**Potential costs and savings** 

from structured settlements

JR Cumpston MEngSc MAdmin FIA FIAA

24 February 2000

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Jane Ferguson The Structured Settlement Group GPO Box 4674 Sydney NSW 1044

Fax 0409 209 853

Dear Ms Ferguson

## Potential costs and savings from structured settlements

You have asked me to estimate the potential costs and savings to the Commonwealth from tax-free structured settlements for severely injured persons. This report sets out details of some UK structured settlements from 1989 to 1996, and uses the more recent experience to derive approximate estimates for Australia.

Given tax exemption as in the UK, about 30 to 60 structured settlements a year might be made. The present values of social security and health care savings from these settlements, and of taxes lost on the lump sums these replace, may be about:

Туре	Source	Lower	Higher
		estimate	estimate
		\$m pa	\$m pa
Social security savings	5.7	2.0	4.1
Government health care savings	6.5	4.5	9.0
Tax on present lump sums	7.2	-2.6	-5.2
Net savings from structured settlements		3.9	7.9

These estimates rest on a number of uncertain assumptions. But it seems likely that both savings and costs from tax-exempt structured settlements would be small, and the net savings or costs to the Commonwealth very small. Given the tragic injuries suffered by most recipients of structured settlements, a generous approach may be justified on compassionate as well as economic grounds.

Yours sincerely

**Richard Cumpston** 

# Potential costs and savings from structured settlements

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# Potential costs and savings from structured settlements

## **1. Introduction**

In 1998 the Motor Accidents Authority of NSW published a report titled "Structured settlements - choice and certainty - tax reform to facilitate structured settlements". In the report, the MAA's General Manager commented:

"Structured settlements have been introduced in the United States of America, Canada and the United Kingdom, in order to overcome some of the problems with lump sum compensation. They provide far greater financial security for people with future care needs. They are able to do this at no extra cost to the compensation system, and with potential cost savings for health and social security programs."

"They have not been used in Australia, because of perceived problems with Australian taxation laws..."

"The benefits of structured settlements will only be gained if the Australian taxation law is clarified and the parties can have confidence in their financial arrangements. The MAA urges the Commonwealth Government to clarify the taxation laws in order to encourage the use of this practical and effective approach to compensation."

In June 1999 the Structured Settlement Group submitted a report to the Federal Government entitled "Structured Settlements - A tax reform proposal to benefit accident victims and all taxpaying Australians". The report proposed an amendment to the Tax Act based on the UK legislative model for structured settlements. Both the Department of Treasury and the Department of Family and Community Services have sought more detailed statistics to assist their analysis of the proposal.

This report uses UK data on recipients of structured settlements, and Australian data on tax, social security and annuities to estimate the potential costs and savings to the Commonwealth of the recommended tax reform.

The estimates in this report are derived from different sources to those used by John Walsh and Raewin Davies, of Coopers & Lybrand Actuarial & Superannuation Services Pty Ltd, in their 6/11/97 report to the MAA (included as an appendix to the MAA's 1998 report). They estimated that there were about 5,660 lump sum compensation payments in Australia each year that are for \$100,000 or more, and assumed that all would become structured settlements in favourable circumstances. Based on UK experience, we have assumed that there may only be 30 to 60 settlements a year, generally for persons with catastrophic injuries.

We are very grateful for the help you have given us in the preparation of this report.

## 2. Structured settlements in UK and USA

#### **2.1 Structured settlements in UK**

The Motor Accidents Authority's 1998 report "Structured settlements" notes that

"In the UK, 100,000 pounds is suggested as a minimum total value of a case, though typical cases involve damages of 600,000 pounds, of which about 350,000 pounds is used to purchase annuities."(page 11)

You have advised me that the number of structured settlements in the UK has settled at something between 100 and 200 a year.

The second edition of "Structured settlements - a practical guide", coedited by lain Goldrein and Margaret de Haas, Butterworths 1997, notes that the early success of structured settlements

"...was in part based on the high interest rates then prevalent, which fed through into relatively high annuity rates. When these fell sharply, following Britain's withdrawal from the EMU in September 1992, there was a drastic reduction in the numbers of structures being reached. During their lowest point ... they were far fewer than before and tended to be confined to large cases of catastrophic injury. Gradually, however, more favourable forces manifested themselves. One was a modest increase in the long-term interest rates on which annuities are based. The other was the development of no-discount deals in medical negligence cases, founded in part on the realisation that it could be as favourable for hospital authorities to fund damages on a periodic basis as for injured plaintiffs to receive them in this way."

#### **2.2 Structured settlements in US**

The Motor Accidents Authority's 1998 report "Structured settlements" notes that

"In the US, structured settlements were originally used in the largest cases. Now, they are used in smaller cases, although usually in cases involving sums over US\$100,000."(page 11)

Advice received by you from the USA National Structured Settlement Trade Association in December 1999 was:

"We have no firm numbers, but the best educated guess is 22,500 structured settlements entered into each year. We estimate that the premium on structures averages \$5 billion a year. This represents settlements on cases totalling \$12 billion as the structured portion of the average settlement is less than half of the total settlement. The balance covers both attorney fees and past economic damages which are normally paid in cash." "The average case is just under \$200,000 with the average structured portion right around \$90,000. This number is down from an average of \$250,000 with an average structure of \$120,000 in 1996. The reason for the drop is workers compensation which is capped in most states, but which is producing an increasing number of structures."

Some persons receive multiple structured annuities, so that the average annuity premium per person is about \$90,000 divided by 0.7, ie about \$129,000. The high numbers of structured settlements, and their low average size, reflect their widespread use to provide impairment-based annuities as a result of work injuries. Australia has no comparable annuities, so that the US experience is not a useful guide to potential Australian structured settlements.

# **3. UK** recipients of structured settlements (see appendix **B**)

Case	Type of	Type of injury
	accident	
1	Road	Bedridden invalid, grossly impaired neurological functions
2	Road	Comprehension of five or six-year old, unable to talk, severe loss vision
3	Road	Spastic quadriplegic, ataxia, incontinent
4		Continuing need for substantial attendance
5	Road	Brain damage, able to sit in wheelchair
6	Road	Brain damage, mental age 10, wheelchair-bound
7	Road	Brain damage, severe memory problems, aggressive
8	Work	Paraplegic
9	Medical	Extensive paralysis, continuous artificial respiration, speaks few words
10	Medical	Very severe brain damage
11	Medical	
12	Medical	Severe irreversible brain damage
13	Road	Widow
14	Road	Very severe brain damage, gross physical disability in arms & legs
15	Public	
16	Road	Severe head injury, hardly speak, mobility greatly restricted
17	Work	Paraplegic at level T7
18	Road	Head injury, epilepsy, arm spasticity, limp, intellectual impairment
19	Road	Brain injury, diminished ability at work
20	Riding	Quadriplegia
21	Road	Lost mobility, confined to residential home
22		Ventilator-dependent quadriplegic
23	Road	Very serious brain injury, almost total paralysis
24	Road	Severe brain damage
25	Medical	Severe cerebral palsy, epilepsy
26	Medical	Cerebral palsy
27	Road	Severe brain damage
28	Road	Severe head & body injuries
29		Spastic quadriplegia
30	Medical	Quadriplegic
31	Road	Very severe head injuries
32	Medical	Brain damage
33		Severe head injuries & brain damage
34	Road	Serious injuries, severely handicapped
35	Road	Paraplegic
36	Road	Physically & emotionally disabled
37	Medical	Cerebral palsy, severe spastic quadriplegia
38	Work	Crushed arm
39	Road	Widow
40	Road	Serious head injuries
41	Criminal	Severe brain damage
42	Road	Serious head injury
43	Skiing	Tetraplegic

### 4. Potential structured settlements in Australia

#### 4.1 Lump sum recipients in Australia

The Coopers & Lybrand report of 6/11/97, titled "Structured settlements - legislative project", gave the following estimates of personal injury lump sum recipients in 1997:

Type of insurance	Size	of lump su	m	Total	Total
	>\$1m	\$500k-	\$100k-	number	amount
		\$1m	\$500k		\$m
Motor accident	89	164	2455	2708	800
Workers compensation	12	79	2128	2219	506
Public liability	18	33	501	552	163
Medical indemnity	9	13	158	180	60
Total	128	289	5242	5659	1529

Accident numbers are fairly stable, so that these numbers should be a reasonable guide to the future.

#### 4.2 Potential Australian structured settlements

The UK experience of 100 to 200 structured settlements a year suggests that there are potentially about 30 to 60 structured settlements a year in Australia. The following table compares the numbers of present lump sums (from 4.1) with an assumed 45 structured settlements a year, having the size distribution of the 18 hypothetical cases in C1.

Size of	Number	Number	Percent
lump sum	lump sums	structured	structured
	ра	ра	
\$100k-500k	5242	10	0.2%
\$500k-\$1m	289	10	3.5%
\$1m+	128	25	19.5%
Total	5659	45	0.8%

## 4.3 Reasons why structured settlements may be attractive

The MAA report of 1998 commented (page 3)

"Structured settlements will be most appropriate for those with lifelong medical treatment and care needs. Structured settlements remove the worry involved in having to invest a large lump sum so as to draw an income can cover expenses while making sure that the money won't run out."

"Structured settlements offer lifelong financial security and peace of mind. Claimants can relax in the knowledge that the periodic structured settlement payments will continue for as long as they live."

#### 4.4 Reasons why structured settlements may be unattractive

Some of the reasons why lump sum recipients may be unwilling to accept a structured settlement are:

- they may be financially competent enough to invest their own funds
- they may be financially secure enough to bear the additional risks of high-yielding investments
- there may be a high discount rate prescribed for their type of injury in their state, so that the award is insufficient to buy the annuity needed to meet their ongoing costs
- contributory negligence may also result in the award being inadequate to buy a replacement annuity
- expenses of care may continue to be met by the compensation scheme, even after lump sums have been paid for pain and suffering and wages losses (this occurs in Victorian and Tasmanian motor vehicle injuries, and in Victorian work injuries)
- low interest rates may result in prohibitively high annuity prices (particularly where solvency controls result in annuity suppliers investing wholly in fixed interest securities)
- an inexperienced or uncompetitive annuity market, unwilling to quote
  annuities recognising the reduced life expectancies of severely injured
  persons
- individual distrust of insurance companies (particularly after the bruising experience of personal injury litigation)
- rapid expenditure of the settlement, followed by reliance on social security and government health services, may be considered by some claimants to be more attractive than a lifetime of limited expenditure.

## 4.5 Hypothetical structured settlements in Australia

18 hypothetical Australian cases were based directly on the last 18 UK cases in B1, allowing for the exchange ranges in A3 and the Australian wage inflation rates in A4 (see C1 and C2). They assume settlements in 2000-01. The last 18 UK cases were chosen, as they had structured amounts averaging about 360,000 pounds, This is close to the 350,000 pound cited in 2.1 for typical cases. They had settlement dates ranging from 1994 to 1996, when the UK structured settlement market had stabilised.

#### 5. Social security payments

#### **5.1 Preclusion periods**

Centrelink's "Compensation kit" notes that:

"If a lump sum settlement is made wholly or partly in respect of lost earnings or lost capacity to earn, 50 per cent of the gross lump sum payment is deemed to be the compensation part. For compensation awarded by a court or tribunal after a full and contested hearing, Centrelink will use the court's categorisation of the lost earnings and earnings capacity to determine the compensation part of the lump sum."

"The number of weeks in the lump sum preclusion period is calculated by dividing the compensation part of the lump sum by the 'single pension income cut-off amount' and rounding down the result to a whole number of weeks. At 20 March 1999, the divisor was \$416.80..."

"The preclusion period generally begins on the day after the last day periodic compensation payments were paid or, if no periodic compensation payments were received, the day the lost earnings capacity began..."

"If the preclusion period extends into the future, the compensation recipient is not entitled to receive any social security payments except family allowance, carers allowance or mobility allowance. However, the precluded person may be able to get a low income earners health care card or the Commonwealth seniors card during the preclusion period. Their partner will be able to receive a social security payment provided they are eligible and the combined assets and income of the couple are below the applicable limits..."

"The Act enables Centrelink to disregard the whole or part of a compensation payment in 'special circumstances' (unusual, uncommon or exceptional circumstances)."

Case	Sex	Age at	Assumed	Compen-	Preclusion	Term	Preclusion
		settle-	after-tax	sation	period		period
		ment	earnings	amount	•		as % of
			A\$pw	A\$	(years)	(years)	term
1	F	6	528.2	418554	19	20	93%
2	М	8	688.6	568801	25	35	72%
3	М	46	688.6	426479	19	25	76%
4	М	8	688.6	568801	25	50	51%
5	М	20	688.6	736071	33	21	156%
6	F	34	528.2	466132	21	25	83%
7	М	8	688.6	568801	25	30	84%
8	F	15	528.2	546807	24	65	37%
9	F	56	528.2	181050	8	25	32%
10	F	53	528.2	230955	10	25	41%
11	F	46	528.2	332288	15	30	49%
12	F	11	528.2	485520	22	40	54%
13	М	49	688.6	373643	17	30	55%
14	F	35	528.2	456628	20	47	43%
15	М	81	688.6	0	0	7	0%
16	М	30	688.6	643933	29	45	64%
17	М	25	688.6	693461	31	50	62%
18	М	35	688.6	586480	26	30	87%
Average		31		460245	20	33	61%

#### **5.2 Preclusion periods for hypothetical Australian settlements**

The average weekly earnings assumed above were:

Sex	Before-tax	Before-tax	After-tax
	earnings	earnings	earnings
	8/99	7/1/00	7/1/00
	\$pw	\$pw	\$pw
Male	873.5	904.0	688.6
Female	647.2	669.8	528.2

Earnings in 8/99 are trend-line values for all employees, from "Average weekly earnings - states and Australia" (Australian Bureau of Statistics catalogue no 6302.0, 18/11/99). Earnings inflation from August 1999 to 1/7/00 was assumed at 4% pa. After-tax earnings were estimated allowing for the tax rates in A1.

Compensation amounts were estimated by multiplying these assumed after-tax earning rates by value of \$1 pw factors derived from the Australian Life Table 1995-97 "Deaths Australia 1997" (Australian Bureau of Statistics catalogue no 3302.0, 23/12/98, pages 54-55), assuming a 3% discount rate, continuous employment from ages 18 to 65, and a 15% deduction for contingencies. Note that no allowance has been made for the lower compensation amounts resulting from

statutory discount rates higher than 3%.

The above exclusion periods were estimated by dividing the compensation amount by \$431, the current single pension income cut-off amount of \$422.9, increased by 2% to allow for inflation adjustments to 1/7/00.

#### 5.3 Exhaustion of compensation awards made in NSW in 1976

Severely injured persons with no assets and no income might however be able to 'receive social security under the special circumstances' provision quoted in 6.1. A NSW survey of persons who had received awards in 1976 (Colin Bass "Lump sum accident compensation", a study for the Law Foundation of NSW, June 1983, v + 175 pages) showed the following percentages of persons claimed to have completely exhausted their awards by 1983 (page 37) :

Type of award	Total	Award
	number	exhausted
Workers compensation redemption \$20,000 -\$30,000	93	52.7%
Workers compensation redemption \$40,000 plus	21	42.9%
Motor vehicle award \$20,000 to \$35,000	112	65.2%
Motor vehicle award \$100,000 plus	26	30.8%
Workers compensation common law \$40,000 plus	11	36.4%
Total	263	54.4%

These figures suggest that larger awards tend to be exhausted less quickly.

## 5.4 Assumed rate of exhaustion of compensation awards

If about 5% of all persons with part of their awards remaining exhaust their awards in the next year, after 7 years about 30% of all awards will be exhausted. This corresponds approximately with the observed exhaustion rate of motor vehicle awards for \$100,000 received in NSW in 1976. About 85% of the recipients of these awards were dissatisfied with their award by 1983, and 45% of those dissatisfied gave inflation as the principal reason for their dissatisfaction (page 26). Inflation was extremely high in 1976, and fell only gradually. Awards made in a an era of lower inflation might not be exhausted as quickly. We have assumed a rate of award exhaustion of 4% pa.

Case	Age at	Term	Value
	settle-		expected
	ment		payments
			A\$
1	6	20	21681
2	8	35	65091
3	46	25	54446
4	8	50	93481
5	20	21	43532
6	34	25	54446
7	8	30	53212
8	15	65	124726
9	56	25	54446
10	53	25	54446
11	46	30	67393
12	11	40	82238
13	49	30	67393
14	35	47	102837
15	81	7	7707
16	30	45	99392
17	25	50	107662
18	35	30	67393
Average	31	33	67863

**5.5 Social security payments for hypothetical settlements** 

The above values of expected social security payments were estimated from the last column of the table in D1. For persons aged less than 18 at settlement, no social security payments were assumed payable until age 18. For example, the value of expected social security payments for case 2 were estimated as

value of expected payments for term of 35 years	79272
less value of expected payments for 10 years	-14181
value of expected payments from age 18 to age 43	65091

#### **5.6 Estimated social security on a year's lump sums**

Based on UK experience, 30 to 60 persons a year might take structured settlements. Based on the average value of \$0.068m estimated in 5.6, this suggests an annual value of \$2m to \$4.1m. Note that these estimates are for the present value of social security payable to persons taking lump sums rather than structured settlements. Social security payable to those taking structured settlements should be negligible.

#### 6. Government health care costs

#### 6.1 Double dipping and cost shifting

The MAA's report (1998, page 49) noted that

"The Commonwealth Government provides significant support to people injured in compensable accidents. This includes income support and community health services. State and Territory Governments also provide community health type services."

Jane Ferguson's memo of 23/12/99, titled "Structured settlement statistical analysis", commented

"The Health and Other Services (Compensation) Act 1995, and its related Acts were introduced to address the problem of double-dipping and cost-shifting."

"Double dipping occurs when a person receives a compensation payment to cover medical, nursing home and residential care costs, and does not reimburse for related health and other care benefits provided through Commonwealth programs."

"Cost shifting occurs when the compensation payer does not provide any, or only limited, reimbursement to the injured person or the Commonwealth for past costs paid by Medicare, nursing home or the residential care subsidy program."

"The HOSC Act was introduced from 1 February 1996. Since then the government has been able to recover from the lump sum compensation (before it is paid to the claimant) the cost of PAST medical care benefits provided by the government."

"Currently, the Act provides for recovery of past medical costs only, and does not allow for recovery of any future medical costs that may have been awarded. This allows the claimant to access Medicare even though they may have received a compensation settlement that includes a component for future medical costs."

"Note that the government does pick up on future nursing home care costs. If the settlement includes an amount for future nursing home care costs then the Health Department will notify the Aged Care section and ensure that the claimant cannot claim to be a public patient when they have private funds (from the compensation payment). Ie. Nursing home care costs, which are precluded under the Aged Care Act "

"Note that only about 10 people (who have suffered very serious injuries in compensable circumstances) are admitted to nursing homes per year. It is more often home care."

"Note that where the money is allocated for nursing home care there is a negligible risk that the compensation funds will be spent too quickly or mismanaged - because the government is closely involved and all the money will be set up to flow to the nursing home."

"Note that the Department's literature refers to "reimbursement arrangements". I am checking the details of these but they seem to be a settlement agreement which involves ongoing (not lump sum) payments by the compensation payer."

"While under a reimbursement arrangement, a claimant is precluded from Medicare and nursing home benefits. "

"A problem for the government occurs when such arrangements (which will allow for an element of future medical care costs) can be converted to lump sum payments. The claimant, who would previously have been precluded from Medicare, becomes again eligible for Medicare benefits."

"Note that structured settlements could be made akin to reimbursement arrangements so that a person could be precluded from Medicare while receiving a structured settlement."

"Thus the potential benefit of structured settlements to the Health Department is the opportunity to keep claimants from obtaining government medical care when they have received compensation to cover these costs. Ie. To prevent double dipping."

#### 6.2 Coopers & Lybrand assumptions

Size of settlement	Annual	% dependent on DSS
	care	and H&FS when funds
	\$	exhausted
>\$1 million	63981	100%
\$500,000-\$1 million	6996	50%
\$100,000-\$500,000	479	50%

The above assumptions are from pages 21-22 of the Coopers & Lybrand report of 6/11/97. On page 31 they noted their assumption that about 50% of savings through health and welfare programs might accrue to the States and Territories.

#### 6.3 Our assumptions about health and welfare savings

We estimated the costs of private health care from the UK annuity data, allowing for the currency exchange rates at the settlement dates, and for subsequent Australian wage inflation. Between ages 18 and 65, net earnings at average Australian net earning rates were deducted from the total annuities in order to estimate health care costs. Government health care costs were assumed to be 50% of private health care costs. We have taken all government health care costs to be met by the Commonwealth, directly or indirectly.

These assumptions are arbitrary, and Australian data are needed to establish reasonable assumptions. The Australian Quadriplegic Association's February 1999 "A survey of the unavoidable cost of disability among 200 people with quadriplegia" is a relevant source.

Case	Present	Present
	value	value
	of care	of care
	private	govt
	A\$	A\$
1		115582
2		200555
3		86403
4		162468
5		952975
6		75268
7		158232
8		91235
9		28067
10		41244
11		26726
12		473839
13		20497
14		0
15		15988
16		23188
17		16257
18		204368
Average		149605

## 6.4 Government health care costs on Australian settlements

These estimates are derived in appendix E.

## 6.5 Estimated health care costs on a year's lump sums

Based on UK experience, 30 to 60 persons a year might take structured settlements. Based on the average value of \$0.15m estimated in 6.4, this suggests an annual value of \$4.5m to \$9m. Note that these estimates are for the present value of government health care costs for persons taking lump sums instead of structured settlements. Government health care costs for persons taking structured settlements should be negligible.

#### 7. Tax on lump sums

This section estimates the present value of the tax that might be received from the 30 to 60 lump sums in 00-01 which might be replaced by structured settlements.

Case	Lump	Present	Term	Tax as
	sum	value	(years)	% of
		of tax		lump
	A\$	A\$		sum
1	1440317	54623	20	4%
2	2320149	124372	42	5%
3	1303454	75783	60	6%
4	2434962	182952	16	8%
5	5995891	336074	14	6%
6	2242273	81511	50	4%
7	2020354	99054	40	5%
8	2017769	70347	23	3%
9	833177	2525	20	0%
10	376650	7511	20	2%
11	605331	13362	30	2%
12	2851532	271781	40	10%
13	260965	1310	30	1%
14	205310	0	30	0%
15	204854	104	30	0%
16	929490	49560	30	5%
17	729992	25053	50	3%
18	2851532	178588	68	6%
Average	1645778	87473	34	5%

## 7.1 Tax on lump sums

The above present values of tax were estimated as described in appendix F, using the structured settlement and annuity details in C1 and C2, and the assumptions about inflation, discount rates, investments, dividends and capital appreciation in A2. Taxes were estimated assuming the income tax and Medicare levy rates in A1. Allowance was made for an assumed rate of award exhaustion of 4% pa (see 5.5).

## 7.2 Estimated tax on a year's lump sums

Based on the average tax value of \$0.087m estimated in 7.1, 30 to 60 lump sums a year might have resulted in taxes of value \$2.6m to \$5.2m.

## 8. Sensitivity to assumption changes

Туре	Source	Lower estimate \$m pa	Higher estimate \$m pa
Social security savings Government health care savings Tax on present lump sums	5.7 6.5 7.2	2.0 4.5 -2.6	4.1 9.0 -5.2
Net savings from structured settlements		3.9	7.9

## **8.1 Estimates with standard assumptions**

## **8.2 Estimates with 3% pa exhaustion rate, not 4%**

Source	Lower estimate	Higher estimate
	\$m pa	\$m pa
	1.7	3.4
	3.6	7.3
	-3.0	-5.9
	2.3	4.8
	Source	Source Lower estimate \$m pa 1.7 3.6 -3.0 2.3

## 8.3 Estimates with 4.5% pa real discount rate, not 3.5%

Туре	Source	Lower	Higher
		estimate	estimate
		\$m pa	\$m pa
Social security savings		1.7	3.4
Government health care savings		3.8	7.6
Tax on present lump sums		-2.4	-4.9
Net savings from structured settlements		3.1	6.1

#### **Appendix A : Assumptions**

Start of band \$	Tax & levy rate in band	Tax & levy to start of band \$	Tax & levy for band \$
0	0.0%	0.0	0.0
6,000	17.0%	0.0	1256.1
13,389	37.0%	1256.1	401.8
14,475	18.5%	1658.0	1022.1
20,000	31.5%	2680.1	9450.0
50,000	43.5%	12130.1	4350.0
60,000	48.5%	16480.1	

## A1 Tax & Medicare levy rates assumed from 1/7/2000

The above tax and levy rates are based on the reduced income tax rates obtained from the Australian Taxation Office publication "The New Tax System". These are effective from 1/7/2000.

### A2 Annuity, inflation and discount assumptions

4.0%
1.0%
3.5%
3.0%
3.0%
7.0%
5.0%
6.0%
50.0%
50.0%

Year	Exchange
	rate
1989	0.4536
1990	0.4536
1991	0.4711
1992	0.3945
1993	0.4453
1994	0.4721
1995	0.4452
1996	0.5099

#### A3 Exchange rates between UK pounds and A\$

The above exchange rates, as at 30 June of each year, are from the Reserve Bank of Australia Bulletin.

#### A4 Australian average weekly earnings

Year	AWE	AWE	AWE	AWE	AWE	Factor to	Factor to
	Feb	May	Aug	Nov	Year	bring	bring
						A\$ to	pound to
						00-01	00-01
	\$pw	\$pw	\$pw	\$pw	\$pw	values	values
1989	436.3	442.2	446.8	457.2	445.6	1.477	3.257
1990	464.8	470.0	474.8	490.6	475.1	1.386	3.055
1991	496.9	484.3	489.3	501.3	493.0	1.335	2.835
1992	507.9	504.5	503.9	504.1	505.1	1.303	3.304
1993	518.3	517.5	520.6	521.5	519.5	1.267	2.846
1994	529.0	531.8	537.2	541.5	534.9	1.231	2.607
1995	548.2	548.1	547.8	554.3	549.6	1.198	2.690
1996	562.6	564.4	566.7	570.0	565.9	1.163	2.281
1997	581.6	577.8	582.2	592.7	583.6	1.128	
1998	597.4	596.2			596.8	1.103	

The above values are from "Average weekly earnings - states and Australia May 1998" (ABS catalogue no 6302.0), and similar earlier publications. Wage inflation at 4% pa has been assumed from 1/7/98 to 1/7/00.

## **Appendix B : Actual UK structured settlements**

Case	Sex	Age at	Year	Lump	Structured	Life ex-
		settle-	settle-	sum	sum	pectancy
		ment	ment	(pounds)	(pounds)	
1	F	24	1989	427500	273000	20
2	F	23	1991	981000	706378	42
3	М	12	1991	959210	463000	60
4	М	30	1991	650000	400000	16
5	М	29	1990	900000	452700	14
6	М	15	1991	825000	337000	50
7	М	30	1991	1359141	799683	40
8	М	44	1992	517500	220000	23
9	F	7	1991	170000	1000000	20
10	М	32	1992	1644252	965000	20
11	М	10	1992	675000	400000	30
12	F	12	1992	912000	465000	40
13	F	50	1992	550000	350000	30
14	F	10	1992	350000	235000	30
15	М	13	1991	620000	300000	30
16	М	30	1992	745500	452000	30
17	М	26	1990	500000	200000	50
18	F	14	1991	262500	175000	68
19	F	24	1992	175000	145000	58
20	М	40	1992	130000	100000	20
21	F	82	1992	82500	53249	6
22	F	12	1992	315000	150000	25
23	М	21	1992	1530000	1059000	25
24	F	36	1993	1480000	800000	25
25	М	11	1993	950000	475000	45
26	F	6	1994	552500	350000	20
27	М	8	1994	890000	500000	35
28	М	46	1994	500000	400000	25
29	М	8	1994	934042	500000	50
30	М	20	1994	2300000	1165000	21
31	F	34	1994	860127	420000	25
32	М	8	1994	775000	450000	30
33	F	15	1995	750000	300000	65
34	F	56	1995	309690	75000	25
35	F	53	1995	140000	110000	25
36	F	46	1995	225000	135000	30
37	F	11	1996	1250000	800000	40
38	M	49	1995	97000	63000	30
39	F	35	1996	90000	50000	 
40	M	81	1996	89800	64800	-+ <i>1</i> 7
41	M	30	1990	407452	150000	1 45
42	M	25	1006	320000	200000	
74	IVI	20	1990	00000	200000	50

#### **B1 : UK settlement details**

43	М	35	1996	1250000	750000	30
Average		28		684924	406019	33

The above details are from pages 35 to 57 of "Structured settlements - a practical guide", coedited by Iain Goldrein and Margaret de Haas, Butterworths 1993, and from the second edition of that book. Figures shown in italics are rough estimates.

Case	Immediate	Deferred	Deferred	Deferred	Deferred	Lump	Lump
	annuity	annuity	annuity	annuity	annuity	sum	sum
	pounds	pounds	delay	pounds	delay	pounds	years
1	25562						
2	17000	18735	5	29186	20		
3	18207						
4	25000	12058	2				
5	50000						
6	4500	15863	3	15540	10		
7	25000	22500	6	37500	12	5000	2
8	17734						
9	59000	15315	5	32578	10	5000	5
10	85075						
11	20000					5000	5
12	24115						
13	19556						
14	13694						
15	12664	8390	7				
16	20000	8545	10			26222	5
17	6500	26572	10				Ŭ
18	5269	6460	5				
10	6694	0400	0				
20	8000						
20	10200						
21	10290						
22	10000						
23	64500						
24	52073					40000	0
25	21500					10000	3
26	27154						
27	30527						
28	21665						
29	10000	13103	10			10000	5
30	180000						
31	21069						
32	28710						
33	13909						
34	4852						
35	8580						
36	6686						
37	30000	30000	8				
38	4000						
39	2103						
40	18000						
41		10000	10				
42	7267					3521	4
43	42063						·
· -							

# **B2 UK annuity details**

The above figures are from the same sources as those in B1. All the above annuities and periodic lump sums were payable for life, and indexed (generally in line with the retail price index).

Case 16 included 2 term certain annuities of 2600 pa each, ceasing when each child reached age 18.

#### **Appendix C : Hypothetical Australian cases**

UK	Sex	Age at	Lump	Structured	Life ex-
case		settle-	sum	sum	pectancy
number		ment	\$A	\$A	
1	F	6	1440317	912418	20
2	Μ	8	2320149	1303454	35
3	М	46	1303454	1042764	25
4	Μ	8	2434962	1303454	50
5	Μ	20	5995891	3037049	21
6	F	34	2242273	1094902	25
7	М	8	2020354	1173109	30
8	F	15	2017769	807108	65
9	F	56	833177	201777	25
10	F	53	376650	295940	25
11	F	46	605331	363199	30
12	F	11	2851532	1824981	40
13	М	49	260965	169493	30
14	F	35	205310	114061	47
15	М	81	204854	147823	7
16	М	30	929490	342184	45
17	Μ	25	729992	456245	50
18	М	35	2851532	1710919	30
Average		31	1645778	905604	33

## **C1 : Australian settlement details**

The above hypothetical cases are directly based on the last 18 UK cases in B1, using the factors in the last column of A4 to convert to Australian dollars in the year of settlement and allow for subsequent Australian wage inflation.

Case	Immediate	Deferred	Deferred	Lump	Lump
	annuity	annuity	annuity	sum	sum
	\$A	\$A	delay	\$A	years
1	70788				
2	79581				
3	56479				
4	26069	34158	10	26069	5
5	469244				
6	54925				
7	74844				
8	37420				
9	13054				
10	23083				
11	17988				
12	68437	68437	8		
13	10761				
14	4797				
15	41062				
16	0	22812	10		
17	16578			8032	4
18	95955				

#### **C2** Australian annuity details

The above annuity amounts are directly based on the last 18 UK cases in B2, using the factors in the last column of A4 to covert to Australian dollars in the year of settlement and allow for subsequent Australian wage inflation to 00-01.

## **Appendix D : Social security payments**

Year	Probability	Probability	Social	Probability	Expected	Value of	Value of
	settlement	settlement	security	of social	social	expected	expected
	exhausted	exhausted	payments	security	security	social	payments
	at start	at middle	if eligible	receipt	payments	security	to end
	of year	of year	(real)		(real)	payments	of year
			\$pa		\$	\$	\$
1	0.0000	0.0200	9897	0.0200	198	195	195
2	0.0400	0.0592	9897	0.0592	586	556	751
3	0.0784	0.0968	9897	0.0968	958	879	1630
4	0.1153	0.1330	9897	0.1330	1316	1167	2797
5	0.1507	0.1676	9897	0.1676	1659	1421	4218
6	0.1846	0.2009	9897	0.2009	1989	1646	5864
7	0.2172	0.2329	9897	0.2329	2305	1843	7707
8	0.2486	0.2636	9897	0.2636	2609	2015	9722
9	0.2786	0.2930	9897	0.2930	2900	2165	11887
10	0.3075	0.3213	9897	0.3213	3180	2294	14181
11	0.3352	0.3485	9897	0.3485	3449	2403	16584
12	0.3618	0.3745	9897	0.3745	3707	2496	19080
13	0.3873	0.3995	9897	0.3995	3954	2572	21652
14	0.4118	0.4236	9897	0.4236	4192	2635	24286
15	0.4353	0.4466	9897	0.4466	4420	2684	26971
16	0.4579	0.4688	9897	0.4688	4639	2722	29693
17	0.4796	0.4900	9897	0.4900	4850	2749	32442
18	0.5004	0.5104	9897	0.5104	5051	2767	35208
19	0.5204	0.5300	9897	0.5300	5245	2776	37984
20	0.5396	0.5488	9897	0.5488	5431	2777	40761
21	0.5580	0.5668	9897	0.5668	5610	2771	43532
22	0.5757	0.5842	9897	0.5842	5781	2759	46292
23	0.5927	0.6008	9897	0.6008	5946	2742	49034
24	0.6089	0.6168	9897	0.6168	6104	2720	51753
25	0.6246	0.6321	9897	0.6321	6256	2693	54446
26	0.6396	0.6468	9897	0.6468	6401	2663	57109
27	0.6540	0.6609	9897	0.6609	6541	2629	59738
28	0.6679	0.6745	9897	0.6745	6675	2592	62330
29	0.6811	0.6875	9897	0.6875	6804	2553	64882
30	0.6939	0.7000	9897	0.7000	6928	2511	67393
31	0.7061	0.7120	9897	0.7120	7047	2468	69861
32	0.7179	0.7235	9897	0.7235	7161	2423	72284
33	0.7292	0.7346	9897	0.7346	7270	2377	74661
34	0.7400	0.7452	9897	0.7452	7375	2330	76990
35	0.7504	0.7554	9897	0.7554	7476	2282	79272
36	0.7604	0.7652	9897	0.7652	7573	2233	81505
37	0.7700	0.7746	9897	0.7746	7666	2184	83689
38	0.7792	0.7836	9897	0.7836	7755	2135	85824

## **D1 Payments after settlement exhaustion**

Total	45	45	672991	45	445621	129171	
03	0.8311						
60	0.9351	0.9304	9091	0.9304	9200	909	129171
68	0.9324	0.9000	9097 0207	0.9000	924   0260	900	120202
00 67	0.9290	0.9310	909 <i>1</i> 0907	0.9310	9214	036 206	12/324
66	0.9207	0.9201	9091 0007	0.9201	9100 0217	999	107004
04 65	0.9230	0.9201	909 <i>1</i> 0907	0.9201	9100	1030	120300
64	0.9204	0.9220	9091 0007	0.9220	9120	1003	124321
02 63	0.9171	0.9100	9097 0907	0.9100	9093 0125	1090	120204
01 62	0.9130	0.9104	9097 0907	0.9104	9009	1006	122100
61	0.9100	0.9118	9097 0907	0.9110	9020 0050	1120	121030
60 09	0.9003	0.9002	9091 0007	0.9002	0900	1465	101000
50 50	0.9024	0.9043	9097 0907	0.9043	8086 0920	1200	1100/1
57 E0	0.0903	0.9004	909/ 0007	0.9004	0911	1270	110674
50 57	U.894 I 0 0002	0.0902	9091 0007	0.0902	00/U 2011	1076	117/00
55	0.0097	0.0919	909/ 0007	0.0919	0021 0070	1214	114043
04 55	0.0007	0.00/4	909/ 0207	0.0074	010Z 8277	1394	110409
53	0.0003	0.0021	9091 0007	0.0021	0100 0700	1204	112090
52 53	0.0703	0.0110	9097 0907	0.0110	0000 9736	1477	112005
บ I 50	0.0701	0.0121	909/ 0007	0.0121 0.9770	0001	102U	1108102
50	0.0047	0.00/4	909/ 0007	0.00/4	0000	1504	10/002
49 50	0.0091	0.0019	909/ 0007	0.0019	0000	1000	107660
40 40	0.8532	0.0001	909/ 0907	0.9610	04/J	1600	104490
4/ 10	0.8522	0.0501	9897 0907	0.0501	0414	1652	102837
40	0.8407	0.0439	909/ 0907	0.8439	030Z	1/40	101138
40 46	0.8341	0.03/4	9897 0007	0.03/4	0200 0250	1746	99392
44	0.8272	0.8306	9897	0.8300	8220	1841	97599
43 44	U.8∠UU 0.8270	U.8230	9897 0007	U.OZ30	0151	1009	95/58
42 13	0.0124	0.0102	9091 0007	0.0102	00/0	1900	93009
41	0.0040	0.0000	9097	0.0000	0002	1907	91931
40	0.7905	0.0000	9097	0.0000	1923	2030	09940
39	0.7000	0.7923	9097	0.7923	7041	2000	07909
20	0 7000	0 7000	0007	0 7000	7011	2005	07000

The above estimates assume social security benefits of

disability support pension \$pw	183.25
plus pharmaceutical benefit \$pw	2.70
current social security benefits \$pw	185.95
time factor to allow for inflation to 1/7/00	1.02
current social security benefits 1/7/00 \$pw	189.67

#### Appendix E : Health care

#### E1 Case 1

Year	Age	Annuity	Assumed	Private	Probability	Govt	Present
	•	(real)	earnings	care	settlement	care	value of
			(real)	(real)	exhausted	(real)	govt care
		\$	\$	\$	mid-year	\$	\$
1	6	70788	0	70788	0.0200	708	696
2	7	70788	0	70788	0.0592	2095	1990
3	8	70788	0	70788	0.0968	3427	3145
4	9	70788	0	70788	0.1330	4706	4172
5	10	70788	0	70788	0.1676	5933	5082
6	11	70788	0	70788	0.2009	7112	5886
7	12	70788	0	70788	0.2329	8243	6591
8	13	70788	0	70788	0.2636	9329	7208
9	14	70788	0	70788	0.2930	10372	7742
10	15	70788	0	70788	0.3213	11373	8202
11	16	70788	0	70788	0.3485	12334	8594
12	17	70788	0	70788	0.3745	13256	8925
13	18	70788	27561	43227	0.3995	8635	5617
14	19	70788	27561	43227	0.4236	9155	5754
15	20	70788	27561	43227	0.4466	9653	5862
16	21	70788	27561	43227	0.4688	10131	5944
17	22	70788	27561	43227	0.4900	10591	6004
18	23	70788	27561	43227	0.5104	11032	6042
19	24	70788	27561	43227	0.5300	11455	6062
20	25	70788	27561	43227	0.5488	11861	6064
Total		1415760	220492	1195268		171400	115582

The amount of the annuity payable in the first year is from C2. Assumed earnings are Australian net earnings (from 6.2). Private care costs were taken as the amount of the annuity less estimated earnings. The probability of the settlement being exhausted was taken from D1. Government health care costs were estimated as private health care costs, times the probability of settlement exhaustion, times the assumed ratio of government to private health care costs. For example, government health care costs in year 10 were estimated as

annuity	70788
less estimated earnings	0
estimated private health care	70788
times assumed ratio of government to private health care	0.5
times probability of settlement exhaustion by mid-year	0.3213
expected cost of government health care	11373

Year	Age	Annuity	Assumed	Private	Probability	Govt	Present
		(real)	earnings	care	settlement	care	value of
			(real)	(real)	exhausted	(real)	govt care
		\$	\$	\$	mid-year	\$	\$
1	8	79581	0	79581	0.0200	796	782
2	9	79581	0	79581	0.0592	2356	2237
3	10	79581	0	79581	0.0968	3853	3535
4	11	79581	0	79581	0.1330	5291	4690
5	12	79581	0	79581	0.1676	6671	5714
6	13	79581	0	79581	0.2009	7995	6617
7	14	79581	0	79581	0.2329	9267	7410
8	15	79581	0	79581	0.2636	10488	8103
9	16	79581	0	79581	0.2930	11660	8704
10	17	79581	0	79581	0.3213	12785	9221
11	18	79581	35931	43650	0.3485	7605	5300
12	19	79581	35931	43650	0.3745	8174	5503
13	20	79581	35931	43650	0.3995	8720	5672
14	21	79581	35931	43650	0.4236	9244	5810
15	22	79581	35931	43650	0.4466	9747	5919
16	23	79581	35931	43650	0.4688	10231	6002
17	24	79581	35931	43650	0.4900	10694	6062
18	25	79581	35931	43650	0.5104	11140	6101
19	26	79581	35931	43650	0.5300	11567	6121
20	27	79581	35931	43650	0.5488	11977	6124
21	28	79581	35931	43650	0.5668	12371	6111
22	29	79581	35931	43650	0.5842	12749	6085
23	30	79581	35931	43650	0.6008	13112	6047
24	31	79581	35931	43650	0.6168	13461	5998
25	32	79581	35931	43650	0.6321	13795	5939
26	33	79581	35931	43650	0.6468	14117	5872
27	34	79581	35931	43650	0.6609	14425	5797
28	35	79581	35931	43650	0.6745	14721	5716
29	36	79581	35931	43650	0.6875	15005	5629
30	37	79581	35931	43650	0.7000	15278	5538
31	38	79581	35931	43650	0.7120	15540	5442
32	39	79581	35931	43650	0.7235	15791	5343
33	40	79581	35931	43650	0.7346	16033	5241
34	41	79581	35931	43650	0.7452	16264	5137
35	42	79581	35931	43650	0.7554	16487	5031
Total		2785339	898279	1887060		389411	200555

## E2 Case 2

Year	Age	Annuity	Assumed	Private	Probability	Govt	Present
		(real)	earnings	care	settlement	care	value of
			(real)	(real)	exhausted	(real)	govt care
		\$	\$	\$	mid-year	\$	\$
1	46	56479	35931	20548	0.0200	205	202
2	47	56479	35931	20548	0.0592	608	578
3	48	56479	35931	20548	0.0968	995	913
4	49	56479	35931	20548	0.1330	1366	1211
5	50	56479	35931	20548	0.1676	1722	1475
6	51	56479	35931	20548	0.2009	2064	1708
7	52	56479	35931	20548	0.2329	2393	1913
8	53	56479	35931	20548	0.2636	2708	2092
9	54	56479	35931	20548	0.2930	3011	2247
10	55	56479	35931	20548	0.3213	3301	2381
11	56	56479	35931	20548	0.3485	3580	2495
12	57	56479	35931	20548	0.3745	3848	2591
13	58	56479	35931	20548	0.3995	4105	2670
14	59	56479	35931	20548	0.4236	4352	2735
15	60	56479	35931	20548	0.4466	4588	2786
16	61	56479	35931	20548	0.4688	4816	2826
17	62	56479	35931	20548	0.4900	5034	2854
18	63	56479	35931	20548	0.5104	5244	2872
19	64	56479	35931	20548	0.5300	5445	2881
20	65	56479	0	56479	0.5488	15497	7924
21	66	56479	0	56479	0.5668	16007	7907
22	67	56479	0	56479	0.5842	16496	7874
23	68	56479	0	56479	0.6008	16966	7824
24	69	56479	0	56479	0.6168	17417	7760
25	70	56479	0	56479	0.6321	17850	7684
Total		1411967	682692	729275		159619	86403

## E3 Case 3

E4 Case 4
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$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Year	Age	Annuity	Assumed	Private	Probability	Govt	Present
(real)      (real)      exhausted      (real)      govt care        \$      \$      \$      real      \$        1      8      26069      0      26069      0.0200      261      256        2      9      26069      0      26069      0.0592      772      733        3      10      26069      0      26069      0.0592      772      733        5      12      52138      0      52138      0.1676      4370      3743        6      13      26069      0      26069      0.2329      036      2427        8      15      26069      0      26069      0.2329      036      2425        10      17      52138      0      52138      0.3213      8376      6041        11      18      60227      35931      24296      0.3745      4550      3063        12      19      60227      35931      24296      0.4236      5145      334        15      22      86			(real)	earnings	care	settlement	care	value of
\$      \$      mid-year      \$      \$        1      8      26069      0      26069      0.0200      261      256        2      9      26069      0      26069      0.0592      772      733        3      10      26069      0.26069      0.0592      772      733        5      12      52138      0      52138      0.1676      4370      3743        6      13      26069      0      26069      0.2009      2619      2168        7      14      26069      0      26069      0.2329      3036      2427        8      15      26069      0      26069      0.2330      3820      2851        10      17      52138      0      52138      0.3213      8376      6041        11      18      60227      35931      24296      0.4385      4233      2950        12      19      60227      35931      24296      0.4688      5695      3341        14 <th></th> <th></th> <th></th> <th>(real)</th> <th>(real)</th> <th>exhausted</th> <th>(real)</th> <th>govt care</th>				(real)	(real)	exhausted	(real)	govt care
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2      9      26069      0      26069      0.0592      772      733        3      10      26069      0.0592      772      733        4      11      26069      0.26069      0.0330      1733      1536        5      12      52138      0      52138      0.1676      4370      3743        6      13      26069      0      26069      0.2329      3036      2427        8      15      26069      0      26069      0.2330      3820      2851        10      17      52138      0      52138      0.3213      8376      6041        11      18      60227      35931      24296      0.3485      4233      2950        12      19      60227      35931      24296      0.4466      11247      6331        14      21      60227      35931      24296      0.4688      595      3341        15      22      86297      35931      24296      0.5104      6200      396 <td>1</td> <td>8</td> <td>26069</td> <td>0</td> <td>26069</td> <td>0.0200</td> <td>261</td> <td>256</td>	1	8	26069	0	26069	0.0200	261	256
3      10      26069      0      26069      0.0968      1262      1158        4      11      26069      0      26069      0.1330      1733      1536        5      12      52138      0      52138      0.1676      4370      3743        6      13      26069      0      26069      0.2329      3036      2427        8      15      26069      0      26069      0.2329      3362      2851        10      17      52138      0      52138      0.3213      8376      6041        11      18      60227      35931      24296      0.3485      4233      2950        12      19      60227      35931      24296      0.3485      4634      3157        14      21      60227      35931      24296      0.4688      595      3341        15      22      86297      35931      24296      0.4688      5423      307        16      23      60227      35931      24296 <td>2</td> <td>9</td> <td>26069</td> <td>0</td> <td>26069</td> <td>0.0592</td> <td>772</td> <td>733</td>	2	9	26069	0	26069	0.0592	772	733
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5      12      52138      0      52138      0.1676      4370      3743        6      13      26069      0      26069      0.2009      2619      2168        7      14      26069      0      26069      0.2329      3036      2427        8      15      26069      0      26069      0.2330      3820      2851        10      17      52138      0      52138      0.3213      8376      6041        11      18      60227      35931      24296      0.3485      4333      2950        12      19      60227      35931      24296      0.3485      4453      3157        14      21      60227      35931      24296      0.4688      5695      3341        15      22      86297      35931      24296      0.4688      5695      3341        16      23      60227      35931      24296      0.5104      6200      3366        17      24      60227      35931      2	4	11	26069	0	26069	0.1330	1733	1536
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7    14    26069    0    26069    0.2329    3036    2427      8    15    26069    0    26069    0.2636    3436    2664      9    16    26069    0    26069    0.2930    3820    2851      10    17    52138    0.3213    8376    6041      11    18    60227    35931    24296    0.3485    4233    2950      12    19    60227    35931    24296    0.4365    6145    3324      15    22    86297    35931    24296    0.4688    5695    3341      16    23    60227    35931    24296    0.4688    5695    3341      17    24    60227    35931    24296    0.5104    6200    3396      19    26    60227    35931    24296    0.5668    6886    3402      22    29    60227    35931    24296    0.5668    6886    3402      21    28    60227    35931    24296	6	13	26069	0	26069	0.2009	2619	2168
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9      16      26069      0      26069      0.2930      3820      2851        10      17      52138      0      52138      0.3213      8376      6041        11      18      60227      35931      24296      0.3485      4233      2950        12      19      60227      35931      24296      0.3745      4550      3063        13      20      60227      35931      24296      0.4236      5145      3234        15      22      86297      35931      24296      0.4688      5695      3341        17      24      60227      35931      24296      0.4688      5695      3341        18      25      60227      35931      24296      0.5104      6200      3366        21      28      60227      35931      24296      0.5648      13820      7066        21      28      60227      35931      24296      0.6168      7493      3388        25      32      86297      35931 <td>8</td> <td>15</td> <td>26069</td> <td>0</td> <td>26069</td> <td>0.2636</td> <td>3436</td> <td>2654</td>	8	15	26069	0	26069	0.2636	3436	2654
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1118 $60227$ $35931$ $24296$ $0.3485$ $4233$ $2950$ 1219 $60227$ $35931$ $24296$ $0.3745$ $4550$ $3063$ 1320 $60227$ $35931$ $24296$ $0.4236$ $5145$ $3234$ 1421 $60227$ $35931$ $24296$ $0.4236$ $5145$ $3234$ 1522 $86297$ $35931$ $24296$ $0.4468$ $5695$ $3341$ 1623 $60227$ $35931$ $24296$ $0.4688$ $5695$ $3374$ 1825 $60227$ $35931$ $24296$ $0.5104$ $6200$ $3396$ 1926 $60227$ $35931$ $24296$ $0.5300$ $6438$ $3407$ 2027 $86297$ $35931$ $24296$ $0.5688$ $6886$ $4022$ 29 $60227$ $35931$ $24296$ $0.5684$ $6886$ $4022$ 29 $60227$ $35931$ $24296$ $0.5684$ $7097$ $3387$ 2330 $60227$ $35931$ $24296$ $0.6008$ $7299$ $3366$ 2431 $60227$ $35931$ $24296$ $0.6468$ $7858$ $3268$ 2734 $60227$ $35931$ $24296$ $0.6745$ $8194$ $3182$ 29 $36$ $60227$ $35931$ $24296$ $0.6745$ $8194$ $3182$ 2936 $60227$ $35931$ $24296$ $0.6745$ $8194$ $3182$ 2936 $60227$ <td>10</td> <td>17</td> <td>52138</td> <td>0</td> <td>52138</td> <td>0.3213</td> <td>8376</td> <td>6041</td>	10	17	52138	0	52138	0.3213	8376	6041
12    19    60227    35931    24296    0.3745    4550    3063      13    20    60227    35931    24296    0.3995    4854    3157      14    21    60227    35931    24296    0.4236    5145    3234      15    22    86297    35931    24296    0.4668    5695    3341      17    24    60227    35931    24296    0.5104    6200    3396      18    25    60227    35931    24296    0.5104    6200    3396      19    26    60227    35931    24296    0.5608    6886    3407      20    27    86297    35931    24296    0.5668    6886    3402      21    28    60227    35931    24296    0.6168    7493    338      25    32    86297    35931    24296    0.6168    7493    338      25    32    86297    35931    24296    0.6609    8029    3227      28    35    6	11	18	60227	35931	24296	0.3485	4233	2950
1320 $60227$ $35931$ $24296$ $0.3995$ $4854$ $3157$ 1421 $60227$ $35931$ $24296$ $0.4236$ $5145$ $3234$ 1522 $86297$ $35931$ $50365$ $0.4466$ $11247$ $6830$ 1623 $60227$ $35931$ $24296$ $0.4608$ $5695$ $3341$ 1724 $60227$ $35931$ $24296$ $0.4000$ $5953$ $3374$ 1825 $60227$ $35931$ $24296$ $0.5104$ $6200$ $3396$ 1926 $60227$ $35931$ $24296$ $0.5300$ $6438$ $3407$ 2027 $86297$ $35931$ $24296$ $0.5668$ $6886$ $3402$ 2128 $60227$ $35931$ $24296$ $0.56842$ $7097$ $3387$ 2330 $60227$ $35931$ $24296$ $0.6168$ $7493$ $3338$ 2532 $86297$ $35931$ $24296$ $0.6168$ $7493$ $3338$ 2633 $60227$ $35931$ $24296$ $0.6609$ $8029$ $3227$ 2835 $60227$ $35931$ $24296$ $0.6745$ $8194$ $3182$ 2936 $60227$ $35931$ $24296$ $0.6745$ $8194$ $3182$ 2936 $60227$ $35931$ $24296$ $0.7745$ $8194$ $3182$ 2936 $60227$ $35931$ $24296$ $0.7745$ $8194$ $3182$ 29	12	19	60227	35931	24296	0.3745	4550	3063
1421 $60227$ $35931$ $24296$ $0.4236$ $5145$ $3234$ 1522 $86297$ $35931$ $50365$ $0.4466$ $11247$ $6830$ 1623 $60227$ $35931$ $24296$ $0.4688$ $5695$ $3341$ 1724 $60227$ $35931$ $24296$ $0.4600$ $5953$ $3374$ 1825 $60227$ $35931$ $24296$ $0.5104$ $6200$ $3396$ 1926 $60227$ $35931$ $24296$ $0.5300$ $6438$ $3407$ 2027 $86297$ $35931$ $24296$ $0.5668$ $6886$ $3402$ 2128 $60227$ $35931$ $24296$ $0.5668$ $6886$ $3402$ 2229 $60227$ $35931$ $24296$ $0.6008$ $7299$ $3366$ 2431 $60227$ $35931$ $24296$ $0.6168$ $7493$ $3338$ 2532 $86297$ $35931$ $24296$ $0.6168$ $7493$ $3338$ 2633 $60227$ $35931$ $24296$ $0.6745$ $8194$ $3182$ 2734 $60227$ $35931$ $24296$ $0.6745$ $8194$ $3182$ 2936 $60227$ $35931$ $24296$ $0.7745$ $8194$ $3182$ 2936 $60227$ $35931$ $24296$ $0.7745$ $8194$ $3182$ 2936 $60227$ $35931$ $24296$ $0.7746$ $8944$ $2917$ 334	13	20	60227	35931	24296	0.3995	4854	3157
1522 $86297$ $35931$ $50365$ $0.4466$ $11247$ $6830$ 1623 $60227$ $35931$ $24296$ $0.4688$ $5695$ $3341$ 1724 $60227$ $35931$ $24296$ $0.4900$ $5953$ $3374$ 1825 $60227$ $35931$ $24296$ $0.5104$ $6200$ $3396$ 1926 $60227$ $35931$ $24296$ $0.5300$ $6438$ $3407$ 2027 $86297$ $35931$ $24296$ $0.5668$ $6886$ $3402$ 2128 $60227$ $35931$ $24296$ $0.5668$ $6886$ $3402$ 2229 $60227$ $35931$ $24296$ $0.5668$ $6886$ $3402$ 2330 $60227$ $35931$ $24296$ $0.6008$ $7299$ $3366$ 2431 $60227$ $35931$ $24296$ $0.6168$ $7493$ $3338$ 2532 $86297$ $35931$ $24296$ $0.6609$ $8029$ $3227$ 2835 $60227$ $35931$ $24296$ $0.6609$ $8029$ $3227$ 2835 $60227$ $35931$ $24296$ $0.7458$ $8194$ $3182$ 2936 $60227$ $35931$ $24296$ $0.7455$ $8194$ $3182$ 2936 $60227$ $35931$ $24296$ $0.7452$ $9053$ $2859$ 3138 $60227$ $35931$ $24296$ $0.7452$ $9053$ $2859$ 354	14	21	60227	35931	24296	0.4236	5145	3234
1623 $60227$ $35931$ $24296$ $0.4688$ $5695$ $3341$ 1724 $60227$ $35931$ $24296$ $0.4900$ $5953$ $3374$ 1825 $60227$ $35931$ $24296$ $0.5104$ $6200$ $3396$ 1926 $60227$ $35931$ $24296$ $0.5300$ $6438$ $3407$ 2027 $86297$ $35931$ $24296$ $0.5668$ $6886$ $3402$ 2128 $60227$ $35931$ $24296$ $0.5668$ $6886$ $3402$ 2229 $60227$ $35931$ $24296$ $0.56842$ $7097$ $3387$ 2330 $60227$ $35931$ $24296$ $0.6008$ $7299$ $3366$ 2431 $60227$ $35931$ $24296$ $0.6168$ $7493$ $3338$ 2532 $86297$ $35931$ $24296$ $0.6608$ $7453$ $3268$ 2633 $60227$ $35931$ $24296$ $0.6648$ $7858$ $3268$ 2734 $60227$ $35931$ $24296$ $0.6745$ $8194$ $3182$ 29 $36$ $60227$ $35931$ $24296$ $0.6745$ $8194$ $3182$ 29 $36$ $60227$ $35931$ $24296$ $0.6745$ $8194$ $3182$ 29 $36$ $60227$ $35931$ $24296$ $0.7346$ $8924$ $2917$ 31 $38$ $60227$ $35931$ $24296$ $0.7346$ $8924$ $2917$ 33 </td <td>15</td> <td>22</td> <td>86297</td> <td>35931</td> <td>50365</td> <td>0.4466</td> <td>11247</td> <td>6830</td>	15	22	86297	35931	50365	0.4466	11247	6830
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	16	23	60227	35931	24296	0.4688	5695	3341
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	17	24	60227	35931	24296	0.4900	5953	3374
1926 $60227$ $35931$ $24296$ $0.5300$ $6438$ $3407$ 2027 $86297$ $35931$ $50365$ $0.5488$ $13820$ $7066$ 2128 $60227$ $35931$ $24296$ $0.5668$ $6886$ $3402$ 2229 $60227$ $35931$ $24296$ $0.5842$ $7097$ $3387$ 2330 $60227$ $35931$ $24296$ $0.6008$ $7299$ $3366$ 2431 $60227$ $35931$ $24296$ $0.6168$ $7493$ $3338$ 2532 $86297$ $35931$ $24296$ $0.6468$ $7858$ $3268$ 2633 $60227$ $35931$ $24296$ $0.6468$ $7858$ $3268$ 2734 $60227$ $35931$ $24296$ $0.6609$ $8029$ $3227$ 2835 $60227$ $35931$ $24296$ $0.6745$ $8194$ $3182$ 2936 $60227$ $35931$ $24296$ $0.6745$ $8194$ $3182$ 2936 $60227$ $35931$ $24296$ $0.7120$ $8650$ $3029$ 3138 $60227$ $35931$ $24296$ $0.7346$ $8924$ $2917$ 3441 $60227$ $35931$ $24296$ $0.7452$ $9053$ $2859$ 3542 $86297$ $35931$ $24296$ $0.7745$ $9410$ $2681$ 38 $45$ $60227$ $35931$ $24296$ $0.7746$ $9410$ $2681$ 38 <td< td=""><td>18</td><td>25</td><td>60227</td><td>35931</td><td>24296</td><td>0.5104</td><td>6200</td><td>3396</td></td<>	18	25	60227	35931	24296	0.5104	6200	3396
20278629735931503650.548813820706621286022735931242960.56686886340222296022735931242960.58427097338723306022735931242960.60087299336624316022735931242960.61687493333825328629735931503650.632115918685226336022735931242960.66098029322728356022735931242960.667458194318229366022735931242960.68758352313330378629735931242960.71208650302931386022735931242960.71208650302932396022735931242960.73468924291734416022735931242960.74529053285935428629735931242960.76529296274137446022735931242960.77469410268138456022735931242960.78369519262039466022735931242960.78369519262039466022735931242960.78369519<	19	26	60227	35931	24296	0.5300	6438	3407
21286022735931242960.56686886340222296022735931242960.58427097338723306022735931242960.60087299336624316022735931242960.61687493333825328629735931503650.632115918685226336022735931242960.64687858326827346022735931242960.67458194318229366022735931242960.67458194318229366022735931242960.67458352313330378629735931242960.74528352313330378629735931242960.71208650302932396022735931242960.72358790297433406022735931242960.74529053285935428629735931242960.74529053285936436022735931242960.76529296274137446022735931242960.77469410268138456022735931242960.78369519262039466022735931242960.78369519 <td< td=""><td>20</td><td>27</td><td>86297</td><td>35931</td><td>50365</td><td>0.5488</td><td>13820</td><td>7066</td></td<>	20	27	86297	35931	50365	0.5488	13820	7066
22296022735931242960.58427097338723306022735931242960.60087299336624316022735931242960.61687493333825328629735931503650.632115918685226336022735931242960.64687858326827346022735931242960.67458194318229366022735931242960.67458194318229366022735931242960.74528352313330378629735931242960.71208650302931386022735931242960.73468924291733406022735931242960.74529053285935428629735931242960.74529053285936436022735931242960.755419023580536436022735931242960.76529296274137446022735931242960.78369519262039466022735931242960.78369519262039466022735931242960.79239624256040478629735931242960.79239624 <t< td=""><td>21</td><td>28</td><td>60227</td><td>35931</td><td>24296</td><td>0.5668</td><td>6886</td><td>3402</td></t<>	21	28	60227	35931	24296	0.5668	6886	3402
23306022735931242960.60087299336624316022735931242960.61687493333825328629735931503650.632115918685226336022735931242960.64687858326827346022735931242960.67458194318229366022735931242960.67458194318229366022735931242960.68758352313330378629735931503650.700017628639031386022735931242960.71208650302932396022735931242960.74529053285935428629735931242960.74529053285935428629735931242960.755419023580536436022735931242960.76529296274137446022735931242960.77469410268138456022735931242960.78369519262039466022735931242960.78369519262039466022735931242960.79239624256040478629735931242960.79239624<	22	29	60227	35931	24296	0.5842	7097	3387
24316022735931242960.61687493333825328629735931503650.632115918685226336022735931242960.64687858326827346022735931242960.66098029322728356022735931242960.67458194318229366022735931242960.68758352313330378629735931503650.700017628639031386022735931242960.71208650302932396022735931242960.72358790297433406022735931242960.74529053285935428629735931242960.74529053285936436022735931242960.74529053285936436022735931242960.76529296274137446022735931242960.77469410268138456022735931242960.78369519262039466022735931242960.79239624256040478629735931503650.800620160518041486022735931242960.79239624<	23	30	60227	35931	24296	0.6008	7299	3366
25328629735931503650.632115918685226336022735931242960.64687858326827346022735931242960.66098029322728356022735931242960.67458194318229366022735931242960.68758352313330378629735931503650.700017628639031386022735931242960.71208650302932396022735931242960.72358790297433406022735931242960.74529053285935428629735931242960.74529053285936436022735931242960.76529296274137446022735931242960.77469410268138456022735931242960.78369519262039466022735931242960.79239624256040478629735931503650.800620160518041486022735931242960.792396242560	24	31	60227	35931	24296	0.6168	7493	3338
26336022735931242960.64687858326827346022735931242960.66098029322728356022735931242960.67458194318229366022735931242960.68758352313330378629735931503650.700017628639031386022735931242960.71208650302932396022735931242960.72358790297433406022735931242960.74529053285935428629735931242960.74529053285936436022735931242960.76529296274137446022735931242960.77469410268138456022735931242960.78369519262039466022735931242960.79239624256040478629735931503650.800620160518041486022735931242960.792396242560	25	32	86297	35931	50365	0.6321	15918	6852
27346022735931242960.66098029322728356022735931242960.67458194318229366022735931242960.68758352313330378629735931503650.700017628639031386022735931242960.71208650302932396022735931242960.72358790297433406022735931242960.74529053285935428629735931242960.74529053285936436022735931242960.76529296274137446022735931242960.77369410268138456022735931242960.78369519262039466022735931242960.79239624256040478629735931242960.79239624256041486022735931242960.792396242560	26	33	60227	35931	24296	0.6468	7858	3268
28356022735931242960.67458194318229366022735931242960.68758352313330378629735931503650.700017628639031386022735931242960.71208650302932396022735931242960.72358790297433406022735931242960.74529053285934416022735931242960.74529053285935428629735931503650.755419023580536436022735931242960.77469410268137446022735931242960.78369519262039466022735931242960.79239624256040478629735931503650.800620160518041486022735931242960.808598222439	27	34	60227	35931	24296	0.6609	8029	3227
29366022735931242960.68758352313330378629735931503650.700017628639031386022735931242960.71208650302932396022735931242960.72358790297433406022735931242960.73468924291734416022735931242960.74529053285935428629735931503650.755419023580536436022735931242960.76529296274137446022735931242960.77469410268138456022735931242960.79239624256040478629735931503650.800620160518041486022735931242960.808598222439	28	35	60227	35931	24296	0.6745	8194	3182
30378629735931503650.700017628639031386022735931242960.71208650302932396022735931242960.72358790297433406022735931242960.73468924291734416022735931242960.74529053285935428629735931503650.755419023580536436022735931242960.76529296274137446022735931242960.77469410268138456022735931242960.78369519262039466022735931242960.79239624256040478629735931503650.800620160518041486022735931242960.808598222439	29	36	60227	35931	24296	0.6875	8352	3133
31386022735931242960.71208650302932396022735931242960.72358790297433406022735931242960.73468924291734416022735931242960.74529053285935428629735931503650.755419023580536436022735931242960.76529296274137446022735931242960.77469410268138456022735931242960.78369519262039466022735931242960.79239624256040478629735931503650.800620160518041486022735931242960.808598222439	30	37	86297	35931	50365	0.7000	17628	6390
32396022735931242960.72358790297433406022735931242960.73468924291734416022735931242960.74529053285935428629735931503650.755419023580536436022735931242960.76529296274137446022735931242960.77469410268138456022735931242960.78369519262039466022735931242960.79239624256040478629735931503650.800620160518041486022735931242960.808598222439	31	38	60227	35931	24296	0.7120	8650	3029
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	32	39	60227	35931	24296	0.7235	8790	2974
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	33	40	60227	35931	24296	0.7346	8924	2917
35428629735931503650.755419023580536436022735931242960.76529296274137446022735931242960.77469410268138456022735931242960.78369519262039466022735931242960.79239624256040478629735931503650.800620160518041486022735931242960.808598222439	34	41	60227	35931	24296	0.7452	9053	2859
36436022735931242960.76529296274137446022735931242960.77469410268138456022735931242960.78369519262039466022735931242960.79239624256040478629735931503650.800620160518041486022735931242960.808598222439	35	42	86297	35931	50365	0.7554	19023	5805
37446022735931242960.77469410268138456022735931242960.78369519262039466022735931242960.79239624256040478629735931503650.800620160518041486022735931242960.808598222439	36	43	60227	35931	24296	0 7652	9296	2741
38    45    60227    35931    24296    0.7836    9519    2620      39    46    60227    35931    24296    0.7923    9624    2560      40    47    86297    35931    50365    0.8006    20160    5180      41    48    60227    35931    24296    0.8085    9822    2439	37	44	60227	35931	24296	0 7746	9410	2681
39    46    60227    35931    24296    0.7923    9624    2560      40    47    86297    35931    50365    0.8006    20160    5180      41    48    60227    35931    24296    0.8085    9822    2439	38	45	60227	35931	24296	0 7836	9519	2620
40      47      86297      35931      50365      0.8006      20160      5180        41      48      60227      35931      24296      0.8085      9822      2439	39	46	60227	35931	24296	0 7923	9624	2560
41      48      60227      35931      24296      0.8085      9822      2439	40	43 47	86297	35931	50365	0 8006	20160	5180
	41	48 48	60227	35931	24296	0 8085	9822	2430
42 49 60227 35031 24296 0.8162 9915 2378	42	40 40	60227	35031	24200	0.0000	9015	2709
43 50 60227 35931 24296 0.8236 10005 2319	43		60227	35931	24296	0.8236	10005	2310

44 45	51 52	60227 86297	35931 35931 25031	24296 50365	0.8306	10090 21088	2259 4562
46 47	53 54	60227	35931	24296 24296	0.8439	10252	2143
48 49	55 56	60227 60227	35931 35931	24296 24296	0.8561 0.8619	10400 10470	2029 1974
50	57	86297	35931	50365	0.8674	21844	3979
Total		2930478	1437246	1493233		429235	162468

# E5 Case 5

Year	Age	Annuity	Assumed	Private	Probability	Govt	Present
		(real)	earnings	care	settlement	care	value of
			(real)	(real)	exhausted	(real)	govt care
		\$	\$	\$	mid-year	\$	\$
1	20	469244	35931	433312	0.0200	4333	4259
2	21	469244	35931	433312	0.0592	12826	12181
3	22	469244	35931	433312	0.0968	20979	19250
4	23	469244	35931	433312	0.1330	28806	25539
5	24	469244	35931	433312	0.1676	36320	31111
6	25	469244	35931	433312	0.2009	43534	36029
7	26	469244	35931	433312	0.2329	50459	40348
8	27	469244	35931	433312	0.2636	57107	44120
9	28	469244	35931	433312	0.2930	63489	47392
10	29	469244	35931	433312	0.3213	69615	50208
11	30	469244	35931	433312	0.3485	75497	52608
12	31	469244	35931	433312	0.3745	81143	54631
13	32	469244	35931	433312	0.3995	86564	56310
14	33	469244	35931	433312	0.4236	91767	57676
15	34	469244	35931	433312	0.4466	96763	58759
16	35	469244	35931	433312	0.4688	101559	59586
17	36	469244	35931	433312	0.4900	106163	60181
18	37	469244	35931	433312	0.5104	110582	60566
19	38	469244	35931	433312	0.5300	114825	60763
20	39	469244	35931	433312	0.5488	118899	60791
21	40	469244	35931	433312	0.5668	122809	60667
Total		9854116	754554	9099562		1494039	952975

Year	Age	Annuity	Assumed	Private	Probability	Govt	Present
		(real)	earnings	care	settlement	care	value of
			(real)	(real)	exhausted	(real)	govt care
		\$	\$	\$	mid-year	\$	\$
1	34	54925	27561	27363	0.0200	274	269
2	35	54925	27561	27363	0.0592	810	769
3	36	54925	27561	27363	0.0968	1325	1216
4	37	54925	27561	27363	0.1330	1819	1613
5	38	54925	27561	27363	0.1676	2294	1965
6	39	54925	27561	27363	0.2009	2749	2275
7	40	54925	27561	27363	0.2329	3186	2548
8	41	54925	27561	27363	0.2636	3606	2786
9	42	54925	27561	27363	0.2930	4009	2993
10	43	54925	27561	27363	0.3213	4396	3171
11	44	54925	27561	27363	0.3485	4768	3322
12	45	54925	27561	27363	0.3745	5124	3450
13	46	54925	27561	27363	0.3995	5466	3556
14	47	54925	27561	27363	0.4236	5795	3642
15	48	54925	27561	27363	0.4466	6111	3711
16	49	54925	27561	27363	0.4688	6413	3763
17	50	54925	27561	27363	0.4900	6704	3800
18	51	54925	27561	27363	0.5104	6983	3825
19	52	54925	27561	27363	0.5300	7251	3837
20	53	54925	27561	27363	0.5488	7508	3839
21	54	54925	27561	27363	0.5668	7755	3831
22	55	54925	27561	27363	0.5842	7992	3815
23	56	54925	27561	27363	0.6008	8220	3791
24	57	54925	27561	27363	0.6168	8438	3760
25	58	54925	27561	27363	0.6321	8648	3723
Total		1373124	689037	684087		127647	75268

### E6 Case 6

Year	Age	Annuity	Assumed	Private	Probability	Govt	Present
		(real)	earnings	care	settlement	care	value of
			(real)	(real)	exhausted	(real)	govt care
		\$	\$	\$	mid-year	\$	\$
1	8	74844	0	74844	0.0200	748	736
2	9	74844	0	74844	0.0592	2215	2104
3	10	74844	0	74844	0.0968	3624	3325
4	11	74844	0	74844	0.1330	4976	4411
5	12	74844	0	74844	0.1676	6273	5374
6	13	74844	0	74844	0.2009	7519	6223
7	14	74844	0	74844	0.2329	8716	6969
8	15	74844	0	74844	0.2636	9864	7621
9	16	74844	0	74844	0.2930	10966	8186
10	17	74844	0	74844	0.3213	12024	8672
11	18	74844	35931	38913	0.3485	6780	4724
12	19	74844	35931	38913	0.3745	7287	4906
13	20	74844	35931	38913	0.3995	7774	5057
14	21	74844	35931	38913	0.4236	8241	5180
15	22	74844	35931	38913	0.4466	8690	5277
16	23	74844	35931	38913	0.4688	9120	5351
17	24	74844	35931	38913	0.4900	9534	5404
18	25	74844	35931	38913	0.5104	9931	5439
19	26	74844	35931	38913	0.5300	10312	5457
20	27	74844	35931	38913	0.5488	10678	5459
21	28	74844	35931	38913	0.5668	11029	5448
22	29	74844	35931	38913	0.5842	11366	5425
23	30	74844	35931	38913	0.6008	11689	5391
24	31	74844	35931	38913	0.6168	12000	5347
25	32	74844	35931	38913	0.6321	12298	5294
26	33	74844	35931	38913	0.6468	12585	5234
27	34	74844	35931	38913	0.6609	12860	5168
28	35	74844	35931	38913	0.6745	13124	5096
29	36	74844	35931	38913	0.6875	13377	5018
30	37	74844	35931	38913	0.7000	13620	4937
Total	0	2245331	0	1526708		279219	158232

## E7 Case 7

### E8 Case 8

Year	Age	Annuity	Assumed	Private	Probability	Govt	Present
	_	(real)	earnings	care	settlement	care	value of
			(real)	(real)	exhausted	(real)	govt care
		\$	\$	\$	mid-year	\$	\$
1	15	37420	0	37420	0.0200	374	368
2	16	37420	0	37420	0.0592	1108	1052
3	17	37420	0	37420	0.0968	1812	1662
4	18	37420	27561	9859	0.1330	655	581
5	19	37420	27561	9859	0.1676	826	708
6	20	37420	27561	9859	0.2009	990	820
7	21	37420	27561	9859	0.2329	1148	918
8	22	37420	27561	9859	0.2636	1299	1004
9	23	37420	27561	9859	0.2930	1444	1078
10	24	37420	27561	9859	0.3213	1584	1142
11	25	37420	27561	9859	0.3485	1718	1197
12	26	37420	27561	9859	0.3745	1846	1243
13	27	37420	27561	9859	0.3995	1970	1281
14	28	37420	27561	9859	0.4236	2088	1312
15	29	37420	27561	9859	0.4466	2202	1337
16	30	37420	27561	9859	0.4688	2311	1356
17	31	37420	27561	9859	0.4900	2415	1369
18	32	37420	27561	9859	0.5104	2516	1378
19	33	37420	27561	9859	0.5300	2613	1382
20	34	37420	27561	9859	0.5488	2705	1383
21	35	37420	27561	9859	0.5668	2794	1380
22	36	37420	27561	9859	0.5842	2880	1374
23	37	37420	27561	9859	0.6008	2962	1366
24	38	37420	27561	9859	0.6168	3040	1355
25	39	37420	27561	9859	0.6321	3116	1341
26	40	37420	27561	9859	0.6468	3188	1326
27	41	37420	27561	9859	0.6609	3258	1309
28	42	37420	27561	9859	0.6745	3325	1291
29	43	37420	27561	9859	0.6875	3389	1271
30	44	37420	27561	9859	0.7000	3451	1251
31	45	37420	27561	9859	0.7120	3510	1229
32	46	37420	27561	9859	0.7235	3567	1207
33	47	37420	27561	9859	0.7346	3621	1184
34	48	37420	27561	9859	0.7452	3673	1160
35	49	37420	27561	9859	0.7554	3724	1136
36	50	37420	27561	9859	0.7652	3772	1112
37	51	37420	27561	9859	0.7746	3818	1088
38	52	37420	27561	9859	0.7836	3863	1063
39	53	37420	27561	9859	0.7923	3905	1039
40	54	37420	27561	9859	0.8006	3946	1014
41	55	37420	27561	9859	0.8085	3986	989
42	56	37420	27561	9859	0.8162	4023	965
43	57	37420	27561	9859	0.8236	4060	941

44	58	37420	27561	9859	0.8306	4094	917
45	59	37420	27561	9859	0.8374	4128	893
46	60	37420	27561	9859	0.8439	4160	870
47	61	37420	27561	9859	0.8501	4191	846
48	62	37420	27561	9859	0.8561	4220	823
49	63	37420	27561	9859	0.8619	4249	801
50	64	37420	27561	9859	0.8674	4276	779
51	65	37420	0	37420	0.8727	16329	2874
52	66	37420	0	37420	0.8778	16424	2793
53	67	37420	0	37420	0.8827	16515	2713
54	68	37420	0	37420	0.8874	16603	2636
55	69	37420	0	37420	0.8919	16687	2559
56	70	37420	0	37420	0.8962	16768	2485
57	71	37420	0	37420	0.9004	16846	2412
58	72	37420	0	37420	0.9043	16920	2341
59	73	37420	0	37420	0.9082	16992	2271
60	74	37420	0	37420	0.9118	17061	2203
61	75	37420	0	37420	0.9154	17127	2137
62	76	37420	0	37420	0.9188	17190	2072
63	77	37420	0	37420	0.9220	17251	2009
64	78	37420	0	37420	0.9251	17309	1948
65	79	37420	0	37420	0.9281	17365	1888
Total		2432313	1295389	1136924		397199	91235

Year	Age	Annuity	Assumed	Private	Probability	Govt	Present
		(real)	earnings	care	settlement	care	value of
			(real)	(real)	exhausted	(real)	govt care
		\$	\$	\$	mid-year	\$	\$
1	56	13054	27561	0	0.0200	0	0
2	57	13054	27561	0	0.0592	0	0
3	58	13054	27561	0	0.0968	0	0
4	59	13054	27561	0	0.1330	0	0
5	60	13054	27561	0	0.1676	0	0
6	61	13054	27561	0	0.2009	0	0
7	62	13054	27561	0	0.2329	0	0
8	63	13054	27561	0	0.2636	0	0
9	64	13054	27561	0	0.2930	0	0
10	65	13054	0	13054	0.3213	2097	1513
11	66	13054	0	13054	0.3485	2274	1585
12	67	13054	0	13054	0.3745	2444	1646
13	68	13054	0	13054	0.3995	2608	1696
14	69	13054	0	13054	0.4236	2765	1737
15	70	13054	0	13054	0.4466	2915	1770
16	71	13054	0	13054	0.4688	3059	1795
17	72	13054	0	13054	0.4900	3198	1813
18	73	13054	0	13054	0.5104	3331	1825
19	74	13054	0	13054	0.5300	3459	1831
20	75	13054	0	13054	0.5488	3582	1831
21	76	13054	0	13054	0.5668	3700	1828
22	77	13054	0	13054	0.5842	3813	1820
23	78	13054	0	13054	0.6008	3921	1808
24	79	13054	0	13054	0.6168	4026	1794
25	80	13054	0	13054	0.6321	4126	1776
Total	0	326341	0	208858	9	51318	28067

#### E9 Case 9

Year	Age	Annuity	Assumed	Private	Probability	Govt	Present
		(real)	earnings	care	settlement	care	value of
			(real)	(real)	exhausted	(real)	govt care
		\$	\$	\$	mid-year	\$	\$
1	53	23083	27561	0	0.0200	0	0
2	54	23083	27561	0	0.0592	0	0
3	55	23083	27561	0	0.0968	0	0
4	56	23083	27561	0	0.1330	0	0
5	57	23083	27561	0	0.1676	0	0
6	58	23083	27561	0	0.2009	0	0
7	59	23083	27561	0	0.2329	0	0
8	60	23083	27561	0	0.2636	0	0
9	61	23083	27561	0	0.2930	0	0
10	62	23083	27561	0	0.3213	0	0
11	63	23083	27561	0	0.3485	0	0
12	64	23083	27561	0	0.3745	0	0
13	65	23083	0	23083	0.3995	4611	3000
14	66	23083	0	23083	0.4236	4889	3072
15	67	23083	0	23083	0.4466	5155	3130
16	68	23083	0	23083	0.4688	5410	3174
17	69	23083	0	23083	0.4900	5655	3206
18	70	23083	0	23083	0.5104	5891	3226
19	71	23083	0	23083	0.5300	6117	3237
20	72	23083	0	23083	0.5488	6334	3238
21	73	23083	0	23083	0.5668	6542	3232
22	74	23083	0	23083	0.5842	6742	3218
23	75	23083	0	23083	0.6008	6934	3198
24	76	23083	0	23083	0.6168	7118	3172
25	77	23083	0	23083	0.6321	7295	3141
Total		577082	330738	300083		78695	41244

## E10 Case 10

Year	Age	Annuity	Assumed	Private	Probability	Govt	Present
		(real)	earnings	care	settlement	care	value of
			(real)	(real)	exhausted	(real)	govt care
		\$	\$	\$	mid-year	\$	\$
1	46	17988	27561	0	0.0200	0	0
2	47	17988	27561	0	0.0592	0	0
3	48	17988	27561	0	0.0968	0	0
4	49	17988	27561	0	0.1330	0	0
5	50	17988	27561	0	0.1676	0	0
6	51	17988	27561	0	0.2009	0	0
7	52	17988	27561	0	0.2329	0	0
8	53	17988	27561	0	0.2636	0	0
9	54	17988	27561	0	0.2930	0	0
10	55	17988	27561	0	0.3213	0	0
11	56	17988	27561	0	0.3485	0	0
12	57	17988	27561	0	0.3745	0	0
13	58	17988	27561	0	0.3995	0	0
14	59	17988	27561	0	0.4236	0	0
15	60	17988	27561	0	0.4466	0	0
16	61	17988	27561	0	0.4688	0	0
17	62	17988	27561	0	0.4900	0	0
18	63	17988	27561	0	0.5104	0	0
19	64	17988	27561	0	0.5300	0	0
20	65	17988	0	17988	0.5488	4936	2524
21	66	17988	0	17988	0.5668	5098	2518
22	67	17988	0	17988	0.5842	5254	2508
23	68	17988	0	17988	0.6008	5403	2492
24	69	17988	0	17988	0.6168	5547	2472
25	70	17988	0	17988	0.6321	5685	2447
26	71	17988	0	17988	0.6468	5817	2420
27	72	17988	0	17988	0.6609	5944	2389
28	73	17988	0	17988	0.6745	6066	2355
29	74	17988	0	17988	0.6875	6183	2320
30	75	17988	0	17988	0.7000	6296	2282
Total		539632	523668	197865		62231	26726

## E11 Case 11

Year	Age	Annuity	Assumed	Private	Probability	Govt	Present
		(real)	earnings	care	settlement	care	value of
			(real)	(real)	exhausted	(real)	govt care
		\$	\$	\$	mid-year	\$	\$
1	11	68437	0	68437	0.0200	684	673
2	12	68437	0	68437	0.0592	2026	1924
3	13	68437	0	68437	0.0968	3313	3040
4	14	68437	0	68437	0.1330	4550	4034
5	15	68437	0	68437	0.1676	5736	4914
6	16	68437	0	68437	0.2009	6876	5690
7	17	68437	0	68437	0.2329	7969	6373
8	18	68437	27561	40875	0.2636	5387	4162
9	19	136874	27561	109312	0.2930	16016	11956
10	20	136874	27561	109312	0.3213	17562	12666
11	21	136874	27561	109312	0.3485	19046	13272
12	22	136874	27561	109312	0.3745	20470	13782
13	23	136874	27561	109312	0.3995	21838	14205
14	24	136874	27561	109312	0.4236	23150	14550
15	25	136874	27561	109312	0.4466	24410	14823
16	26	136874	27561	109312	0.4688	25620	15032
17	27	136874	27561	109312	0.4900	26782	15182
18	28	136874	27561	109312	0.5104	27897	15279
19	29	136874	27561	109312	0.5300	28967	15329
20	30	136874	27561	109312	0.5488	29995	15336
21	31	136874	27561	109312	0.5668	30981	15305
22	32	136874	27561	109312	0.5842	31928	15239
23	33	136874	27561	109312	0.6008	32837	15143
24	34	136874	27561	109312	0.6168	33710	15020
25	35	136874	27561	109312	0.6321	34548	14872
26	36	136874	27561	109312	0.6468	35352	14704
27	37	136874	27561	109312	0.6609	36124	14517
28	38	136874	27561	109312	0.6745	36866	14314
29	39	136874	27561	109312	0.6875	37577	14097
30	40	136874	27561	109312	0.7000	38260	13868
31	41	136874	27561	109312	0.7120	38916	13629
32	42	136874	27561	109312	0.7235	39546	13381
33	43	136874	27561	109312	0.7346	40150	13126
34	44	136874	27561	109312	0.7452	40730	12865
35	45	136874	27561	109312	0.7554	41287	12600
36	46	136874	27561	109312	0.7652	41822	12332
37	47	136874	27561	109312	0.7746	42336	12061
38	48	136874	27561	109312	0.7836	42828	11789
39	49	136874	27561	109312	0.7923	43301	11516
40	50	136874	27561	109312	0.8006	43756	11243
Total		4927448	909529	4017919		1081151	473839

## E12 Case 12

Year	Age	Annuity	Assumed	Private	Probability	Govt	Present
		(real)	earnings	care	settlement	care	value of
			(real)	(real)	exhausted	(real)	govt care
		\$	\$	\$	mid-year	\$	\$
1	49	10761	35931	0	0.0200	0	0
2	50	10761	35931	0	0.0592	0	0
3	51	10761	35931	0	0.0968	0	0
4	52	10761	35931	0	0.1330	0	0
5	53	10761	35931	0	0.1676	0	0
6	54	10761	35931	0	0.2009	0	0
7	55	10761	35931	0	0.2329	0	0
8	56	10761	35931	0	0.2636	0	0
9	57	10761	35931	0	0.2930	0	0
10	58	10761	35931	0	0.3213	0	0
11	59	10761	35931	0	0.3485	0	0
12	60	10761	35931	0	0.3745	0	0
13	61	10761	35931	0	0.3995	0	0
14	62	10761	35931	0	0.4236	0	0
15	63	10761	35931	0	0.4466	0	0
16	64	10761	35931	0	0.4688	0	0
17	65	10761	0	10761	0.4900	2637	1495
18	66	10761	0	10761	0.5104	2746	1504
19	67	10761	0	10761	0.5300	2852	1509
20	68	10761	0	10761	0.5488	2953	1510
21	69	10761	0	10761	0.5668	3050	1507
22	70	10761	0	10761	0.5842	3143	1500
23	71	10761	0	10761	0.6008	3233	1491
24	72	10761	0	10761	0.6168	3319	1479
25	73	10761	0	10761	0.6321	3401	1464
26	74	10761	0	10761	0.6468	3480	1448
27	75	10761	0	10761	0.6609	3556	1429
28	76	10761	0	10761	0.6745	3629	1409
29	77	10761	0	10761	0.6875	3699	1388
30	78	10761	0	10761	0.7000	3767	1365
Total		322843	574808	150660		45465	20497

## E13 Case 13

## E14 Case 14

As this case arose from the death of a husband, no allowance for government health care seems appropriate.

E15 Cas	se 15
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Voor	Ago	Appuity	Accumod	Drivato	Probability	Covt	Procont
real	Aye	Annulty	Assumed	Filvale	FIODADIIIty	Guvi	Flesent
		(real)	earnings	care	settlement	care	value of
			(real)	(real)	exhausted	(real)	govt care
		\$	\$	\$	mid-year	\$	\$
1	81	41062	0	41062	0.0200	411	404
2	82	41062	0	41062	0.0592	1215	1154
3	83	41062	0	41062	0.0968	1988	1824
4	84	41062	0	41062	0.1330	2730	2420
5	85	41062	0	41062	0.1676	3442	2948
6	86	41062	0	41062	0.2009	4125	3414
7	87	41062	0	41062	0.2329	4782	3824
Total		287434	0	287434		18693	15988

E16	Case	16
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Year	Age	Annuity	Assumed	Private	Probability	Govt	Present
		(real)	earnings	care	settlement	care	value of
			(real)	(real)	exhausted	(real)	govt care
		\$	\$	\$	mid-year	\$	\$
1	30	0	35931	0	0.0200	0	0
2	31	0	35931	0	0.0592	0	0
3	32	0	35931	0	0.0968	0	0
4	33	0	35931	0	0.1330	0	0
5	34	0	35931	0	0.1676	0	0
6	35	0	35931	0	0.2009	0	0
7	36	0	35931	0	0.2329	0	0
8	37	0	35931	0	0.2636	0	0
9	38	0	35931	0	0.2930	0	0
10	39	0	35931	0	0.3213	0	0
11	40	22812	35931	0	0.3485	0	0
12	41	22812	35931	0	0.3745	0	0
13	42	22812	35931	0	0.3995	0	0
14	43	22812	35931	0	0.4236	0	0
15	44	22812	35931	0	0.4466	0	0
16	45	22812	35931	0	0.4688	0	0
17	46	22812	35931	0	0.4900	0	0
18	47	22812	35931	0	0.5104	0	0
19	48	22812	35931	0	0.5300	0	0
20	49	22812	35931	0	0.5488	0	0
21	50	22812	35931	0	0.5668	0	0
22	51	22812	35931	0	0.5842	0	0
23	52	22812	35931	0	0.6008	0	0
24	53	22812	35931	0	0.6168	0	0
25	54	22812	35931	0	0.6321	0	0
26	55	22812	35931	0	0.6468	0	0
27	56	22812	35931	0	0.6609	0	0
28	57	22812	35931	0	0.6745	0	0
29	58	22812	35931	0	0.6875	0	0
30	59	22812	35931	0	0.7000	0	0
31	60	22812	35931	0	0.7120	0	0
32	61	22812	35931	0	0.7235	0	0
33	62	22812	35931	0	0.7346	0	0
34	63	22812	35931	0	0.7452	0	0
35	64	22812	35931	0	0.7554	0	0
36	65	22812	0	22812	0.7652	8728	2574
37	66	22812	0	22812	0.7746	8835	2517
38	67	22812	0	22812	0.7836	8938	2460
39	68	22812	0	22812	0.7923	9037	2403
40	69	22812	0	22812	0.8006	9131	2346
41	70	22812	0	22812	0.8085	9222	2290
42	71	22812	0	22812	0.8162	9310	2233
43	72	22812	0	22812	0.8236	9394	2177

44	73	22812	0	22812	0.8306	9474	2121
45	74	22812	0	22812	0.8374	9551	2066
Total		798429	1257590	228123		91619	23188

Year	Age	Annuity	Assumed	Private	Probability	Govt	Present
	-	(real)	earnings	care	settlement	care	value of
			(real)	(real)	exhausted	(real)	govt care
		\$	\$	\$	mid-year	\$	\$
1	25	16578	35931	0	0.0200	0	0
2	26	16578	35931	0	0.0592	0	0
3	27	16578	35931	0	0.0968	0	0
4	28	24610	35931	0	0.1330	0	0
5	29	16578	35931	0	0.1676	0	0
6	30	16578	35931	0	0.2009	0	0
7	31	16578	35931	0	0.2329	0	0
8	32	24610	35931	0	0.2636	0	0
9	33	16578	35931	0	0.2930	0	0
10	34	16578	35931	0	0.3213	0	0
11	35	16578	35931	0	0.3485	0	0
12	36	24610	35931	0	0.3745	0	0
13	37	16578	35931	0	0.3995	0	0
14	38	16578	35931	0	0.4236	0	0
15	39	16578	35931	0	0.4466	0	0
16	40	24610	35931	0	0.4688	0	0
17	41	16578	35931	0	0.4900	0	0
18	42	16578	35931	0	0.5104	0	0
19	43	16578	35931	0	0.5300	0	0
20	44	24610	35931	0	0.5488	0	0
21	45	16578	35931	0	0.5668	0	0
22	46	16578	35931	0	0.5842	0	0
23	47	16578	35931	0	0.6008	0	0
24	48	24610	35931	0	0.6168	0	0
25	49	16578	35931	0	0.6321	0	0
26	50	16578	35931	0	0.6468	0	0
27	51	16578	35931	0	0.6609	0	0
28	52	24610	35931	0	0.6745	0	0
29	53	16578	35931	0	0.6875	0	0
30	54	16578	35931	0	0.7000	0	0
31	55	16578	35931	0	0.7120	0	0
32	56	24610	35931	0	0.7235	0	0
33	57	16578	35931	0	0.7346	0	0
34	58	16578	35931	0	0.7452	0	0
35	59	16578	35931	0	0.7554	0	0
36	60	24610	35931	0	0.7652	0	0
37	61	16578	35931	0	0.7746	0	0
38	62	16578	35931	0	0.7836	0	0
39	63	16578	35931	0	0.7923	0	0
40	64	24610	35931	0	0.8006	0	0
41	65	16578	0	16578	0.8085	6702	1664
42	66	16578	0	16578	0.8162	6765	1623
43	67	16578	0	16578	0.8236	6826	1582

## E17 Case 17

Total		925270	1437246	181841		76365	16257
50	74	16578	0	16578	0.8674	7190	1310
49	73	16578	0	16578	0.8619	7144	1347
48	72	24610	0	24610	0.8561	10535	2056
47	71	16578	0	16578	0.8501	7047	1423
46	70	16578	0	16578	0.8439	6995	1462
45	69	16578	0	16578	0.8374	6941	1502
44	68	24610	0	24610	0.8306	10221	2289

Year	Age	Annuity	Assumed	Private	Probability	Govt	Present
		(real)	earnings	care	settlement	care	value of
			(real)	(real)	exhausted	(real)	govt care
		\$	\$	\$	mid-year	\$	\$
1	35	95955	35931	60024	0.0200	600	590
2	36	95955	35931	60024	0.0592	1777	1687
3	37	95955	35931	60024	0.0968	2906	2667
4	38	95955	35931	60024	0.1330	3990	3538
5	39	95955	35931	60024	0.1676	5031	4310
6	40	95955	35931	60024	0.2009	6030	4991
7	41	95955	35931	60024	0.2329	6990	5589
8	42	95955	35931	60024	0.2636	7911	6112
9	43	95955	35931	60024	0.2930	8795	6565
10	44	95955	35931	60024	0.3213	9643	6955
11	45	95955	35931	60024	0.3485	10458	7288
12	46	95955	35931	60024	0.3745	11240	7568
13	47	95955	35931	60024	0.3995	11991	7800
14	48	95955	35931	60024	0.4236	12712	7989
15	49	95955	35931	60024	0.4466	13404	8140
16	50	95955	35931	60024	0.4688	14068	8254
17	51	95955	35931	60024	0.4900	14706	8336
18	52	95955	35931	60024	0.5104	15318	8390
19	53	95955	35931	60024	0.5300	15906	8417
20	54	95955	35931	60024	0.5488	16470	8421
21	55	95955	35931	60024	0.5668	17012	8404
22	56	95955	35931	60024	0.5842	17532	8368
23	57	95955	35931	60024	0.6008	18031	8315
24	58	95955	35931	60024	0.6168	18510	8247
25	59	95955	35931	60024	0.6321	18970	8167
26	60	95955	35931	60024	0.6468	19412	8074
27	61	95955	35931	60024	0.6609	19836	7971
28	62	95955	35931	60024	0.6745	20243	7860
29	63	95955	35931	60024	0.6875	20634	7741
30	64	95955	35931	60024	0.7000	21009	7615
Total		2878656	1077934	1800722		381138	204368

## E18 Case 18

Year	Assumed	Fund at	Drawdown	Expen-	Investment	Tax	Present
	losses	start	factor	diture	income	(real)	value
	(real)	(real)		(real)	(real)		of tax
	\$	\$		\$	\$	\$	\$
1	70788	912418	1.0095	71462	78902	10188	10014
2	70788	882878	1.0095	71462	76243	9723	9234
3	70788	852083	1.0095	71462	73472	9238	8476
4	70788	819978	1.0095	71462	70582	8732	7741
5	70788	786509	1.0095	71462	67570	8205	7028
6	70788	751618	1.0095	71462	64430	7655	6336
7	70788	715243	1.0095	71462	61156	7082	5663
8	70788	677323	1.0095	71462	57743	6485	5010
9	70788	637791	1.0095	71462	54185	5863	4376
10	70788	596578	1.0095	71462	50476	5213	3760
11	70788	553614	1.0095	71462	46609	4537	3161
12	70788	508824	1.0095	71462	42578	3831	2579
13	70788	462130	1.0095	71462	38376	3096	2014
14	70788	413452	1.0095	71462	33995	2474	1555
15	70788	362560	1.0095	71462	29415	2003	1216
16	70788	309174	1.0095	71462	24610	1361	798
17	70788	253320	1.0095	71462	19583	830	470
18	70788	194745	1.0095	71462	14311	332	182
19	70788	133255	1.0095	71462	8777	0	0
20	70788	68514	1.0095	70831	2979	0	0
Total	1415760	10892007		1428609	915993	96847	79615

#### Appendix F : Tax on lump sum case 1

The assumed losses are the annuity amounts in the table in C2. The fund at the start was taken as the structured amount in C1. The fund at the start of the next year was calculated by deducting expenditure, adding investment earnings, adjusting for loss of value due to inflation, and deducting tax (assumed to be paid at the end of the year). For example, the fund at the start of year 5 was estimated as

fund at start of year 4	819978
less expenditure	-71462
plus investment income	70582
fund at end of year 4	819098
divided by factor to allow for inflation	1.03
fund at end of year 4 before tax	795241
less tax payable at end of year 4	-8732
fund at start of year 5	786509

Expenditure was taken to be the assumed losses, multiplied by a "drawdown factor" chosen so as to give zero remaining funds at the end of the term.

Income was calculated as dividends on fixed interest investments and shares, plus capital gains on shares. For example, income for year 4 was calculated as

fund at end of year 4	819978
less half of expenditure in year 4	-35731
average funds available	784247
times proportion invested in fixed interest	50%
times assumed fixed interest yield	7%
dividends on fixed interest	27449
funds in shares	392124
times dividend rate on shares	5%
dividends on shares	19606
times capital appreciation rate	6%
capital appreciation	23527
income	70582

Taxable income was taken as all the fixed interest earnings plus half the share capital appreciation. For example, taxable income in year 4 was calculated as

fixed interest earnings	27449
plus half of share capital appreciation	11764
taxable income	39212

Tax was calculated from the 00-01 tax rates in A1. The present value of tax was calculated at the assumed index bond yield of 3.5%.

The above calculations make no allowance for the possibility that the fund will be exhausted before the end of the term. Similar calculations were made assuming that the fund is exhausted at the end of each year of the term. For example, an assumed drawdown factor of 1.7 exhausts the fund by about the end of year 10. The present value of the tax payable under the 20 different exhaustion years were then weighted by their probability of occurrence.