PENSION SECTION NEWS

NUMBER 41 OCTOBER 1999

"Volunteers Needed, Please"

Chairperson's Corner

by Amy S. Timmons

Nineteen percent of the members of the Pension Section Council voted in its recent election—higher than the general population turnout for elections, lower than I would like for an organization that has a significant impact on our profession and its "new recruits."

The new exam syllabus needs volunteer writers, reviewers, and instructors. Pension expertise is particularly important since our specialty is so unlike the insurance industry. We need involvement in overseeing the pension candidate's educational requirements to become a Fellow of the Society of Actuaries.

Knowledgeable, articulate speakers are needed for meetings of the Society of Actuaries, the American Academy of Actuaries, the Enrolled Actuaries, and other continuing education opportunities required to keep our certifications.

Committees on professional

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OASDI Trust Fund:
Principal Economic and Demographic Assumptions

Editor's Note: The following excerpt is taken from Section II.D, "Actuarial Analysis," in the 1999 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds. Copies of the OASDI 1999 Annual Report are available from Cece Enders (410-965-3015).

The future income and outgo of the OASDI program depend on many economic and demographic factors, including gross domestic product, labor force, unemployment, average earnings, productivity, inflation, fertility, mortality, net immigration, marriage, divorce, retirement patterns, and disability incidence and termination. The income will depend on how these factors affect the size and composition of the working population and the level and distribution of earnings. Similarly, the outgo will depend on how these factors affect the size and composition of the beneficiary population and the general level of benefits.

Because projections of these variables are inherently uncertain, estimate are shown in this report on the basis of three sets of assumptions, designated as intermediate (alternative II), low cost (alternative I), and high cost (alternative III). The intermediate set, alternative II, represents the Boards' best estimate of the future course of the population and the economy. In terms of the new effect on the status of the OASDI program, the low cost alternative I is the most optimistic, and the high cost alternative III is the most pessimistic of the plausible economic and demographic conditions.

The economic and demographic assumptions used in this report are reexamined each year in light of recent experience and new information about future trends and are revised if warranted. This year, there was a particular need for such a review because of changes in the calculation of the CPI by the Bureau of Labor Statistics (BLS). These changes were announced last April, too late to incorporate into the 1998 report.

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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:**

Publication Date	Submission Deadline
February	January 10
June	May 10
September	August 10
December	November 10

Preferred Format

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.

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Thank you for your help.

Chairperson's Column

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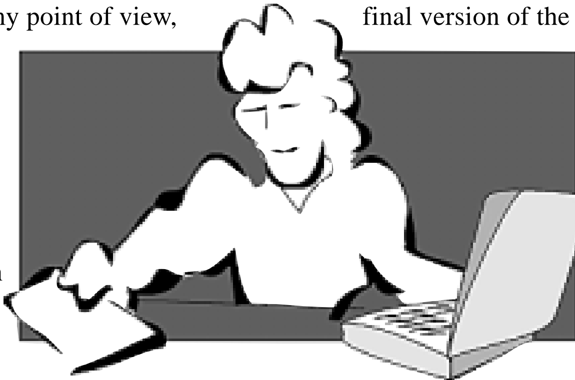
standards, research, and legislative analysis, etc. are searching for actuaries willing to devote the time and energy to accomplish the large lists of tasks on their agendas.

In all of the above, I regularly see the same faces speaking, participating on committees, and volunteering. Where is the silent majority?

As a participant in some, but not all, of the above activities, I face the same dilemma as other actuaries—not enough time, the expense of participation, and the value to myself and my company. However, from my point of view, if the actuarial profession is truly to succeed in its "big tent" initiative, we need to reach those of you sitting silently on the sidelines and tap into your strength. We need the prodding and prying of more than a vocal few who may or may not represent what pension actuaries believe is needed to move the profession forward.



Let me give you an up-close and personal example, the structure of the new exam syllabus. If you aren't an actuarial student or an actuarial manager who needs to know this stuff, you may not have realized what the changes mean to a pension actuary. My biggest disappointment in the new syllabus is that all of the enrollment examinations do not count towards Associateship. One of the concerns the Pension Section Council heard loud and clear during its membership survey last year was the need to encourage pension actuaries to get more than just their E.A., and to try and find a way to help them achieve Associateship and ultimately Fellowship. The new syllabus does nothing to address this concern.

I admit to initially being a spectator on this issue. I saw the preliminary information on the revised syllabus and didn't read it. I was a Fellow already and had my E.A., what did it matter to me? Big mistake, and a selfish one. As I saw more and more of the details on the new syllabus, what I failed to pick up on was the lack of a strong representation of the pension actuarial student's interest.

I came on the Pension Section Council in October of 1997, just as the final version of the new exam syllabus was being released for last comments. At my first Council meeting, the new syllabus resulted in an intense discussion on where the enrollment examinations fell in the syllabus and thus, the new syllabus almost discouraging pension actuaries to pursue their Associate and Fellow designations. Some of us subsequently had a conference call with members of the Board of Governors to express our concerns. We were told it was too late, that the syllabus was already finalized and that we should have spoken up sooner if we were so concerned. For me—lesson learned!

The Council has tried to become more proactive where it believes it can have an impact on the educational opportunities and research needs of the pension actuary. But we, like you all, are subject to constraints of time and money. So my point?

Get involved, vote, volunteer, a little or a lot (volunteering, not voting), to this profession whether through membership on committees, participation as a speaker, or mentoring a student. Help your employer see the worth of what you do. Support the younger actuaries in their efforts to get involved and shape the profession—we need that "new view." More involvement by everyone, particularly pension actuaries, means a better representation of what the majority truly wants and ensures that the pension issues unique to our area of practice are not being ignored.

This is my last column as Chair of the Pension Section Council. I've thoroughly enjoyed the heated, irrelevant, frustrating, or downright crazy discussions that I've been involved in while on the Council. It's opened my eyes, albeit reluctantly, to the need to be involved in the profession more than just through my day-to-day work. It's given me an opportunity to quit complaining and to try and to do something for the good of pension actuaries. And while I've missed opportunities to do more or to do better, I've been able to put in my "two cents" about where I think the profession should go. And that's felt good. So thank you all for the opportunity to be on the Council, good luck to the new members and the continuing members on the Council, and please—get off the sidelines and join in the fun and fray!

Amy S. Timmons, FSA, is consulting actuary at The Segal Company in Englewood, CO, and Chairperson of the Pension Section.

OASDI Trust Fund

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Although the three sets of economic and demographic assumptions have been developed using the best available information, the resulting estimates should be interpreted with care. The estimates are not intended to be predictions of the future status of the OASDI program, but rather, they are intended to be indicators of the trend and potential range of future income and outgo, under a variety of plausible economic and demographic conditions.

The values for each of the economic and demographic factors are assumed to move from recently experienced levels or trends, toward long-range ultimate values over the next 5 to 30 years. The ultimate values assumed after the first 5 to 30 years for both the economic and demographic variables are intended to represent average experience or growth rates. Actual future values will exhibit fluctuations or cyclical patterns, as in the past.

"The estimates are not intended to be predictions of the future status of the OASDI program, but rather, they are intended to be indicators of the trend and potential range of future income and outgo...."

Economic Assumptions

The principal economic assumptions for the three alternatives are summarized in Table II.D1 (See page 5).

Alternatives I, II, and III represent a range of economic assumptions designed to produce variation in Social Security's financial status that should encompass most of the possibilities that might be encountered. The intermediate assumptions (alternative II) represent the Trustees' consensus expectation of moderate economic growth through the projection period. The low cost assumptions (alternative I) represent a more optimistic outlook, with relatively stronger economic growth. The high cost assumptions (alternative III) represent a relatively pessimistic forecast, with weaker economic growth and two recessions in the short-range period. Economic cycles are not included in assumptions beyond the first five to ten years of the projection period because they have little effect on the long-range estimates of financial status.

Demographic Assumptions

The principal demographic assumptions for the three alternatives are shown in Table II.D2 (see page 6).

Increases in CPI reduced by 20 Basis Points: "…in mid-April 1998, after careful analysis, the Bureau of Labor Statistics (BLS) announced an improvement in the method of calcu-lat ing the CPI....This change is expected to lower the future annual growth rate of the CPI by 0.2 percentage point.... The effect of this change has been incorporated into the intermediate, low cost and high cost assumptions for the 1999 Trustees Report."

Editor's Note: *The 1998 Annual Report used 2.5%, 3.5% and 4.5% for the CPI increases in Low-Cost, Intermediate, and High-Cost Alternatives, respectively. The OASDI 1999 Annual Report used 2.3%, 3.3% and 4.3% for the CPI increases in Low-Cost, Intermediate, and High-Cost Alternatives, respectively.*

NEWLY-ELECTED PENSION SECTION COUNCIL MEMBERS

- ***Paul Angelo,*** **The Segal Company, San Francisco, CA**
- ***Thomas B. Lowman,*** **Bolton Offutt Donovan, Inc., Baltimore, MD**
- ***John F. Wade,*** **National Rural Electric Cooperatives Association, Arlington, VA**

* ***All have been elected to three-year terms.***

TABLE II.D1
Selected Economic Assumptions by Alternative
Calendar Years 1960-2075

Calendar Year	Average Annual Percentage (Change In-)		Real Wage Differential t (Percent)
	Average Annual Wage in Covered Employment	Consumer Price Index *	
Historical Data:			
1960-64	3.4	1.2	2.2
1965-69	6.1	3.9	2.2
1970-74	6.6	6.2	0.4
1975	6.7	9.1	-2.4
1976	8.5	5.7	2.8
1977	6.8	6.5	0.3
1978	11.6	7.7	3.9
1979	9.8	11.4	-1.6
1980	6.7	13.4	-6.7
1981	10.8	10.3	0.6
1982	6.3	6.0	0.3
1983	4.2	3.0	1.2
1984	6.0	3.5	2.5
1985	6.0	3.5	2.6
1986	4.6	1.6	3.0
1987	4.6	3.6	1.0
1988	5.3	4.0	1.3
1989	3.9	4.8	-0.9
1990	5.1	5.2	-0.1
1991	3.0	4.1	-1.1
1992	4.9	2.9	2.0
1993	1.9	2.8	-0.9
1994	3.4 +	2.5	1.0
1995	4.0 +	2.9	1.1
1996	4.5 +	2.9	1.6
1997	5.7 +	2.3	3.4
1998	5.7 +	1.3	4.4
Intermediate:			
1999	2.9	1.9	1.0
2000	3.0	2.1	0.9
2001	3.4	2.5	0.9
2002	3.5	2.6	0.9
2003	3.7	2.7	1.0
2004	3.9	3.0	0.9
2005	4.1	3.1	1.0
2006	4.1	3.2	0.9
2007	4.2	3.3	1.0
2008	4.3	3.3	1.0
2010	4.3	3.3	1.0
2020	4.2	3.3	0.9
2030	4.2	3.3	0.9
2040	4.2	3.3	0.9
2050	4.2	3.3	0.9
2060	4.2	3.3	0.9
2070	4.2	3.3	0.9
2075	4.2	3.3	0.9

Calendar Year	Average Annual Percentage (Change In-)		Real Wage Differential t (Percent)
	Average Annual Wage in Covered Employment	Consumer Price Index *	
Low Cost:			
1999	3.4	1.8	1.6
2000	3.3	1.9	1.4
2001	3.5	2.1	1.5
2002	3.4	2.2	1.3
2003	3.6	2.3	1.4
2004	3.7	2.3	1.4
2005	3.6	2.3	1.3
2006	3.6	2.3	1.3
2007	3.8	2.3	1.5
2008	3.8	2.3	1.5
2010	3.8	2.3	1.5
2020	3.7	2.3	1.4
2030	3.7	2.3	1.4
2040	3.7	2.3	1.4
2050	3.7	2.3	1.4
2060	3.7	2.3	1.4
2070	3.7	2.3	1.4
2075	3.7	2.3	1.4
High Cost:			
1999	3.2	2.5	0.7
2000	2.8	3.7	-0.9
2001	6.5	5.4	1.1
2002	6.3	6.0	0.3
2003	2.4	4.1	-1.7
2004	5.5	4.2	1.4
2005	5.4	4.3	1.1
2006	4.8	4.3	0.6
2007	4.7	4.3	0.4
2008	4.7	4.3	0.4
2010	4.8	4.3	0.5
2020	4.8	4.3	0.5
2030	4.7	4.3	0.4
2040	4.7	4.3	0.4
2050	4.7	4.3	0.4
2060	4.7	4.3	0.4
2070	4.7	4.3	0.4
2075	4.7	4.3	0.4

* The Consumer Price Index is the annual average value of the calendar year of the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W).

t The real-wage differential is the difference between the percentage increases, before rounding, in (1) the average wage in covered employment, and (2) the average annual Consumer Price Index.

\+ Preliminary. Wages in covered employment are considered preliminary for several years primarily due to uncertainty associated with estimates of amounts above the benefit and contribution base.

(continued on page 6, column 1)

OASDI Trust Fund

continued from page 5

TABLE II.D2
Selected Demographic Assumptions by Alternative
Calendar Years 1940-2075

Calendar Year	Life Expectancy * (At Age 65)	
	Male	Female
Historical Data:		
1940	11.9	13.4
1945	12.6	14.4
1950	12.8	15.1
1955	13.1	15.6
1960	12.9	15.9
1965	12.9	16.3
1970	13.1	17.1
1975	13.7	18.0
1976	13.8	18.1
1977	13.9	18.3
1978	14.0	18.3
1979	14.2	18.6
1980	14.0	18.4
1981	14.2	18.6
1982	14.5	18.8
1983	14.3	18.6
1984	14.4	18.7
1985	14.4	18.6
1986	14.5	18.7
1987	14.6	18.7
1988	14.6	18.7
1989	14.8	18.9
1990	15.0	19.0
1991	15.1	19.1
1992	15.2	19.2
1993	15.1	19.0
1994	15.3	19.0
1995	15.3	19.0
1996	15.4	19.0
1997 t	15.9	19.1
1998 t	15.7	19.2
Intermediate:		
1999	15.8	19.2
2000	15.8	19.2
2005	16.1	19.4
1010	16.3	19.5
2015	16.5	19.6
2020	16.7	19.8
2025	16.9	20.0
2030	17.1	20.2
2035	17.3	20.5
2040	17.5	20.7
2045	17.7	20.9
2050	17.9	21.1
2055	18.1	21.3
2060	18.3	21.5
2065	18.5	21.7
2070	18.7	21.9
2075	18.9	22.1

Calendar Year	Life Expectancy * (At Age 65)	
	Male	Female
Low Cost:		
1999	15.7	19.1
2000	15.7	19.1
2005	15.7	18.9
2010	15.8	18.8
2015	15.8	18.8
2020	15.9	18.8
2025	16.0	18.9
2030	16.0	19.0
2035	16.1	19.1
2040	16.2	19.1
2045	16.3	19.2
2050	16.3	19.3
2055	16.4	19.4
2060	16.5	19.4
2065	16.5	19.5
2070	16.6	19.6
2075	16.7	19.7
High Cost:		
1999	15.8	19.3
2000	15.9	19.4
2005	16.4	19.8
2010	16.8	20.1
2015	17.2	20.5
2020	17.6	20.9
2025	18.0	21.3
2030	18.4	21.7
2035	18.8	22.1
2040	19.1	22.5
2045	19.5	22.9
2050	19.9	23.3
2055	20.3	23.7
2060	20.7	24.0
2065	21.1	24.4
2070	21.5	24.8
2075	21.9	25.2

* The life expectancy for any year is the average of years of life remaining for a person if that person were to experience the death rates by age observed in, or assumed for, the selected year.

t Preliminary or estimated.

Excerpts from the PBGC Actuarial Valuation Report - 1998 Fiscal Year—Correction of Table from June 1999 Issue

ACTUARIAL ASSUMPTIONS

	Previous Valuation as of 9/30/97	**Current Valuation as of 9/30/98**
Interest Rate	Select and Ultimate • 6.2% for 25 years • 5.5% thereafter	Select and Ultimate • 5.7% for 25 years • 5.75% thereafter
Mortality • Healthy Lives	• 1994 Group Annuity Mortality Static Table (with margins), set forward two years, projected 12 years to 2006 using Scale AA	Same (but see discussion)
• Disabled Lives Not Receiving Social Security	• Healthy Lives Table set forward three years	
• Disabled Lives Receiving Social Security	• 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.	
SPARR	Actual SPARR for fiscal years for which it has been calculated. The most recent actual SPARR is assumed for years for which the calculation is not yet completed (most recent SPARR: FY 1993 = 7.44%). See Table 2B for values.	Actual SPARR for fiscal years for which it has been calculated. The most recent actual SPARR is assumed for years for which the calculation is not yet completed (most recent SPARR: FY 1995 = 7.22%). See Table 2B for values.
Retirement Ages	(a) Earliest possible for shutdown companies. (b) Expected retirement age (XRA) tables from 29 CFR 4044 for ongoing companies (c) Participants past XRA are assumed to be in pay status. (d) Unlocated participants past normal retirement age (NRA) are phased out over three years to reflect lower likelihood of payment.	Same
Expenses	All terminated plans and single-employer probable terminations: 1.30% of the liability for benefits plus additional reserves as shown in Table 2C for cases where plan asset determinations, participant database audits, and actuarial valuations were not complete.	Same

Editor's Note: This table replaces the table shown on page 5 of the June 1999 issue of Pension Section News. *This table above correctly depicts the Actuarial Assumptions for the 1998 Fiscal Year according to the PBGC Actuarial Valuation Report.*

Pension Section Council Meeting—Sunday, March 14, 1999, at Marriott Wardman Park Hotel, Washington, DC

Attendees:

Bruce Cadenhead
Adrien LaBombarde
Lindsay Malkiewich
Martha Moeller
Amy Timmons
Lee Trad
Judy Anderson (SOA staff)
Lois Chinnock (SOA staff)

1. Welcome/Additional Items for Agenda

No additional items.

2. Approval of Minutes, January 29, 1999 Meeting

The minutes were approved.

3. Treasurer's Report

Conservative 1999 budget shows a year-end 1999 projection of surplus at $37,000. The actual figure will probably be closer to $50,000; the dues are likely understated.

Is Section Council comfortable with an end-of-year balance of $37,000. Over the last few years, the surplus has decreased significantly from over $130,000 to now just over $36,000. Generally Council was not uncomfortable.

* It was also commented that printing and postage costs are the highest of any Section. We send the newsletter first class, which probably doubles the price. We will discuss this with Dan Arnold.

4. Pension Basics Course

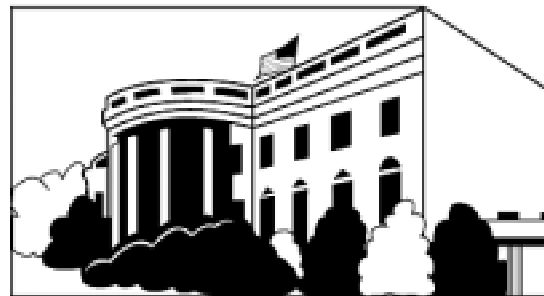
Adrien presented the Pension Actuarial Basics course outline.

A structure suggestion was made to start the order with what is a pension plan, vesting, accrual, etc, what is funding, why fund, etc. Very basic introductory material is necessary.

Judy Anderson informed us that the SOA has a campus site where this material could be posted and used; could even charge a fee.

5. Seminars

Art of Estimation—this was co-sponsored by the SOA and the Pension Section. Dates are March 23 and 25 in Chicago and New York.



- **Registered:** 22 people in New York and 27 people in Chicago

- Number of attendees required to breakeven is 20 at each session (i.e., 40 in total)

- Cost is $665 and seminar will provide 7 hours of EA continuing education.

- There will be hands-on computer sessions.

Investment Boot Camp 2

Lois Chinnock shared 1996 session's written comments. A lot of the comments said that the session was perhaps too basic.

- **Financials:** $3,200 loss which was shared by the Pension and Investment Sections.

- Joe P. Macaulay would run this seminar.

- Section Council is not comfortable sponsoring this alone; should talk to the Investment Section to see if they are interested in co-sponsoring this seminar. Lois will bring it up at the next Investment Section Council meeting. Amy Timmons will be the point person.

6. Practice Area Update

Retirement Needs Monograph — Almost all papers are in. The monograph should be out in 4 to 5 months. 106 people attended.

Retirement 2000 — 20 abstracts are in from all over the world and from various professions; the list of co-sponsors is quite impressive.

Professional Development for New Actuaries—Material is being developed for the professional development requirements that could also be used for continuing education. Judy Anderson informed Council that any help from the Pension Section Council would be appreciated.

7. Spring Meeting Update

This meeting is in Seattle, June 16-18, 1999. There are16 pension sessions, 13 of 16 are fully recruited.

Unrecruited sessions include:
1. Managing Pension Surplus
2. Individual Retirement Experience/ Planning

The meeting program is currently in the mail.

8. Research/Funding Requests

Funding of the Indexing of the SOA Library
- The project is underway
- $1,500 already spent
- The Pension Section has already committed $2,500
- All sections were generous with contributions between $500 - $5,000
- Pension Newsletter to December 31, 1998 will be included
- Will table vote for additional funds at a later date

Retirement Needs Framework Conference

Please see comments above.

GATT Mortality Study
The group has received comments from three people. As a result, there are slight modifications to the results.

The study will look at mortality differences:
- between job industry and within an industry; and
- between income levels.

The final report's objective is to provide a mortality tables that can be presented to the IRS and suggest that it be used for GATT purposes.

It was mentioned that the IRS may be considering a single mortality table that would apply to all plans. This study will likely show that this may not be appropriate.

The report will also make suggestions/comments regarding mortality improvements.

Council would prefer for the report to clearly outline the facts, differences and results without perhaps outlining how the differences should be applied. Judy or Lindsay will send an e-mail to RPEC regarding this.

The additional funds contributed are $5,000 for the GATT study, and $5,000 to the multivariate study.

Macro Demographic Model
The report is progressing; there are only three models remaining to be completed.

Canadian Mortality Study
The report needs to be written.

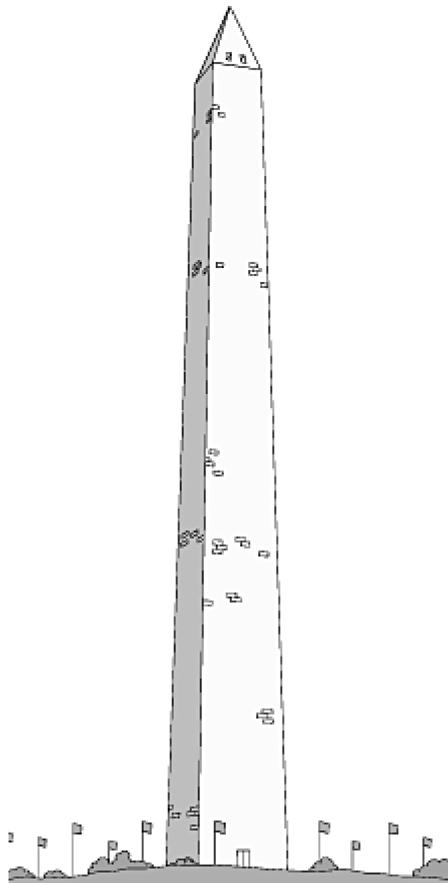
9. Publications
- Employee Benefits Statistics
  - — This project is behind schedule
  - — Tables 8 to 15 are still missing
  - — Bruce Cadenhead will provide the review
- Pension Forum
- Pension Session Newsletter - Electronic Delivery

This is possible to do. We would need to gather information on who wants an electronic version and who wants a paper copy.

Should the Pension Section newsletter continue being mailed first class?

10. Committee Report
Practice Advancement Meeting
Bruce Cadenhead attended the meeting

Areas discussed were:
- GATT mortality study
- Professional Development
- Social Security, Private Plans project
- Asset valuation method project - report due out soon
- New turnover study - just past discussion stage
- Cash balance plans
- Mortality projection project
- Staffing and succession planning for committees
- Pension Section Council ownership



Is Council/Section willing to run any of the Professional Development sessions?

If the session is intended to be a seminar, then Council would need to decide if it wants to invest in/take a financial risk in the session. We would nevertheless provide technical help/expertise if asked.

Current Pension Section Council priorities are:
- Sponsor seminars if there is a perceived need
- Sponsor newsletter, Forum and Employee Benefit Statistics
- New actuary training

11. 1999 Section Elections
May 21 deadline to submit candidate names on election schedule. Following this, a biography will be required.

There are three positions available; the members whose terms will be expiring are:
- — Amy Timmons
- — Martha Moeller
- — Joan Boughton

All should e-mail candidate names directly to Lois Chinnock.

12. New Business — Next Meeting
There is no new business

Next meeting is scheduled for Tuesday, June 15, in Seattle from 1 pm to 6 pm.

Respectfully submitted,
Sylvia Pozezanac F.S.A., F.C.I.A.
Secretary, Pension Section Council

Web Discussions

The following section represents the wide range of information available on the SOA Website (www.soa.org) available 24 hours a day, 7 days a week. It was located online in the Discussion Forum Section. The messages printed in this newsletter are from actuaries sharing tips and information.

There are several topics under Pension Section, which currently includes conversations between members regarding various issues. Here's a list of topics found on the site, which currently includes Active threads from the last 14 days ending August 20, 1999:

- Examless in Texas (7 messages)
- Reversion??? (2 messages)
- Leasing Company Plans (3 messages)
- A Simple (?) Test (12 messages)
- Measurement of Investment Performance (3 messages)

The thread, "A Simple (?) Test," is reproduced in the following Section for your enjoyment and comments.

Are these the same question?
08/05/99
Especially with regard to a divorcing participant in a DB plan:
1) What is the value of the participant's benefit?
2) What is the value of the participant's interest in the Plan?

Mike Gallagher
mgallag1@maine.rr.com

Maybe, maybe not
08/05/99
It depends on understanding of the parties and attorneys and, consequently, the wording of the DRO. Many participants and others do not understand the nature of DB plans. Their knowledge is tied more towards savings accounts and 401(k) plans. They may believe that they have a separate account than earns interest. This is especially true when a lump sum payment form is available.

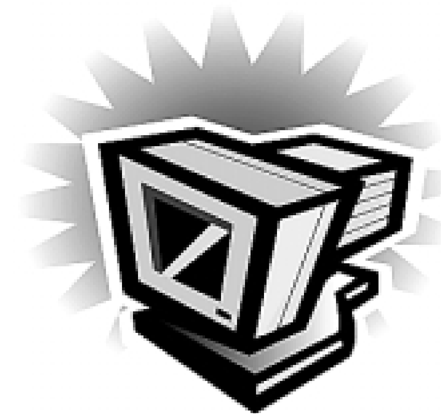
Mark A. Cavazos
mcavazos@airmail.net

I ask again...
08/05/99
OK, Mark, but what is__ your_ answer? (And keep in mind that I asked about a DB plan, not a DC plan.)

Mike Gallagher

Well,
08/05/99
In a perfect world, I provide the actuarial present value of the accrued benefit payable at NRD for both. In addition to defining the method of calculation (usually by reference to the plan), I state that the amount does not represent a benefit amount that may actually be paid. I want to guard against participants latching onto a number and expecting for that amount to be paid even though the plan would not allow its payment (e.g., no lump sum option).

However, in the real world, some participants think that the plan holds an account for them and invests the balance. To them, the interest would be the future investment return on the account balance. (This is especially true if the plan has a lump sum option, but could occur at any



time a present value figure is given to them.) In these cases, I explain to the participants the nature of a DB plan and how it differs from a DC plan. (Typically, they think that the DB plan works just like the 401(k) that they are more familiar with.) With this explanation, I can tell them that there is no such thing as the "participant's interest" (future earnings) in a DB plan.

Without seeing the exact wording of the DRO, it is possible to be either of these interpretations. Attorneys may be as misinformed as their clients, although the attorneys will accept the explanation more readily.

Mark A. Cavazos

DRO
08/05/99
The value of the participant's benefit is usually stated specifically as a percentage of her/his accrued or vested accrued monthly benefit as of a stated date.

The "value of the participant's interest" is a phrase that needs explanation. I would think "participant's interest" means: 1) the accrued monthly benefit, 2) the vested accrued benefit, or 3) the monthly or lump sum value of after-tax employee contributions to or employee basis in the plan.

Sonny
tpcarter@gte.net

Restatement
08/06/99

Apparently, I am being misunderstood, let me rephrase the initial post and the two questions:

What comment (s) does anyone have about the similarity and/or dissimilarity between these two questions:

1) What is the present value of the accrued retirement benefit that a participant might expect to receive from a DB plan?

2) What is the present value of any benefit that may be paid from a DB plan as a result of a participant's accrued participation?

Mike Gallagher

Short answer
08/06/99

I would interpret these questions to be the same.

Sonny

Doesn't it depend on plan provisions?
08/06/99

I seem to recall a few plans that had a disability benefit, although it was a long time ago and the recollection is a bit fuzzy.

Also, what about the value of a pre-retirement death benefit?

That's what I think, anyway.

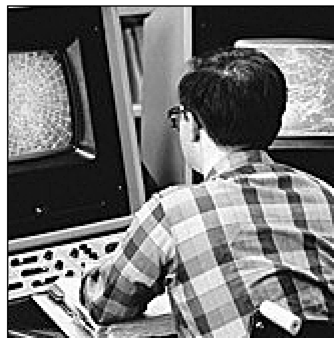
Carol Marler

Good point
08/06/99

"Any benefit that may be paid from a DB plan as a result of a participant's accrued participation" may imply distinct benefits paid from the plan. Benefits that are not paid out as retirement or severance benefits may be subsidized, thereby making the present value of the subsidized benefit greater than the PV of the retirement benefit.

In my experience, a disability benefit is usually the present value of the vested accrued benefit (and thus no different than the PV of the retirement benefit); in some cases the disability benefit may be the PV of the accrued benefit, thereby allowing a subsidy to the extent of the participant's forfeitable interest.

In most cases (not all cases, ergo, read the plan provisions) a pre-ret. death benefit is subsidized and much greater than the PV (vested) accrued benefit. However, the subsidy is usually contingent upon the projected pension, which takes into account accrued and future years of service and not merely the participant's accrued participation.



Your point does bring to mind the early retirement benefit, which is nearly always subsidized and has a greater PV than that of the accrued retirement benefit. I would change my above answer, then, to: "No, the above two questions should be interpreted differently."

Sonny

OK, I guess it's time to stop being coy...
08/06/99

With apologies to Carol for borrowing her tag line, here's what I think:

The two questions can be very significantly different!

The first question appears to refer to a participant's benefit. That is, what he/she gets from the plan. I base this on the simple reading of the question, and the definition section in most of the plans that I have read. The referenced benefit (s) can therefore be valued by including calculations of any contingency that produces a payment to the particpant: retirement due to superannunation (I just love the sound of that word!), satisfaction of service criteria, or disability for instance.

The second question refers to any benefit payable to anyone. This obviously includes any payment to the participant, but also includes (5 points to Carol) the payments to the surviving spouse (or any other survivor for that matter). The valuation of the interest in the plan must therefore include consideration of benefits payable in the event of the death of the participant.

Mark, I think you may be doing a disservice to your clients (unless they are all looking for low valuations) if you provide the same PV of accrued benefit to both questions. Or does your PVAB include the assumption of no death before retirement? (in which case, I think you've overstated the participant's benefit value) (BTW, Mark, I meant "interest" in this case to mean "anything as a result of participation," not in the financial "investment return" sense. For purposes of this discussion, let's assume a level of sophistication that includes the recognition of DB/DC differences.)

Now come the hard parts: If you are presented with a settlement that states only the agreement to split the "accrued benefit," what do you do about any pre-retirement surviving spouse benefits (PSSB) in the "QDRO"? If the parties have agreed to an asset offset (hence no "QDRO"), do you put the PVAB in the participant's column and leave it at that, or do you add the PV PSSB to the spouse's column (if you add a "QDSO" to maintain her/his treatment as surviving spouse)? I can't help getting complicated sometimes, so, if you are helping to prepare (or qualify) a QDRO, what do you do/say about the alternate payee dying before the participant does (pre-retirement, of course)?

(continued on page 12, column 1)

Web Discussions

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(For purposes of this discussion, let's forget about the difference of opinion about whether the retirement benefit to be included in the deliberations is the "accrued" (i.e., today's salary, today's service) or some other definition of "marital" benefit (e.g., ultimate benefit times coverture fraction: "tomorrow's salary, tomorrow's service; times marital service divided by total service. And there's fodder for lots of discussion about whether early retirement subsidies or cost of living adjustments etc. (whether they're written in the current plan or added as incentives for particular groups later) are "included in" the "accrued benefit," but let's assume those questions are already settled for this discussion.

What do you think, anyway?

Mike Gallagher

QDR Uh-Oh
08/06/99

I think the process would occur as follows: 1) Determine participant's accrued benefit as of date stated in QDRO. 2) Split accrued benefit among participant and spouse according to the formula state in the QDRO. 3) Assuming such a lump-sum distribution is allowed in the plan document, take present value of spouse's portion, using plan lump-sum assumptions. The assumptions are applied as of the date stated in the QDRO.

The only reason you would need to separately value PSSB's is if the QDRO or other settlement agreement specifically requires you to do so in determining the spouse's cut.

If you're trying to ascertain the PV of "any benefit..." you should still only use the accrued (respecting the last paragraph in your message) benefit and not consider survivor benefits. (I am assuming here that by "survivor benefits" you mean a death benefit that is greater in value that the accrued benefit.) Survivor benefits are contingent upon the death of the participant and thus constitute a possible future benefit for the spouse. The spouse can only base his/her portion of the benefit on what has accrued to date. Presumably, the participant ist still alive when the QDRO or settlement is drafted (otherwise, the spouse would have gotten the survivor benefits), thus the calculation should be based only upon what has accrued based on the plan formula.

Sonny

Argh!
08/09/99

Let's try this (I don't seem to be getting my point across):

Actuarially speaking, can we agree to define the PV of a benefit to be the summation of the product of the benefit to be paid times an interest discount times a probability that the benefit will be paid?

If so, it seems to me then that the PV of the "benefit to the participant" includes only the probability that the __participant__will be alive to receive it.

The PV of "any benefit to be paid as a result of the participant's participation" would also include a probability that the participant is dead and a survivor (spouse or former spouse?) is alive to receive something.

These are two separate items, and then the (PV of the) participant's benefit gets added to the participant's assets and the (PV of the) pre-retirement surviving spouse benefit gets added to the spouse's assets IF AND ONLY IF the settlement preserves the right to be treated as a surviving spouse!

If the settlement does not include that preservation, then there IS NO death benefit and the ONLY asset coming out of the plan participation is the potential retirement benefit to be paid to the participant! (I am assuming that the plan provides only the qualified preretirement surviving spouse benefit, not the extra lump sum PVAB).

Therefore, the model language I have seen in so many model QDROs that provides for a split of the "accrued benefit" (remember: normally DEFINED BY THE PLAN as a participant retirement benefit) then adds in a "death of the participant" section that the alternate payee will be "treated as a surviving spouse to the extent necessary to accomplish the above award" is worse than meaningless, it is misleading everyone into believing that there is an automatic death benefit protection built in somewhere.

My point? Write a settlement agreement (and QDRO) to specify who gets what in each instance, keeping in mind the particular plan provisions! DO NOT ASSUME ANYTHING. (And be sure to include the disposition of the alternate payee's award if the AP predeceases the participant!)

Mike Gallagher

IRC Section 415 (e)

by Beverly Rose

IRC section 415(e) has been the source of one of the most complex elements of plan administration. When an individual employee is covered by both a defined contribution and a defined benefit plan of the same employer, current law reduces the maximum benefits which would otherwise be available under the two separate plans. In effect, the limit under 415 (e) can be viewed as limiting the benefit under the second plan to a benefit as low as 25% of the otherwise-applicable limit.

The Small Business Job Protection Act of 1996 ("SBJPA") included as one of its provisions the repeal of section 415(e), effective with plan limitation years beginning on or after January 1, 2000. Newly-issued IRS guidance, in the form of Notice 99-44, comes just in time to alert all to perhaps some unanticipated results of that repeal.

Generally the repeal of the limitation is a welcome change for most plan sponsors, who commonly provide the qualified plan shortfall under a nonqualified arrangement. The repeal allows these benefits to be provided via the qualified plans, which are often well-funded and able to absorb the additional liability with little problem. Employees who have been affected by the limits will also welcome the relief from FICA and FUTA taxes which have been required with respect to amounts payable from the nonqualified plan.

But not all employers may be prepared for the effect of the repeal of the limitation. If the lost benefits have not been made up via an excess plan, in certain circumstances, failure to modify plan provisions prior to January 1, 2000 may create an unexpected expense for the sponsor, and one which may be irrevocable. Notice 99-44 alerts us to some of the potential problem areas, and provides guidance for avoiding some surprises.

There are two major sources of unexpected consequences. First, many plans by their terms have incorporated the limitations of section 415 by reference; under a plan which has been drafted in this manner, the effect of the repeal of 415(e) occurs automatically on the first day of the limitation year beginning after December 31, 1999. Apparently based on the same logic as followed in PLR 9723048, holding that elimination of automatic increases under IRC Section 415(d) are not benefits protected under Section 411(d)(6), Notice 99-44 would allow a plan amendment "to limit the extent to which a Participant's benefit would otherwise automatically increase under the terms of the plan as a result of the repeal of 415(e)." The Service notes that such an amendment would "provide time for the plan sponsor to consider the extent to which a benefit increase . . . should or should not be provided at some later date. . . ." To avoid a violation of Section 411(d)(6), such an amendment must be adopted prior to, and effective as of, the date the repeal would otherwise be effective under the plan, since, based on the reasoning followed in PLR 9723048, the increases generated by the repeal of Section 415(e) become part of the accrued benefit as of the effective date of repeal.

> ***"Generally the repeal of the limitation is a welcome change for most plan sponsors, who commonly provide the qualified plan shortfall under a nonqualified arrangement."***

If a plan does not give effect to the repeal of 415(e), plan provisions must be carefully crafted in order to avoid qualification problems. Examples covered in the Notice include the operation of the suspense account in a defined contribution plan, distribution of elective deferrals under a 401(k) plan, or the automatic reduction of benefits under a defined benefit plan to reflect the limitations of 415(e).

Each plan currently must set forth the procedure by which reductions will be affected, due to Section 415(e) being affected. Most plan arrangements limit the accrual under the defined benefit plan, and this limitation may on occasion result in a reduction in the accrued benefit under the defined benefit plan from one year to the next. Such a reduction has been permitted under the terms of Notice 83-10, Q&A G-10. However, the Service now notes that such relief no longer applies, and any reduction would be considered a violation of Section 411 (d)(6). (Notice 99-44, Q&A-8).

When plan provisions cure a violation of Section 415 by reduction in the current accrual under the defined contribution plan, acceptable methods of making the correction required, when contributions and forfeitures exceed the permissible limits, are described in regulation 1.415-6(b)(6). The regulations allow excess amounts to be reallocated to other participants, or held in an unallocated suspense account to be allocated to participant accounts in future years. Since this procedure will no longer be allowed once the reduction is no longer required by statute (i.e., when the annual additions for a defined contribution plan do not exceed the limitations under Section 415 (c), but do exceed the limitations under the cur-rent requirements of Section 415(e)), individual limitations must be determined before the contributions are made and allocated to individual accounts. Similarly, regulation 1.415-6(b)(6)(iv) allows a distribution of elective deferrals or the return of employee contributions, and the gains attributable to those deferrals and contributions, as a method of reducing the excess amounts allocated to an individual account. The plan will not be able to use this correction mechanism for an "excess" which is determined based on the provisions of Section 415(e).

(continued on page 14, column 1)

IRC Section 415 (e)

continued from page 13

It is important to note that these transactions regarding excess annual additions are also utilized when dealing with the limit under Section 415(c), when the only plan involved is a defined contribution plan. SBJA, which provided for the repeal of section 415(e), also changed the definition of compensation for purposes of Code Section 415(c)(3). Even if a plan bases benefits and accruals on a definition of compensation which is different from the definition under section 415(c)(3), application of the statutory limits and the permitted corrections (as outlined in the preceding paragraph) are based on the statutory definition of compensation. Thus, use of a suspense account would not be permitted for holding "excess annual additions" if determination of that excess is based on a different definition of compensation. Notice 99-44 also includes a reminder of the effect of this change in the definition of compensation.

Although any plan amendment which eliminates the automatic effect of the repeal of Section 415(e) must be adopted prior to the effective date of the repeal, the remedial amendment period under Rev. Proc. 99-33 is available to cure most of the other defects which could occur in a plan which does not intend to take full advantage of the section 415(e) repeal.

The Service also notes that a plan will not satisfy the uniformity requirements of a safe harbor for purposes of satisfying the nondiscrimination requirements of Section 401(a)(4) if the plan does not fully reflect the repeal of section 415(e). (However, if the plan limits benefits using the pre-SBJPA section 415(e) rules only for highly compensated employees, the plan will not fail to satisfy the uniformity requirements of the safe harbor.) Moreover, testing of such a plan under the general test must reflect the limits which continue to apply.

As amounts which will be paid under nonqualified plans may be reduced considerably with the disappearance of 415(e), the question arises as to whether the change can lead to a refund of FICA taxes already paid with respect to the nonqualified plan. To the extent that such taxes were paid as of an "early inclusion" date during 1996 or later, it should be possible to obtain a refund, since these are still open tax years. Practitioners should also examine any frozen benefit plan, to determine the impact of the repeal of Section 415(e) on those plans.

Beverly Rose, FSA, is a consulting actuary at ASA in Somerset, NJ. She can be reached at brose@asabenefits.com.

SOA Services to Pension Actuaries

by Ethan Kra & Judy Anderson

The SOA's Retirement Systems Practice Area Pension Section would like to keep pension actuaries aware of the activities and projects that we are working on. The list of projects and activities below shows services we are providing to pension actuaries. Questions or comments can be directed by email to: *janderson@soa.org.*

- Research projects including:
  - Mortality Tables
  - Turnover Studies
  - "A Benefit Value Comparison of a Cash-Balance Plan with a Traditional Final Average Pay Defined-Benefit Plan"
  - "Actuarial Aspects Of Cash Balance Plans"
  - Asset Valuation Methods - Survey
  - Call for Papers on Effectiveness
  - Retirement Needs Framework
  - Retirement 2000 Call For Papers & conference
  - Mortality Projection Study
  - Multivariate Analysis Of Pension Plan Mortality Experience
  - Combined Research with Urban Institute on Demographics, Retirement Ages and Plan Provisions
  - Macrodemographic Model Study
  - Plan Terminations In Ontario
  - Public Employee Retirement Systems Study
  - Group Annuity Experience Studies
  - Safest Annuity Rule Study
- Seminars:
  - Social Security Symposia
  - Seminar on Estimation
  - FAS 87 Seminars
  - Annuity Symposium
  - Joint Annual Seminars with ALI-ABA
- Meeting sessions and built-in seminars including:
  - SOA Spring Pension and Health meeting
  - SOA Annual Meeting
  - Mergers & Acquisitions Seminar
  - ERISA, the Great Debate
  - Plan Design from the Employer & Employee Perspective
  - Meeting sessions on various technical issues
  - Sufficient meeting sessions to fulfill EA Continued Professional Education
- Publications - Print and Online
  - *Pension Section News*
  - *Pension Forum*
  - Hybrid Plan CD-ROM
  - Development of pension basics online CD-Rom Program
  - Specialty guides
  - *Statistics for Employee Benefits Actuaries,* with monthly updates online
  - Salomon Brothers Pension Discount Curve and Liability Index
  - List serves and online discussion forums
  - Web site with many links to employee benefits information
- Education & Examination: Production of relevant study material

HI Trust Fund:

Actuarial Methodology and Principal Assumptions

Editor's Note: The following excerpt is taken from Section II.F, "Actuarial Methodology and Principal Assumptions," in the 1999 Annual Report of the Board of Trustees of the Federal Hospital Insurance Trust Fund. Copies of the HI 1999 Annual Report are available from Sol Mussey (410-786-6386).

This section describes the basic methodology and assumptions used in the estimates for the HI program under the intermediate assumptions. In addition, projections of program costs under two alternative sets of assumptions are presented.

Assumptions

Both the economic and demographic assumptions underlying the projections shown in this report are consistent with those in the 1999 Annual Report of the Board of Trustees of the Federal Old Age and Survivors Insurance and Disability Insurance (OASDI) Trust Funds. These assumptions are described in more detail in that report.

Program Cost Projection Methodology

The principal steps involved in projecting the future costs of the HI program are (1) establishing the present cost of services provided to beneficiaries, by type of service, to serve as a projection base; (2) projecting increases in payments for inpatient hospital services under the program; (3) projecting increases in payments for skilled nursing, home health, and hospice services covered under the program; (4) projecting increases in payments to managed-care plans; and (5) projecting increases in administrative costs. The major emphasis is directed toward expenditures for fee-for-service inpatient hospital services which account for approximately 63% of total benefits.

Projection Base

In order to establish a suitable base from which to project the future costs of the program, the incurred payments for services provided must be reconstructed for the most recent period for which a reliable determination can be made. To do this, payments to providers must be attributed to dates of service, rather than to payment dates. In addition, the non-recurring effects of any changes in regulations, legislation, or administration of the program and of any items affecting only the timing and flow of payments to providers must be eliminated. As a result, the rates of increase in the incurred cost of the program differ from the increases in cash disbursement shown in Tables II.D1 and II.D2 (not shown).

For those expenses still reimbursed on a reasonable cost basis, the costs for covered services are determined on the basis of provider cost reports. Payments to a provider initially are made on an interim basis; to adjust interim payments to the level of retroactively determined costs, a series of payments or recoveries is effected through the course of cost settlement with the provider. The net amounts paid to date to providers in the form of cost settlements are known; however, the incomplete data available do not permit a precise determination of the exact amounts incurred during a specific period of time. Due to the time required to obtain cost reports from providers, to verify these reports, and to perform audits (where appropriate), final settlements have lagged behind the original costs by as much as several years for some providers. Hence, the final cost of services reimbursed on a reasonable cost basis has not been completely determined for the most recent years of the program, and some degree of uncertainty remains even for the earlier years.

Even for inpatient hospital operating payments paid for on the basis of diagnosis-related groups (DRGs), most payments are initially made on an interim basis, and final payments are determined on the basis of bills containing detailed diagnostic information which are later submitted by the hospital.

Additional problems are posed by changes in legislation or regulation, or in administrative or reimbursement policy, which can have a substantial effect on either the amount of incidence of payment. The extent and timing of the incorporation of such changes into interim payment rates and cost settlement amounts cannot be determined precisely.

The process of allocating the various types of payments made under the program to the proper incurred period—using incomplete data and estimates of the impact of administrative actions—presents difficult problems, the solutions to which can be only approximate. Under the circumstances, the best that can be expected is that the actual incurred cost of the program for a recent period can be estimated within a few percent. This increases the projection error directly, by incorporating any error in estimating the base year into all future years.

Fee-for-Service Payments for Inpatient Hospital Costs

Beginning with hospital accounting years starting on or after October 1, 1983, the HI program began paying almost all participating hospitals a prospectively determined amount for providing covered services to beneficiaries. With the exception of certain expenses reimbursed on a reasonable cost basis, as defined by law, the payment rate for each admission depends upon the DRG to which the admission belongs.

The law contemplates that the annual increase in the payment rate for each admission will be related to a hospital input price index, which measures the increase in prices for goods and services purchased by hospitals for use in providing care to hospital inpatients. In other literature, the hospital input price index is also called the hospital market basket. For the fiscal year 1999, the prospective payment rates have already been determined. The projections contained in this report are based on the assumption that

(continued on page 16, column 1)

HI Trust Fund

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TABLE II.F1
Components of Historical and Projected Increase in HI Inpatient Hospital Payments *

	Labor			Nonlabor					Units of Service		
Calendar Year	Average Hourly Earnings	Hospital Hourly Earning Differential	Hospital Hourly Earnings	CPI	Hospital Price Input Intensity	Nonlabor Hospital Prices	Input Price Index	Unit Input Intensity Allowance †	HI Enrollment	Managed Care Shift Effect	Admission Incidence
Historical Data:											
1984	6.8%	-1.0	5.7%	3.5%	0.6%	4.1%	5.1%	1.0%	1.6%	-1.0%	-2.5%
1985	5.3	-0.7	4.6	3.5	-1.2	2.3	3.6	0.0	2.0	-0.6	-7.2
1986	4.7	-1.1	3.6	1.6	0.2	1.8	2.9	-2.7	2.0	-0.8	-4.5
1987	4.8	-0.8	4.0	3.6	-0.3	3.3	3.7	-2.7	2.0	-0.2	-3.2
1988	5.0	-0.2	4.8	4.0	1.6	5.7	5.2	-2.6	1.7	-0.2	-1.2
1989	3.2	2.0	5.3	4.8	0.2	5.0	5.2	-1.2	2.0	-0.2	-3.4
1990	5.3	0.3	5.6	5.3	-1.9	3.2	4.6	0.0	2.1	-0.1	3.2
1991	3.9	0.8	4.7	4.1	-1.2	2.8	4.0	-0.6	2.1	-0.4	1.2
1992	5.8	-1.8	3.9	2.9	-0.9	2.0	3.2	-0.3	2.1	-0.4	0.0
1993	2.1	1.4	3.5	2.8	-0.6	2.2	3.0	-0.3	2.1	-0.8	3.0
1994	2.0	1.1	3.1	2.5	-0.5	2.0	2.7	-0.7	1.8	-0.9	2.4
1995	3.1	-0.5	2.6	2.9	1.0	3.9	3.1	-1.0	1.7	-2.0	2.5
1996	4.7	-1.8	2.8	2.9	-1.6	1.3	2.2	-0.6	1.4	-2.7	2.6
1997	4.1	-1.3	2.7	2.3	-1.3	1.0	2.1	-0.8	1.5	-3.1	2.3
Projections: ++											
2000	2.8	0.2	3.0	2.1	-0.4	1.7	2.5	-1.7	1.1	-3.0	3.2
2005	4.1	0.0	4.1	3.1	0.0	3.1	3.7	0.0	1.5	-0.7	0.5
2010	4.3	0.0	4.3	3.3	0.0	3.3	4.0	0.0	2.0	-0.1	-0.2
2015	4.3	0.0	4.3	3.3	0.0	3.3	4.0	0.0	2.8	0.0	-0.6
2020	4.3	0.0	4.3	3.3	0.0	3.3	4.0	0.0	2.8	0.0	-0.3

* Percent increase in year indicated over previous year, on an incurred basis.
† Reflects the allowances provided for in the prospective payment update factors.
++ Under the intermediate assumptions
Note: Historical and projected data reflect the hospital input price index which was recalibrated to a 1992 base year in 1997.

for fiscal years 2000-2002, the prospective payment rates will be increased by the increase in the hospital input price index, less the percentages specified by Public Law 105-33, the Balanced Budget Act of 1997. For the fiscal years 2003 and later, current statute mandates that the annual increase in the payment rate per admission equal the annual increase in the hospital input price index.

Increases in aggregate payments for inpatient hospital care covered under the HI program can be analyzed into five broad categories:

1) **Labor factors**—the increase in the hospital input price index which is attributable to increases in hospital workers' hourly earnings (including fringe benefits).

2) **Nonlabor factors**—the increase in the hospital input price index which is attributable to factors other than hospital workers' hourly earnings, such as the cost of energy, food, and supplies.

3) **Unit input intensity allowance**—the amount added to or subtracted from the input price index (generally as a result of legislation) to yield the prospective payment update factor.

4) **Volume of services**—the increase in total output of units of service (as measured by hospital admissions covered by the HI program).

5) **Other sources**—a residual category, reflecting all other factors affecting hospital cost increases (such as intensity increases).

Table II.F1 above shows the estimated values of the principal components of the increases for historical periods for which data are available and the projected trends used in the estimates.

TABLE II.F1 * (continued from page 16)
Components of Historical and Projected Increase in HI Inpatient Hospital Payments

Calendar Year	Other Sources	HI Inpatient Hospital Payment
Historical Data:		
1984	7.3%	11.5%
1985	7.9	5.1
1986	6.1	2.8
1987	4.5	4.0
1988	-1.7	1.0
1989	6.9	9.8
1990	-1.1	9.0
1991	-0.2	6.2
1992	7.0	11.9
1993	-1.3	5.8
1994	2.5	8.1
1995	1.8	6.2
1996	2.0	5.0
1997	-0.3	1.5
Projections: ++		
2000	0.7	2.7
2005	0.2	5.3
2010	0.3	6.1
2015	0.3	6.6
2020	0.4	6.9

* Percent increase in year indicated over previous year, on an incurred basis.
++ Under the intermediate assumptions
Note: Historical and projected data reflect the hospital input price index which was recalibrated to a 1992 base year in 1997.

Letter to the Editor

Q: What the word **"collar"** meant in the June 1999 issue of *Pension Section News* on page 8, referred to in the minutes of Retirement Plans Experience Committee of November 12, 1998?

A: According to *Merriam Webster's Collegiate Dictionary, tenth edition,* it states that **collar** means to arrest or grab, to get control of, and also to stop and detain in unwilling conversation. However, in this particular case, the editor wants to point out that **"collar"** means "blue" vs. "white" collar jobs in reference to its intended meaning in the June issue.

SMI Trust Fund:

Estimates under Alternative II Assumption for Aged and Disabled (Excluding End-Stage Renal Disease) Enrollees

Editor's Note: The following except is taken from Section II.F, "Actuarial Methodology and Principal Assumptions for Cost Estimates for the Supplementary Medical Insurance Program," in the 1999 Annual Report of the Board of Trustees of the Federal Supplementary Medical Insurance Trust Fund. *Copies of the SMI 1999 Annual Report are available from Sol Mussey (410-786-6386).*

* * *

This section describes the basic methodology and assumptions used in the estimates for the SMI program under the intermediate assumptions. In addition, projections of program costs under two alternative sets of assumptions are presented. The methodology and data sources underlying the SMI projections in this year's report have been substantially modified and enhanced. Consequently, the discussion in this section and the data and estimates shown differ from the corresponding material in prior reports.

Assumptions

The economic and demographic assumptions underlying the projections shown in this report are consistent with those in the 1999 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds. These assumptions are described in more detail in that report.

Program Cost Projection Methodology

Estimates under the intermediate assumptions are prepared by establishing the allowed charges or costs incurred per enrollee, for each category of enrollee and for each type of service, for a recent year to serve as a projection base and then projecting these charges through the estimation period. The per enrollee charges are then converted to reimbursement amounts by subtracting the per enrollee values of the deductible and coinsurance. Aggregate reimbursement amounts are calculated by multiplying the per enrollee reimbursement amounts by the projected enrollment. In order to estimate cash disbursements, an allowance is made for the delay between receipt of service and payment therefor.

Projection Base

To establish a suitable base from which to project the future costs of the program, the incurred payments for services provided must be reconstructed for the most recent period for which a reliable determination can be made. To do this, payments to providers must be attributed to dates of service, rather than payment dates. In addition, the nonrecurring effects of any changes in regulations, legislation, or administration of the program and any items affecting only the timing and flow of payments to providers must be eliminated. As a result, the rates of increase in the incurred cost of the program differ from the increases in cash disbursements.

Carrier Services

Reimbursement amounts for physician services, durable medical equipment (DME), laboratory tests performed in physician offices and independent laboratories, and other services such as free-standing ambulatory surgical center facility services, ambulance, and supplies are paid though organizations acting for HCFA, referred to as "carriers." The carriers determine whether billed services are covered under the program and determine the allowed charges for the services. A record of the allowed charges, the applicable deductible and coinsurance, and the amount reimbursed after the reduction for coinsurance and the deductible is transmitted to HCFA.

The data is tabulated on an incurred basis. This is necessary to meet the statutory requirement that the program be financed on this basis.

As a check on the validity of the projection base, incurred reimbursement amounts are compared with cash expenditures reported by carriers through an independent reporting system. In a health-care program with continuously increasing incurred reimbursement amounts, cash payments are expected to be slightly lower than incurred expenses (except in the first year of coverage of a service or group of beneficiaries, when the difference should be substantial). These differences between cash and incurred reimbursement amounts occur because of the lag between receipt of services and payment therefore.

Intermediary Services

Reimbursements amounts for institutional services under the SMI program are paid by the same fiscal intermediaries that pay for HI services. Institutional services covered under the SMI program are outpatient hospital services, home health agency services, laboratory services performed in hospital outpatient departments, and other services such as renal dialysis performed in free-standing dialysis facilities, services in outpatient rehabilitation facilities, and services in rural health clinics.

Reimbursement for institutional services occur in two stages. First, bills are submitted to the intermediaries, and

interim payments are made on the basis of these bills. The second stage occurs at the close of a provider's accounting period, when a cost report is submitted, and lump-sum payments or recoveries are made to correct for the difference between interim payments and final settlement amounts for providing covered services (net of coinsurance and deductible amounts). Tabulations of the bills are prepared by date of service and the lump-sum settlements, which are reported on a cash basis, are adjusted (using approximations) to allocate them to the time of service.

Managed Care Services
Managed care plans with contracts to provide health services to Medicare beneficiaries are not reimbursed through carriers or intermediaries but instead are reimbursed directly by HCFA on either a reasonable cost or capitation basis. Comprehensive data on such direct reimbursements are available only on a cash basis. Certain approximations must be made to allocate expenses to the period when services were rendered.

Fee-for-Service Payments for Aged Enrollees and Disabled Enrollees without End-Stage Renal Disease (ESRD)

Disabled persons with ESRD have per enrollee costs which are substantially higher and quite different in nature from those of most other disabled persons. Hence, program costs for them have been excluded from the analysis in this section and are included in a later section. Similarly, costs associated with beneficiaries enrolled managed care plans are discussed separately.

1) Carrier Services
   a) Physician Services

Charges for physician services per fee-for-service enrollee are affected by a variety of factors. One factor, the increase in average charge per service, can be identified explicitly. Others can be recognized only by the fact that the increase in the average charge per service does not explain all of the increase in per enrollee charges year-to-year. Each of these categories will be discussed in turn.

Prior to 1992, bills submitted to the carriers during a specified "fee-screen year" were subject by statute to certain limitations on the level of fees to be allowed by the program for reimbursement purposes. The fee level allowed for a particular service by a physician was subject to reduction if it exceeded the median charge that the physician assessed for the same service in a prior base period. This median charge was called the "customary charge." Fees were subject to further reduction if they exceeded the prevailing charges for the locality (defined as the 75th percentile of customary charges for a particular service in a particular locality). Starting July 1, 1975, the rate of increase in prevailing charges was limited further by the application of the Medicare Economic Index (MEI). The customary and prevailing charge limits maintained by the carriers were called "fee screens." Allowed charges were charges after application of the fee screens and were the charges on which reimbursement was based.

Public Law 101-239 provided for the replacement of customary and prevailing charges with fee schedules for physician services starting in 1992. The fee schedules are based on a resource-based relative value scale. The fee schedule amount is equal to the product of the procedure's relative value, a conversion factor, and a geographic adjustment factor. Payments are based on the lower of the actual charge and the fee schedule amount. For the 4-year period from 1992 to 1995, the fee schedule amounts were adjusted to reflect the prevailing charges in each fee screen area, to phase in the new payment system. Increases in physician fees are based on growth in the MEI, plus a performance adjustment reflecting whether past growth in the volume and intensity of services met specified targets.

As a result of the Balanced Budget Act of 1997, beginning in 1999, the MEI is adjusted to match spending under a sustainable growth rate (SGR) mechanism. It should be noted that the SGR process enacted as part of the Balanced Budget Act of 1997 contains technical deficiencies that, if not corrected, would cause unstable performance adjustments for physician fee updates in 1999 and later. For purposes of the estimates shown in this report, "expected values" of the performance adjustments are estimated, representing the *average* performance adjustments expected over the projection period. (In practice, without corrective legislation, actual performance adjustments would oscillate randomly between the legislated limits of +3 and -7 percent; prediction of specific year-by-year adjustments is thus impossible.)

Table II.F1 (see page 20) shows the projected MEI increases and average performance adjustments for 2000 through 2008. The physician fee updates shown through 1999 are actual values. The net increase in allowed fees shown in column 3 reflects the growth in the MEI, the performance adjustment, as well as any legislative impacts.

Per capita physician charges also have increased each year as a result of a number of other factors besides fee increases, including more physician visits per enrollee, the aging of the Medicare enrollment, greater use of specialists and more expensive techniques, and certain administrative actions. The fourth column of table II.F1 shows the increases in charges per enrollee resulting from these residual causes. Because the measurement of increased allowed charges per service is subject to error, this error is included implicitly under residual causes.

Based on the increases in table II.F1, table II.F2 (not included here) shows the estimates of the incurred reimbursement for physician services per fee-for-service enrollee. Table II.F1 shows the increases in the allowed charges per fee-for-service enrollee for DME, laboratory services, and other carrier services. Based on the increases in table II.F1, table II.F2 (not included here) shows the corresponding estimates of the incurred reimbursement for these services per fee-for-service enrollee.

(2) Intermediary Services

Originally, all intermediary services were reimbursed on a "reasonable cost"

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TABLE II.F1
Components of Increases in Total Allowed Charges Per Fee-for-Service Enrollee for Carrier Services (in percent)

	Physician Fee Schedule								
	Increase Due to Price Changes								
Calendar year	MEI	MPA[1]	Net increase in allowed fees[2]	Residual factors	Total increase[3]	CPI	DME	Lab	Other carrier
Aged:									
1996	2.0	-1.2	0.8	1.2	2.0	2.8	11.9	-8.6	4.7
1997	2.0	-1.4	0.6	4.7	5.4	2.7	11.6	-2.0	7.6
1998	2.2	1.2	2.3	1.9	4.3	2.3	-3.7	1.8	5.7
1999	2.3	0.0	2.3	4.8	7.2	2.3	5.3	1.5	4.8
2000	2.2	-0.5	1.6	5.3	7.0	2.1	5.9	2.8	4.9
2001	1.6	-3.4	-1.8	4.2	2.3	2.5	5.3	3.8	5.1
2002	1.7	-3.5	-1.9	4.3	2.3	2.6	5.2	3.9	5.1
2003	1.7	-3.2	-1.6	4.3	2.6	2.7	6.8	5.9	5.8
2004	2.0	-3.1	-1.2	4.3	3.1	3.0	7.2	6.2	6.1
2005	2.0	-3.2	-1.3	4.5	3.1	3.1	7.3	6.3	6.2
2006	2.1	-3.1	-1.0	4.4	3.3	3.2	7.4	6.4	6.3
2007	2.2	-2.9	-0.7	4.3	3.5	3.3	7.5	6.5	6.4
2008	2.3	-3.0	-0.7	4.3	3.5	3.3	7.5	6.5	6.4
Disabled (excluding ERSD)									
1996	2.0	-1.2	0.8	-0.3	0.5	2.8	7.5	-9.3	1.0
1997	2.0	-1.4	0.6	4.1	4.7	2.7	13.8	-4.3	2.1
1998	2.2	1.2	2.3	2.3	4.6	2.3	-2.8	1.1	4.4
1999	2.3	0.0	2.3	2.1	4.5	2.3	5.3	-0.4	5.2
2000	2.2	-0.5	1.6	2.6	4.2	2.1	5.8	1.3	5.8
2001	1.6	-3.4	-1.8	5.8	3.9	2.5	5.3	4.6	5.5
2002	1.7	-3.5	-1.9	7.1	5.0	2.6	5.2	5.5	4.8
2003	1.7	-3.2	-1.6	4.7	3.1	2.7	6.8	6.2	5.7
2004	2.0	-3.1	-1.2	4.2	2.9	3.0	7.1	6.2	6.1
2005	2.0	-3.2	-1.3	4.2	2.9	3.1	7.2	6.2	6.1
2006	2.1	-3.1	-1.0	4.1	3.1	3.2	7.3	6.3	6.2
2007	2.2	-2.9	-0.7	4.1	3.3	3.3	7.4	6.4	6.3
2008	2.3	-3.0	-0.7	4.1	3.3	3.3	7.4	6.5	6.3

[1] Medicare performance adjustment
[2] Reflects the growth in the MEI, the performance adjustment, as well as any legislative impacts.
[3] Equals combined increases in allowed fees and residual factors.

basis. The reasonable costs for a particular provider were the provider's aggregate costs associated with SMI beneficiaries. While the provider does not have costs per service, the provider does have a charge for each service. These charges were used to determine any beneficiary deductible or coinsurance liability. The SMI reimbursement would be the difference between the lower of the provider's reasonable costs or aggregate SMI charges and the aggregate amounts collected by the provider for any associated deductible and coinsurance payments.

Over the years legislation modified this reimbursement mechanism for various types of services. Beginning July 1, 1984 the same laboratory fee schedule established for tests performed in physician offices and independent laboratories also applied to laboratories in hospital outpatient departments, but with slightly higher rates. Subsequent legislation made the two fee schedules identical. The Balanced Budget Act of 1997 implemented a prospective payment system for

TABLE II.F3
Components of Increases in Recognized Charges and Costs Per Fee-for-Service Enrollee for Intermediary Services (in percent)

Calendar year	Outpatient hospital	Home health agency[1]	Outpatient lab	Other intermediary
Aged:				
1996	8.7	10.0	6.9	22.6
1997	7.7	2.1	7.1	14.9
1998	-0.5	3748.5[2]	15.3	5.3
1999	9.5	6.3	5.2	8.3
2000	9.9	7.5	4.9	9.5
2001	2.9	5.0	4.5	9.3
2002	8.2	7.2	4.5	9.3
2003	8.9	6.4	8.1	9.3
2004	9.3	6.0	8.4	9.3
2005	9.4	5.8	8.6	9.3
2006	9.5	5.6	8.7	9.3
2007	9.6	5.0	8.7	9.3
2008	9.6	4.3	8.7	9.3
Disabled (excluding ERSD)				
1996	8.4	0.0	0.7	29.5
1997	6.6	0.0	-0.4	34.6
1998	-4.5	(2)	30.8	6.4
1999	5.1	7.2	6.3	8.2
2000	6.5	6.5	6.1	9.4
2001	5.5	4.3	6.0	9.2
2002	12.0	6.3	6.0	9.3
2003	9.3	5.6	8.1	9.2
2004	9.2	5.1	8.4	9.2
2005	9.2	5.0	8.5	9.2
2006	9.2	4.9	8.6	9.3
2007	9.5	4.9	8.7	9.3
2008	9.5	5.1	8.7	9.3

[1] From July 1, 1981 to December 31, 1997, home health agency services were almost exclusively provided by the Medicare HI program. However, for those SMI enrollees not entitled to HI, the coverage of these services was provided by the SMI program. During that time, since all SMI disabled enrollees were entitled to HI, their coverage of these services was provided by the HI program. The extreme variation in SMI home health cost increases is largely attributable to random fluctuations in a service used by relatively few beneficiaries. (See Table II.F4 not shown).
[2] Effective January 1, 1998, the coverage of a majority of home health agency services for those individuals entitled to HI and enrolled in SMI was transferred from the HI program to the SMI program. As a result, as of January 1, 1998, there was a large increase in SMI expenditures for these services for the aged enrollees, and SMI coverage for these services resumed for disabled enrollees.

services performed in the outpatient department of a hospital, which is expected to begin sometime in 2000. It also implemented a prospective payment system for home health agency services, which is expected to begin October 1, 2000.

The historical and projected increases in charges and costs per fee-for-service enrollee for intermediary services are shown in table II.F3 (see page 21). The projected increases shown in table II.F3 reflect the impact of the provisions of the Balanced Budget Act of 1997. These include the transfer of a majority of home health agency services from the HI trust fund to the SMI trust fund starting in 1998. All benefit payments for those home health agency services being transferred are to be paid out of the SMI trust fund beginning January 1998. However, for the 6-year period 1998 through 2003, sums of money will also be transferred from the HI trust fund to the SMI trust fund to phase in the financial impact of the transfer of these services. It should be noted that in table II.F3, and elsewhere in this section with the exception of table II.F7 (not shown), the estimates for home health agency costs for 1998 through 2003 are the gross amounts associated with the payment of benefits and are not adjusted for the funds transferred from the HI trust fund.

Based on the increases in table II.F3, table II.F4 (not included here) shows the estimates of the incurred reimbursement for the various intermediary services per fee-for-service enrollee. Each of these expenditure-categories is projected based on recent past trends in growth per enrollee, together with applicable legislated limits on payment updates.

Managed Care Costs

Program experience with managed care payments has shown a strong upward trend in recent years, reflecting rapid increases in the number of Medicare

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beneficiaries choosing to enroll in managed care plans. Enrollment has increased most rapidly in the capitated plans which currently account for approximately 95 percent of the managed care payments. For capitated plans, per capita amounts have grown following the same trend as fee-for-service per capita growth, based on the formula in the law to calculate managed care capitation amounts. The projection of future per capita amounts follows the requirements of the Balanced Budget Act of 1997 as related to the Medicare+Choice capitation amounts, which increase at rates based on the per capita growth for all of Medicare, less specified adjustments in 1998 to 2002.

The increases in managed care were quite large in the early 1980s but slowed in the late 1980s. Since then rapid growth has been occurring again. The projection of these increases assumes high enrollment growth in the next few years as additional Medicare+ Choice plans become available and the enrollment process becomes more straightforward and then more modest increases based on growth in Medicare total enrollment after that.

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GAR-94: Tracking The 50 States

by Zenaida Samaniego

Section 415(b) of the Internal Revenue Code specifies limitations on benefits under a qualified defined benefit plan, *including any form of benefit subject to section 417(e)(3).* When a benefit is payable (a) in a form other than as an annual straight-life annuity, or (b) beginning at an age other than the participant's Social Security retirement age (SSRA), such benefit or dollar limitation is actuarially adjusted on a prescribed *mortality* table and interest rate so as to produce an equivalent annual straight-life annuity or dollar limitation at the participant's SSRA. *Under Section 417, single sum distributions are determined as the actuarial present value of an equivalent straight life annuity based on the greater of plan factors and the prescribed mortality and interest.*

In particular, Section 415(b)(2)(E)(v) requires that for purposes of adjusting any benefit or limitation, the mortality table used shall be the table prescribed by the Secretary. Pursuant to Section 807(d)(5), the mortality table shall be based on the prevailing commissioners' standard table used to determine reserves for group annuity contracts issued on the date the adjustment is being made. Such commissioners' table currently in effect is the 1983 Group Annuity Mortality Table (GAM-83), a static table.

Subject to the adoption by at least 26 states of the Union, a new commissioners' valuation standard will become effective, which is the 1994 Group Annuity Reserve Table (GAR-94). Unlike its predecessor table, GAR-94 is a generational standard, which incorporates a base table, the GAM-94 Static Table, and a full range of annual mortality improvement factors, Projection Scale AA, such that the mortality rate for each life will depend not only on sex and age, but on calendar year of valuation as well.

Based on recent mortality improvements that have occurred since the development of the 1983 GAM, combined with the use of projected mortality improvement factors, as reflected in the new standard, following are ratios of 1994 GAR to 1983 GAM Life Annuity net single premiums, assuming 7% level interest rate:

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Sex	Age	1994	1999	2004	2009
Male	55	1.047	1.056	1.064	1.073
	65	1.062	1.077	1.091	1.104
	75	1.086	1.105	1.123	1.142
Female	55	1.007	1.010	1.013	1.016
	65	1.008	1.013	1.018	1.023
	75	1.025	1.034	1.042	1.051

Source: *TSA* Volume XLVII, "1994 Group Annuity Mortality Table and 1994 Group Annuity Reserving Table," Table 23, pp.910-911.

As of ***August 11, 1999***, 24 states have adopted, or are in the process of adopting the GAR-94 as a group valuation standard. It is uncertain when and if GAR-94 also becomes the prescribed table for Section 415(b) purposes, but beware its implications.

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