

PENSION SECTION NEWS

NUMBER 42

A Memo... Chairperson's Corner by Colin England

am the new Pension Section Chairman. Many of you may have met me before, at Enrolled Actuary meetings, at Society meetings or at one of my jobs. I invite the rest of you to introduce yourselves at the EA meeting, the Spring or Annual meeting.

The mission of the Pension Section is to:

- Provide or support educational opportunities to its members
- Support research that will enhance the ability of its members to work with their clients.

It's a simple mission, but a critical one in a constantly changing world. We're responsible for a wide variety of activities that support this mission, from commissioning studies on mortality and termination experience to arranging seminars on topics such as cash balance plans, mergers and acquisitions and the

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Tax Assistance to Qualified Retirement Savings **Plans: Deferral or Waiver?**

by Robert L. Brown

Editor's Note: This article is reprinted with permission by Absalom Press and Robert L. Brown. It previously ran in the Journal of Actuarial Practice, Vol. 2, No. 1, 1994, and is still relevant today.

Abstract

There exist significant tax incentives for retirement savings plans in Canada and the United States. Qualified employer and employee contributions, within limits, are tax deductible to the employer and nontaxable to the employee. Also, investment income is not taxed until taken. On the other hand, monies received from funds having such tax incentives are taxable in full as income to the recipient when taken. This paper analyzes the two tax advantages of qualified retirement savings plans: the tax deductibility of contributions and the nontaxation of investment income until it has been distributed. The algebraic analysis shows that the deductibility of contributions represents a deferral of tax, but that it does not create any permanent loss of revenue to the government. On the other hand, the algebra indicates that there is a permanent tax subsidy associated with the deferred taxation of investment income.



anadian and United States laws provide significant tax incentives for individuals to save for retirement through qualified vehicles. There are two tax incentives provided in the United States and Canada:

1) Employer contributions to qualified plans are tax deductible to the employer and nontaxable to the employee. For employees and individuals saving for retirement

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PENSION SECTION NEWS Issue Number 42, March 2000

Published quarterly by the Pension Section of the Society of Actuaries 475 N. Martingale Road, Suite 800 Schaumburg, IL 60173 Phone: 847-706-3500 Fax: 847-706-3599 World Wide Web: http://www.soa.org

This newsletter is free to Section members. A subscription is \$15.00 for nonmembers. Current-year issues are available from the Communications Department and are on the SOA website (*www.soa.org*). Back issues of Section newsletters have been placed in the Society library. Photocopies of back issues may be requested for a nominal fee.

Dan Arnold, FSA

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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

February June September December Submission Deadline January 10 May 10 August 10 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.

Please send original hard of article and diskette to:

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Thank you for your help.

Chairperson's Column

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lost art of estimating. We plan sessions for the Spring meeting, picking topics and arranging for speakers. We arrange for several publications, including this newsletter (prepared admirably by Dan Arnold), statistics for actuaries, and the *Pension Forum*.

What we don't do is take stands on the various issues. For example, we're neither for nor against cash balance plans, but we'll spend our time and your money (dues) educating our membership about the design, funding and communications issues that beset cash plans. We'll leave the political issues to the American Academy of Actuaries.

This year the Section Council expects to:

• Expand our efforts to take advantage of the Internet. We're looking into using the Internet to provide you the newsletter more quickly and more



Colin England

We also want to extend membership, in some form, to pension actuaries who are not Society members.

 Increase the number of seminars we prepare to help both students near
 Fellowship and the rest of us learn more about the important issues that affect us all.

"What we don't do is take stands on the various issues. For example, we're neither for or against cash balance plans, but we'll spend our time and your money (dues) educating our membership about the design, funding, and communications issues that beset cash plans."

cheaply. We're experimenting with putting some of our seminars online, where you can learn from them without the cost and bother of traveling. We're also near completion of the initial phase of the actuarial training materials for new actuarial students. When completed, these materials will be accessible through the Web to your new students.

Encourage all pension actuaries to join the Section. The Section provides education and research that is valuable to all pension actuaries. We want to remove the barriers that keep our fellow Society members specializing in pensions from joining. Please help us meet these goals. Volunteer to lead a seminar (either one of the five we're preparing or one the Retirement Systems Practice Area is sponsoring). Talk to your fellow pension actuaries about why they should be members. Help us with the effort to move educational efforts to the Internet, by making sure we have your Internet address, and telling us about what your firm has learned in its efforts to use the Internet.

Colin England, FSA, is a principal at Slabaugh Morgan White & Associates in Reston, VA. He can be reached at colin.england@palmercay.com.

HELP US BUILD A HYBRID PENSION PLAN BIBLIOGRAPHY

The Society of Actuaries (SOA) is involved in a number of activities that relate to cash balance plans:

- A research report on the actuarial aspects of cash balance plans has been drafted and is in the final stages of review.
- A call for papers soon to be released will address a variety of funding, plan design and labor force incentives.
- A seminar is planned for this summer or fall that will cover recent trends in these plans.

These hybrid plans have unique charactersitics that have been analyzed by various actuaries and researchers. We are interested in gathering references and constructing a central library for future research. This request is not limited to recent works. We would like to be able to trace the history of these plans as well. We would also be interested in materials on other varieties of hybrid plans.

If you can identify any material or if your firm can offer any materials it may have produced, please contact Cathy Cimo at the SOA office by e-mail at *ccimo@soa.org* or phone (847) 706-3587. If you would like a copy of the bibliography to date, it is available on the SOA Web site.

Tax Assistance to Qualified Retirement Savings Plans: Deferral or Waiver? *continued from page 1*

through qualified vehicles, their contributions, within limits, are also tax deductible (e.g., IRAs, 401(k) plans in the United States and RRSPs in Canada¹).

2) For these qualified plans, the investment income earned on the pension funds is not taxable until it is paid out. Income derived from these funds, however, is fully taxable to the individual who receives it.

What is the value of these tax incentives? In particular, do these incentives effectively result in deferred taxes, or is the outcome a waiver of taxes?²

It often is stated that these incentives represent only tax deferral and are not a tax expenditure or permanent tax subsidy. For example, Johansen (1993) states:

But when the plan starts paying out benefits, the recipients will have to pay the appropriate income Tax on those benefits. So the taxexempt status of qualified pension plans creates a tax deferral—not a tax expenditure.

Similarly, in a discussion of Aitken's (1991) paper that claims there is a permanent tax subsidy implicit in the non-taxation of the annual investment income earnings, Flanagan (1991) states:

One does not need to be an actuary to realize that the author's fundamental point is flawed. There is tax on the investment income accumulating in a registered plan, but the tax on the investment income, like the tax on the principle, is deferred until the payout period.

The objective of this paper is to review the two tax incentives (cited earlier) that are provided to retirement savings vehicles and to determine algebraically whether such incentives are essentially tax deferrals or if they result in a tax waiver. The paper also will present a summary of the tax advantages associated with alternate savings vehicles. It is wellknown (and obvious) that for persons who expect to be in a lower tax bracket after retirement than before retirement (which often is expected), there are permanent tax advantages to using qualified savings vehicles to save for retirement. Thus, this paper will not investigate that particular aspect of the tax advantages.

Advantage of Alternative Savings Vehicles

What are the tax advantages associated with the ability to take a tax deduction for contributions made to a qualified vehicle? To explore this issue, the following notation is needed: T is the marginal tax rate; I is the gross investment rate of return (for all investments) per annum; iis the net rate of return per annum; C is the before tax contribution; and n is the time from contribution to withdrawal. To simplify the presentation, the following assumptions are made:

- 1. *T*, *I*, *C*, and *i* are constant throughout the period under consideration, *n* years. In addition, they do not vary by whether the fund is a qualified fund or not or whether the fund is private or public.
- 2. The marginal tax rate is the same before and after retirement.
- 3. The value of a tax incentive is defined to be the difference between the accumulated value of certain defined contributions without and with the tax incentive.³

The Tax Deductibility of Contributions

What advantage is gained purely from the tax deductibility of contributions? To determine this advantage, it will be assumed that the rate of return on the funds is the after-tax rate, so

$$i = I \ge (1 - T).$$

Table 1 shows that the after-tax accumulated incomes for qualified and nonqualified vehicles are equal (ignoring the effects of taxes on investment income).

	Table 1 After-Tax Accumulations	s
	Qualified Vehicle	Nonqualified Vehicle
Contribution: Accumulated Value: After-tax Income:	$C \\ C (1 + i)^n \\ C (1 - T) (1 + i)^n$	C (1-T) $C (1-T) (1 + i)^n$ $C (1-T) (1 + i)^n$

It is clear that the tax advantage associated with the deductibility of contributions is purely an advantage of tax deferral. If one's marginal tax rate is the same before and after retirement, then there is no permanent tax waiver or tax subsidy associated with the deductibility of contributions.

Nontaxation of Investment Income

Within the qualified vehicle, funds grow at a rate of *I* per annum. Income derived from these funds is taxed at the marginal rate, *T*, when disbursed. Within the non-qualified plan, funds will grow at rate i = I (1 - T) per annum, but funds will not be taxed when taken out.

Again, consider a before-tax contribution of \$C within either a qualified or nonqualified vehicle. For the qualified plan, the net receipt to the retiree is $C (1-T) (1+i)^n$, while for the nonqualified plan it is $C (1-T) (1+i)^n$. One must remember that the tax deductibility of the contribution provides no net gain and explains none of the difference between the two values above. Thus, the gain rep-resented by the difference of the two values above can be categorized as coming from the difference in the taxation of investment income. That gain is:

 $C(1+I)^{n}(1-T) - C(1-T)(1+i)^{n} = C(1-T)[(1+I)^{n} - (1+i)^{n}].$ As i = I(1-T), it follows that i < I; there must be a net gain. A numerical example illustrates these points. You are given the following information: **Before-tax contribution:** C = \$2,000

Marginal tax rate: T = 40%

Gross rate of return per annum: *I* = 7%

Net rate of return per annum: *i* = 0.07 (1 - 0.40) = 4.2%

Time from contribution to withdrawal: n = 30 years.

Using a qualified vehicle, the retiree receives:

 $2,000 (1.07)^{30} (1 - 0.40) =$ 9,134.71.

On the other hand, using a nonqualified vehicle yields the retiree:

> $(1 - 0.40) (1.042)^{30} =$ $(1, 1042)^{30} =$

The net gain to the retiree by using the qualified fund is \$5,011.71. But what is the source of this \$5,011.71 gain?

One must conclude that the \$5,07.11 comes from a direct tax waiver or subsidy. To prove this assertion, look at the tax revenues that accrue in each situation. For the qualified fund, the government gets:

 $C \ge T \ge (1 + I)^n =$ \$6,089.80 at t = 30.

In the nonqualified fund, however, the government gets $C \ge T = \$800$ immediately which, at time t = 30, is worth:

 $C \ge T \ge (1 + I)^n = \$800 \ (1.07)^{30} = \$6,089.80.$

Thus, as proven before, there is no tax waiver or subsidy associated with the tax deductibility of contributions, only tax deferral. Under the nonqualified fund, however, the government receives additional taxes: the taxes on the yearly investment income on the fund. In this example, the accumulated value of this tax on annual investment income at time t = 30 is:

$$C \ge (1-T) \ge T \ge I \ge \sum_{k=0}^{t-1}$$

$$(1+I)^{k}(1+I)^{t-1-k} = $5,011.71.$$

That is, the gain to the retiree who uses a qualified fund is equal to the permanent tax revenue loss to the government under the assumptions given.

The nontaxation of the investment income on the qualified fund until taken as income clearly is a permanent tax waiver, not a tax deferral.

Extensions

The expressions for the tax impact on qualified pension funds, derived in Section 2, can be adjusted to include other insurance and savings vehicles. Table 2 presents the tax effects in summary form.

(continued on page 6, column 1)

Table 2 The Effects on Taxes on Various Vehicles						
Vehicle	Taxes?	Frequency of Taxes	Rate of Taxation	After-tax Accumulation		
MF	Yes	Annually	C-Gains	$[1 + I(1 - gT)]^n$		
MMF	Yes	Annually	Ordinary	$[1 + I(1 - T)]^n$		
IP	Yes	Never	Exempt	$(1+I)^{n}$		
SPDA	Yes	Deferred	Ordinary	$(1+I)^{n}(1-T)+T$		
PF	No	Deferred	Ordinary	$(1+I)^{n}$		
FC	Yes	Deferred	C-Gains	$(1+I)^{n}(1-gT)+gT$		

IP = Insurance Policies; SPDA = Single Premium Deferred Annuities

PF = Pension Funds; FC = Foreign Corporations; and

C-Gains = Capital Gains; and gT = The capital gains tax rate.

Tax Assistance to Qualified Retirement Savings Plans: Deferral or Waiver? *continued from page 5*

The following is a brief description of the various savings vehicles.

- Money Market Funds (MMF): This vehicle is the ordinary savings account. Deposits are not tax deductible, and investment income normally is taxed fully each year at ordinary tax rates. This is the least advantageous of the savings vehicles.
- **Mutual Funds (MF):** These refer to those mutual funds that are not money market funds. Here deposits are not tax deductible. Investment income is taxed at the capital gains tax rate, however, which is given in the table as rate *gT*. In the United States current tax rates for capital gains are subject to a 28% limitation, while there is no such limitation on ordinary income. Dividend and interest received by the mutual fund and capital gains realized by the mutual fund are taxable to shareholders annually.
- Insurance Policies (IP): This category refers to those insurance policies that have achieved exempt status.
 While deposits are not tax deductible, the earnings on the investment are entirely tax exempt. The gain on disposition is taxable in the hands of policyholders unless the proceeds are paid as a death benefit. Further, the insurance company pays some tax on its investment income.

Single Premium Deferred Annuities (SPDA): Deposits are not tax deductible, but the taxes on the investment income are deferred until the policyholder takes the money out as income. The same applies to the IRA contributions that are not deductible because the owners have income above certain limits specified by law. The Tax Reform Act of 1986 in the United States eliminated the ability of corporations and partnerships to defer tax with single premium deferred annuities. Only individual investors can use SPDAs to defer tax on the investment income. Also there exists an excise tax of 10% if the SPDA is surrendered, in whole or in part, prior to age 59.5 unless the withdrawals take the form of a life annuity. Finally, the insurance company pays some tax on its investment income.

- **Pension Funds (PF):** The tax advantages of qualified pension funds have been discussed in detail previously. When tax rates are constant over time, insurance policies that are tax exempt are equivalent to pension funds that are qualified.
- Foreign Corporations (FC): Again, deposits are not tax deductible; however, the tax on the earnings is deferred and taxed at capital gains rates when the investment is liquidated. Examples include an investment in the common stock of an investment company located in a tax haven or bond investments held by corporations in tax havens.⁴

When g = 0, mutual funds, foreign corporations, insurance policies, and pension funds are equivalent vehicles. When g = 1, investments in foreign corporations and single premium deferred annuities are equivalent.

In general, it is more accurate to list the accumulated value of the dollar invested in the qualified pension fund as $[(1 - T_n)/(1 - T_0)](1 + I)^n$ where T_n and T_0 represent the marginal tax rates at the time of the contribution (t = 0) and at the time of withdrawal (t = n). This paper assumes that these two tax rates are the same. But one would expect the marginal rate T_n to be slightly less than T_0 which, as mentioned previously, provides a further tax advantage.

Conclusions

This paper has looked at the tax incentives provided in several savings vehicles and qualified pension funds in particular. The paper has shown that the tax advantage associated with the deductibility of tax contributions is one of tax deferral, but not tax avoidance or permanent tax waiver. On the other hand, the paper shows that the tax advantage associated with the nontaxation of investment income on qualified funds until taken is a tax waiver or tax subsidy from the government to participants of qualified plans.

Further public policy debate on the impact of tax concessions is needed. The author hopes that this paper will spark such a debate and assist in an intelligent discussion.

Robert L. Brown, FCIA, FSA, ACAS, is professor of statistics and actuarial science and director of the Institute of Insurance and Pension Research at the University of Waterloo. He is a past president of the Canadian Institute of Actuaries and is currently the presidentelect of the Society of Actuaries. He is also an elected Councillor in the City of Waterloo. Professor Brown has authored several articles and books. He can be reached at rlbrown@math.uwaterloo.ca.

Footnotes

- This is not meant to be an exhaustive list. Any plan with these tax advantages is meant to be included, such as some profit sharing plans.
- 2) In this paper, the term *tax deferral* means that for that particular tax provision the accumulated value of the taxes paid is the same with or without the provision. Note that the deferral still may be viewed as advantageous. If the accumulated value of the taxes paid with the provision is smaller than that paid without the provision, however, then the provision results in a *tax waiver*.
- Further possible investment or expenditure considerations are beyond the scope of the illustrations contained herein.

Summary of 2000 IRC, PBGC, Federal Income Tax, Social Security, and Medicare Amounts

by Heidi R. Dexter

RS annually adjusts qualified plan limits for increases in the cost of living. The 2000 limits reflect a 2.35% increase in third quarter CPI-U from 1998 to 1999, and they are rounded down to multiples of \$50, \$500, \$5,000, or \$10,000. The table below
 shows the 2000 limits before rounding and a five-year summary of rounded IRC qualified plan limits.

	Umoundal		Roun	ded IRC I	imits	
IRC Limit	Unrounded 2000	2000	1999	1998	1997	1996
401(k) plan elective deferral limit	\$10,600	\$10,500	\$10,000	\$10,000	\$9,500	\$9,500
403(b) plan elective deferral limit	10,600	10,500	10,000	10,000	9,500	9,500
Eligible 457 plan deferral limit	8,422	8,000	8,000	8,000	7,500	7,500
SIMPLE plan elective deferral limit	6,376	6,000	6,000	6,000	6,000	N/A
415 defined benefit maximum annuity	136,287	135,000	130,000	130,000	125,000	120,000
415 special limit for police & firefighters ¹	136,287	135,000	130,000	130,000	125,000	66,000
415 defined contribution maximum annual addition	34,419	30,000	30,000	30,000	30,000	30,000
401(a)(17) and 408(k)(3)(C)compensation limit	172,095	170,000	160,000	160,000	160,000	150,000
414(q)(1)(B) highly compensated employee	85,016	85,000	80,000	80,000	80,000	100,000
414(q)(1)(C) top paid group	85,016	85,000	80,000	80,000	80,000	66,000
408(k)(2)(C) SEP minimum compensation	454	450	400	400	400	400
409(o)(1)(c) tax-credit ESOP distribution period						
5-year maximum balance 1-year extension	757,150 151,430	755,000 150,000	735,000 145,000	725,000 145,000	710,000 140,000	690,000 135,000

¹ The Taxpayer Relief Act of 1997 amended section 415(b)(2)(G) to provide that the maximum annuity payable to qualified police and firefighters is not reduced for commencement before Social Security normal retirement age for plan years beginning after December 31, 1996.

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 2000 limits reflect the 1.8% increase in the 12-month-average CPI-U for the period September 1997 through August 1998, to the average for September 1998 through August 1999. 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. Qualified long-term care (LTC) premium limits are adjusted annually after 1997. The 2000 limits reflect the 3.4% increase in the medical care component of the CPI from August 1998 to August 1999, and are rounded to the nearest multiple of \$10. The table below shows these rounded IRC limits for 1997 through 2000.

Summary of 2000 IRC, PBGC, Federal Income Tax, Social Securiy, and Medicare Amounts *continued from page 7*

IRC Limit	2000	1999	<i>1998</i>	1997
132(f) tax-free qualified transportation fringe benefit				
Parking	\$175	\$175 ¹	\$175	\$170
Transit passes or commuter highway vehicle transportation	65	65 ¹	65	65
220(c)(2) MSA high deductible health plan – self-only coverage				
Minimum annual deductible	1,550	1,550	1,500	1,500
Maximum annual deductible	2,350	2,300	2,250	2,250
Maximum out-of-pocket limit	3,100	3,050	3,000	3,000
220(c)(2) MSA high deductible health plan – family coverage				
Minimum annual deductible	3,100	3,050	3,000	3,000
Maximum annual deductible	4,650	4,600	4,500	4,500
Maximum out-of-pocket limit	5,700	5,600	5,500	5,500
213(d) qualified LTC premium limits				
Age 40 or less	220	210	210	200
41 – 50	410	400	380	375
50 - 60	820	800	770	750
61 – 70	2,200	2,120	2,050	2,000
Over 70	2,750	2,660	2,570	2,500
7702B(d)(4) qualified LTC contract per diem limit	190	190	180	175

IRC section 132(f) was amended effective for tax years beginning after 1998; the 1999 limits were set to \$175 and \$65, indexed after 1999.

PBGC Guaranteed Benefits

The maximum PBGC guaranteed monthly benefit is adjusted annually based on changes in the Social Security contribution and benefit base. For a single-employer defined benefit plan terminating in 2000 the maximum guaranteed benefit will be \$3,221.59 per month—a 5.6% increase over the 1999 limit of \$3,051.14. This amount is adjusted if benefit payments start before age 65 or benefits are paid in a form other than a single-life annuity.

Federal Income Tax Factors

Federal income tax factors are adjusted annually based on year-to-year changes in the average cost of living (CPI-U) for the 12 months from September through the following August. Federal income tax factors increased 1.8% from 1999 to 2000, before rounding.

Item and Filing Status	2000	1999
Personal Exemption	\$2,800	\$2,750
Standard Deduction		
Single	4,400	4,300
Head of Household	6,450	6,350
Married, Filing Jointly	7,350	7,200
Married, Filing Separately	3,675	3,600
Additional Standard Deduction (for elderly or blind)		
Unmarried	1,100	1,050
Married	850	850
"Kiddie" Deduction	700	700
Breakpoint between 15% and 28% rates		
Single	26,250	25,750
Head of Household	35,150	34,550
Married, Filing Jointly	43,850	43,050
Married, Filing Separately	21,925	21,525
Breakpoint between 28% and 31% rates		
Single	63,550	62,450
Head of Household	90,800	89,150
Married, Filing Jointly	105,950	104,050
Married, Filing Separately	52,975	52,025
Breakpoint between 31% and 36% rates		
Single	132,600	130,250
Head of Household	147,050	144,400
Married, Filing Jointly	161,450	158,550
Married, Filing Separately	80,725	79,275
Breakpoint between 36% and 39.6% rates		
Single	288,350	283,150
Head of Household	288,350	283,150
Married, Filing Jointly	288,350	283,150
Married, Filing Separately	144,175	141,575

Personal exemptions are phased out for taxpayers whose adjusted gross incomes exceed specified amounts (which vary by tax filing status). For 2000 these "threshold amounts" at which phase-out begins and ends are:

Filing Status	Phase-Out Begins at	Phase-Out Completed after
Unmarried	\$128,950	\$251,450
Head of Household	161,150	283,650
Married, Filing Jointly	193,400	315,900
Married, Filing Separately	96,700	157,950

Total itemized deductions for 2000 are reduced by 3% of a taxpayers adjusted gross income in excess of \$128,950 (\$64,475 for married, filing separately), an increase from \$126,600 in 1999 (\$63,300 for married, filing separately).

Summary of 2000 IRC, PBGC, Federal Income Tax, Social Securiy, and Medicare Amounts *continued from page 9*

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 modified adjusted gross income or earned income, whichever is greater, over the threshold phase-out amount.

	2000	1999
EIC maximum credit amount No qualifying children One qualifying child Two or more qualifying children	\$353 2,353 3,888	\$347 2,312 3,816
EIC threshold phase-out amount (and percentage) No qualifying children (7.65%) One qualifying child (15.98%) Two or more qualifying children (21.06%)	5,770 12,690 12,690	5,670 12,460 12,460

Social Security and Supplemental Security Income Amounts

Social Security benefits payable December 31, 1999 increased 2.4% — the increase in CPI-W from the third quarter of 1998 to the third quarter of 1999. The average monthly Social Security benefits before and after the December 1999 COLA are:

Average Monthly Social Security Benefit	After 12/99 2.4% COLA	Before 12/99 2.4% COLA
All retired workers	\$804	\$785
Aged couple, both receiving benefits	1,348	1,316
Widowed mother and two children	1,611	1,573
Aged widow(er)	775	757
Disabled worker, spouse, and children	1,255	1,225
All disabled workers	754	736

The 2000 taxable wage base, determined from the change in deemed average annual wages from 1997 to 1998, will increase 5%. Other 2000 Social Security and Supplemental Security Income values are:

	2000	1999
Cost-of-living increase	2.4%	1.3%
Average annual wage (2nd preceding year)	\$28,861.44	\$27,426.00
OASDI contribution and benefit base (wage base)	76,200	72,600
"Old law" contribution and benefit base	56,700	53,700
Retirement earnings test exempt amount (annual) Under age 65 Ages 65 through 69	10,080 17,000	9,600 15,500
Wages needed for a quarter of coverage	780	740
Maximum monthly social security benefit worker retiring in January at age 65	1,433	1,373
 Bend-points—PIA formula applied to average indexed monthly earnings (AIME) 90% of AIME up to 32% of AIME over first bend-point up to 15% of AIME over second bend-point 	531 3,202	505 3,043
 Bend-points—maximum family benefit formula applied to worker's PIA 150% of PIA up to 272% of PIA over first bend-point up to 134% of PIA over second bend-point up to 175% of PIA over third bend-point 	679 980 1,278	645 931 1,214
SSI federal payment standard (monthly) Individual Couple	512 769	500 751
SSI resources limit Individual Couple	2,000 3,000	2,000 3,000
FICA tax rates OASDI employer and employee HI employer and employee OASDI self-employed HI self-employed	6.20% 1.45% 12.40% 2.90%	6.20% 1.45% 12.40% 2.90%
Maximum OASDI employee payroll tax	\$4,724.40	\$4,501.20

Summary of 2000 IRC, PBGC, Federal Income Tax, Social Securiy, and Medicare Amounts *continued from page 11*

Covered Compensation

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Covered compensation 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 2000 table, published in Revenue Ruling 99-47, is rounded to the nearest \$3,000, but not more than the 2000 OASDI taxable wage base of \$76,200

Calendar Year	Social Security	Calendar Year of Social Security	Covered Co	mpensation	Rour Covered Co	
of Birth	Retirement Age	Retirement Age	2000	1999	2000	1999
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	1992	22,716	22,716	24,000	24,000
1920	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
1931	65	1990	29,304	29,304	30,000	30,000
1932	65	1997	31,128	31,128	30,000	30,000
1933	65	1998	33,060	33,060	33,000	33,000
1025	C.F.	2000	25 100	24.000	26,000	26.000
1935	65	2000	35,100	34,992	36,000	36,000
1936	65	2001	37,092	36,888	36,000	36,000
1937	65	2002	39,072	38,772	39,000	39,000
1938	66	2004	42,984	42,468	42,000	42,000
1939	66	2005	44,940	44,328	45,000	45,000
1940	66	2006	46,896	46,176	48,000	45,000
1941	66	2007	48,816	47,988	48,000	48,000

1942	66	2008	50,688	49,752	51,000	51,000
1943	66	2009	52,488	51,456	51,000	51,000
1944	66	2010	54,252	53,124	54,000	54,000
1945	66	2011	55,992	54,768	57,000	54,000
1946	66	2012	57,708	56,364	57,000	57,000
1947	66	2013	59,376	57,936	60,000	57,000
1948	66	2014	60,900	59,352	60,000	60,000
1949	66	2015	62,340	60,684	63,000	60,000
1950	66	2016	63,660	61,920	63,000	63,000
1951	66	2017	64,920	63,060	66,000	63,000
1952	66	2018	66,072	64,116	66,000	63,000
1953	66	2019	67,164	65,112	66,000	66,000
1954	66	2020	68,220	66,060	69,000	66,000
1955	67	2022	70,116	67,752	69,000	69,000
1956	67	2023	71,004	68,544	72,000	69,000
1957	67	2024	71,820	69,240	72,000	69,000
1958	67	2025	72,528	69,852	72,000	69,000
1959	67	2026	73,176	70,404	72,000	69,000
1960	67	2027	73,764	70,884	75,000	72,000
1961	67	2028	74,304	71,316	75,000	72,000
1962	67	2029	74,748	71,664	75,000	72,000
1963	67	2030	75,180	71,988	75,000	72,000
1964	67	2031	75,564	72,264	75,000	72,000
1965	67	2032	75,864	72,480	76,200	72,600
1966	67	2033	76,092	72,600	76,200	72,600
1967or later	67	2034	76,200	72,600	76,200	72,600

Medicare Premiums and Deductibles

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Medicare premiums, coinsurance, and deductible amounts have changed little since 1999.

	2000	1999
Part A—Hospital Insurance		
Inpatient hospital deductible	\$776.00	\$768.00
 Coinsurance Daily coinsurance payment for 61-90 days of inpatient hospital care Coinsurance for up to 60 lifetime reserve days Daily coinsurance payment for 21 - 100 days in a skilled nursing facility following a hospital stay of at least three days 	194.00 388.00 97.00	192.00 384.00 96.00
Voluntary premium for persons not eligible for monthly benefits	301.00	309.00
Alternative reduced premium for persons with $30 - 39$ credits	166.00	170.00
Part B—Medical Insurance		
Annual deductible	100.00	100.00
Monthly premium	45.50	45.50

Heidi R. Dexter, FSA, is a consulting actuary at William M. Mercer Inc. in Seattle, WA. She can be reached heidi.dexter@us.wmercer.com.

The 1999 Technical Panel on Assumptions and Methods

by Edward W. Frees

he first Technical Panel of the Social Security Advisory Board summarized its findings in a report released in November 1999. Created with legislation enacted in 1994, the Social Security Advisory Board is an independent, bipartisan group. The Advisory Board assumed the role of Advisory Councils in appointing technical panels to advise on the assumptions and methods used in the Trustees Report to evaluate the status of Social Security Trust Funds. The 1999 Technical Panel also examined issues regarding equity investments as well as other assumptions and methods needed to evaluate various reform proposals. The panel was composed of seven economists, two demographers, and three actuaries.

Regarding the Trustees Report that is produced by the Social Security Administration's Office of the Chief Actuary, the panel affirmed that the methods and assumptions used are reasonable and accurate. However, the panel recommended some small changes in the assumptions used, particularly regarding overly pessimistic mortality assumptions. Further, the panel called for additional research on various issues pertaining to the uncertainty of future Trust Fund balances. Copies of the report are available from the Social Security Advisory Board, 400 Virginia Avenue, SW, Suite 625, Washington DC, 20024, www.ssab.gov.

Edward W. Frees, FSA, is a professor and chair, Time Insurance Professor of Actuarial Science at the University of Weisconsin - Madison. He can be reached at jfrees@bus.wisc.edu.

Office of the Joint Board Memorandum

by Patrick McDonough, Executive Director, Joint Board for the Enrollment of Actuaries

am pleased to annouce the appointment of two full-time members of the Office of the Joint Board:

1) Elizabeth VanOsten, as Attorney-Advisor, and

2) Gloria Walker, as Program Analyst

Ms. VanOsten, who comes to us from a position as a Tax Law Specialist in the Employee Plans Division of I.R.S., will work closely with me in the overall supervision and management of the Office. She will also assume primary responsibility for the processing of disciplinary cases that are presented to us under the terms of the Joint Board regulations. Her telephone number is (202) 694-1855.

Ms. Walker, who was formerly a Program Analyst in the office of the National Chief of (I.R.S.) Appeal, will handle all the regular administrative work of the Joint Board. She takes over the functions temporarily assumed by Karen Copeland after the departure of Darryl Carter. Ms. Walker can be reached by telephone at (202) 694-1854.

Please join me in welcoming these two people to our program and feel free to call them to discuss any matters concerning the work of the Joint Board Office.

Tax Assistance to Qualified Retirement Savings Plans: Deferral or Waiver? *continued from page 6*

4) A tax haven is a country or other political entity that offers outside businesses and individuals a climate of minimal or nonexistent taxation. In some cases, the low taxes apply not only to those levied by the tax haven itself, but also to the possibility of reducing or avoiding taxes levied in the investor's home country (Scott, 1988, p. 353).

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Rich's Ramblings

by Joel I. Rich

Editor's Note: The following statements are comments that were written by Joel Rich on the GATT for Pension Plan Mortality, Multi-Employer Pension Plan Topics, and Asset and Valuation Methods. He attended these sessions at the 50th Anniversary Annual Meeting in San Francisco.

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Session 39PD

GATT for Pension Plan Mortality Mortality table construction — an exam you wanted to pass and then forget about? This was actually an enlightening session concerning the trials and tribulations involved in the construction of the GATT mortality tables. Also, there was some interesting discussion regarding the issues surrounding measuring mortality by amount (pension) as well as "collar." The unexplained variation and mortality between different companies in same industry was also discussed. There can be lots of reasons, pre-hiring physicals, working conditions, but for very large plans at least, some amount of actuarial judgement is still necessary.

Session 107PD Multi-Employer Pension Plan Topics

Dan McGinn discussed some of the background and challenges facing actuaries for multi-employer plans. Paul Angelo then went through some current issues.

One current trend that Paul sees on the West Coast is a move away from flat dollar per year of service for multiemployer plans to percentage of contribution multi-employer plans. In a percentage of contribution plans, the various employees may sign up for different contribution rates and the individual employers benefit is a function of the contributions made for him. The key to this is setting the benefit percentages at a level that will produce a reasonable normal cost rate.

Since plan assets have been doing so



well some of these plans have become overfunded. In that case, giving a general increase to the rates may cause a problem because of the future accruals being too expensive when compared to the future contributions. In that case a "porch" approach may be used where an increase is given only for service to date. Alternatively, an ancillary benefit may be increased, which would not go on to the normal cost.

The traditional issues of actual contributions not being equal to expected, as well as what to do if contributions are greater than the maximum tax deduction were discussed as well.

Session 10PD What's It Worth To You? Asset Valuation Methods

This was a good discussion of the basics of asset valuation methods as well as work being done by the Actuarial Standards Board to set a standard for asset valuation methods. There was a general review of issues regarding choice of asset valuation method including investment policy, company risk tolerance, type of investments, and purpose of valuation.

The Society of Actuaries had done a survey and found that there was a strong correlation between the asset valuation method used for funding and FAS. Interestingly enough, pure fair market value was inversely correlated with the size of the fund. Dick Joss of the ASB pension committee then went into the workings of generating a standard and a

number of technical issues that were discussed. For example, should fair market value always be an acceptable method? How do you handle real estate? How do you handle nonliquid investments? How do you



Joel I. Rich

handle non- traditional investments? One interesting discussion related to a standard on re-starting at market value — when and how often? Joss didn't expect a standard for 1999.

Joel I. Rich, FSA, MAAA, is senior vice president of The Segal Company in New York, NY. He can be reached at jrich@ segalco.com.

Continuing Education Update for Pension Actuaries

by Barb Choyke

appy New Year to you all! May 2000 be healthy and prosperous. As the year unfolds, I would like to remind you to create a folder labeled "CE" and as you attend educational programs, file the handouts, brochures and any attendance certificates in the folder. In the July 1999 issue of the *Pension Section News*, I inserted a CE tracking form. Stapling it to the folder will serve as a quick reference throughout the year. Remember, next year is the last year in this enrollment cycle for Enrolled Actuaries so don't wait until the last minute to do your continuing education. If you need any assistance in planning out your year, please don't hesitate to call

us for a listing of available programs or those in the planning stages. The Society of Actuaries Web site (*www.soa.org*) also lists the educational programs available as well as those "under construction."

To get you started, here's a list of those seminars planned and "under construction" as well as the topics planned for the Spring Meeting in Las Vegas. Seminars with dates and locations are accepting registrations now. The Web site also houses detailed brochure information.

2000 Seminars

March 26-29	Enrolled Actuaries Meeting Washington, D.C.
May 22-24	Spring Meeting Health and Pension
June TBA	Cash Balance Plans - Trends & Innovations
July TBA	Experience Analysis & Actuarial Assumption US/CAN
July TBA	ALM at the Wharton School US/CAN
July TBA	Employee Benefits from the Participants' Perspective
August TBA	Small Employer & Top Heavy Issues
September	Advance Topics in the Financial Management Employee Benefit Plans (Pension/Health)
Oct. TBA	Executive Compensation US/CAN

		2000 Seminars	
Nov. TBA	Pos	t Retirement: Valuation & Accounting	
Dec. TBA		lic Employee Plans /CAN	
Sor	ing Mooti	ing Las Vegas, May 22-24, 200	n
Эрі	ing meet	ing Las Vegas, May 22-24, 200	0
Time	Session#	Title	Credit
Monday 5/22	?		
10:30 - 12	3PD	Mergers & Acquisitions Part 1 - The Hunt	90 NC
1:30 - 3	9PD 27PD	The Art of Expert Witness Cash Balance Technical Issues	90 NC 90 C
3:30 - 5	29IF 44L 49 WS	ASOAP Standards, Not Aesop's Fables Computer Models for Retirement Policy Conflict Resolution	90 C 90 NC 90 NC
Tuesday 5/23	3		
8:30 - 10	59PD	Mergers & Acquisitions	00 NG
10:30 - 12	64BBG 74PD	Part 2 - The Catch Actuarial Ethics Cash Balance Employee Communications	90 NC 90 C 90 NC
1:30 - 3	75PD 90PD	Mortality Projection- To Do, or Not to Do? Innovative Benefit Designs- What We Can Learn from Around the World	90 C
3:30 - 5	103SM	and at Home Pension Ice Cream Social (no credit, but lots of calories)	90 NC
Wednesday 5	5/24		
8:30 - 10	107PD	Late Breaking Developments	
	111IF	and Rulings Viva or VEBA Las Vegas! Funding of Retiree Medical Plans	90 C/NC 90 NC

A Message from the President-Elect...Think NAAJ

by Rob Brown

s the 1999-2000 president-elect, I recently chaired my first Council of Section Chairpersons. Even before this meeting, my impression of the Sections as the SOA leadership's main connection to the grassroots of this organization was that your contributions are vital to advancing the profession. And, I came away from the meeting even more impressed with the heavy lifting the Sections do. Your hand on the pulse of your practice area assures solid continuing education content for our meetings. Your focused publications and sponsorship of relevant research and other SOA projects are hitting the mark for our members.

I am especially impressed with your publications. I receive — and read — copies of all the Section newsletters, plus the commemorative monographs produced by the Sections for the 50th Anniversary. What a volume of work, pertinent to so many practicing actuaries! My immediate thought was that much of this material is worthy of going to review for the *North American Actuarial Journal (NAAJ)*.

WHY THE NAAJ?

The *NAAJ* is the premier publication of the Society of Actuaries and its only refereed journal. Two myths about the *NAAJ* are 1) that it is only seeking scientific research done by Ph.D.s, and 2) that if an article has already appeared in another publication it can't be published in the *NAAJ*. In fact, from the beginning, the *NAAJ* has hoped to have a mix of scholarly, scientific papers, articles practical for today's practicing actuary, and wider topics that would appeal to nonactuarial readers. The "Guidelines to Authors" in the *NAAJ* states that "In general, we are looking to publish papers in the *NAAJ* that provide a springboard for the further development of education, research or improved practice." Much of what I see in the Section newsletters certainly meets that criterion, and I believe would have a good chance of being accepted by the *NAAJ*. The only truth to the second myth is that you cannot submit an article that has appeared in another refereed journal or that is copyrighted by another organization. Articles in other SOA publications are certainly eligible.

Many practicing actuaries today have limited time to write articles and may think the *NAAJ* process is too daunting. But, I've been through the process, and it is relatively painless. Why not look through what you've written for Section newsletters or *The Actuary* and consider submitting your best work to the *NAAJ*? You can find guidelines on the SOA Web site under "Publications" or you can request them from Cheryl Enderlein at 847/706-3563.

Still reluctant? Give me a call at 519/888-4567, ext. 5503, or e-mail me at *rlbrown@math.uwaterloo.ca* and we'll talk. Let the profession share your valuable insights.



Own the past

The First 50 Years: Society of Actuaries 1949-1999 tells the intriguing and human story of the far-sighted professionals who joined to form what would become the largest actuarial organization in the world. Against the backdrop of a half-century of social, economic, and cultural change, archival material and rare photographs show the evolution of the organization into the worldwide and influential body it is today. And, interviews with 26 past presidents of the SOA paint a vivid picture of the development of a professional society.

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Retirement Plans Experience Committee Meetings of February 9 & 22, 2000

Attendees:

Mike Virga Diane Storm Lindsay Malkiewich (Feb 9 only) Vince Amoroso (Feb 22 only) Ron Iverson Kevin Binder John Kalnberg Bart Prien Tom Edwalds Edwin Hustead, Chair

Observers at February 9 meeting:

Judy Anderson Ethan Kra Chris Mahoney Dave Gustafson Chris Bone Larry Pinzur

The two meetings were held to consider comments on the Exposure Draft of the RP-2000 tables. The first meeting was held at WatsonWyatt in Washington, D.C. from 10:00 a.m. to 4:00 p.m. on February 9. Bart Prien, Tom Edwalds, Chris Bone, and Larry Pinzur participated in that meeting by speaker phone. The second was a teleconference from 2:00 to 3:00 p.m. E.S.T. on February 24.

The Committee agreed to modify the text to adopt or incorporate most of the comments. The chair was asked to write a letter to the Committee on Retirement Systems Research explaining the actions taken by the committee.

The following four areas were discussed at length with the action indicated:

- Several commentators suggested additional studies or made comments that would require additional studies to address. The RPEC agreed with these suggestions but decided to include them in the chair's letter rather than in the text of the RP-2000 study.
- 2) Several of the commentators requested that the recommendation on projections treat static and generational as both of equal acceptability. By a vote of 7 to 2, the RPEC reaffirmed its position that generational mortality projection is the best practice.

- 3) Several of the commentators asked that blended employee and healthy annuitant tables be given preference to, or of equal weight to, separate tables. The RPEC reaffirmed its position that use of separate tables is the best practice.
- 4) The most controversial area was in the recommendation on amount and collar. Many of the comments concerned this issue. Because of the strong and diverse views on this issue, the RPEC decided to consider language that would accommodate the concerns of all parties as much as possible.

The first meeting concluded without resolution on the amount and collar issue. Members of the committee prepared alternative draft language to conclude Chapter 5 and these were discussed at the February 24 conference call. The committee agreed on modified language to include in the redraft of the report.

Edwin Hustead Chair

Fort Lauderdale Meeting in October 1999



Meeting in Fort Lauderdale in October, the "old and new" Pension Section Council members began planning the Section's activities for 2000.

Standing - back - l to r: Judy Anderson (SOA staff fellow), Martha Moeller, Lee Trad, Paul Angelo, John Wade

Standing - front - l to r: Bruce Cadenhead, Lindsay Malkiewich, Tom Lowman

Seated - Amy Timmons (1998-1999 chairperson), Colin England (1999-2000 chairperson)