large as the plan sponsor should have additional assessments recommended.

There is a large amount of plan maturity and historical data that can easily be disclosed to help understand the risks. But, choosing the right historical data depends on the plan’s attributes and the contribution policy of the sponsor. For example, about 65% of the audience thinks measures based on payroll are still relevant for single employer plans.

Case Study A

The first plan reviewed could be referred to as a “young” lump sum plan. It is invested 60% equities and 40% aggregate fixed income. The sponsor funds enough to eliminate the PBGC variable rate premium. The plan is closed and plans to wind down in the next 10 years. The plan pays the greater of a pension equity lump sum formula or a traditional final average pay formula, which is almost always larger. The ratio of active liabilities to total liabilities is 77%. The median expected return is 5.3%. The question for discussion is which areas are significant enough to recommend more detailed assessment. The audience ranked, in order, investment risk, asset/liability mismatch, and interest rate risk with higher significance. Fewer audience members considered lump sum rates and wear-away of stabilized rates as significant.

Some suggested measures used to disclose the investment risk include historical funded status, actual contributions, and asset returns or gain/loss amounts. The interest rate risk can be shown using liability durations or possibly risk-free comparisons. If the actuary has developed an interest rate hedge ratio it could be used to discuss asset/liability mismatches. If more quantitative discussion is considered necessary for the lump sum payment, the actuary could disclose actual lump sums paid versus expected or some type of cash flow ratio.

Case Study B

Case Study B is a plan where accruals are frozen and the sponsor plans to continue the plan until termination is feasible. The sponsor contributes the minimum required contribution. The plan’s assets are invested 55% equities and 45% fixed income. The formula is a cash balance formula with interest credits based on 30-year treasuries with a minimum of 4%. Annuity elections for early retirement are somewhat subsidized and 90% of participants are assumed to take the unsubsidized lump sum. The non-stabilized FTAP is 69% and liabilities are about half attributable to actives. About half of the audience felt that investment risk and asset/liability mismatch were significant enough to warrant detailed assessments. Only about 20% of the audience considers retirement rates and wear-away to be significant enough for additional assessment.

The investment risk could be described using historical funded status, actual contributions and a net cash flow ratio. The asset returns or gain/loss on investment return could also be used. An interest rate hedge ratio would help show the significance of asset/liability mismatch. The retirement rate risk could be disclosed using gain/loss due to retirement or retiree counts.

Case Study C

Case Study C is a plan in hibernation, that is, it is closed to new entrants and the sponsor intends to maintain the plan until obligated to freeze or terminate. The plan is invested 20% in equities and 80% long duration fixed income. The sponsor funds 100% of the accounting ABO. This is a career average formula integrated with covered compensation. There are significant early retirement subsidies and the

plan offers unlimited unsubsidized lump sums (20% take up assumption). The actives make up 44% of the liabilities and the median expected asset return is 5.7%. The audience feels that longevity is a significant risk (42%) and that the retirement assumption could also be significant (35%). The lump sum assumption was not considered to be a significant risk.

The longevity risk could be illustrated with measures of retirees as a percent of total liability and a mortality sensitivity measure, e.g. 1-year difference in life expectancy. The retirement assumption risk can be shown using the gain/loss due to retirement, history of retiree counts, and retiree liability as a percent of the whole.

Client Reactions

The audience reports that their clients find it helpful but didn't ask for additional information (33%) or no comments at all (54%). Eight percent of the audience reported their clients thought it was a waste of time. Private plan actuaries need to continue to work on succinct and effective ways to illustrate the risks that are facing their clients.

Session 705

Direct Contracting

Speakers:

- Yi-Ling Lin – The Terry Group
- Jane H. Jensen – Willis Towers Watson
- Heather Russo – The Walt Disney Company

Session Assistant: Steven D. Draper – Ernst & Young, LLP

Summary

This session focuses how direct contracts between employers and providers can provide many advantages for both parties. The discussion includes how size, geographical concentration, and financial sophistication impact long-term success. Employer and provider representatives also discuss key contracting considerations including data analysis, bundling, and risk sharing.

Background and Issues Discussed

In recent history, many assumed that the CDHP plan would fix everything in healthcare. Not too long before that many assumed that the HMO would control costs and optimize healthcare. Too often we glom onto one idea and it expect it to fix things. Overall there is a need to address accountability. In addition, demand needs to be addressed by employees and members taking care of their own health. Long-term inertia, including provider contracts and practices, are hard to move.

Performance guarantees need to be adjusted. Instead of asking “was the phone answered in less than 20 seconds” the members experience needs to be evaluated. The members care about: did I get to see a doc, did I get a diagnosis, can I get my treatment.

Another issue that needs to be addressed is the variability in contracted allowed amounts as well as differences in provider quality. The Quantros, Inc. data set was used to evaluate inpatient facility quality. See slides for additional detail documenting how in health care you do not always get what you pay for. High costs are not necessarily correlated with quality.

The framework for most employer based direct contracting does not involve contracting individually with each hospital or with individual doctors, but instead contracting with the system and a clinically integrated network. The direct contract includes a risk sharing arrangement where savings from lower costs (or costs that are higher than expected) are shared between the system and the employer with a true up at the end of the year. In addition to cost, the financial arrangement considers quality metrics as well.

In return for the value based arrangement, the network will be assuming that care will be directed to them. This is most easily realized through a plan with HMO style delivery – no out of network benefit allowed. Tiered networks are harder to implement and not as effective at delivering results. There is a long ramp to set up this type of arrangement. If the parties do not have experience in direct contracting, we might expect a ramp up time period of more than a year.

Typically health care systems do not necessarily want to take risk for the Rx claims or behavioral health. However, it is only their doctors that are writing scripts, and it is critical that physical and behavioral health professionals work together, so it's important that those incentives are aligned.

These arrangements are evolving, and we should expect that issues will continue to rise and need to be addressed. However, the results are promising, showing reductions in spend and increases in quality.

Session 706

GLOBAL PENSION CHALLENGES IN M&A

Speakers:

- Leroy House – ABB
- Vaibhavi V. Patel – Aon Hewitt
- Brandon Smith – Deloitte Consulting LLP
- Mike Spetko – Deloitte Consulting LLP

Session Assistant: Jessica Chung – Deloitte Consulting LLP

Background

This session aims to cover key focus areas related to defined benefit schemes in due diligence, various ways defined benefit (“DB”) schemes can impact the purchase price, considerations for the purchase agreement, and the risks involved in the transition as well as best practices.

Due diligence

The due diligence process forms the basis before a potential buyer decides to sign a binding agreement. Key activities that occur in the due diligence phase include validating assumptions to refine the buyer’s valuation of the target company, identifying potential liabilities and compliance or integrity exposures, and identifying integration risks and developing detailed integration plans.

Several challenges may arise when buying or selling a business. When buying a company, it may be difficult to acquire the correct data to make informed analysis and judgments in a timely fashion or to develop an integration plan until late in the deal process. Language barriers may also pose a challenge in finding and understanding pertinent information. In a carve-out / divestiture, where only a portion of a company is being bought / sold, it could be challenging for both sides (seller and buyer) to provide / receive information that relate solely to the target business.

There are various considerations applicable to pension plans in the due diligence phase. Due diligence is typically comprehensive if the whole business is involved, whereas in a carve-out, the focus is based on facts and circumstances (e.g., What pensions/plans do in-scope employees participate in? Will any plans transfer? What are statutory requirements?). Since most transactions are on a cash-free and debt-free basis, it is important to identify all plans and assess all liabilities that will transfer with the deal (e.g., Are the assumptions appropriate? What about the accounting standards?).

Transaction Considerations

There are three common strategies and/or approaches taken by buyers in relation to single employer pension plans:

1. **Entire plan transfers to buyer.** A buyer establishes a new plan and receives a transfer of assets and liabilities from the seller's plan. The asset transfer basis must be negotiated; typically, a transfer of assets equal to the US GAAP liability is the most desirable to a buyer. Local legislation may limit the qualified asset transfer level. There is no impact to employees' projected pension levels in this situation.
2. **Wrap around.** A buyer establishes a new pension plan designed to "wrap around" the seller's plan and provide the ultimate retirement benefit offset by the seller accrued benefit. The seller retains all assets and liabilities accrued as of closing. The buyer assumes the cost of providing future salary increases on past service benefits, as well as vesting and early retirement subsidies. In the case of plans covering union employees, the buyer may also potentially assume the cost of providing any future collective bargaining improvements on past service. There is no impact to employees' projected pension levels in this situation.
3. **Fresh start.** A buyer establishes a new pension plan with no "wrap around" of the seller's plan. The seller retains all assets and liabilities accrued to closing. This option provides the buyer with the most flexibility to provide go-forward benefits, but the employees' projected pension levels would differ depending on the replacement benefits provided under the buyer's plan.

The treatment of multiemployer pension plans upon a transaction differs according to how the transaction is structured:

1. **Stock transaction.** The buyer assumes the entire obligation, including future contributions and the contingent withdrawal liability. The seller does not retain any residual obligation. A withdrawal is not triggered upon closing.
2. **Qualifying "ERISA 4204" asset transaction.** The buyer assumes the entire obligation, including future contributions. The contingent withdrawal liability assumed by the buyer is based on seller contributions in the past 5 years only. The seller remains secondarily liable for withdrawal liability for 5 years after closing. A withdrawal is not triggered upon closing.
3. **Other asset transaction.** The buyer does not assume any obligation and a withdrawal is triggered upon closing. The seller is responsible for the payment of withdrawal liability triggered as a result of the sale.

In the United States, the Pension Benefit Guaranty Corporation ("PBGC") plays a role in acquisitions and other corporate transactions by assessing the risk of plan funding and often requires accelerated funding of pension plans. The PBGC views any additional debt burden as negatively impacting a Company's ability to fund pension plans in the future, determines pension funding on a very conservative basis which amplifies funding deficits and perceived funding risk, and additional liability under section 4062(e) may occur if more than 20% of a company's employees who are covered by a pension plan lose their jobs due to a cessation of operation at a facility.

In the United Kingdom, the tPR (“The Pensions Regulator”) acts as pension authorities similar to PBGC for the US. The tPR and scheme trustees may require accelerated funding of pension plans upon a transaction. The tPR assesses the risks in the context of any additional corporate debt burden to be assumed post transaction (employer covenant) and may require companies to provide additional funding (e.g., it is not uncommon for approximately 50% of a plan funding deficit immediately and the remainder over 3-5 years). The tPR may also require an exit debt (“section 75 debt”) calculated on a buy-out basis if the acquired business was a participant in a multi-employer scheme and were to cease to participate after the transaction (or at some stage in the future).

Purchase price adjustments

Most deals are negotiated on a cash-free, debt-free basis, which means the seller keeps all cash and pays off all debt at the time of the transaction. This leaves a number of cash and debt issues to be identified and negotiated into the purchase agreements. Buyers will want unfunded pensions to get “debt-like” treatment, which essentially reduces the purchase price.

Enterprise value in most cash-free debt-free deals is reflected as a multiple of earnings before interest, tax, depreciation and amortization (“EBITDA”), and both sides make adjustments to develop an “Adjusted EBITDA.” The seller may add back all pension expense since it is non-recurring in nature, or the company may not be making cash contributions. The buyer will likely require the service cost component to not be added back.

In a sale of a subsidiary (carve-out), it is common for the seller to retain the Plans. Pro-forma financial statements will typically exclude any balance sheet liability, and pro-forma income statements may exclude pension/retiree medical costs. Both the balance sheet and income statement need to be adjusted for replacement plans, which can be defined benefit (“DB”) or defined contribution (“DC”) plans. The cost of a DB plan can also be significantly higher than pre-sale as the difference between the projected benefit obligation (“PBO”) and the accumulated benefit obligation (“ABO”) is picked up by the buyer and early retirement subsidies can be expensive.

In a stock sale where the entity sponsors the plan or in non-US countries where it is required by law (e.g., Germany), it is common for the buyer to assume the plans. There are three common methods for valuing the plans if the buyer is assuming the plans. It is critical that the buyer verifies that the correct accounting was done for the plans. Accounting should also reflect the current economy and charges should exclude one-time items.

1. **Current EBITDA method.** No adjustments are necessary for unfunded liability. The current EBITDA already reflects the cost of the plan, the balance sheet includes full liability under ASC 715, and the expense includes amortization of unfunded. A common argument by Sellers is that it is “otherwise double counting.”

2. **Cash Adjusted EBITDA method.** Pension/Other post-employment benefits (“OPEB”) expense is added back and cash cost is subtracted out. Cash costs can fluctuate significantly from year to year and adjusted cash should reflect a 5-year projected average.

3. **EBITDAP method.** Pension cost is separated into service cost (the value of benefits being earned by participants) and amortization cost of the unfunded liability (including interest). This is commonly used method by European investment bankers, where financing costs are “below the line” and not considered operating costs. The EBITDAP method is calculated by calculating the EBITDA (including service cost, but excluding financing cost of unfunded liability), valuing the enterprise based on EBITDA multiple, and subtracting the unfunded pension/OPEB liability.

Conclusion

Defined benefit plans can have significant impact on a transaction, from a purchase price adjustment and integration / transition planning. It is important to ensure that proper due diligence is conducted and that the purchase price and agreement reflects terms that are aligned with stakeholder objectives.