



SOCIETY OF ACTUARIES

Pension Section News

Excerpts from the PBGC Actuarial Valuation Report—2002

by Joan M. Weiss

Editor's Note: The 2002 Annual Report of the PBGC and the complete 2002 Actuarial Valuation Report, including additional actuarial data tables, are available upon request from Loretta Berg at the PBGC, 202.326.4040 or berg.loretta@pbgc.gov.

The 2002 Annual Report of the Pension Benefit Guaranty Corporation (PBGC) contains a summary of the results of the September 30, 2002 actuarial valuation. The purpose of this separate Actuarial Valuation Report is to provide greater detail concerning the valuation of future benefits than is presented in PBGC's Annual Report.

Overview

The PBGC calculated and validated the present value of future benefits (PVFB) for both single-employer and multi-employer programs and of non-recoverable financial assistance under the multi-employer program. For the single-employer program, the liability as of September 30, 2002 consisted of:

- \$22.68 billion for the 3,122
- \$12.39 billion for the 41 probable terminations

Liabilities for "probable terminations" reflected reasonable estimates of the losses for plans that are likely to terminate in a future year. These estimated losses were based on conditions that existed as of PBGC's fiscal year-end. It is likely that one or more events subsequent to PBGC's fiscal year-end will occur, confirming the fact of the loss. In addition, the liability

for reasonably possible terminations has been calculated and is discussed in Note 7 to the financial statements on page 41 of PBGC's 2002 Annual Report. A discussion of PBGC's potential claims and net financial condition over the next 10 years is presented on pages 17-19 of that report.

For the multi-employer program, the liability as of September 30, 2002 consisted of:

- \$3 million for 10 pension plans that terminated before passage of the Multi-Employer Pension Plan Amendments Act (MPPAA) of which the PBGC is trustee.
- \$775 million for probable and estimable post-MPPAA losses due to financial assistance to 58 multi-employer pension plans that were, or expected to become, insolvent.

Actuarial Assumptions, Methods, and Procedures

The PBGC continues to review the actuarial assumptions used in the valuation to ensure that they remain consistent with current market conditions in the insurance industry and with PBGC's experience. The actuarial assumptions that are used in both the single-employer and multi-employer valuations are presented in the table (page 5). Assumptions concerning data that were not available are discussed in the data section of this report.

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Articles Needed for the News

Your help and participation is needed and welcomed. All articles will include a byline to give you full credit for your effort. *News* is pleased to publish articles in a second language if a translation is provided by the author. For those of you interested in working on the *News*, several associate editors are needed to handle various specialty areas such as meetings, seminars, symposia, continuing education meetings, teleconferences and cassettes (audio and video) for Enrolled Actuaries, new pension study notes, new research and studies by Society committees, etc. If you would like to submit an article or be an associate editor, please call Dan Arnold, editor, at 860.521.8400.

As in the past, full papers will be published in *The Pension Forum* format, but now only on an ad hoc basis.

News is published quarterly as follows:

Publication Date	Submission Deadline
September	July 21, 2003
December	October 21, 2003
February	December 21, 2003
June	April 21, 2004

Preferred Format

In order to efficiently handle articles, please use the following format when submitting articles:

Please e-mail your articles as attachments in either MSWord (.doc) or Simple Text (.txt) files. We are able to convert most PC-compatible software packages. Headlines are typed upper and lower case. Please use a 10 point Times New Roman font for the body text. Carriage returns are put in only at the end of paragraphs. The right-hand margin is not justified.

If you must submit articles in another manner, please call Bryeanne Summers, 847.706.3573, at the Society of Actuaries for help.

Please send a hard copy of the article to:

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Thank you for your help.

Chairperson's Corner

by Marilyn Miller Oliver

Summer is here, though one is never certain about that here in San Francisco, and it brings some developments in the Pension Area and also some long-overdue thanks to volunteers in the SOA Retirement Systems Practice Area.

Investment Statistics for Pension Actuaries

This summer historic investment statistics, downloadable in an Excel format, will be available to Pension Section Members on a new SOA webpage. These statistics will be updated quarterly and will include a variety of historic financial information including returns for indices such as the S&P 500, Wilshire 5000, NASDAQ, MSCI EAFE, and NCREIF Property Index and information regarding yields and yield spreads for a variety of types of bonds.

Financial Economics and the Pension Model

The results of a call for papers on this topic will be available in a monograph to be published after the papers' presentation at a seminar in conjunction with the June SOA meeting in Vancouver. The papers present a wide range of perspectives and should help us as a profession to further explore this area.

There was an excellent presentation on this subject at the Enrolled Actuaries Meeting. For those who didn't attend that meeting, I'd suggest buying a copy of the tape (available on the CCA website). The session explained very clearly many of the basic concepts involved in this dialog. Speakers included FASB Board Member John M. (Neel) Foster, Jeremy Gold of Jeremy Gold Pensions, and Michael Peskin of Morgan Stanley. The session was moderated by Ken Kent of Mercer.

Pension Section and Retirement Systems Practice Area

The Pension Section, one of the first special interest sec-

tions, was formed in 1983. Its purpose was to increase and better target SOA professional development support for retirement practitioners. (Prior to the formation of the Sections, the SOA was completely organized along functional lines.)

The SOA Practice Areas (including the Retirement Systems Practice Area) were formed in 1992 to "advance the research, education and professional development of SOA members in their area of practice," with an emphasis on projects of longer duration.

In the Retirement Area, there are committees on Research, Professional Development, Post-Retirement Needs and Risks, Social Security, and experience (Group Annuity Experience, Retirement Plans Experience). There are also task forces and workgroups for special issues (Financial Economics and the Pension Model workgroup and the Non-mortality Decrements task-force). Work is coordinated by the Practice Advancement Committee headed by a SOA Board Member. In all, there are nearly 75 SOA members volunteering on these committees and turning out everything from research on asset valuation methods and DROP programs to mortality and turnover studies.

The Pension Section often works closely with the committees in the Retirement Systems Practice Area on research-related projects. Current projects that the Section and the Practice Area are co-sponsoring include a survey of retirement plan design preferences and a study of factors influencing retirement-related decisions.

We're fortunate to have volunteers in the Retirement Systems Practice Area performing such fine work. ♦



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As in previous valuations, the select and ultimate interest rates used to value PBGC liabilities were derived by using an assumed underlying mortality basis and current annuity purchase prices. The interest rates so determined for the 2002 valuation were 5.70 percent for the first 25 years after the valuation date and 4.75 percent thereafter. These interest rates are dependent upon PBGC's mortality assumption which changed from FY 2001 to FY 2002 (see below).

Beginning with the FY 1997 valuation, the mortality assumptions were updated by adopting the recommendations from a study by an independent consulting firm. This study recommended that, when conducting valuations for its financial statements, the PBGC use the male and female 1994 Group Annuity Mortality Static Table (with margins), set forward two years, for healthy males and females. The study also recommended that continuing mortality improvements be taken into account by using Projection Scale AA, also set forward two years, to project these tables a fixed number of years. At each valuation date, the fixed number of years will be determined as the sum of the elapsed time from the date of the table (1994) to the valuation date, plus the period of time from the valuation date to the average date of payment of future benefits (the duration). This is an approximation to a fully-projected table. Thus, the mortality table used for healthy lives in the 2002 valuation is the 1994 Group Annuity Mortality Static Table (with margins), set forward two years, projected 16 years to 2010 using Scale AA. The 16 years recognizes the eight years from the 1994 to 2002 plus the eight-year duration of the 9/30/01 liabilities. The 2001 assumption incorporated a 15-year projection, determined as the sum of the seven years from 1994 to 2001 and the eight-year duration of the 9/30/00 liabilities.

The model used to determine the reserve for future administrative expenses was changed in FY 2000 based on a study by an independent consultant. There was no change in the assumptions for retirement ages.

The Small Plan Average Recovery Ratio (SPARR) assumptions as shown in the table on page 5 were up

dated to reflect the actual SPARRs calculated for FY 2000 (4.58 percent). The SPARRs for subsequent years are assumed to equal the FY 2000 SPARR.

We note two major improvements in valuation processing for 2002. The first is that the data for Missing Participants who have not yet been located is now extracted from PBGC's individual participant database (GENESIS) rather than PBGC's plan level database (CAS) where it previously resided. The second is that the processing of seriatim GENESIS data has been modified to store results for reuse, reducing the valuation processing time significantly.

We continued our ongoing efforts to improve the quality of the seriatim data and, as in other years, made various changes to improve the accuracy, speed, security and auditability of the calculations and to integrate with the evolving PBGC computer environment.

Statement of Actuarial Opinion

This valuation has been prepared in accordance with generally accepted actuarial principles and practices and, to the best of my knowledge, fairly reflects the actuarial present value of the corporation's liabilities for the single-employer and multi-employer plan insurance programs as of September 30, 2002.

In preparing this valuation, I have relied upon information provided to me regarding plan provisions, plan participants, plan assets, and other matters.

In my opinion, (1) the techniques and methodology used for valuing these liabilities are generally accepted within the actuarial profession; (2) the assumptions used are appropriate for the purposes of this statement and are individually my best estimate of expected future experience discounted using current settlement rates from insurance companies; and (3) the resulting total liability represents my best estimates of anticipated experience under these programs. ♦

We continued our ongoing efforts to improve the quality of the seriatim data...

Joan M. Weiss, FSA, is chief valuation actuary at Pension Benefit Guaranty Corporation in Washington, D.C. She can be reached at weiss.joan@pbgc.gov



ACTUARIAL ASSUMPTIONS

	Previous Valuation as of 9/30/01	Current Valuation as of 9/30/02
Interest Rate	Select and Ultimate <ul style="list-style-type: none"> • 6.70% for 20 years • 5.25% thereafter 	Select and Ultimate <ul style="list-style-type: none"> • 5.70% for 25 years • 4.75% thereafter
Mortality <ul style="list-style-type: none"> • Healthy Lives 	<ul style="list-style-type: none"> • 1994 Group Annuity Mortality Static Table (with margins), set forward two years, projected 15 years to 2009 using Scale AA. 	<ul style="list-style-type: none"> • 1994 Group Annuity Mortality Static Table (with margins), set forward two years, projected 16 years to 2010 using Scale AA.
<ul style="list-style-type: none"> • Disabled Lives Not Receiving Social Security • Disabled Lives Receiving Social Security 	<ul style="list-style-type: none"> • Healthy Lives Table set forward three years • Social Security disability table as described in subpart B of PBGC Regulations on Allocation of Assets in Single-Employer Plans for persons up to age 64, adjusted to parallel the table for disabled lives not receiving Social Security benefits for ages above 64. 	<p>Same</p> <p>Same</p>
SPARR	Calculated SPARR for fiscal years for which it has been calculated. The most recent calculated SPARR is assumed for years for which the calculation is not yet completed (most recent SPARR: FY 1999 = 8.01%).	Calculated SPARR for fiscal years for which it has been calculated. The most recent calculated SPARR is assumed for years for which the calculation is not yet completed (most recent SPARR: FY 2000=4.58%).
Retirement Ages	<p>(a) Earliest possible for shutdown companies</p> <p>(b) Expected retirement age (XRA) tables from 29 CFR 4044 for ongoing companies</p> <p>(c) Participants past XRA are assumed to be in pay status.</p> <p>(d) Unlocated participants past normal retirement age (NRA) are phased out over three years to reflect lower likelihood of payment</p>	Same
Expenses	All terminated plans and single-employer probable terminations; 1.18% of the liability for benefits plus additional reserves for cases where plan asset determinations, participant database audits, and actuarial valuations were not completed.	Same

How to Stop the Insanity!

by Jeremy Gold

At the 2002 Enrolled Actuaries Meeting, Donald Segal and Tonya Manning asked ERISA authorities to “Stop the Insanity.” In the authors’ response to comments on our article “Reinventing Pension Actuarial Science,” Larry Bader and I have said that funding rules require societal, or political, judgments. In this article, I try to identify and delimit the public’s interest in defined benefit plan funding. Thus, for the time being, I put aside the pursuit of a new theory of pension actuarial science in favor of a practical proposal to Stop the Insanity.

As Segal and Manning have documented, 29 years of ERISA have resulted in a chaotic deluge of overlapping, often contradictory, measurements and restrictions designed to regulate the funding of qualified defined benefit plans for U.S. employees. We may understand such rules as the expression of the public’s interest in what otherwise would be a matter of private contracts between employers and employees. Although the public interest in these matters is legitimate, we can do the public will in a fashion that will Stop the Insanity.

Public interest in the funding of private defined benefit plans comprises two issues:

- Funding should be sufficient to secure promises that have been made by employers and earned by employees – i.e., accrued benefits, measured at market values.
- Tax-deductible contributions should be limited. Such limitation may also be defined in relation to the market value of accrued benefits.

The public does not have an interest in:

- Patterns of contributions over time, although this may be important to plan sponsors and their constituents.
- Normal costs.
- Gain and loss amortization.
- Past service costs and amortizations.
- Interest on liabilities.
- Expected returns on assets.

I believe that the six bullets above, the basics of the traditional actuarial funding processes that underlie ERISA, contribute to the Segal-Manning Insanity. Pre-ERISA, these components helped the actuary rationalize the sponsor contribution budgeting process. When the public chose to intervene, it framed the problem in terms of these components and attempted to control funding outcomes by controlling these inputs. Much of the insanity arose in response to undesirable outcomes. Thus, for example, the PBGC saw the need to define and measure the Current Liability after plans that met ERISA’s minimum funding rules failed to achieve adequate funding levels.

My Sane proposal defines two simple limits: a minimum (sufficiency level) below which contributions are required and a maximum (excess level) above which no contributions are allowed. Between these



levels, the public has no interest and plan funding is entirely discretionary. Actuaries may design funding schemes therein, employers may negotiate with employees and their representatives therein, stockholders and lenders may argue with management therein. The public does not care.

My proposal is the ultimate safe harbor. Within the harbor, actuaries and plan sponsors may use the elemental actuarial building blocks much as a sailor uses the tiller and the positions of sails to guide a boat. As long as the boat neither runs aground nor heads out to the open sea, the Coast Guard can rest easy.

The public must choose its measures of sufficiency and excess very carefully. Although setting the levels will be inherently political, the liability measure should be financially sound, transparent and objective. Discounting the cash flows implied by benefit accruals to date at the Treasury yield curve meets these tests. Once set, the measures should be administered with minimal discretion and subjected to minimal political interference. Most of the political debate should be focused on setting the heights of the lower (sufficient) and upper (excessive) bars, each defined in terms of the ratio of market-valued assets to the objective liability measure.

Suppose, and I really mean this as an example and not as a recommendation, that the lower bar is set at 100 percent and that any shortfall must be one-third funded currently. The shortfall has no history and no amortization schedule. If the plan is \$3 million short, the sponsor must fund \$1 million currently regardless of whether it was underfunded or overfunded last year. There is no schedule for the other \$2 million. If the plan remains underfunded next year, the sponsor must contribute one-third of the shortfall determined at that time. I would expect PBGC premiums to be collected from all qualified plans with a basic per-capita amount for plans that are sufficiently funded and increased amounts for plans in shortfall. Shortfall plans might be further restricted from making benefit-increasing amendments.

The tradeoff for the rigorous attack on poorly funded plans is the freedom offered to the great majority of well-funded plans. This combination should provide substantial incentive to sponsors to manage the asset/liability positions of their plans prudently as well as to exercise caution in granting benefit increases.

Suppose, again as an example not a recommendation, the upper bar is set at 150 percent. The sponsor of a

plan that is \$1 million short of this ceiling would be permitted to contribute and deduct \$1 million if it desired. From the public perspective, it seems to me that plans funded above the upper bar should be free to recoup such excess funding without excise taxes and without strings on the redeployment of such monies (after payment of appropriate income taxes). The IRS may want to limit this practice for companies that appear to be taking undue advantage.

The initial bar-setting process may be as technically complicated and as political as the public will choose to demand/tolerate. Congress will be the arena for the bar-setting process; the regulatory agencies will administer that which Congress devises. Congress might choose to assign authority for lower-bar issues to the DOL and the PBGC and upper-bar issues to the IRS.

An example of a technical, complicating issue that lies within the initial process: those who share my financial economics perspective may want the lower bar to be set to recognize the nature of the plan's asset/liability mismatch. Plans invested in a liability-matching fashion might have a lower bar set at 95 percent, while poorly matched plans might face a bar set at 115 percent.

A second example: if Congress is concerned about tax losses attributable to excessive inside build-up as well as excessive contributions, they may wish to define an upper-upper bar above which funds would be mandatorily reverted and taxed. Congress may also deem it necessary to limit tax deductions for small plans that principally serve as tax shelters for owner-employees or other narrow groups.

I have tried to suggest a practical response to the Segal-Manning plea for sanity. The success of such a simplification scheme requires that:

- The basis for liability measurement be scientific, objective and market-oriented. The thumb should be off the scale with respect to measurement.
- Setting the levels of the lower and upper bars should be as simple as possible, but no more so.

Looking beyond the immediate and practical, I hope that the inner harbor will provide substantial room for pension actuarial science to evolve, free of much of the regulation that has stunted its growth over the last three decades. We really do need to revisit and revitalize our science. ♦

Congress will be the arena for the bar-setting process; the regulatory agencies will administer that which Congress devises.

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ASOP 6 and Medicare Payments Projection

by Wes Edwards

I welcome the ASOP 6 as an addition to the practice standards and the literature on valuing retiree group medical and life benefits. While I will not soon throw out the ACG 3, I recognize that it differed in form and content from an ASOP and that an ASOP was warranted for the sake of consistency in treatment by the standards.

One aspect of retiree medical that is addressed somewhat vaguely in the compliance guideline, and is perhaps equally vaguely addressed by most practicing actuaries is the impact of Medicare, both in the valuation base year and, to a greater extent, in future years. The potential for understatement of the Post-Retirement Benefit Obligation from this source is large. For this reason, I hope to see a productive dialogue on projecting Medicare payments per beneficiary under the scenario prescribed by applicable accounting and actuarial standards.

Health actuaries are generally well versed on the historic impact of Medicare cost shifting. The sources of impact on private paid medical expenditures include decreases in Medicare reimbursements to providers and Medicare HMO plans, increasing Part A deductible and the growth in cost of services not covered, including Rx, private duty nursing, skilled nursing facility in excess of \$101.50 per day, custodial care, etc. The reimbursement decreases have led to an increase in providers refusing to accept Medicare assignment, providers seeking to increase billed charges for non-Medicare covered services and for non-Medicare eligible patients. A shrinking number of participating providers being compensated a smaller proportion of eligible charges by Medicare has meant that private paid trends per capita have been higher than overall trend. The degree of cost shift from Medicare covered services onto non-Medicare covered services for Medicare beneficiaries versus cost shifted to services for other patients is difficult to measure. However, many providers, due to geography, specialty, existing patient base and contracted rates for private pay patients, have less opportunity to shift costs onto non-Medicare patients.

What do the standards say about the impact of Medicare?

ACG 3 section 5.5 quotes paragraph 35 of SFAS 106: “an employer’s share of the expected future post-retirement health care cost for a plan participant is developed by reducing the assumed per capita claims costs at each age at which the plan participant is expected to receive benefits under the plan by (a) the effects of coverage by Medicare and other providers of health care benefits... .” Section 5.6 addresses the Health Care Cost Trend Rate (HCCTR) that is applied to the per capita claim costs (PCCC) described in 5.5. In 5.6.3, the compliance guideline states, “The HCCTR is defined as the rise in gross eligible charges before Medicare reimbursement. Erosion or increase in relative Medicare reimbursements can leverage incurred claims costs faster or lower than the underlying HCCTR.”

The new ASOP 6 clearly states in 3.8.1(a), “The actuary should consider separate trend rates for major cost components such as hospital, prescription drugs, other medical services, *Medicare integration*, and administrative services.”

It is the author’s observation that actuaries practicing in the retiree medical valuation area have frequently not addressed this issue. That is, the practice has been the use of the simple assumption that Medicare will offset a constant percentage of the gross per capita claim amount. This assumption would seem to fly in the face of the general acceptance of Medicare cost shifting as a historical fact, a present condition and a significant future probability.

What can we expect of the future for Medicare?

Of course, the accounting standards as promulgated require that no future anticipated changes in Medicare programs should be recognized¹. The state of existing Medicare as evidenced by the 2002 Medicare Trustee’s Reports is such that Medicare Part A fund will be bankrupt in 2026 (down from 2030 last year) under the intermediate economic assumptions². In January 2003, the Centers for Medicare & Medicaid Services (CMS produced up-

¹ SFAS 106, par. 40

² <http://cms.hhs.gov/publications/trusteesreport/2003/secif.asp>.

dated National Health Expenditure (NHE) Projections through 2012. The projections for Personal Health Care Expenditures (PHE), a primary component of NHE, have been converted to per-capita values (see Table 1). These projections include Medicare payments by type of service and expected Medicare beneficiaries³. They also, when converted to per capita values and compared for each year from 2001 through 2012, show a trend in Medicare per-capita payments that is below the norm observed by the author for retiree medical select period trend assumptions. The trend is also below recently released CMS projections for increases in private insurance paid per capita Personal Health Expenditures (PHE) net of dental and prescription drug services, which are largely not covered by Medicare (see Table 2). In previous years the CMS projections after 2007 showed that Medicare pay-

some significant change in the new projections. Table 2 shows a side-by-side comparison of the 2003, 2002 and 2001 released projections. We can recognize that the date this reverse shift is to occur was pushed back from 2006 in the 2001 PHE projections to 2008 in the 2002 PHE projections to not by the end of the 2012 select year in the current projection. Given the state of the Medicare HI Trust Fund, it is hard to believe that Medicare will, in the near future, be in a position to increase per capita payments at a rate faster than private sources. The fact that this reverse-cost shift phenomenon has now been eliminated from the PHE projections is consistent with a general understanding of the financial status of Medicare.

Most pertinent to the discussion of ASOP 6 is the fact that the PHE projections now show that per-capita

Table 1

Year	January 2003			Increase per Beneficiary		
	Paid PHE (\$ billions)	Beneficiaries (thousands)	Paid Per Beneficiary	January 2003	Spring 2002	Spring 2001
2001	234.5	38,617	6,073	7.3%	8.6%	6.2%
2002	246.5	39,359	6,263	3.1%	4.6%	5.8%
2003	254.0	39,775	6,386	2.0%	3.0%	5.6%
2004	266.5	40,318	6,608	3.5%	5.0%	4.7%
2005	282.7	40,932	6,907	4.5%	5.3%	5.7%
2006	301.1	41,471	7,260	5.1%	5.0%	5.5%
2007	320.9	42,148	7,614	4.9%	4.4%	5.2%
2008	343.8	42,914	8,011	5.2%	4.7%	5.1%
2009	368.2	43,812	8,404	4.9%	4.7%	5.1%
2010	393.8	44,855	8,779	4.5%	4.9%	5.3%
2011	421.6	46,025	9,160	4.3%	4.9%	—
2012	452.9	47,288	9,577	4.6%	—	—

ments per-capita were expected to increase at a rate faster than private insurance payments per capita for PHE. (This sounds like a “reverse-cost shift” onto Medicare, which would have been welcome news.) Such a reverse-cost shift is something most of us have not experienced. Looking closely at the recent history of the CMS projections of PHE, there appear to be

private paid costs will, in all future select years shown, increase at a faster rate than per-capita Medicare payments. This is just the situation that may need to be replicated by post-retirement medical valuation assumptions.

(continued on page 10)

³ <http://cms.hhs.gov/statistics/nhe/projections-2002/>

Table 2

Year	Private Insurance paid PHE net of Rx & Dental					
	January 2003		Spring 2002		Spring 2001	
	per capita	Increase	per capita	Increase	per capita	Increase
2000	\$1,106	6.2%	\$1,085	4.6%	\$1,094	6.8%
2001	1,192	7.8%	1,154	6.4%	1,179	7.8%
2002	1,267	6.3%	1,244	7.8%	1,279	8.5%
2003	1,358	7.2%	1,330	6.9%	1,379	7.8%
2004	1,451	6.8%	1,421	6.8%	1,476	7.0%
2005	1,544	6.4%	1,510	6.3%	1,562	5.8%
2006	1,644	6.5%	1,596	5.7%	1,637	4.8%
2007	1,748	6.3%	1,670	4.6%	1,699	3.8%
2008	1,847	5.7%	1,741	4.3%	1,757	3.4%
2009	1,953	5.7%	1,817	4.4%	1,818	3.5%
2010	2,061	5.5%	1,890	4.0%	1,880	3.4%
2011	2,165	5.0%	1,963	3.9%	—	—
2012	2,266	4.7%	—	—	—	—

Perhaps there is an “out” in ASOP 6, section 3.8, where the standard reads, “With respect to any particular measurement, each economic assumption selected by the actuary should be consistent with every other economic assumption selected by the actuary to be used over the measurement period. The actuary should reflect the same general economic inflation component in each of the economic assumptions selected by the actuary. The relationships among economic assumptions should be reasonable relative to the underlying economic conditions expected throughout the projection period.” PHE projections are based on demographic and macroeconomic assumptions from the intermediate scenario in Medicare Trustees Reports. Projected growth in Medicare spending reflects the assumption that there will be no alterations to current law (this assumption is required by law for the Medicare Trustees Report)⁴.

There is latitude for projections using different economic scenarios. However, I believe an actuary should be able to defend and describe any alternative economic scenario and explain the impact of it on results produced. If the actuary chooses a scenario similar to the CMS “high cost” scenario, this will generally cause the post-Medicare age retiree medical liability to increase. Choosing a scenario similar to the

CMS “low cost” scenario might produce favorable results but must be defended. While CMS produces projections under three scenarios, shareholders and other audiences of retiree medical valuation reports generally expect “a number,” rather than a range, under various scenarios as the result. The constraint of a single expense estimate required under accounting standards would seem to require that the result must be defensible under a best estimate of future conditions.

What is a best estimate for Medicare for the practicing actuary?

I believe a best estimate for every valuation of medical benefits covering a Medicare eligible population should have a Medicare trend that is less than the HCCTR, unless clear documentation is presented to defend the projection of Medicare payment increases at a rate equal to or greater than the HCCTR. The determination of the degree of difference between the HCCTR and Medicare trend rate at each year will be difficult. However, the magnitude of the difference is sufficiently large that addressing the impact of this difference should be a part of accepted actuarial practice. ♦

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⁴ For more information on assumptions in the intermediate scenario see: <http://cms.hhs.gov/publications/trusteesreport/2003/secid.asp>.

Pension Section Council Summary of Activities

The Pension Section Council met in Atlanta on December 9, 2002 and also had meetings via conference calls in October, November, January and February. Following is a summary of the current activities of the Pension Section Council:

Pension Forum

The latest Forum, released in February included:

- A paper by Jeremy Gold and Lawrence Bader regarding traditional actuarial models in light of financial economics, along with discussions on the paper.
- A paper by Ralph Garfield on QDROs in New Jersey.
- An overview of a turnover study prepared by Alan Pennington.
- A paper on international plan design by Lisa Larsen.

This Forum is currently posted on the SOA Web site, www.soa.org.

Spring SOA Meeting in Vancouver/Seminars

The Pension Section Council is sponsoring 16 sessions at the Spring meeting. There will also be a symposium titled "The Great Controversy: Current Pension Actuarial Practice in Light of Financial Economics Symposium." There will be a reception during the meeting for the Pension Section attendees.

The Council is also planning several pension related seminars for 2003 and 2004.

Pension Basics Course

The Council is currently reviewing the Pension Basics Course that is available on the SOA Web site. There is concern that the course is not being accessed frequently and may not be meeting the objectives originally set for the course.

Research Projects

Projects which the Pension Section is promoting:

- A voluntary annuitization project by Moshe Milevsky, which will examine financial issues faced by individuals when they convert lump sum retirement savings balances into ongoing income streams.

- A project on pre-retirement influences by Linda Smith-Brothers, which will examine the various items that influence an employee's decision to retire.

Statistics for Employee Benefits Actuaries

The Council has approved Milliman providing these statistics, which will be posted on the SOA Web site on a quarterly basis.

Coordination with RSPAC

Several members of the Council participated in a joint meeting with members of the Retirement Systems Practice Area Committees (RSPAC) on March 16, 2003 to coordinate pension-related issues and activities.

Mission Statement

The Council is current reviewing proposed new language to be incorporated in or used as "guiding principles" as a supplement to the Pension Section Council mission statement. The mission statement and related materials will be used as a guide for future decisions and activities of the Council.

Budget

The 2003 budget of the Pension Section is as follows:

Assets as of December 31, 2002	— \$137,000
Anticipated Income	— \$107,000
Anticipated Expenses	
Ongoing Expenses	— \$36,000
Ongoing Services to Members	— \$65,000
Special Projects	— \$26,000
Expected Assets as of December 31, 2003	— \$117,000

The council is currently revisiting its guiding principles for future spending and reserve decisions. Its annual targets are currently set so the Ongoing Expenses are roughly one-third of Income, Ongoing Services to members are roughly one-half of income, and Assets are targeted at not lower than 50 percent of annual Income. This allows latitude to undertake Special Projects, as appropriate, funded from a portion of annual Income and/or current Assets. ♦

Pension Section Welcomes New SOA Staff Actuary

We'd like to introduce Emily Kessler, who is the new Staff Fellow, Retirement Systems at the Society of Actuaries. Emily, an FSA, recently joined the SOA to take on this role previously occupied by Judy Anderson, who is now working with Basic Education.

Emily has spent her entire career as a retirement plan actuary. She worked for 14 years with Towers Perrin in both the United States and Europe. While in the United States, she consulted with private retirement plans and private post-retirement medical and life insurance plans. In Europe her role was in staff training and development and process management. Prior to joining the SOA, she worked for KPMG in their benefits and compensation practice.

Although she has lived in both Frankfurt and Brussels, Emily does not claim to speak any language other than English (and her British friends would debate whether her English is that good). She does, however, speak excellent "survival" French and German covering the important items; such as food and beverages. Additional knowledge picked up along the way include the fine points of calculating the Section 6a "Teilwert" liability for German pension plans, a basic understanding of the Belgian political system and the best place to go for chocolates in Brussels (Mary's, on rue Royale).

Emily can be reached at the SOA at 847.706.3530, or at ekessler@soa.org. She will be at the Spring Meeting in Vancouver (including the Financial Economics Symposium) and looks forward to meeting many of you there and at other SOA events. ♦

Retirement Needs and Risks

by Emily Kessler, Staff Fellow, Retirement Systems

To consider the wider range of needs and risks now facing Americans during retirement, members of the Society of Actuaries Committee on Post-Retirement Needs & Risks have produced the Post-Retirement Risks: Changing Needs and Resources Chart (PRRC).

The PRRC summarizes the risks to meeting needs in retirement under the following headings:

Longevity (outliving your resources)

Changing family situation

- Death of a spouse
- Change marital status
- Unforeseen needs of family members

Economic unknowns

- Inflation
- Interest rates
- Stock market returns

Business conditions

- Availability of part-time or consulting work
- Health of insurance companies and traditional pension plans

Public policy

- Tax rates and formulas
- Benefits provided by Social Security and Medicare

Loss of ability to live independently

- Lack of available facilities or caregivers

Unexpected health care needs

Consumer information and assistance

For each risk, the chart provides background on the risk, explains how predictable that risk might be and lists programs or the cost of that covering the risk.

Shown on the next page is a sample of one line on the chart covering the risk of outliving retirement resources. We hope the chart is helpful to you and the plan sponsors that you serve. You can obtain copies at the SOA Web site at http://www.soa.org/sections/retirement/PRRC_chart.pdf. Consider using it the next time you're writing a report to your client about retirement risk; giving it to a plan sponsor over lunch to help them explain risk to plan participants; or using it to build your speech for the next professional meeting you attend.

More information on retirement needs and risks can be found at the Post Retirement Needs and Risks Web page on the SOA Web site at <http://www.soa.org/sections/retirement/framework.html>. There you can find papers and research, statistics, population survey data, and links to journals and other organizations.

Let us know what you think of the PRRC and other information on the Post Retirement Needs and Risks Web page. Comments can be addressed to Emily Kessler of the SOA at ekessler@soa.org or call her at 847.706.3530. ♦

Post-Retirement Risks: Changing Needs and Resources

Risk	Background	Predictability	Covering Risk or Cost	Comments
1. Longevity: Outliving Your Retirement Resources	<p>Life expectancy at retirement is an average, with about half of retirees living longer, and a few living past 100. Thus, planning to live a specified age is risky, and planning to live only to your life expectancy will be inadequate for about half of retirees.</p> <p>Besides longevity, the other risks listed below can cause a retiree to run out of money. Someone who lives many years has more exposure to these other risks.</p>	<p>Long lifespan is difficult to predict for individuals. It's easier to predict the percentage of population with a long lifespan for an individual.</p> <p>Wives outlive husbands in most cases.</p>	<p>Social security</p> <p>Pension or immediate annuity, guaranteeing a stream of income for life. This can include income after death to the spouse or some other named survivor. (However, without inflation protection, this is partial protection only.)</p> <p>All retirees should review their expected income needs and sources at least every few years and adjust spending if necessary.</p>	<p>Managing one's own retirement funds over a lifetime has many pitfalls even with expert help. Nobody knows how long the money must last.</p> <p>In theory, retirees want to make sure their money will last a lifetime without cutting back unnecessarily on their lifestyle. In practice, unexpected events may make this very difficult.</p> <p>Annuity may seem costly if bought at retirement or soon after, so retirees may want to wait until they're older. Can do multiple annuity purchases over time to average interest rates and purchase prices.</p> <p>Experts disagree about whether annuitization is a good strategy. The trade offs include lifetime guarantee vs. loss of control of asset's, cost, ability to leave money to one's heirs. Few people will want to annuitize all of their assets, but they may want to consider annuities in the overall retirement planning scheme.</p>

2003 Symposium Questionnaire

Agree or disagree?

From the perspective of corporate finance, a defined-benefit pension plan is a form of debt collateralized by the pension fund assets. In order to minimize the cost to the sponsor ... there is a strong incentive to hedge the accumulated benefit obligation (ABO) by investing in fixed income securities with a matching duration— that is, to immunize it. ... *While useful for estimating a firm's future cash flow, the projected benefit method is misleading in the conduct of pension fund investment policy. The PBO is not an appropriate measure of the benefits that the employer has guaranteed and therefore not a target to be hedged by pension fund investment policy.* (Abstract: The ABO, the PBO and Pension Investment Strategy, by Zvi Bodie, emphasis added)

Agree or disagree?

"Allocation methods that recognize expense in advance of an employee's exit-entitlement to a benefit invite misbehavior by the employer.... Cash balance conversions, opportunistic terminations of employment ... and rescissions of post-employment benefit "promises" are examples of irresistible temp-

tation. Society often acts to repair and/or prevent recurrence of such behavior by statute and regulation ... [and] such efforts commonly produce further fragile designs and opportunistic bad behavior." (Abstract: Periodic Cost of Employee Benefits, by Larry Bader and Jeremy Gold, emphasis added).

Agree or disagree?

"Determination of [an] annual pension contribution has traditionally been accomplished via the computation of the "liabilities" of the plan. Computation of [the liability] poses no difficulties when the financial environment in which the plan operates allows selection of a reasonable discount rate. However, in environments in which returns on plan assets are highly variable, selection of a discount rate is difficult [and] continuing to use discounted present values ... may be an inappropriate use of the tool. It is possible to compute annual pension costs without computing liabilities first, or at all, even implicitly [and] such an approach can be shown to have powerful advantages in stochastic financial environments." (Abstract: Pension Funding Without Liabilities: Outline, by Robert T. McCrory, emphasis added)

(continued on page 14)

Do you think the previous statements are crazy?

Do you think these statements are brilliant?

Are you unsure?

Come join the debate! These and other papers will be discussed at the “**The Great Controversy: Current Pension Actuarial Practice in Light of Financial Economics Symposium**” being held on June 24-25 2003 as part of the Spring Meeting (Health, Long Term Care & Pension) in Vancouver, BC. You can register today for the symposium only at the SOA Web site at <http://www.soa.org/conted/bro123.html> (scroll to the bottom for the registration card) or you are automatically registered for the symposium when you register for the Spring Meeting at <http://www.soa.org/conted/vancouver/vancouver.html>.

The symposium is recommended to satisfy 720 minutes of non-core credit to meet enrolled actuary continuing education requirements.

The symposium will present 23 papers on the following topics:

- The Employer Perspective
- Solvency Measures and Related Issues
- Investment
- Benefit Adequacy and DB/DC Issues
- Valuation (with special emphases on Employer Choices and Assumptions/Methods)

Don't miss your chance to be part of the discussion!

To read more about the papers being presented, go to www.soa.org/sections/pension_financial_econ.html. ♦

SOA Distance Learning Subscriptions *Virtual Access to Quality, Cost-effective Continuing Education*

by John Riley, Managing Director of Continuing Education

Why Subscribe?
How would you like to meet your continuing education requirements for only \$150 a year?

The SOA is offering pension actuaries access to dozens of Web-based and audiotape learning assets for one, low annual fee. These programs can be used to meet joint board requirements for core and non-core continuing education credits *and save you hundreds of dollars! Best of all, the cost of delivering Enrolled Actuary (EA) questionnaires, audiotapes and presentation visuals is included in the subscription fee! No additional fees or hidden charges!*

There is no substitute for the networking and intrinsic educational value of “live” instruction, but audiotapes and Web-based training (WBT) are excellent alternatives for professionals whose ability to travel to meetings is limited. Since the SOA has a variety of subjects in its distance learning archives, pension actuaries can find programs well suited to their specific area of practice. Using distance-learning tools to supplement “live” continuing education lets you create a highly relevant and cost-effective course of study.

To view Web course titles and descriptions, go to www.soa.org and click on the “SOA Virtual Campus” course catalogue. To see 2000-2002 audiotape titles, go to “Meetings/Seminars” from the home page and scroll down to “Enrolled Actuary.”

A portion of your subscription fee is dedicated to creating high-quality, interactive web-based training programs. Subscribers have a stake in determining the content of these future programs. You may submit your ideas for future WBT to John Riley, SOA Managing Director of Continuing Education, at jriley@soa.org.

Subscriber Benefits:

- Up to eight audiotapes (12 hours of core or non-core credit) from the SOA collection of over 100 sessions on pension-related topics conducted in 2000, 2001 and 2002. Visuals of these sessions will be provided electronically whenever possible. Subscribers may wait to order upcoming 2002 audiotapes as they become available. (\$100 value).
- Enrolled Actuary questionnaire processing. Questionnaires will be sent electronically with visuals. (2002 visuals are on the SOA Web site.)

Subscribers seeking EA credit return completed questionnaires to the SOA for processing and certificates of completion sent back to you. (\$1120 value).

- Unlimited use of the SOA Virtual Campus. Subscribers are enrolled in all programs and can obtain core/non-core credit from those eligible courses. (\$725 value).

How Do I Subscribe?

Request an application form using the e-mail above

and return it with check, by mail, or credit card information, by fax or e-mail, to the SOA. You will be enrolled for one year in all courses on the SOA Virtual Campus. Subscribers will receive a Distance Learning Subscription order form by e-mail for EA audiotapes, and may obtain up to eight audiotapes by placing one or two orders within the subscription year. Year 2003 titles will be included on the form as soon as they are available. Presentation visuals to accompany the tapes (when available) and EA questionnaires will be sent to you via e-mail at the time the tapes are mailed. ♦

SOA GASB Webcast

On February 24th, the Retirement Practice Area and Pension Section presented a webcast on the proposed account rules for State and Local employers related to OPEB benefits. The webcast was very well attended with over 100 sites and probably about 450 individuals listening in at those sites.

Karl Johnson, GASB project manager, presented the proposed rules and Bill Reimert, of Milliman USA, provided the actuarial view. This was the first exposure most had to the proposed standards, as they were only issued 10 days prior to the webcast. Key dis-

tinctions were made between these rules and FAS106. GASB expense calculations are more like pension funding (choice of funding method and 30-year amortization of unfunded liabilities) than FASB expense rules.

Those wanting a copy of the proposal can call GASB at 800.748.0659 and ask for product codes GE54 and GE55. The SOA also has a discussion forum set up on its Web site that you may wish to participate in. The discussion forum includes some of the survey questions asked as part of the webcast. ♦

Letters to the Editor

Summary of 2003 IRC, PBGC, Federal Tax, Social Security and Medicare Amounts, February 2003, Pension Section News

First, let me say that I found the latest edition of the *Pension Section News* to be full of useful information, and I'm very glad to have it. I thought that the section showing Social Security retirement age was a trifle simplified, though. If people aren't aware of what's really going on, and maybe no member of the Pension Section is in this category, they might look at the chart and think that the Social Security retirement age is increasing by a year and then staying the same for awhile, then increasing by a year again. In reality, as you probably know, full-retirement age goes up from age 65 to age 66 in two-month increments, then stays the same for 12 years, then goes up in two-month increments again to age 67. Social Security has a nice chart on their web site showing this at www.ssa.gov/retirechartred.htm.

I hope this doesn't sound too picky, but we have to take these retirement age changes into account in our projections where I work, so I noticed that the chart

wasn't quite accurate. Even though giving retirement age in years and months rather than just years may seem like too much detail, it can make a difference when dealing with projections and valuations for large plans (like the Railroad Retirement program). Of course, those few months also make a difference to anyone who wants to retire with full benefits rather than reduced ones. Since the *Pension Section News* is included in the SOA online library, which is searchable through the SOA Web site, it is possible that someone unfamiliar with the changes to the Social Security full-retirement age could be confused by the chart. It's very useful to have so much valuable information summarized in a few pages, so I think we should make every effort to be accurate when publishing material like this. ♦

Pat Pruitt
U.S. Railroad Retirement Board
Chicago, IL

Author Response

Dear Pat:

Thank you for your comments. Good points. Perhaps what is really needed is better table labeling. For purposes of permitted and imputed disparity (which is the purpose of covered compensation table) IRS uses integral SSNRAs, not exact SSNRAs.

Regards,
Heidi Rackley, FSA,
Mercer, Seattle, WA



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