



# PENSION SECTION NEWS

ISSUE NO. 48

FEBRUARY 2002

## Chairperson's Corner What to do When They Move the Goalposts?

by Paul Angelo

This is my first column as your Pension Section Council (PSC) Chair and the timing is somewhat fortuitous. As I begin my third year on the PSC, I am convinced it takes that long for a relative outsider to the SOA structure to figure out how the SOA practice areas and the SOA special interest sections work together. As it happens, the due date for this column followed soon after two events that helped clarify this working relationship.

The first event was the semi-annual meeting of the Council of Section Chairpersons where I got to meet the chairs of the 15 or so sections that comprise the SOA's special interest section structure. The main agenda item was a very informative report and

*continued on page 3*

## Summary of 2002 IRC, PBGC, Federal Income Tax, Social Security, and Medicare Amounts

by Heidi Rackley and Scott Tucker

### In this Article

- [IRC Qualified Retirement Plan Limits](#) |
- [Other Benefit-Related IRC Limits](#) |
- [PBGC Guaranteed Benefits](#) |
- [EGTRRA Changes to Federal Income Tax Provisions](#) |
- [Federal Income Tax Factors](#) |
- [Social Security and Supplemental Security Income Amounts](#) |
- [Covered Compensation](#) |
- [Medicare Premiums and Deductibles](#)

### IRC Qualified Retirement Plan Limits

The Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA) changed many pension plan dollar limitations for 2002, added others, and changed the future indexing rules for some limits. EGTRRA contains a sunset provision—the new **EGTRRA limits will not apply after 2010**. The table below on page four the new 2002 limits established by EGTRRA (published in [IRS News Release 2001-115](#); republished in [IRS Notice 2001-84](#)), as well as the rounded and unrounded 2002 pre-EGTRRA limits for purposes of tracking the effect of the EGTRRA sunset. The 2002 pre-EGTRRA limits reflect a 2.7% increase in third quarter CPI-U from 2000 to 2001 and are rounded down to multiples of \$50, 500, \$5,000, or \$10,000. Limits that were not affected by EGTRRA are shown in italics.

*continued on page 4*

## In This Issue

	page		page		page
Chairperson's Corner <i>by Paul Angelo</i> .....	1	ASOP No. 6 Exposure Draft Provisions Relating to Community Rated HMO Contracts <i>by J. Richard Hogue</i> .....	14	Continuing Education from a Distance: On-line and Audiotape Subscription to Meet EA Requirements <i>by John Riley</i> .....	23
Summary of 2002 IRC, PBGC, Federal Income Tax, Social Security, and Medicare Amounts <i>by H. Rackley and S. Tucker</i> .....	1	Addressing Pension Funding Issues Caused by a Stock Market Downturn <i>by Jeffrey R. Kamenir</i> .....	16	The 5th Annual Annuity Conference, April 10-12, 2002, Orlando, Florida at the Contemporary Resort <i>SEE INSERT</i> .....	(enclosed)
Articles Needed for the <i>News</i> .....	2	Joint Board for the Enrollment of Actuaries Bulletin, October 3, 2001 .....	22		
Discipline Involved in Managing a Pension Plan Can Lead to a Better 401(k) Plan <i>by M. Blanchet and L. Cochennet</i> ....	12				

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**Dan Arnold, FSA**  
*Pension Section News Editor*  
Hooker & Holcombe  
65 LaSalle Road  
West Hartford, CT 06107  
860-521-8400  
860-521-3742 (Fax)  
E-mail: [darnold@hhconsultants.com](mailto:darnold@hhconsultants.com)

**Associate Editors**

**J. Bruce MacDonald, FCIA, FSA**  
Canadian Topics  
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**Joe Adduci**, DTP Coordinator  
([jadduci@soa.org](mailto:jadduci@soa.org))  
**Lois Chinnock**, Section Coordinator  
([lchinnock@soa.org](mailto:lchinnock@soa.org))

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## Articles Needed for the News

Your help and participation are 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, and so on. 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:**

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

Mail both a diskette and a hard copy of your article. We are able to convert most PC-compatible software packages. Headlines are typed upper and lower case. Carriage returns are put in only at the end of paragraphs. The right-hand margin is not justified.

If this is not clear or you must submit in another manner, please call Joe Adduci, 847-706-3548, at the Society of Actuaries for help.

Please send original hard copy of article and diskette to:

Joe Adduci  
Society of Actuaries  
475 N. Martingale Road  
Suite # 800  
Schaumburg, IL 60173-2226  
e-mail: [jadduci@soa.org](mailto:jadduci@soa.org)



Please send a copy of article (hard copy only) to:

Daniel M. Arnold, FSA  
Hooker & Holcombe, Inc.  
65 LaSalle Road  
West Hartford, CT 06107  
Phone: 860-521-8400; Fax: 860-521-3742  
E-mail: [darnold@hhconsultants.com](mailto:darnold@hhconsultants.com)

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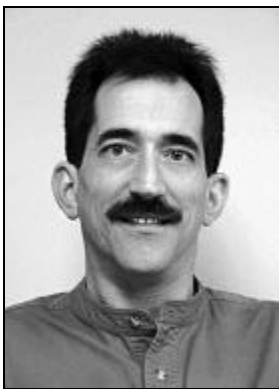
## Chairperson's Column

*continued from page 1*

discussion on this whole "practice area/section" business. One point this brought home is that we pension types are in a special position within the SOA in that we have both an SOA practice area and a special interest section devoted to what we do.

The second event—and the main point of this column—is a recent example of how the SOA Retirement Practice Area and the Pension Section Council can work together to address issues of immediate concern to pension actuaries. As all U.S. pension practitioners know, 30-year treasuries are going away. This will leave a bit of a regulatory gap, to say the least. As you may know, even before the U.S. Treasury officially announced it would no longer issue 30-year treasuries, the withdrawal of these securities from financial markets was already having an impact on this key regulatory benchmark.

Almost two years ago, PSC member Tom Lowman began suggesting that the PSC work to underwrite efforts in order to address this issue. To that end, in January 2000 an ad-hoc group was



*Paul Angelo*

formed to look at the need to sponsor research on the issue of whether—even at that time—30-year Treasuries were appropriate for various pension purposes. In June 2000, the Pension Section and the SOA Committee on Retirement Systems Research issued a jointly funded RFP for research papers on this issue.

Specifically, papers were solicited to identify one or more replacement indices for calculating Current Liability, PBGC variable premiums and lump sums, and they were designed to approximate the interest assumption underlying annuity rates in a group "close out" quotation for a terminating pension plan. We received two proposals and, because of the importance of this issue, we elected to fund both proposals.

Both researchers are highly qualified and bring their own distinct perspectives to their research. One researcher is Victor Modugno. Mr. Modugno is an actuary with a long career in pricing pension products for insurance companies. The other researcher is the firm Ryan Labs, Inc., which does investment research including the creation of investment indices. We are pleased to announce that both papers are complete and are now posted on the SOA Web site.

As noted above, the motivation for the RFP was concern over the use of a rate tied to 30-year US Treasury securities for calculating current liability, PBGC variable premiums, and other statutory purposes. Between the time that the research was completed and the time it was published, the Treasury announced that it would no longer be issuing 30-year Treasury securities. While the researchers did not know this when they did their work, this announcement makes their studies all the more significant.

Both researchers were free to present their own approaches to the issue. Not surprisingly, each came up with different recommendations. Please note that since

**\*\* New and Improved \*\***  
**\*\* SOA Pension Home Page \*\***

The Pension Home page on the SOA Web site has been redesigned. It houses links to wide variety of information and resources specially selected for actuaries working with retirement benefit systems. Check out the new page at [www.soa.org/sections/pension.html](http://www.soa.org/sections/pension.html) or click on the *pension/specialinterests* link on the SOA home page and them click on pension.

the SOA's role includes the sponsoring of research but not the recommendation of policy, the recommendations contained in these two studies are solely those of the authors and not the position of the SOA.

Beyond the actual recommendations, the studies offer a significant amount of background information and discussion on what should be considered when adopting such an interest basis. I think you will find these papers informative and even provocative. We would like to thank both Victor Modugno and Ryan Labs, Inc. for their work.

These 30-year Treasury reports are out on the SOA Web site in a single document including a cover memo and the two reports. If you go to the SOA Web site ([www.soa.org](http://www.soa.org)), there is a news flash on the "pension" page. If you want to get to the reports directly, the URL is [www.soa.org/sections/dbpp.pdf](http://www.soa.org/sections/dbpp.pdf).

Of course, this will not be the last word on this "hot" topic. It does serve as a working example of how the resources of the SOA, including your Pension Section, can help to generate new research on timely issues for the pension community.

*Paul Angelo, FSA, FCA, MAAA, EA is Vice President and Actuary with the Segal Company in San Francisco. He is chair of the Pension Section Council and can be reached at [pangelo@segalco.com](mailto:pangelo@segalco.com).*

### **\*\* Possible 30-Year Treasury Alternatives**

The SOA's new research on the use of 30-Year Treasury rates in U.S. pension legislation and possible replacement rates is available in the research section of the SOA's Pension Home Page at [www.soa.org/sections/pension.html](http://www.soa.org/sections/pension.html).

**Summary of 2002 IRC, PBGC, Federal Income Tax, Social Security, and Medicare Amounts**  
*continued from page 1*

<i>IRC Limit</i>	<i>EGTRRA IRC Limits</i>	<i>Pre-EGTRRA IRC Limits</i>				
		<i>Unrounded 2002</i>	<i>2002</i>	<i>2001</i>	<i>2000</i>	<i>1999</i>
401(k) plan elective deferral limit	\$11,000	\$11,268	\$11,000	\$10,500	\$10,500	\$10,000
403(b) plan elective deferral limit	11,000	11,268	11,000	10,500	10,500	10,000
Eligible 457 plan deferral limit	11,000	8,952	8,500	8,500	8,000	8,000
414(v)(2)(B)(i) catch-up contribution limit (plans other than SIMPLE plans)	1,000	N/A	N/A	N/A	N/A	N/A
SIMPLE plan elective deferral limit	7,000	6,778	6,500	6,500	6,000	6,000
414(v)(2)(B)(ii) SIMPLE plan catch-up contribution limit	500	N/A	N/A	N/A	N/A	N/A
408(k)(2)(C) SEP minimum compensation	450	483	450	450	450	400
415(b) defined benefit maximum annuity	160,000	144,873	140,000	140,000	135,000	130,000
415(c) defined contribution maximum annual addition	40,000	36,585	35,000	35,000	30,000	30,000
401(a)(17) and 408(k)(3)(C) compensation limit	200,000	182,925	180,000	170,000	170,000	160,000
401(a)(17) compensation limit for eligible participants in certain governmental plans in effect July 1, 1993	295,000	295,460	295,000	285,000	275,000	270,000
414(q)(1)(B) highly compensated employee and 414(q)(1)(C) top-paid group	90,000	90,368	90,000	85,000	85,000	80,000
416(i)(1)(A)(i) officer compensation for top-heavy plan key employee definition	130,000	72,437	70,000	70,000	67,500	65,000
1.61-21(f)(5) control employee for fringe benefit valuation purposes						
Officer compensation	80,000	80,485	80,000	75,000	75,000	70,000
Employee compensation	160,000	160,970	160,000	155,000	150,000	145,000
409(o)(1)(c) tax-credit ESOP distribution period						
5-year maximum balance	800,000	804,850	800,000	780,000	755,000	735,000
1-year extension	160,000	160,970	160,000	155,000	150,000	145,000

**Other Benefit-Related IRC Limits**

Qualified transportation fringe benefit limits are adjusted annually after 1999 and medical savings account (MSA) limits are adjusted annually after 1998. The limit on transit pass or commuter highway vehicle transportation was reset for 2002 by the Transportation Equity Act for the 21st Century (PL 105-178). The 2002 limits, published in Rev. Proc. 2001-59, reflect the 3.3% increase in the average CPI-U for the 12 months ending August 31. The qualified transportation fringe benefit limits are rounded down to a multiple of \$5, while the MSA limits are rounded to the nearest multiple of \$50.

<i>Qualified Transportation and MSA Limits</i>	<i>2002</i>	<i>2001</i>	<i>2000</i>	<i>1999</i>	<i>1998</i>
132(f) tax-free qualified transportation fringe benefit					
Parking	\$185	\$180	\$175	\$175	\$175
Transit passes or commuter highway vehicle transportation	100 <sup>1</sup>	65	65	65	65
220(c)(2) MSA high deductible health plan — self-only coverage					
Minimum annual deductible	1,650	1,600	1,550	1,550	1,500
Maximum annual deductible	2,500	2,400	2,350	2,300	2,250
Maximum out-of-pocket limit	3,300	3,200	3,100	3,050	3,000
220(c)(2) MSA high deductible health plan — family coverage					
Minimum annual deductible	3,300	3,200	3,100	3,050	3,000
Maximum annual deductible	4,950	4,800	4,650	4,600	4,500
Maximum out-of-pocket limit	6,050	5,850	5,700	5,600	5,500

<sup>1</sup> IRC section 132(f) was amended by the Transportation Equity Act for the 21st Century effective for tax years beginning after 2001.

Qualified long-term care (LTC) premium limits are adjusted annually after 1997. The 2002 limits, also published in [Rev. Proc. 2001-59](#), reflect the 4.5% increase in the medical care component of the CPI from August 2000 to August 2001, and are rounded to the nearest multiple of \$10.

<i>IRC Limit</i>	<i>2002</i>	<i>2001</i>	<i>2000</i>	<i>1999</i>	<i>1998</i>
213(d) qualified LTC premium limits					
Age 40 or less	240	230	220	210	210
41 – 50	450	430	410	400	380
51 – 60	900	860	820	800	770
61 – 70	2,390	2,290	2,200	2,120	2,050
Over 70	2,990	2,860	2,750	2,660	2,570
7702B(d)(4) qualified LTC contract per diem limit	210	200	190	190	180

### ***PBGC Guaranteed Benefits***

The maximum PBGC guaranteed monthly benefit is adjusted annually on the basis of changes in the Social Security “old law” contribution and benefit base. For a single-employer defined benefit plan terminating in 2002, the maximum guaranteed benefit will be \$3,579.55 per month—a 5.5% increase over the 2001 limit of \$3,392.05. This amount is adjusted if benefit payments start before age 65 or if benefits are paid in a form other than a single-life annuity.

### ***EGTRRA Changes to Federal Income Tax Provisions***

EGTRRA reduced marginal tax rates across the board and created a new 10% tax bracket, carved out of the lower portion of the 15% tax bracket. EGTRRA tax provisions will be phased in over several years, including gradual reduction and ultimate repeal of the estate tax (starting in 2002) and the limits on itemized deductions and personal exemptions (beginning in 2006). Marriage penalty relief begins in 2005. The table on page six summarizes the effective dates of key EGTRRA changes. **These changes sunset after 2010.**

*continued on page 6*

**Summary of 2002 IRC, PBGC, Federal Income Tax, Social Security, and Medicare Amounts**  
*continued from page 5*

<i>Provision</i>	<i>Pre-EGTRRA</i>	<i>2001</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	
<i>Tax Rates</i>	39.6%	39.1%	38.6%		37.6%		35.0%					
	36.0%	35.5%	35.0%		34.0%		33.0%					
	31.0%	30.5%	30.0%		29.0%		28.0%					
	28.0%	27.5%	27.0%		26.0%		25.0%					
	15.0%	10% of first \$6,000 of income for singles or first \$12,000 of income for married couples; 15% for remaining portion of tax bracket						Breakpoints between 10% and 15% rates increased to \$7,000/\$14,000		Breakpoints between 10% and 15% rates indexed for inflation		
<i>Child Credit</i>	\$500	\$600			\$700			\$800		\$1,000		
<i>IRA Limit</i>	\$2,000	\$2,000	\$3,000		\$4,000		\$5,000		\$5,000 Indexed			
<i>IRA Catch-up</i>	N/A	N/A	\$500			\$1,000						
<i>Saver Tax Credit</i>	N/A	N/A	Applicable percentage <sup>1</sup> of qualified retirement savings contributions up to \$2,000				Expired					
<i>Estate Tax</i>												
<i>Top Rate</i>	55%	55%	50%	49%	48%	47%	46%	45%		Repealed		
<i>Exemption (millions)</i>	\$0.675	\$0.675	\$1.0		\$1.5		\$2.0			\$3.5	Repealed	
<b>Marriage Penalty Relief Beginning in 2005</b>												
<i>Standard deduction for married as % of single</i>						174%	184%	187%	190%	200%		
<i>15% bracket maximum income for married as % of single</i>						180%	187%	193%	200%			
<b>Phase-out of Personal Exemption and Itemized Deductions Beginning in 2006</b>							Phase-out amount is reduced by 1/3		Phase-out amount is reduced by 2/3		Repealed	

<sup>1</sup> Saver Tax Credit applicable percentage is a function of filing status and adjusted gross income (AGI), as shown below:

<u>Applicable Percentage</u>	<u>Married Filing Jointly AGI</u>	<u>Head of Household AGI</u>	<u>Other Filing Status</u>
<u>AGI</u>			
50%	up to \$30,000	up to \$22,500	up to \$15,000
20%	\$30,001 – \$32,500	\$22,501 – \$24,375	\$15,001 – \$16,250
10%	\$32,501 – \$50,000	\$24,376 – \$37,500	\$16,251 – \$25,000
0%	over \$50,000	over \$37,500	over \$25,000

**Federal Income Tax Factors**

The breakpoints between tax rates (except for the breakpoint between the new 10% bracket and the 15% bracket) and various other federal income tax factors continue to be adjusted annually on the basis of year-to-year changes in the average CPI-U for the 12 months ending August 31—a 3.3% increase, before rounding, for 2002 tax factors. The 2002 rates were published by IRS in Rev. Proc. 2001-59.

<b>Item and Filing Status</b>	<b>2002</b>	<b>2001</b>
Personal Exemption	\$3,000	\$2,900
Standard Deduction		
Single	4,700	4,550
Head of Household	6,900	6,650
Married, Filing Jointly	7,850	7,600
Married, Filing Separately	3,925	3,800
Additional Standard Deduction (for elderly or blind)		
Unmarried	1,150	1,100
Married (each)	900	900
"Kiddie" Deduction	750	750
Breakpoint between 10% and 15% rates		
Single	6,000	6,000
Head of Household	10,000	10,000
Married, Filing Jointly	12,000	12,000
Married, Filing Separately	6,000	6,000
Breakpoint between 15% and 27% rates (27.5% for 2001)		
Single	27,950	27,050
Head of Household	37,450	36,250
Married, Filing Jointly	46,700	45,200
Married, Filing Separately	23,350	22,600
Breakpoint between 27% and 30% rates (27.5% and 30.5% for 2001)		
Single	67,700	65,550
Head of Household	96,700	93,650
Married, Filing Jointly	112,850	109,250
Married, Filing Separately	56,425	54,625
Breakpoint between 30% and 35% rates (30.5% and 35.5% for 2001)		
Single	141,250	136,750
Head of Household	156,600	151,650
Married, Filing Jointly	171,950	166,500
Married, Filing Separately	85,975	83,250
Breakpoint between 35% and 38.6% rates (35.5% and 39.1% for 2001)		
Single	307,050	297,350
Head of Household	307,050	297,350
Married, Filing Jointly	307,050	297,350
Married, Filing Separately	153,525	148,675

*continued on page 8*

## Summary of 2002 IRC, PBGC, Federal Income Tax, Social Security, and Medicare Amounts

*continued from page 7*

Personal exemptions are currently phased out for taxpayers whose adjusted gross incomes exceed specified amounts (which vary by tax filing status). For 2002 these "threshold amounts" at which phase-out begins and ends are shown below. EGTRRA reduces the phase-out of personal exemptions beginning in 2006 and eliminates the phase-out in 2010.

<i>Filing Status</i>	<i>Phase-Out Begins at</i>	<i>Phase-Out Completed After</i>
Unmarried	<b>\$137,300</b>	\$259,800
Head of Household	171,650	294,150
Married, Filing Jointly	206,000	328,500
Married, Filing Separately	103,000	164,250

Total itemized deductions for 2002 are reduced by 3% of a taxpayer's adjusted gross income in excess of \$137,300 (\$68,650 for married, filing separately), an increase from \$132,950 in 2001 (\$66,475 for married, filing separately). EGTRRA phases out this reduction in itemized deductions beginning in 2006 and eliminates the reduction in 2010.

Certain taxpayers are entitled to an earned income tax credit (EIC) equal to the maximum credit amount reduced by the phase-out amount. The phase-out amount equals the product of the phase-out percentage (based on the number of qualifying children) multiplied by the excess, if any, of the taxpayer's adjusted gross income (modified adjusted gross income for 2001) or earned income, whichever is greater, over the threshold phase-out amount. EGTRRA marriage penalty relief increases the threshold phase-out amount for joint return filers by \$1,000 in 2002 – 2004, by \$2,000 in 2005 – 2007, and by \$3,000 after 2007.

	<i>2002</i>	<i>2001</i>
EIC maximum credit amount		
<b>No qualifying children</b>	\$376	\$364
One qualifying child	2,506	2,428
Two or more qualifying children	4,140	4,008
EIC threshold phase-out amount (and percentage)		
No qualifying children (7.65%)	<b>6,150</b>	<b>5,950</b>
One qualifying child (15.98%)	<b>13,520</b>	<b>13,090</b>
Two or more qualifying children (21.06%)	<b>13,520</b>	<b>13,090</b>
EIC threshold phase-out amount (and percentage) married filing jointly		
No qualifying children (7.65%)	<b>7,150</b>	<b>5,950</b>
One qualifying child (15.98%)	<b>14,520</b>	<b>13,090</b>
Two or more qualifying children (21.06%)	<b>14,520</b>	<b>13,090</b>



**Social Security and Supplemental Security Income Amounts**

Social Security benefits payable December 31, 2001, increased 2.6%—the increase in CPI-W from the third quarter of 2000 to the third quarter of 2001. The average monthly Social Security benefits before and after the December 2001 COLA are:

<i>Average Monthly Social Security Benefit</i>	<i>After 12/2001 2.6% COLA</i>	<i>Before 12/2001 2.6% COLA</i>
All retired workers	\$874	\$852
Aged couple, both receiving benefits	1,454	1,418
Widowed mother and two children	1,764	1,719
Aged widow(er)	841	<b>820</b>
Disabled worker, spouse, and children	1,360	1,325
<b>All disabled workers</b>	815	794

The 2002 taxable wage base, determined from the change in deemed average annual wages from 1999 to 2000, will increase 5.6%. Other 2002 Social Security and Supplemental Security Income values are:

	<i>2002</i>	<i>2001</i>
Cost-of-living increase	2.6%	3.5%
Average annual wage (2nd preceding year)	\$32,154.82	\$30,469.84
OASDI contribution and benefit base (wage base)	84,900	80,400
“Old law” contribution and benefit base	63,000	59,700
Retirement earnings test exempt amount (annual)		
Under age 65 — all year	11,280	10,680
Attained age 65 (period before the month 65 is attained)	30,000	25,000
Age 65 (birth month and later)	No limit	No limit
Wages needed for a quarter of coverage	870	830
Maximum monthly social security benefit worker retiring in January at age 65	1,660	1,536
Bend-points — PIA formula applied to average indexed monthly earnings (AIME)		
90% of AIME up to	<b>592</b>	<b>561</b>
32% of AIME over first bend-point up to	3,567	3,381
15% of AIME over second bend-point		
Bend-points — maximum family benefit formula applied to worker's PIA		
150% of PIA up to	756	717
272% of PIA over first bend-point up to	1,092	1,034
134% of PIA over second bend-point up to	1,424	1,349
175% of PIA over third bend-point		
SSI federal payment standard (monthly)		
Individual	545	531
Couple	817	796
SSI resources limit		
<b>Individual</b>	2,000	2,000
Couple	3,000	3,000
FICA tax rates		
OASDI employer and employee	6.20%	6.20%
HI employer and employee	1.45%	1.45%
OASDI self-employed	12.40%	12.40%
HI self-employed	2.90%	2.90%
<b>Maximum OASDI employee payroll tax</b>	\$5,263.80	\$4,984.80

*continued on page 10*

## Summary of 2002 IRC, PBGC, Federal Income Tax, Social Security, and Medicare Amounts

*continued from page 9*

### Covered Compensation

Covered compensation—the average OASDI contribution and benefit base for the 35-year period ending with the year the employee attains Social Security retirement age—determines permitted and imputed disparity limits for qualified retirement plans. In lieu of using the actual covered compensation amount, qualified plans may determine permitted or imputed disparity using a rounded covered compensation table published annually by IRS. The 2002 table, published in Rev. Rul. 2001-55, rounds values to the nearest \$3,000, except where they would exceed the 2002 OASDI taxable wage base of \$84,900.

Calendar Year of Birth	Social Security Retirement Age	Calendar Year of Social Security Retirement Age	Covered Compensation		Rounded Covered Compensation	
			2002	2001	2002	2001
1906	65	1971	4,320	4,320	3,000	3,000
1907	65	1972	4,488	4,488	3,000	3,000
1908	65	1973	4,704	4,704	6,000	6,000
1909	65	1974	5,004	5,004	6,000	6,000
1910	65	1975	5,316	5,316	6,000	6,000
1911	65	1976	5,664	5,664	6,000	6,000
1912	65	1977	6,060	6,060	6,000	6,000
1913	65	1978	6,480	6,480	6,000	6,000
1914	65	1979	7,044	7,044	6,000	6,000
1915	65	1980	7,692	7,692	9,000	9,000
1916	65	1981	8,460	8,460	9,000	9,000
1917	65	1982	9,300	9,300	9,000	9,000
1918	65	1983	10,236	10,236	9,000	9,000
1919	65	1984	11,232	11,232	12,000	12,000
1920	65	1985	12,276	12,276	12,000	12,000
1921	65	1986	13,368	13,368	12,000	12,000
1922	65	1987	14,520	14,520	15,000	15,000
1923	65	1988	15,708	15,708	15,000	15,000
1924	65	1989	16,968	16,968	18,000	18,000
1925	65	1990	18,312	18,312	18,000	18,000
1926	65	1991	19,728	19,728	21,000	21,000
1927	65	1992	21,192	21,192	21,000	21,000
1928	65	1993	22,716	22,716	24,000	24,000
1929	65	1994	24,312	24,312	24,000	24,000
1930	65	1995	25,920	25,920	27,000	27,000
1931	65	1996	27,576	27,576	27,000	27,000
1932	65	1997	29,304	29,304	30,000	30,000
1933	65	1998	31,128	31,128	30,000	30,000
1934	65	1999	33,060	33,060	33,000	33,000
1935	65	2000	35,100	35,100	36,000	36,000
1936	65	2001	37,212	37,212	36,000	36,000
1937	65	2002	39,444	39,312	39,000	39,000
1938	66	2004	43,848	43,464	45,000	42,000
1939	66	2005	46,056	45,540	45,000	45,000
1940	66	2006	48,252	47,616	48,000	48,000
1941	66	2007	50,424	49,656	51,000	51,000
1942	66	2008	52,548	51,648	54,000	51,000
1943	66	2009	54,588	53,568	54,000	54,000
1944	66	2010	56,616	55,452	57,000	54,000

1945	66	2011	58,608	57,312	60,000	57,000
1946	66	2012	60,552	59,148	60,000	60,000
1947	66	2013	62,472	60,936	63,000	60,000
1948	66	2014	64,248	62,580	63,000	63,000
1949	66	2015	65,940	64,140	66,000	63,000
1950	66	2016	67,512	65,580	69,000	66,000
1951	66	2017	69,012	66,960	69,000	66,000
1952	66	2018	70,416	68,232	69,000	69,000
1953	66	2019	71,760	69,444	72,000	69,000
1954	66	2020	73,056	70,620	72,000	72,000
1955	67	2022	75,456	72,756	75,000	72,000
1956	67	2023	76,596	73,764	78,000	75,000
1957	67	2024	77,652	74,700	78,000	75,000
1958	67	2025	78,612	75,528	78,000	75,000
1959	67	2026	79,512	76,296	81,000	75,000
1960	67	2027	80,352	77,004	81,000	78,000
1961	67	2028	81,132	77,664	81,000	78,000
1962	67	2029	81,828	78,228	81,000	78,000
1963	67	2030	82,500	78,780	84,000	78,000
1964	67	2031	83,136	79,284	84,000	80,400
1965	67	2032	83,700	79,704	84,000	80,400
1966	67	2033	84,168	80,052	84,000	80,400
1967	67	2034	84,516	80,280	84,900	80,400
1968	67	2035	84,768	80,400	84,900	80,400
1969 or later	67	2036	84,900	80,400	84,900	80,400

### Medicare Premiums and Deductibles

The table below shows the increases in Medicare premiums, coinsurance, and deductible amounts from 2001 to 2002.

	2002	2001
<b>Part A — Hospital Insurance</b>		
<b>Inpatient hospital deductible</b>	\$812.00	\$792.00
Coinsurance		
Daily coinsurance payment for 61 – 90 days of inpatient hospital care	203.00	198.00
Coinsurance for up to 60 lifetime reserve days	406.00	396.00
Daily coinsurance payment for 21 – 100 days in a skilled nursing facility following a hospital stay of at least three days	<b>101.50</b>	<b>99.00</b>
Voluntary premium for persons not eligible for monthly benefits	319.00	300.00
Alternative reduced premium for persons with 30 – 39 credits	175.00	165.00
<b>Part B — Medical Insurance</b>		
Annual deductible	100.00	100.00
Monthly premium	54.00	50.00

Heidi Rackley, FSA, MAAA, FCA, is a consulting actuary at William M. Mercer Inc. in Seattle, WA. She is also a member of Mercer's Washington Resource Group. She can be reached at [heidi.rackley@us.wmmercer.com](mailto:heidi.rackley@us.wmmercer.com).

Scott Tucker is Principal at William M. Mercer, Inc. in Seattle, WA. He can be reached at [scott.tucker@us.wmmercer.com](mailto:scott.tucker@us.wmmercer.com).

## Discipline Involved in Managing a Pension Plan Can Lead to a Better 401(k) Plan

by Mario Blanchet and Laurel Cochennet

*Author's Note: A new study finds significant differences in employee savings plans according to whether the employer also sponsors a traditional pension plan.*

**T**he discipline and structured approach to plan management and decision-making that employers have applied over the years to managing their pension plans seems to carry over to the savings plan arena, with positive results. A new survey finds that employers that offer both a pension plan and a 401(k) or other employee savings plan tend to have savings plans that are more generous, use more channels for employee communication, and are more attentive to plan management activities than employers that sponsor just a savings plan.

More-generous plan features, combined with a greater focus on employee education, translates into higher employee participation levels, while a greater emphasis on policy and oversight results in fewer operational problems and compliance concerns.

The survey findings, while generally logical, are disappointing since one might hope that sponsors of defined contribution-only retirement programs would be offering the more generous plans, using all available communication channels, and paying very close attention to the plans through regular and ongoing monitoring activities.

These are some of the findings from a survey of 252 defined-contribution plan sponsors by human resource consultant William M. Mercer, Incorporated. Nearly 60% of the respondents also sponsor a defined benefit pension plan that



Mario Blanchet

covers most of their employees. With this proportion steadily declining in recent years, employees are becoming increasingly reliant on savings plans as vehicles for retirement income or wealth accumulation.

Almost across the board, the survey found that defined contribution (DC) plan design features are more generous when the employer also offers a defined benefit (DB) plan. Eligibility is more liberal, vesting occurs faster, and employer contributions are more likely to have both a fixed and a discretionary component. For example, 45% of DB/DC plan sponsors have immediate vesting on the employer match, compared to 27% of DC-only sponsors.

DB/DC plan sponsors are more than twice as likely as DC-only sponsors to automatically invest company matching contributions in employer stock (26% vs. 11%, respectively).

Using employer stock as an investment vehicle helps to align employees' retirement benefits with the organization's business goals, and provides one way for the employer to raise additional capital.

### Communication

On average, companies with both types of plans use more communication channels to provide information about the savings plan. They also are far more likely to offer individual counseling for terminating employees (58% vs. 39%), to target specific messages to participants who don't diversify (34% vs. 18%) and those who are nearing retirement (32% vs. 22%), and to measure the effectiveness of their communication materials (57% vs. 43%).

### Management and Administration

In the plan management arena, DB/DC sponsors are significantly

more likely than DC-only sponsors to have a contract with their recordkeeper (69% vs. 50%) and less likely to rely on the vendor for investment performance monitoring (35% vs. 54%).

DC-only sponsors also are more likely to identify challenges stemming from under-performing assets and compliance issues. Average employee deferral percentages were almost three-quarters of a percentage point less for DC-only sponsors.

### Investments

Two-thirds (66%) of DB/DC plan sponsors have an investment policy for their defined contribution plan, compared to 45% of DC-only sponsors. Respondents with both types of plans are more likely to offer employees a stable value fund (70% vs. 57%), an indexed domestic equity fund (73% vs. 62%), and company stock for employee-directed assets (43% vs. 24%). However, it is less likely that employee direction is allowed for company matching contributions in organizations where the employer sponsors both types of plans (71%, compared to 89% for DC-only sponsors).

### Other Findings

- Defined contribution plans differ according to whether the finance department or the human resource department exercises the greatest influence on plan decisions. Where the finance department holds sway, a DC plan is more likely to have a non-matching company contribution, a discretionary company contribution, performance standards with their recordkeeper that are linked to specific measures, and to have the



Laurel Cochennet

employer pay the majority of plan fees.

- One third (33%) of respondents recently liberalized their eligibility requirements. The most important reason given for doing so is to increase participation, followed closely by the need to attract and retain employees.
- More than 90% of the surveyed plans offer employer matching contributions, with the most common amount being 50% on the first 6% of employee contributions. In most cases, the amount of the match does not depend on service, end-of-year employment, or location. Twenty-one percent of respondents reported having improved their matching contribution within the past three years. Nearly 40% of all plans have immediate vesting for employer contributions.
- Employees direct the investment of their own contributions in all of the plans. They direct the investment of matching contributions in 80% of plans, and the investment of profit sharing contributions in 85% of plans.
- The average number of investment options available for employee assets rose to 11.7 in 2000, up from 9.5 in 1998 and 4.2 in 1992, the survey found 82% of respondents increased the number of options offered between 1998 and 2000.
- Nearly half (47%) said they planned to increase the number of investment options this year or next, while 24% planned to decrease the number of available options.
- Actively managed domestic large cap equity funds are the most common investment option, included in 90% of plans. Greatest growth from 1998 to 2000 was in the percentage of plans offering lifecycle funds (rising from 17% to 26%) and brokerage and mutual fund window accounts (rising from 7% to 12%). The percentage of

Table 1.

**Statistically Significant Differences Between Two Types of Plan Sponsors**

	Those with DB and DC plans	Those with DC plans only
<b>Plan design</b>		
Eligibility – no age requirement	51%	30%
Eligibility – upon hire or within three months	50%	28%
Immediate vesting on the employer match	45%	27%
Immediate vesting on the profit sharing contribution	43%	11%
Matching contribution automatically invested in company stock	26%	11%
<b>Communication</b>		
Use interactive computer programs	48%	38%
Use benefit fairs	52%	31%
Provide individual counseling for terminating employees	58%	39%
Target communications to participants who don't diversify	34%	18%
Target communications to employees approaching retirement	32%	22%
Measures the effectiveness of communication materials	57%	43%
<b>Plan management and administration</b>		
Have a recordkeeping service contract	69%	50%
Current challenge – underperforming assets	25%	37%
Current challenge – compliance issues	8%	17%
Performance monitoring report provided by vendor	35%	54%
ADP – non-highly compensated	5.27%	4.58%
ADP – highly compensated	6.23%	5.52%
<b>Investments</b>		
Have a formal investment policy	66%	45%
Offer a stable value fund	70%	57%
Offer an indexed domestic equity fund	73%	62%
Offer an actively managed large cap core domestic equity fund	27%	16%
Offer an actively managed mid cap domestic equity fund	38%	51%
Offer company stock for employee-directed assets	43%	24%
Employee direction allowed for company matching contribution	71%	89%

Source: William M. Mercer, Incorporated

plans offering a company stock fund for employee-directed investments rose from 23% to 35% over the two-year period.

**About the Survey**

Respondents represent 252 sponsors of defined contribution plans with assets totaling \$125 billion. The average number of eligible employees per respondent is 8,100. Although many employers offer multiple savings plans, Mercer asked respondents to provide information on their largest defined contribution plan only. In most cases, this was a plan with a 401(k) feature. The survey results have not been weighted, and only represent the organizations surveyed.

**About the Authors**

**Laurel Cochennet, FSA, MAAA, EA**, is a principal and senior retirement consultant in Mercer's Kansas City office. She

can be reached at [Laurel.Cochennet@us.wmmercer.com](mailto:Laurel.Cochennet@us.wmmercer.com).

**Mario Blanchet, FSA, EA**, is a principal and senior retirement consultant in Mercer's Boston office. He can be reached at [Mario.Blanchet@us.wmmercer.com](mailto:Mario.Blanchet@us.wmmercer.com).

## ***ASOP No. 6 Exposure Draft Provisions Relating to Community Rated HMO Contracts***

*by J. Richard Hogue*

*Author's Note: In October, 2000, the Actuarial Standards Board issued an Exposure Draft of a proposed revision of Actuarial Standard of Practice (ASOP) No. 6 (Measuring Retiree Group Benefit Obligations) with a comment deadline of 3/31/01. There were 22 comment letters containing several very worthwhile suggestions. (To get the comments file, send an e-mail to comments@actuary.org with Retiree Group Benefits in the subject line.)*

### ***Determination of Initial Per Capita Health Care Rate Addressed***

I was particularly interested in section 3.4.5 of the Exposure Draft because it addressed the determination of the initial per capita health care rate for a plan being financed through a community rated HMO contract. For the benefit of the reader who does not have a copy of the Exposure Draft, the following is section 3.4.5:

3.4.5 Use of Premium Rates - Although an analysis of the plan sponsor's actual claims experience is preferable, premium rates may be used as a substitute, with appropriate analysis and adjustment. Current premium rates will rarely be appropriate without adjustment for changes in benefit levels, covered population, or program administration. If premium rates are used as the basis for initial per capita health care rates, the actuary should make due allowance for the premium rate basis.

In most cases, a community-rated premium rate is not appropriate for retiree group benefit measurement purposes unless the rate is not affected by factors specific to the covered population of the retiree group (for example, the same rate would be offered to the plan if

only non-Medicare retirees were covered).

If appropriately adjusted premium rates are used as the basis for initial per capita rates in the measurement, the actuary should make an appropriate disclosure and consider the factors described in sections 3.4.6-3.4.11.

### ***Apparent Lack of Agreement Within Actuarial Community***

What I liked about section 3.4.5 was that it would seem to clarify in most situations, the use of an unadjusted community-rated premium rate to value pre Medicare eligible retiree healthcare liabilities would not be acceptable. I was surprised to see that more than a few of the comments to the Exposure Draft seemed to imply that unadjusted premium rates should be acceptable.

This lack of agreement within the actuarial community is important because these two approaches (i.e. "unadjusted" versus "adjusted") to valuing pre Medicare eligibility post retirement healthcare liabilities can result in significantly different valuation results.

### ***Example***

For example, let's assume that pre age 65 initial per capita health care rates increase at the rate of 3% per year and that the average age of the employer's total pre age 65 population is 38. Within such a population is a subset of early retirees whose average age is 62.

The unadjusted approach would use the community-rated premium rates without adjustment as the basis for the initial per capita health care rates for the pre Medicare eligible retirees.

One adjusted approach to determining the age 62 initial per capita health care rate would be to multiply the community rate by 2.03 (i.e.  $1.03^{24}$ ). The age 62 initial per capita health care rate would

be appropriate for valuing pre Medicare eligible retirees from ages 60 to 64. Starting with the five-year age bracket from 65 to 69, an appropriate assumption for the Medicare payments should be made.

Please note that the above approach using an age-adjusted premium to calculating the pre Medicare initial per capita health care rate assumes that the community rate was based only on pre Medicare claims and enrollment and ignores the different demographics between the employer and community populations. It also uses a simplified approach to age adjusting in the sense that the arithmetically correct way would be to base the adjustment on age distributions as the aging curve is not necessarily linear.

### ***Effect on Valuation Results***

The effect on the valuation results would depend on certain other variables such as the following:

- Duration of plan benefits
- Portion of current retirees who are eligible for Medicare, and
- Retirement rates for active employees

The two approaches would produce the greatest percentage variation in valuation results in the case of a plan that paid benefits only prior to Medicare eligibility. In this situation the post retirement healthcare costs would roughly double assuming a plan whose eligibility age was 60. The age-adjusted rate would be for a central age 62 (for ages 60-64) but the unadjusted rate would be for a central age of 38.

The other extreme would be a valuation of a health care plan that paid benefits only to retirees who were eligible for Medicare. In this situation there would be no effect on the valuation results because there would be no pre age 65 benefits considered in the valuation.

### ***ASOP No. 6 Related to Accounting Standards***

It is important to understand that ASOP No.6 is expected to apply to all post retirement benefit valuations and not just those performed for the purpose of complying with FAS 106. If the valuation is performed in a situation where an accounting standard does apply (FAS 106 or some other accounting standard), the actuary must insure that both the

actuarial and the applicable accounting standards are satisfied. Thus it is particularly important for the actuary to be aware of potential conflicts between ASOP No.6 and whatever accounting standard applies. To my knowledge there are no provisions of FAS 106 that would require the actuary to use an actuarial method or assumption that violates ASOP No.6. However, if some of section 3.4.5 comments carry any weight in the drafting of the final version of ASOP No.6, I believe the actuarial standard would permit the use of methods that are inconsistent with FAS 106. There would be nothing contradictory with this since ASOP No.6 does not preclude the use of more stringent standards when warranted. It does mean, however, that actuaries practicing in this area must be aware of such potential conflicts.

### **Potential Conflicts with FAS 106**

If the final ASOP No.6 permits the use of unadjusted HMO community rates in valuing pre Medicare eligible retiree healthcare liabilities, I believe that a potential conflict would exist between the actuarial standards and paragraphs 10 and 35 of FAS 106. Paragraph 10 requires a separate accounting of plans covering active employees and retirees. Paragraph 35 requires the actuary to calculate the assumed initial per capita health care rate on a basis that recognizes the fact that such rates vary by age.

Taken together, it is clear that FAS 106 does not permit substantial cross subsidies over the age spectrum when developing the assumed initial per capita health care rate. This is an important concept since many insured retiree medical plans offering pre age 65 retiree coverage do so under the same contract that covers the active employees. In these plans, the experience of the active employees and retirees is usually pooled to arrive at a single set of rates for the group rather than one set of rates for the actives and a separate set of rates for the retirees. For these plans, setting the assumed initial per capita health care rate equal to the unadjusted group rate would not be correct for a FAS 106 valuation. There does not seem to be any substantial disagreement in the actuarial community in this situation or in the other common situation of the self-funded plan.

### **Source of Community Rated HMO Plan Problems**

The problem arises in community rated HMO plans for the following two reasons:

1. The experience of the employer is not used directly in the determination of the rate. Some think that this point is strengthened in the case of an employer whose HMO contract is subject to regulation. With a regulated contract, the argument is made that the employer could rely on future access to healthcare coverage for any portion of his or her current or former employees.
2. The answer to question 11 of "A Guide to Implementation of Statement 106 on Employers' Accounting for Postretirement Benefits Other Than Pensions." Question 11 and the answer thereto are as follows:

**Q** - Are there any circumstances in which an employer may measure its postretirement health care benefit obligation by projecting the cost of premiums for purchased health care insurance?

**A** - Yes. For a plan that stipulates that the benefit to be provided is the payment of certain healthcare insurance premiums for retirees rather than the payment of their healthcare claims, the employer should project the cost of those future premiums in measuring its benefit obligation. That projection requires an assessment of how future health care costs will affect future premiums.

For a plan that stipulates that the benefit to be provided is the payment of retiree's health care claims, the cost of premiums for insurance that an employer expects to purchase to finance its obligation may be used to measure the obligation if it produces a reasonable estimate of the future cost of benefits covered by the plan. In some situations, such as in a community-rated insurance plan that provides the type of benefits covered by the employer's plan and in which the premium cost to the employer is based on the experience of all participating employers, the claims experience of a single employer generally will have little impact on its premiums.

Accordingly, in those situations a projection of future premiums based on the

current premium structure and expected changes in the general level of health care costs may provide a reasonable estimate of the employer's obligation. However, if premiums are adjusted for the actual claims experience or the age and sex of the plan's participants (an experience-rated plan), the foregoing projection of the employer's obligation may not produce a reasonable estimate of the future cost of the underlying benefits of the plan.

### **Question #11 Answer Assumes Rate Based on Retiree Experience Only**

With respect to the second point, I was informed several years ago by one of the FASB technical support staff that the answer to question 11 assumes that the underlying rates for the community-rated plan in question, to be consistent with FAS 106, paragraph 10, were based on retiree only experience. Unfortunately, such assumption was not stipulated in the answer.

### **Conclusion**

In my opinion, FAS 106, paragraph 10 would preclude any rate that applies to both an organization's active and retired participants from being used without age adjustment. Whether the employer's experience directly affects the rate and/or whether the rate is regulated is not even a consideration. Simply having the rate apply to the employer's active employee population would imply a rate based at least in part on active employee experience.

If the employer had a closed block of retirees to which the community rate is being exclusively applied, I would agree that the use of such rate on an unadjusted basis would be appropriate for FAS 106 purposes.

Always holding out the possibility that I might be overlooking something, I would encourage others who disagree with this position to come forth with their reasoning.

*J. Richard Hogue, FSA, MAAA, FCA, EA is an actuarial consultant in Granada Hills, CA. He may be reached at hoguejr@attglobal.net.*

## Addressing Pension Funding Issues Caused by a Stock Market Downturn

by Jeffrey R. Kamenir

One of the many things that often cause sleepless nights among financial and human resources professionals is the pension plan. In addition to the myriad of compliance and technical issues, a new more basic uncertainty has emerged—funding. The market downturn of 2000–2001 has materially altered the funded status of privately held defined benefit plans, particularly those that were heavily invested in equities during the market run up that began in 1995.

From the beginning of 1995 until the end of 1999, the U.S. Stock Market grew

at an amazing pace. During this period, the Dow Jones Industrials Average (DJIA) grew by about 232%, the Standard & Poors (S&P) 500 Index grew by about 251%, and the NASDAQ Composite Index grew by about 450% (annualized return of about 40.5% per year). However, beginning in early 2000, stock values began declining at a rapid pace. During 2000, the DJIA declined by 5%, the S&P 500 Index declined by about 9% and the NASDAQ Composite Index declined by about 39%. During the first quarter of 2001, the DJIA declined by about 8%, the S&P 500 Index

declined by about 12% and the NASDAQ Composite Index declined by about 25.5%. Because of this recent stock market turnabout, many single employer defined benefit pension plans may suddenly become “underfunded.”

Human resources and financial professionals would do well to take a fresh look at the current funded status of their plans. This article discusses various measures that are used to determine a pension plan’s funded status (Table 1 below summarizes these measures) and offers some suggestions for addressing pension funding issues.

Table 1

Provision	Required Interest Rate (for Plan Years Beginning 1/1/2001)	For Plans Covering Than 100 Participants	For Plans Covering 100 or Fewer Participants
1. <i>Additional Contribution Requirements</i>	6.21%	<ul style="list-style-type: none"> <li>a. If Current Liability Percentage (CLP) <math>\geq</math> 90%, exemption for current plan year.</li> <li>b. If CLP <math>\geq</math> 80% and <math>&lt;</math>90%, possible exemption for current plan year</li> <li>c. IF CLP <math>&lt;</math> 80%, subject to additional contribution requirements for current plan year.</li> </ul>	<ul style="list-style-type: none"> <li>a. Exemption for current plan year (even if CLP <math>&lt;</math> 80%)</li> </ul>
2. <i>Quarterly Contribution Requirements</i>	5.32% to 6.21%	<ul style="list-style-type: none"> <li>a. If CLP <math>\geq</math> 100%, exemption for next plan year.</li> <li>b. If CLP <math>&lt;</math> 100%, generally subject to quarterly contribution requirements (including liquidity quarterly contribution requirements) for next plan year</li> </ul>	<ul style="list-style-type: none"> <li>a.) If CLP <math>\geq</math> 100%, same as for plans covering more than 100 participants.</li> <li>b.) If CLP <math>&lt;</math> 100%, generally subject to regular quarterly contribution requirements, (but exempt from liquidity quarterly contribution requirements) for next plan year.</li> </ul>
3. <i>PBGC Variable Premium Requirements</i>	4.67%	<ul style="list-style-type: none"> <li>a. If Unfunded Vested Current Liability (UVCL) <math>\leq</math> 0, exemption for current plan year.</li> <li>b. IF UVCL <math>&gt;</math> 0, generally subject to PBGC variable premium requirements for current plan year.</li> </ul>	<ul style="list-style-type: none"> <li>a. If UVCL <math>\leq</math> 0, same as for plans covering more than 100 participants.</li> <li>b. If UVCL <math>&gt;</math> 0, same as for plans covering more than 100 participants.</li> </ul>



Table 1 (continued)

Provision	Required Interest Rate (for Plan Years Beginning 1/1/2001)	For Plans Covering More Than 100 Participants	For Plans Covering 100 or Fewer Participants
4. <i>Participant Notification Requirements</i>	Based on required interest rates for additional contribution requirements and PBGC	<p>a. If PBGC variable premium payments are \$0 for current plan year, exemption for current plan year</p> <p>b. If PBGC variable premium payments required for current plan year and plan is exempt from additional contribution requirements for either current or prior plan year, exemption</p> <p>c. If PBGC variable premium payments are required for current plan year and plan is subject to additional contribution requirements for current and prior plan year, subject to participant notification requirements for current plan year.</p>	<p>a. If PBGC variable premium payments are \$0 for current plan year, same as for plans covering more than 100 participants.</p> <p>b. If PBGC variable premium payments required for current plan year and plan would have been exempt from additional contribution requirements for either current or prior year (based on rules for plans covering more than 100 participants), for current plan year.</p> <p>c. If PBGC variable premium payments are required for current plan year and plan would have been subject to additional contribution requirements for current and prior plan year (based on rules for plans covering more than 100 participants), subject to participant notification requirements for current plan year.</p>
5. Lump Sum Payment Restrictions For 25 Highest Paid Highly Compensated Participants	"Reasonable" and "consistent" method must be used for determining the interest rate (e.g., current liability interest rate in effect at proposed distribution date).	<p>a. If CLP will be <math>\geq 110\%</math> following distribution or distribution is <math>\leq \\$5,000</math> or distribution is less than 1% of plan's current liability before distribution, exempt from restrictions.</p> <p>b. If None of above requirements can be met, lump sum distributions not allowable unless participant provides "security agreement."</p>	<p>a. Same rules as for plans covering more than 100 participants are applicable.</p> <p>b. Same rules as for plans covering more than 100 participants are applicable.</p>
6. Additional Accounting Disclosure Requirements on Balance Sheet	Determined at accounting disclosure date based on interest rate agreed to by company and its auditor.	<p>a. If Accumulated Benefit Obligation (ABO) <math>\leq</math> assets, exempt from additional disclosure requirements.</p> <p>b. If ABO <math>&gt;</math> assets, subject to additional disclosure requirements.</p>	<p>a. Same rules as for plans covering more than 100 participants are applicable.</p> <p>b. Same rules as for plans covering more than 100 participants are applicable.</p>

*continued on page 18*

## Addressing Pension Funding Issues Caused by a Stock Market Downturn

*continued from page 17*

### **Additional Contribution Rules**

Certain underfunded single-employer plans covering more than 100 participants are subject to rules requiring them to make contributions (referred to as additional contributions) that are in addition to those otherwise necessary under the minimum funding provisions. How well a plan is funded is measured by its Current Liability Percentage (CLP). CLP is equal to the ratio of a plan's assets to a plan's liabilities accrued to date.

Liabilities are determined based on a mandated interest and mortality table.

For plan years beginning on January 1, 2001, plan sponsors must use an interest rate of 6.21% to determine whether the plan is subject to the additional contribution requirements. The interest rate is redetermined on a monthly basis and is based on 105% of a four-year weighted average of the 30-year Treasury rate.

Plan sponsors of plans that have a CLP greater than or equal to 90% are subject to regular minimum funding requirements but they automatically are exempt from the requirement to make additional contributions for a plan year. If a plan's CLP is greater than or equal to 80% but less than 90%, the plan sponsor may be exempt from the additional contribution requirements for a plan year if the plan's CLP during two consecutive out of the prior three plan years was greater than or equal to 90%. A plan covering 100 or fewer participants is exempt from the additional contribution requirements, even if the plan's CLP is less than 80%.

### **Quarterly Contribution Rules**

In general, a plan sponsor must make four quarterly contributions and, thereafter, one final contribution to satisfy minimum funding requirements (including any required additional contributions) for a given plan year.

For plan years beginning on January 1, 2001, plans must use an interest rate of

between 5.32% and 6.21% for determining whether any quarterly contributions for the following plan year are required. This range is determined based on 90% and 105% of a four-year weighted average of the 30-year Treasury rate for the period ending December 31, 2000.

If a plan's CLP is greater than or equal to 100%, the plan sponsor need not make any quarterly contributions (including required liquidity contributions) for the following plan year.

A plan is considered to have liquidity problems if, in general, its liquid assets do not cover three times the plan's disbursements for the 12-month period ending before the date of the plan's next required quarterly contribution. Plans with 100 or fewer participants are exempt from the liquidity quarterly contribution requirements, even if the plan's CLP is less than 100%.

### **PBGC Premium Provisions**

The Pension Benefit Guaranty Corporation (PBGC) is the governmental agency responsible for insuring participants against the loss of pension benefits in the event that their plans terminated with insufficient assets.

For this coverage, all single-employer defined benefit plans, no matter how well funded, must annually pay PBGC flat premium payments (\$19 per participant) and possibly variable premium payments.

To determine whether a plan sponsor must pay any variable PBGC premiums for a plan year, the PBGC measures a plan's Unfunded Vested Current Liability (UVCL). UVCL equals a plan's vested liabilities accrued to date (determined based on mandated interest rate and mortality assumptions), less the plan's assets. Liabilities are generally considered vested when a participant has five or more years of service.

If a plan's UVCL is positive, the plan sponsor generally must pay a variable PBGC premium equal to \$9 for each \$1,000 of UVCL for the plan year. For

plan years beginning on January 1, 2001, the required interest rate for determining UVCL is 4.67% (i.e., 80% of the 30-year Treasury rate for December 2000).

### **Participant Notification Rules**

If a sponsor is required to pay PBGC variable premiums for a plan year, participants must be notified of the plan's underfunded status unless the plan is exempt from the additional contribution requirements for either the current plan year or the prior plan year (without regard to the 100-participant or less exception). The special notice also must inform participants about the possible consequences of being in an underfunded plan. Plans with 100 or fewer participants do not escape the notification requirements.

### **Highly Compensated Participant Lump Sum Restriction Rules**

Plans that would have a CLP less than 110% following the payment of a lump sum distribution to certain "highly compensated" participants (i.e., for plan years beginning on January 1, 2001, generally a participant making greater than \$85,000 during the 2000 calendar year) generally are precluded from paying the lump sum. If a plan does not meet the above requirement (or other possible exceptions), the lump sum could still be paid, but only if the plan document requires that a "security agreement" be procured from the participant.

### **FAS132 Pension Plan Disclosure Rules**

Plans that have an "Accumulated Benefit Obligation" (ABO) that exceeds assets as of a given disclosure date are required to disclose on the sponsoring company's balance sheet the plan's unfunded ABO (i.e., a balance sheet liability) rather than the prepaid expense (i.e., a balance sheet asset) that otherwise would have been shown. ABO equals a plan's liabilities accrued to date determined based on

assumptions agreed to by the company and plan auditor. The interest rate used to determine to ABO is typically set equal to a rate no higher than AA quality corporate bond rates in effect at the date of disclosure (e.g., for a disclosure as of December 31, 2000, the Moody's AA corporate bond rate was about 7.5%).

### ***Addressing Various Underfunded Plan Issues***

The current low interest rate environment (which increases plan liabilities) combined with recent poor investment performance greatly increases the possibility that a plan will be affected by one of the above "unfunded" plan issues.

Plan sponsors will want to take steps to eliminate the need to make the additional contributions for a plan year if the plan has a CLP below 80%. Having a CLP at that level could result in plan sponsors:

- Having unexpected cash outlays and a volatile situation with respect to future pension contribution requirements; and
- Likely paying higher annual PBGC premiums having to provide a notice to participants about the plan's underfunded status.

Many plan sponsors with a CLP below 100% also will find it desirable to avoid having to make the quarterly minimum required contributions for an ensuing plan year. Quarterly contributions can create financial hardships for plan sponsors with cash flow problems who would prefer having the flexibility of making the required plan contributions on the latest possible date.

Plan sponsors will want to eliminate having to pay the PBGC variable premiums because this is money that might be better spent elsewhere (e.g., funding existing pension benefits, other corporate uses). Like the additional contribution requirements, variable premium payments may result in an unexpected cash outlay that prospectively can be volatile.

Most plan sponsors will want to avoid having to issue the special notice to

participants because it can create participant misunderstanding about a plan's financial situation and its ability to pay pension benefits. Thus, the notice could lead to employee relations and morale problems. Likewise, most plan sponsors will not want to deal with having to inform any highly compensated participant that they may not be allowed to receive a lump sum distribution of their pension benefit.

Most companies will want to avoid the additional pension plan disclosure rules since this could affect their ability to borrow money (i.e., a bank is less likely to loan money to a company with an unfavorable balance sheet) and, in the case of publicly traded companies, affect stock prices.

### ***Practical Solutions to Unfunded Plan Issues***

The solution to most of the concerns raised in this article is to maintain a funding policy requiring the plan's CLP always to be greater than or equal to 90%. This will eliminate the additional contribution requirements and participant notification requirements and help reduce the need to pay variable PBGC premiums. If a plan's funding policy requires that the CLP always be greater than or equal to 100%, quarterly contribution requirements also will be eliminated and PBGC variable premium requirements will be further reduced or possibly eliminated.

If a defined benefit plan offering lump sum distributions maintains a funding policy that requires the CLP to be always greater than or equal to 110%, lump sum distribution restrictions for all highly compensated participants will be eliminated.

An advantage of maintaining these types of funding policies is the enhancement of a company's income statement/balance sheet by improving Financial Accounting Standard #87 and #132 pension expense results. Also, the plan sponsor will reduce exposure to possible large, immediately payable contribution requirements if an underfunded plan must be terminated.

An additional option to consider at this time is the possibility of changing the plan's asset method for funding purposes in order to defer recognition of recent adverse investment performance. This would be in lieu of making unexpected additional contributions that would otherwise be necessary to bring the plan's CLP up to a given level. It should be noted that an asset method change for funding purposes would not address the additional balance sheet disclosure issue. The IRS has several automatically approved asset methods available to plan sponsors. However, the IRS only allows a plan to change its asset method with automatic approval every five years.

On an annual basis, an enrolled actuary should help the plan sponsor develop a recommended contribution schedule. This entails carefully selecting and monitoring all nonmandated actuarial assumptions and methods, advising on and monitoring the timing of all plan contributions and projecting any future problems due to known events (e.g., adverse investment performance, legislative changes, benefit improvements and demographic changes) (**tables 2 and 3 provide an example of this type of proactive consulting**).

### ***Conclusion***

The combination of the current low interest rate environment (which increases plan liabilities) and recent unfavorable investment performance make it imperative to minimize all unfunded pension plan related financial problems now. Pension plan sponsors should carefully review their latest actuarial results and identify any potential issues. An action plan should be immediately developed to resolve any existing funding, PBGC premium, participant notification and balance sheet concerns.

*Jeffrey R. Kamenir, ASA, MAAA, is an assistant actuary at Milliman USA in Chicago. He can be reached at [jeffrey.kamenir@milliman.com](mailto:jeffrey.kamenir@milliman.com)*

## Addressing Pension Funding Issues Caused by a Stock Market Downturn

*continued from page 19*

Table 2  
ABC COMPANY PENSION PLAN

### Overview

The ABC Company Pension Plan had a CLP greater than or equal to 90% for its January 1, 1998 and January 1, 1999 actuarial valuations and a CLP equal to about 84% for its January 1, 2000 actuarial valuation. Therefore, a CLP at least equal to 80% is required for the January 1, 2001 actuarial valuation to avoid additional minimum funding requirements for the 2001 plan year. Quarterly contributions are required for the 2001 plan year since the plan's CLP was less than 100% as of January 1, 2000.

Due primarily to very poor 2000 investment performance (i.e., the plan earned about a 1% return), the plan was almost subject to additional FAS132 disclosure requirements as of December 31, 2000 and will be subject to additional funding requirements for the 2001 plan year due to having a January 1, 2001 CLP of about 75% *unless* action is taken to bring the plan's CLP as of January 1, 2001 up to at least 80%.

The plan's actuary completes the January 1, 2001 actuarial valuation prior to September 15, 2001 (i.e., the deadline for making additional contributions for the 2000 plan year) and provides ABC Company with various options (see below) for bringing the plan's CLP up to at least 80% as of January 1, 2001.

The plan's minimum funding requirement for the 2000 plan year has already been satisfied as of December 31, 2000.

Making an additional contribution for the 2000 plan year would reduce the possibility of losing the plan's prepaid pension cost on the ABC Company balance sheet in conjunction with FAS 132 disclosure requirements as of December 31, 2001.

### SUMMARY OF FUNDING OPTIONS FOR 2000 PLAN YEAR BASED ON JANUARY 1, 2001 ACTUARIAL VALUATION RESULTS

Option	Implications
1. No asset method change on 1/1/01 and make no additional contributions for the 2000 plan year.	Additional minimum funding requirements applicable for 2001 plan year and possible underfunded notice for 2002 plan year. CLP will need to be at least 90% as of 1/1/02 to avoid additional minimum funding requirements and underfunded notice for the 2002 plan year.
2. No asset method change on 1/1/01 and contribute an additional amount by 9/15/01 for the 2000 plan year to make CLP as of 1/1/01 at least equal to 80% (option 2A) or equal to 90% (option 2B).	Avoid additional minimum funding requirements for the 2001 plan year and underfunded notice for 2002 plan year. CLP will need to be at least 90% as of January 1, 2002 to avoid additional minimum funding requirements for the 2002 plan year.
3. Change to asset "smoothing" method on 1/1/01 and contribute an additional amount by 9/15/01 for the 2000 plan year to make CLP as of 1/1/01 at least equal 80% (option 3A) or equal to 90% (option 3B).	Avoid additional minimum funding requirements for the 2001 plan year and underfunded notice for 2002 plan year. CLP will need to be at least 90% as of January 1, 2002 to avoid additional minimum funding requirements for the 2002 plan year.

**Table 3**  
**ABC COMPANY PENSION PLAN**  
**JANUARY 1, 2001 ACTUARIAL VALUATION RESULTS**

	2000 Plan Year Results	2001 Plan Year Results (Option 1)	2001 Plan Year Results (Option 2A)	2001 Plan Year Results (Option 2B)	2001 Plan Year Results (Option 3A)	2001 Plan Year Results (Option 3B)
Regular Minimum Funding Requirements*	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000
Additional Minimum Funding Requirements*	0	750,000	0	0	0	0
Credit Balance**	0	0	(500,000)	(1,500,000)	(100,000)	(1,100,000)
Minimum Required Contribution	\$ 400,000	\$ 1,150,000	\$ 0	\$ 0	\$ 300,000	\$ 0
Current Liability Percentage (assets divided by the present value of accrued benefits using IRS mandated interest rate and mortality assumptions)***	84%	75%	80%	90%	80%	90%
Additional 2000 Plan Year Contribution Made By 9/15/2001	N/A	\$ 0	\$ 500,000	\$ 1,500,000	\$ 100,000	\$ 1,100,000
FAS87 Pension Expense	\$ 200,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000
FAS 132 Prepaid (Accrued) Pension Cost at end of year****	\$ 1,100,000	\$ 1,200,000	\$ 1,700,000	\$ 2,700,000	\$ 1,300,000	\$ 2,300,000
Market Assets at end of year****	8,100,000	8,850,000	9,350,000	10,350,000	8,950,000	9,950,000
Accumulated Benefit Obligation (ABO) at end of year****	8,000,000	8,850,000	8,850,000	8,850,000	8,850,000	8,850,000

\* Regular requirements are made by the ABC Company by the end of the year. Additional requirements are made by the ABC Company during the following year prior to September 15, 2002.

\*\* The "credit balance" represents contributions greater than minimum funding requirements and can be used to reduce future minimum funding requirements.

\*\*\* Asset method change (options 3A and 3B), effective January 1, 2001, results in a \$400,000 increase in assets for funding purposes as of January 1, 2001.

\*\*\*\* Results as of December 31, 2001 are estimated. If ABO exceeds assets at December 31, 2001, the Prepaid (Accrued) Pension Cost would be reduced to the unfunded ABO.

Joint Board  
for the  
Enrollment  
of Actuaries

Department of  
Labor

Department of  
the Treasury

Department of the Treasury  
Internal Revenue Service  
Washington, DC 20224

October 3, 2001

## *JOINT BOARD EXTENDS DEADLINES FOR CONTINUING PROFESSIONAL EDUCATION AND FOR RENEWAL OF ENROLLMENT*

Many enrolled actuaries work in the New York metropolitan area and their lives have been disrupted in this time of national emergency. A number of professional meetings have been postponed or cancelled due to travel disruptions resulting from the terrorist attacks on September 11, 2001. These disruptions may well prevent a number of enrolled actuaries from completing their continuing professional education credits by December 31, 2001. In light of these circumstances, the Joint Board for the Enrollment of Actuaries is extending the dates for both Continuing Professional Education and submitting the Application for Renewal of Enrollment. These extensions will apply to all enrolled actuaries.

### ***Continuing Professional Education (CPE)***

The Joint Board is extending the period by six months through June 30, 2002, during which the CPE requirement must be fulfilled for the current cycle. Enrolled actuaries will have a choice whether hours earned from January 1, 2002 through June 30, 2002, will count for the current enrollment cycle or the subsequent enrollment cycle. Enrolled actuaries are required by the regulations to retain, for a period of three years after the end of an enrollment cycle, the following supporting documentation regarding CPE:

- 1) The name of the sponsoring organization
- 2) The location of the program
- 3) The title of the program and description of its content
- 4) The dates attended
- 5) The name of the instructor, discussion leader or speaker
- 6) The certificate of completion and/or signed statement of the hours of attendance from the sponsor
- 7) The total core and noncore credit hours

Enrolled actuaries whose records were destroyed or are inaccessible as a result of the terrorist acts should try to reconstruct their records as completely as possible, establishing each of the items above. The Joint Board will be liberal in waiving this requirement for any affected enrolled actuary if supporting documentation for some or all of CPE courses taken in the last three years are unavailable.

### ***Extension for Use of the 99 - "Prefix—Application for Renewal of Enrollment***

The Joint Board will soon begin mailing out the Application for Renewal of Enrollment (Form 5434-A). The Joint Board is extending the date by which the Application for Renewal of Enrollment is due to July 31, 2002. The Joint Board will continue to process applications as they are received, and applicants are urged to complete the form and mail it in as soon as all CPE requirements are met. Once you receive written confirmation of your re-enrollment, you should begin using the "02-"Prefix. The Internal Revenue Service and Department of Labor will not reject the "99-" prefix on a document with a signature dated before September 1, 2002.

## ***Continuing Education from a Distance: On-line and Audiotape Subscription to Meet EA Requirements***

*by John Riley, Managing Director of Continuing Education*

### ***How does 12 hours a year of core/noncore credit for \$150 a year sound to you?***

In an effort to boost the use of meeting session and on-line assets as well as build a more substantial Virtual Campus, the SOA is now offering pension actuaries access to dozens of web-based and audiotape learning assets for one, very low annual fee. These programs can be used to meet Joint Board requirements for core and noncore continuing education credits and save you hundreds of dollars! Best of all, the cost of delivering and processing Enrolled Actuary (EA) questionnaires, audiotapes, visuals, is included in the subscription fee!

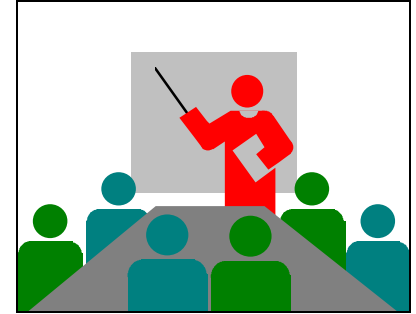
Does the birth of a distance learning subscription signal the death of “live” meetings? Not hardly. There is no substitute for the networking and intrinsic educational value of live, real time instruction, but audiotapes and web-based training (WBT) are excellent alternatives for professionals whose 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 that are well suited to their specific area of practice. Using distance-learning tools to supplement other “live” continuing education events lets you create a highly relevant and cost-effective course of study.

Nearly half of the subscription fee is dedicated to creating high quality, interactive web-training programs. The Continuing Education Department needs a revenue stream given the high production costs for WBT. Selling web-based training only on a retail basis is too slow for gathering sufficient funds to create new programs. Subscribers have a say in determining the content of pension-related online training.

### ***Subscriber Benefits:***

- Up to eight audiotapes (12 hours of core or noncore credit) from the SOA collection of over 80 sessions on pension-related topics conducted in 2000 and 2001. Visuals to accompany these sessions will also be provided electronically whenever possible. Subscribers can order upcoming 2002 audiotapes as they become available (\$100 value).
- Enrolled Actuary questionnaire processing. Questionnaires will accompany all audiotape orders. 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/noncore credit from those eligible courses. (\$725 value).



The distance-learning subscription provides the pension actuary with over \$1700 of savings over the individual purchase of these products.

### ***How Do I Subscribe?***

An application form was sent out to all Pension Section members and non-member Enrolled Actuaries about the time of this newsletter's release. An application can be requested from John Riley at [jriley@soa.org](mailto:jriley@soa.org). Subscribers are enrolled for one year in all courses on the SOA Virtual Campus ([www.soa.org](http://www.soa.org)). New subscribers will receive by e-mail an order form for EA audiotapes, and can order all eight tapes at once but must order at least four at one time. Future audiotapes will be listed as soon as titles are known as EA questionnaires. Any available presentation visuals to accompany the tapes will be sent to you via e-mail when the tapes are mailed. Completed EA questionnaires must be printed, signed and returned to the SOA Continuing Education Department.

### ***Upcoming Seminars and Symposia***

February and March find pension-related courses on EGTRRA (satellite seminar co-sponsored by the ABA on February 12th), and SOA's first Webcast for the Retirement System Practice Area, "Pension Asset Smoothing in a Rough Market," which takes place on February 28 from 1–2:30pm CST. The "Retirement Implications of Demographic and Family Change" symposium will now be held within the SOA Spring Meeting for health and pension actuaries, June 25–26, 2002 at the San Francisco Marriott. Attendees will be able to attend some or all of the symposium sessions as registrants of the meeting, or they will be able to register only for the symposium.



Society of Actuaries  
475 N. Martingale Road  
Suite 800  
Schaumburg, Illinois  
60173

Phone: (847) 706-3500  
Fax: (847) 706-3599