

*SUPERANNUATION ACT 1972*

*NHS SUPERANNUATION SCHEME  
FOR SCOTLAND*

**Report by the Government Actuary on the  
Scheme 1994-99**

*SUPERANNUATION ACT 1972*

**REPORT BY THE GOVERNMENT ACTUARY  
ON THE NATIONAL HEALTH SERVICE  
SUPERANNUATION SCHEME FOR SCOTLAND  
1994-1999**

**To: The Rt Hon Alistair Darling MP, Secretary of State for Scotland  
The Rt Hon Gordon Brown MP, Chancellor of the Exchequer**

I am pleased to present my report on the ninth actuarial investigation of the National Health Service Superannuation Scheme for Scotland prepared in accordance with Regulation U3 of the National Health Service (Superannuation) (Scotland) Regulations 1995 (SI 1995 No 365).



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London**

**11 November 2005**

**REPORT BY THE GOVERNMENT ACTUARY  
ON THE NATIONAL HEALTH SERVICE SUPERANNUATION SCHEME  
FOR SCOTLAND 1994-1999**

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*Section 1*

**INTRODUCTION**

- 1.1* The Government Actuary has made actuarial investigations of the National Health Service Superannuation Scheme for Scotland at regular intervals since it was established on 5 April 1948. My last report, covering the five years to 31 March 1994, was published in March 1999. I am pleased to submit this as my report on the ninth such investigation covering the period from 1 April 1994 to 31 March 1999.
- 1.2* The purpose of the actuarial valuation is to assess the relative levels of the liabilities and notional assets of the scheme, and to make a recommendation on the contribution rate to be paid by the employers who participate in the scheme.
- 1.3* This report has been prepared in accordance with the current Guidance Note No 9, issued by the Institute and Faculty of Actuaries, on actuarial reports for retirement benefit schemes, except that I do not consider it appropriate to investigate the position of the scheme were it to have been discontinued on 31 March 1999, as the NHS Superannuation Scheme for Scotland is a statutory scheme and holds only notional assets.
- 1.4* The Secretary of State for Scotland and the Chancellor of the Exchequer have agreed that in future scheme employers should accept responsibility for the cost of pension increases on all benefits paid from the scheme. The body of this report refers to the arrangements in force at the valuation date, although I refer to these new arrangements in more detail in section 9 below.

*Section 2*

**SCHEME PROVISIONS**

- 2.1 The NHS Superannuation Scheme for Scotland is a defined benefit scheme that provides members with benefits payable on retirement, incapacity, death or withdrawal from the National Health Service in Scotland. Most members are entitled to benefits based on their final salary at, or near, retirement, in the form of a pension of 1/80<sup>th</sup> of pensionable pay per year of service, with a lump sum in addition of three times the annual rate of pension. The normal pension age is 60 for most categories of members, though some groups have the right to receive benefits from age 55. The full entitlements are set out in the National Health Service Pension Scheme Regulations 1995 and subsequent provisions and are summarised in Appendix J.
- 2.2 Benefits under the scheme are guaranteed to be index-linked in line with changes in prices, through the Pensions (Increase) Act. However, the costs of index-linking (apart from statutory increases on guaranteed minimum pensions) have not to date been met from the Superannuation Account. The contributions payable by employers have not covered the cost of pension increases, and hence my previous reports have considered the liabilities excluding these costs. However, it has been agreed that the Superannuation Account should be restructured, with the cost of all benefits, including pension increases, being met by scheme employers. This restructuring is discussed further in section 9.
- 2.3 My previous report summarised the main changes introduced by the 1995 regulations and there have been no significant changes since then. However the scheme was extended on 1 September 1997 to include the staff employed by General Practitioners.

**Current Issues**

- 2.4 Some members and former members of the Scheme have been affected by the mis-selling of personal pensions. Regulations have been made to permit current NHS employees to be reinstated into the scheme.
- 2.5 Following clarification from the European Court of Justice (ECJ), the House of Lords ruled in February 2000 that part-time members can have access to pension schemes back to 1976, subject to the payment of contributions. There are time limits set for making claims, which have to be made while in employment or within six months of leaving. Several key matters remain unresolved. It is possible that a significant number of NHS employees who have worked

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part-time will wish to have their pension position reviewed. However, I do not expect the cost to the scheme to be material in the context of the overall valuation results.

- 2.6 Historically, mental health status has only been available to full-time employees. Following a challenge to this policy, the scheme now provides part-timers who satisfy the definition for mental health officer status with the corresponding benefits. Whilst I have not yet been able to make a full detailed assessment of the liabilities, I have nevertheless had regard to the potential impact in reaching my conclusions.

*Section 3*

**THE SUPERANNUATION ACCOUNT AND THE NOTIONAL FUND**

- 3.1 The NHS Superannuation Scheme is an unfunded scheme. However, it is assumed to have a notional fund of assets. To date, the notional assets have been restricted to investment in UK government stocks.

**Contributions**

- 3.2 Scheme members contribute to the scheme at the rate of 6% of pensionable pay (5% for manual staff) and may also elect to pay additional contributions to purchase added years of service. There is a further option to pay additional voluntary contributions (AVCs) that are invested on a money purchase basis. At the valuation date, the sole provider was Equitable Life. However, Standard Life was appointed as an alternative AVC provider from April 2001. As money-purchase AVC benefits are funded, and held separately from the notional assets for the main scheme benefits, they are not considered further in this report.
- 3.3 Employers' contributions cover the balance of the cost of providing the benefits under the scheme, but have not to the valuation date included the cost of pension increases. The employers' contribution rate was 4% of pensionable pay between 1 April 1994 and 31 March 2002 but this was increased to 5.5% from April 2002.

**Revenue Account**

- 3.4 An audited revenue account is maintained, showing the items of scheme income and expenditure, including notional investment income. Appendix A shows the consolidated revenue account summarising the transactions in the five years to 31 March 1999.
- 3.5 On a basis excluding pension increases, the balance in the Superannuation Account increased substantially over this period, from £3,161 million to £4,168 million. The net increase of £1,007 million in the Superannuation Account balance is largely attributable to assumed interest earnings of £1,175 million. Otherwise, over the five years since the last valuation, the expenditure on benefits has been broadly in balance with contributions received.

**Notional Assets**

- 3.6 The assets notionally held at 31 March 1999 were a mixture of conventional and index-linked gilts. A summary of the assets held is given in Appendix B. It is assumed the amount available

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for investment each year is invested at the mid-point of the year in government stocks selected with my advice.

- 3.7 Since 1981 the Government has been issuing index-linked gilts, which provide interest income and redemption proceeds linked to an index of price inflation. Index-linked stocks are a suitable form of investment to meet liabilities that are linked to price inflation or earnings inflation. Given the restrictions on the choice of investment, all the new money available since the last valuation has been notionally invested in index-linked stocks. The 4.125% Index-linked Treasury Stock 2030 was selected in each of the five years 1994-99.
- 3.8 Interest in respect of each notional investment in fixed-interest stocks is credited at the redemption yield at the date of purchase (this includes both the interest payments made on the stock and an allowance for the capital gains if the stock were held to maturity). In view of this, the amount deemed to be received at the redemption date of a fixed-interest stock is equal to the amount notionally invested in that stock.



*Section 4*

**MEMBERSHIP DATA**

4.1 Data was received from the Scottish Public Pensions Agency (SPPA) on the membership and beneficiaries of the scheme as at 31 March 1999. The data was supplied in a different format from that provided at previous valuations, and this has enabled a more detailed analysis of the intervaluation experience. The change in data specification means that direct comparisons between the data in my earlier valuation reports and the data in this report is not always possible.

**Active members**

4.2 The scale of benefits and contributions generally vary with the type of work undertaken and employment status – whether manual or non-manual. A summary of the data for the active members of the scheme (those contributing to the scheme) at 31 March 1999, classified broadly by the type of benefits available, is given in Table 1 and illustrated in Figure 1. More detail is given in Appendix C. A breakdown of the contributors by age is given in Figure 2.

**Table 1 - Numbers of contributors at 31 March 1999**

Category of Members	Men	Women	Total
	('000)		
Non-manuals & GP practice staff (excluding special classes and practitioners) including nurses without special class status and hospital medical staff	18.8	54.3	73.0
Mental Health employees (officers and manual staff)	2.4	4.3	6.7
Nurses, physiotherapists, hospital medical staff	2.4	39.4	41.9
Manual staff (not mental health)	5.5	6.7	12.2
Medical and Dental practitioners	3.7	2.3	5.9
<b>Total</b>	<b>32.8</b>	<b>106.9</b>	<b>139.7</b>

*Note: Totals may not add up exactly due to rounding*

Figure 1 – Numbers of Contributors at 31 March 1999

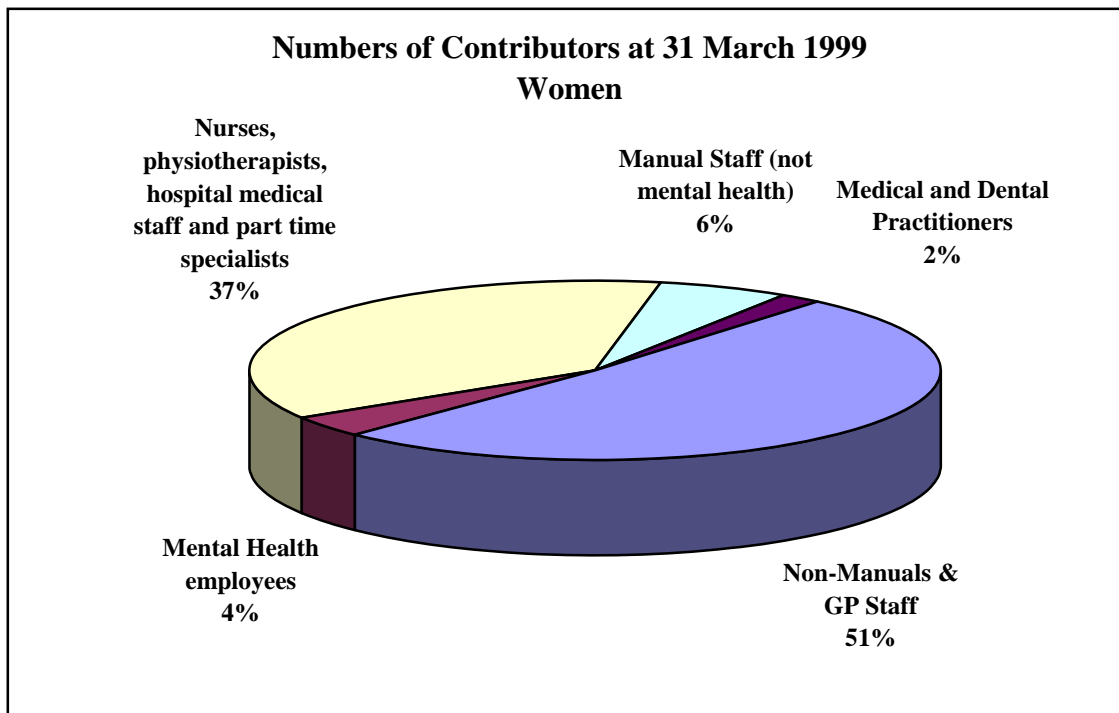
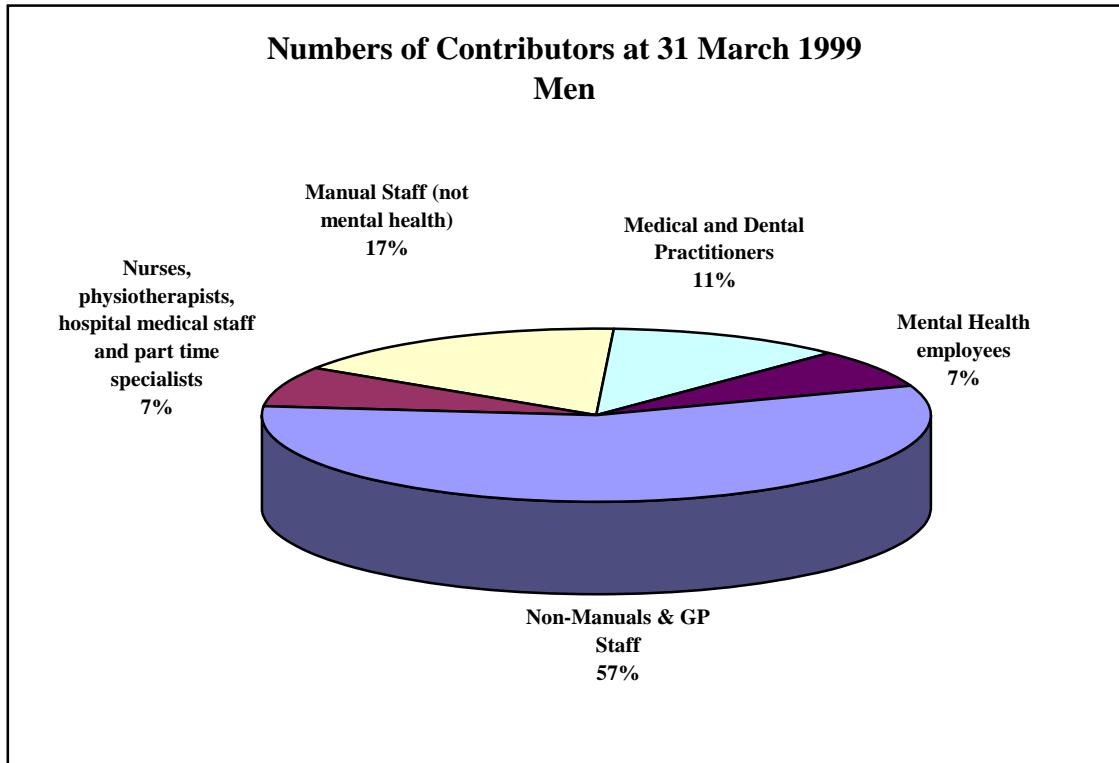
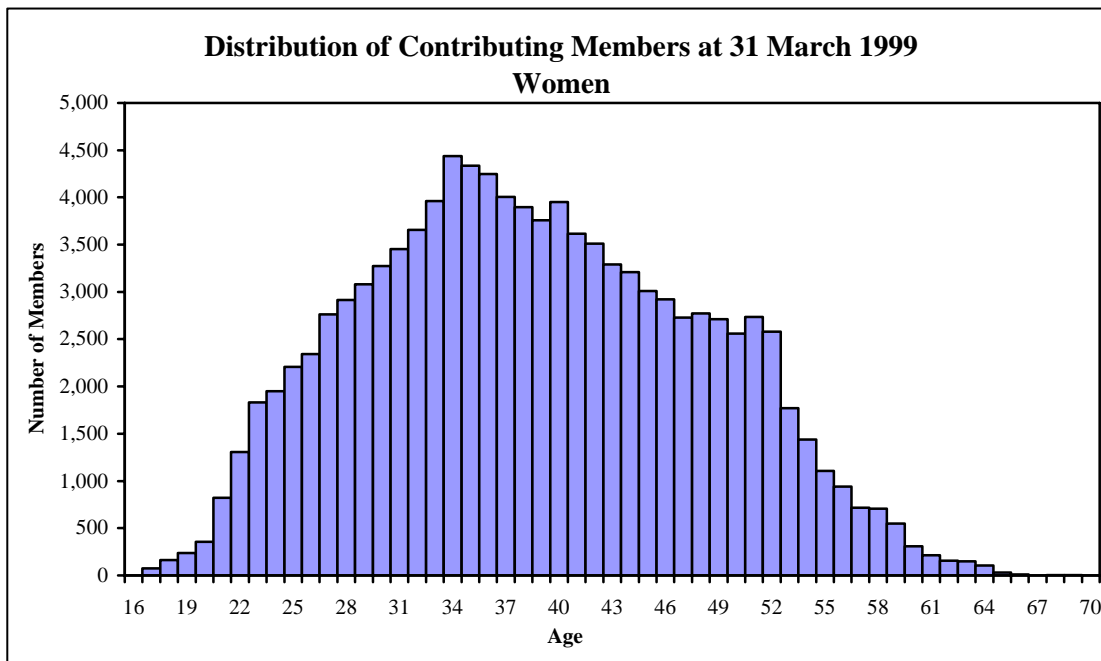
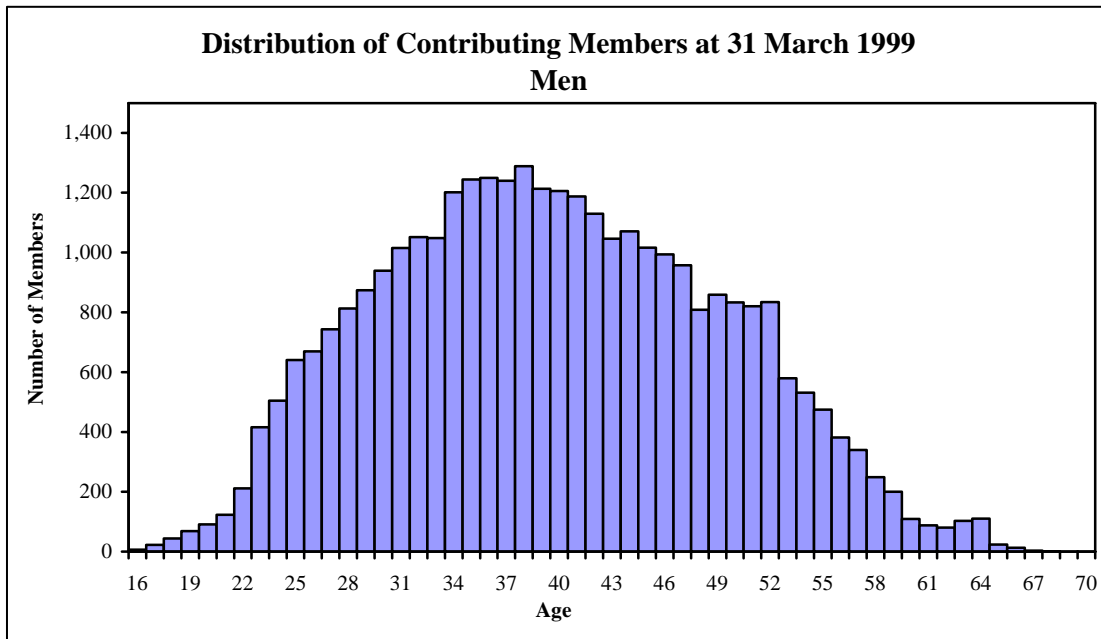


Figure 2 – Distribution of Contributing Members at 31 March 1999



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4.3 The NHS Superannuation Scheme for Scotland is very large, with many participating employers, so it takes time to collect and collate the data. Since the last valuation, the SPPA has been able to update records annually, rather than five yearly, as was the case in the past. It has therefore been possible to supply data for a much larger data sample than has been the case in the past. Data was supplied for approximately 80% of the active membership. The results for the whole scheme have been estimated by rating up the results for those for whom data has been supplied. The rating-up factors for each employee group were agreed with the SPPA.

**Changes in the number of active members 1994-1999**

4.4 Details of all recorded movements in the number of members in the scheme during the year ending 31 March 1999 were supplied by the SPPA for each employee group. It is inevitable in a scheme with so many new entrants and withdrawals each year that some movements will not have found their way onto the computer records in time for inclusion in the statistics for the investigation. These processing delays are not thought to have distorted the valuation results to any significant extent.

4.5 Changes in membership of the scheme during the five years since the previous investigation are summarised in Table 2 below.

**Table 2 - Changes in contributing membership 1994-99**

	<b>Men</b>	<b>Women</b>	<b>Total</b>
	('000)		
<b>Numbers at 31 March 1994</b>	<b>24.9</b>	<b>63.7</b>	<b>88.6</b>
<b>Numbers at 31 March 1999</b>	<b>32.8</b>	<b>106.9</b>	<b>139.7</b>

*Note: Totals may not add up exactly due to rounding*

4.6 Since the last valuation the number of contributors has increased by around 58%. This is due to the increase in the number of NHS employees, and to the extension of the scheme to staff working in GP practices in 1997, and the return of many members who had previously been mis-sold personal pensions (paragraph 2.4).

**Payroll and average salaries**

4.7 The total pensionable payroll of contributors at 31 March 1999 was nearly 82% higher than the corresponding figure for 1994. The payroll figures and the average annual salaries in 1994 and

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1999 are shown in Table 3 below. The average annual pensionable earnings at 31 March 1999 for each of the employment groups is given in Appendix C.

**Table 3 - Payroll and average salaries**

	<b>Men</b>	<b>Women</b>	<b>Total</b>
	<i>(£ million per annum)</i>		
1. Pensionable payroll at 31 March 1994	590	966	1,556
2. Pensionable payroll at 31 March 1999	816	2,008	2,823
	<i>(£ per annum)</i>		
3. Average pensionable pay at 31 March 1994	23,694	15,170	17,561
4. Average pensionable pay at 31 March 1999	24,883	18,782	20,214

*Note: Totals may not add up exactly due to rounding*

**Pensions in payment**

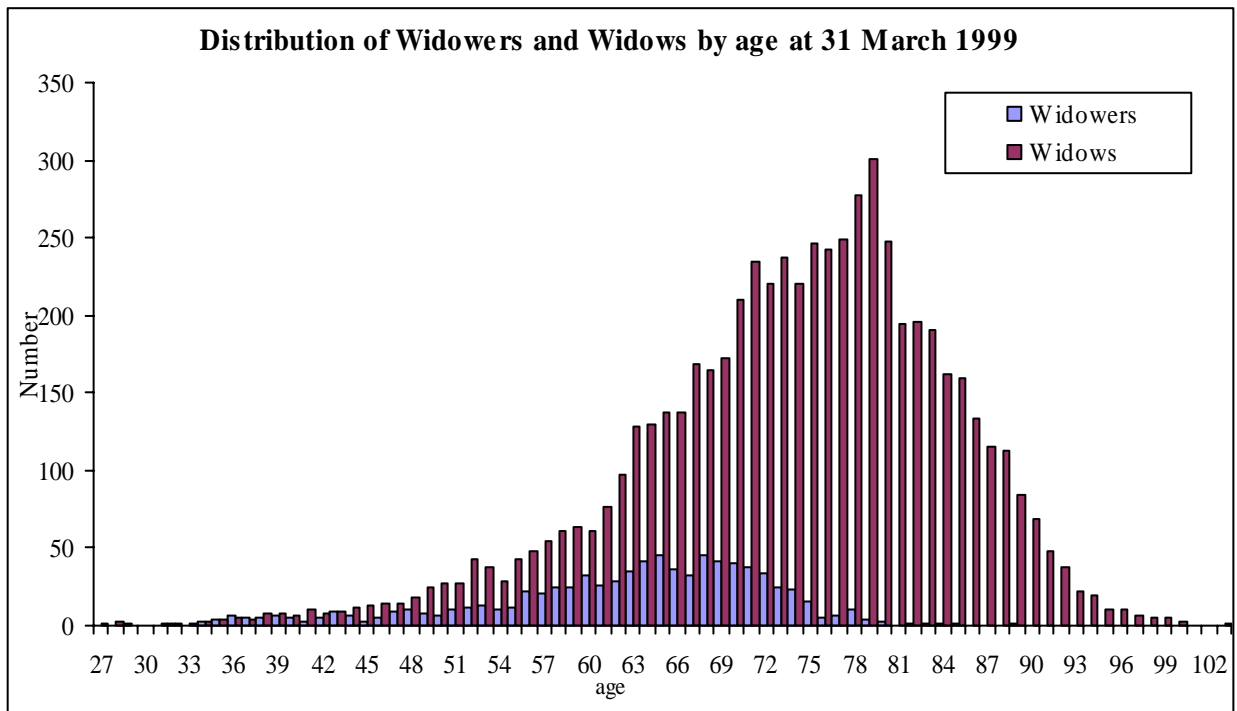
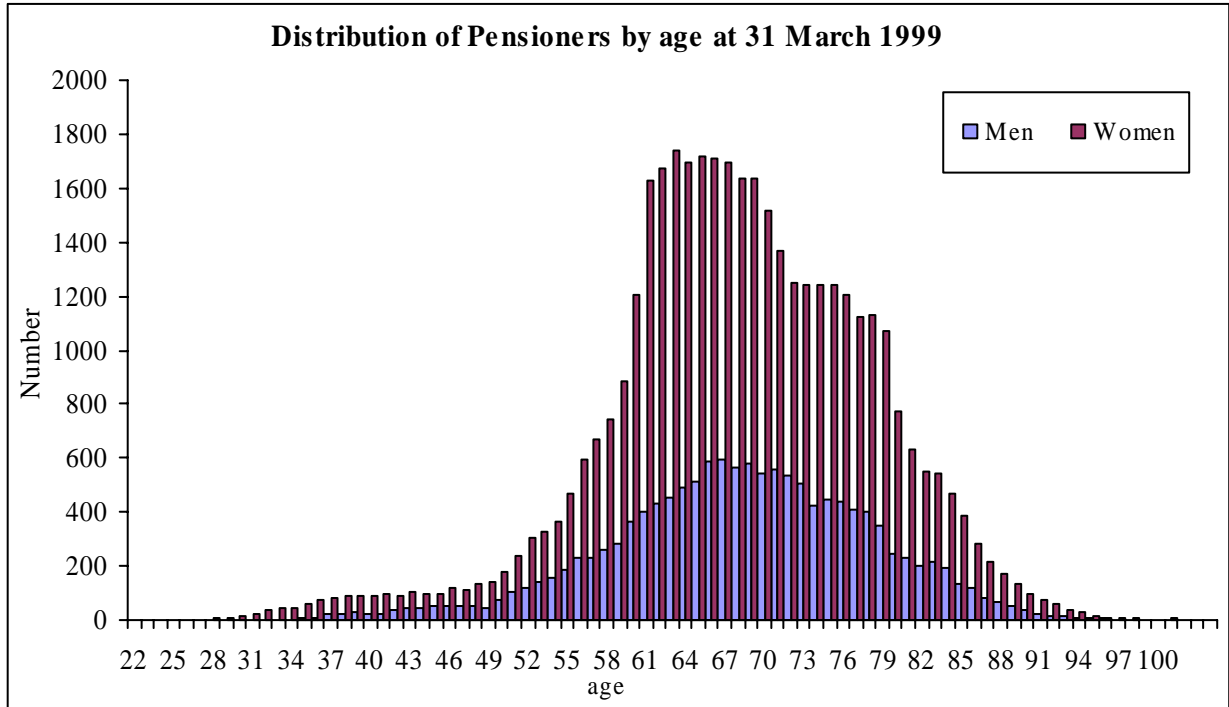
- 4.8 The changes in the number of pensioners during the five years since the previous investigation are summarised in Table 4 below. The figures include both children receiving allowances, and those who have taken premature retirement but have not yet reached normal retirement age (see paragraph 4.12). Figure 3 illustrates the distribution of pensioners by age.

**Table 4 - Changes in the numbers of pensioners 1994-99**

	<b>Men</b>	<b>Women</b>	<b>Widowers, Widows &amp; Dependants</b>	<b>Total</b>
	<i>( '000)</i>			
Pensioners at 1 April 1994	12.4	34.0	6.3	52.7
Pensioners at 31 March 1999	13.6	39.6	7.4	60.6
	<i>(£ '000)</i>			
Annual amounts at 1 April 1994	62,745	61,440	7,151	131,336
Annual amounts at 31 March 1999	90,315	95,437	11,140	196,892

*Note: Totals may not add up exactly due to rounding*

Figure 3 – Distribution of Pensioners by age at 31 March 1999



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4.9 The number of pensions in payment has increased by 45% over the quinquennium, compared with around 26% between 1989 and 1994. Although the scheme has operated for over fifty years, it will still be many years before the number of pensioners builds up to its equilibrium level, due to the expansion of the health service over that period.

4.10 The amounts of pensions in payment at 31 March 1999 are given in Table 5 and illustrated in Figure 4; these amounts exclude any pension increases in excess of the statutory increases required on GMPs accruing between April 1988 and April 1997.

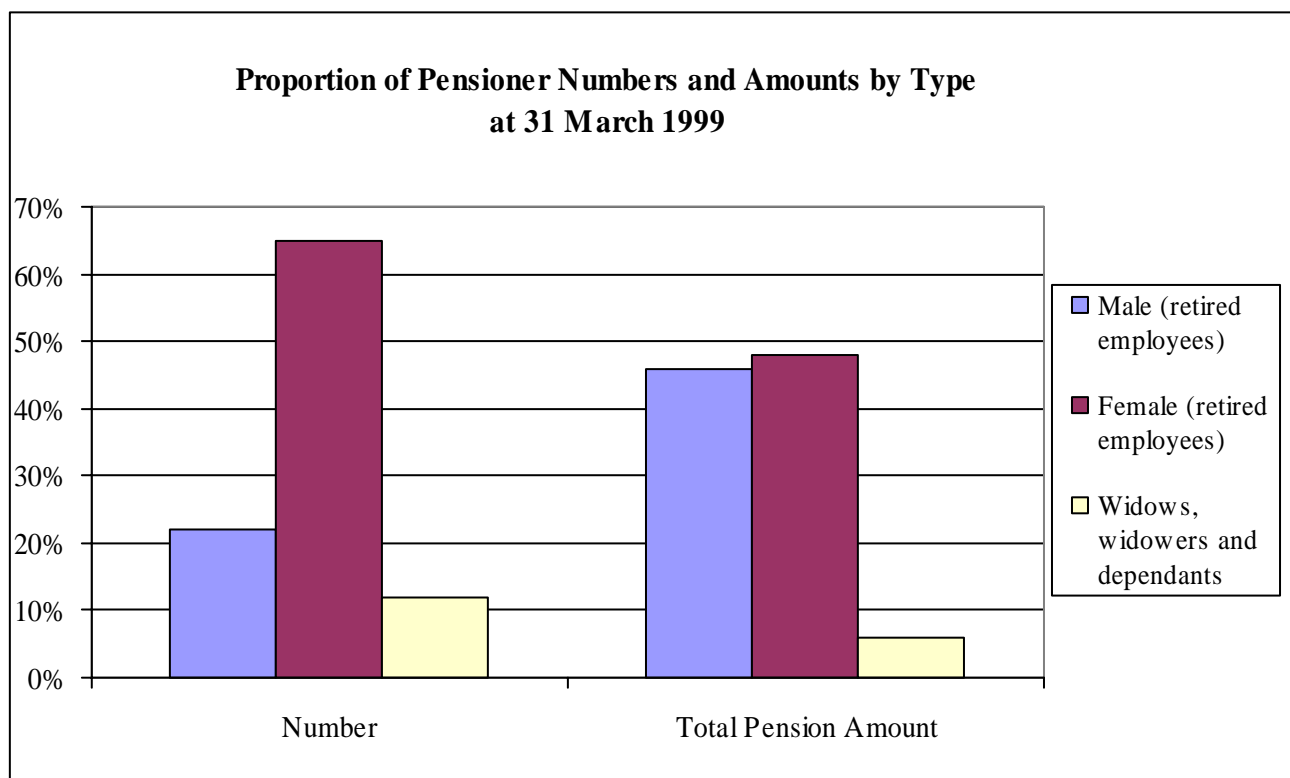
**Table 5 - Pensions in payment at 31 March 1999**

	Numbers ( '000)	Annual Amounts (£'000)	Pension Increases (£'000)
Men (retired employees)	13.6	90,315	34,531
Women (retired employees)	39.6	95,437	37,819
Widows, Widowers and Dependants	7.4	11,140	12,156
<b>Total</b>	<b>60.6</b>	<b>196,892</b>	<b>84,506</b>

*Note: Totals may not add up exactly due to rounding*

4.11 The total amount of pensions in payment has grown considerably over the five year period, from an estimated amount of £69 million at 31 March 1994 to £197 million at 31 March 1999. The actual pension roll is, of course, much higher than £197 million, when allowance is made for the pension increases which are not charged to the Account. In the year to 31 March 1999 the annual cost of these increases to pensions in payment was £85 million, so that total pensions in payment amounted to £281 million.

Figure 4 – Proportion of Pensioner Numbers and Amounts by Type at 31 March 1999



#### Premature retirements

4.12 The scheme provides for the immediate payment of pension and lump sum to officers aged over 50 who retire due to redundancy or retire in the interest of the efficiency of the service. The liability debited to the Superannuation Account prior to the valuation date covers the accrued lump sum at retirement, plus the payment of the accrued pension from the normal retiring age (age 60 or age 55 in respect of the special classes - nurses and mental health officers). In respect of retirements from 1 April 1995, however, employers have met the cost of paying the lump sum early and the cost of the pension from the date of retirement to normal pension age.

4.13 Under the National Health Service (Compensation for Premature Retirement) (Scotland) Regulations 2003 (SSI 2003, No. 344), an enhancement of up to 10 years is added to the service used for calculating these benefits, but these benefits are met by the employers outside the scheme, and are therefore not considered in this report.



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**Preserved pensioners**

- 4.14 Preserved benefits are awarded to those who leave the scheme with at least two years of service. They consist of a pension payable from age 60, a lump sum and contingent widows' and widowers' benefits. All preserved benefits attract pension increases from the date of leaving, but the costs of these increases have not been met by the scheme to date. The member may choose to transfer the value of those benefits into another pension arrangement. Members who leave the scheme and rejoin NHS service within one year (the "free year") have the right to aggregate their separate periods of service based on their later salary.
- 4.15 The Scottish Public Pensions Agency provided data for all preserved pensioners and free year cases as at 31 March 1999 as set out in Table 6 below. The amounts shown exclude pension increases accrued since the members' dates of leaving.

**Table 6 -Preserved Pensions and Free Year Cases at 31 March 1999**

	Males		Females		Total	
	Numbers ( '000)	Preserved Pensions (£ '000)	Numbers ( '000)	Preserved Pensions (£ '000)	Numbers ( '000)	Preserved Pensions (£ '000)
Preserved Pensioners	8.1	4,005	35.8	16,586	43.9	20,590
Free Year	1.4	2,375	3.9	3,692	5.3	6,067
<b>Total</b>	<b>9.5</b>	<b>6,380</b>	<b>39.7</b>	<b>20,277</b>	<b>49.2</b>	<b>26,657</b>

*Note: Totals may not add up exactly due to rounding*

- 4.16 According to the data supplied, the total number of preserved pensions rose from around 34,900 as at 31 March 1994 to around 49,200 as at 31 March 1999. GAD is unable to verify the data received for the 1999 valuation. The liability in respect of deferred pensioners is around 1% of the scheme's total liabilities. I have assumed that the preserved pension data supplied is complete. Audited SPPA Resource Accounts state that the number of deferred pensioners as at 31 March 2004 was 44,000.
- 4.17 This report relies on the accuracy of the data provided. The NHS Superannuation Scheme is a large scheme with many participating employers and, where necessary, GAD and SPPA have

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discussed and agreed the adjustments that should be made to the data to ensure consistency with information published elsewhere. Further assumptions were necessary, as set out in paragraphs 4.1 and 4.16. I am satisfied that, notwithstanding some uncertainties around the data provided, the conclusions set out in Section 10 are reasonable.

4.18 The data supplied by the Scheme's administrators contained some obvious errors. Whilst these errors were removed, it was not possible to remove potential smaller errors which were not as easy to identify, nor was it possible to learn the extent of these difficulties. The administrators have made a statement to say they are happy for us to proceed with the data provided, with obvious errors having been omitted.

*Section 5*

**FUNDING OBJECTIVE AND VALUATION METHOD**

**Funding Objective**

- 5.1 The funding objective is to ensure that benefits are paid for as they accrue during active service, by means of a contribution of a level percentage of pensionable pay called the Standard Contribution Rate (SCR). The SCR would be just sufficient, if paid throughout the whole service of a typical new member, to finance the benefits under the scheme, provided that experience is in accordance with the actuarial assumptions made. This method of determining the SCR is known as the Entry Age Method.
- 5.2 The employers' contribution rate for the scheme as a whole will remain stable provided that the actuarial assumptions are borne out and that the distribution of new members by age and sex does not change significantly. Depending on the actual experience of the scheme as disclosed at each actuarial review, larger or smaller contributions may have to be paid for a period in order to achieve the objective.

**Valuation Method**

- 5.3 The liabilities under the scheme have been valued by a "prospective benefits" valuation method. Under this method, all prospective benefits in respect of members in post at the valuation date, and of those former members with a remaining interest in the scheme at that date, are taken into account. For former members, the value of the pensions in payment, deferred and contingent pensions are included. For contributing members, benefits in respect of service both before and after the valuation date are valued, allowing for future increases in earnings up to the assumed exit date. The value of the assets and the value of members' future contributions are subtracted from the value of the prospective liabilities, leaving a balance to be met by future contributions from the employing authorities.
- 5.4 The liabilities under paragraph 5.3 do not take the impact of future entrants into account. The contribution rate required to meet the value of benefits that would accrue to new entrants is considered in Section 8.

*Section 6*

**VALUATION ASSUMPTIONS**

- 6.1 Assumptions are needed for the financial and demographic aspects of the scheme's expected future experience. Paragraphs 6.2 to 6.21 below consider the demographic assumptions and sections 6.22 to 6.27 consider the financial assumptions.

**Demographic Assumptions**

- 6.2 The Scottish Public Pensions Agency provided data on the experience in the Scheme for each of the different employee categories, the composition of which is shown in Appendix C. The experience in the period 1994-99 was examined, including testing against the assumptions made at the last investigation, for each of these groups. A common basis was adopted for more than one group whenever this could be justified. The results of the investigations into the experience in the period 1994-99 are described below.
- 6.3 The assumptions adopted for this valuation are summarised in Appendices D to H.

**Mortality After Age Retirement**

- 6.4 For pensioners who had retired on age grounds, the mortality rates assumed for the previous valuation were derived from standard tables known as the PA80 tables, published by the Institute and Faculty of Actuaries.
- 6.5 New tables have been compiled by the Institute and Faculty of Actuaries, based upon the mortality experience of insured annuitants (the PA92 tables). Whilst the tables are not based on, and therefore do not necessarily reflect, the experience of the scheme, the tables do represent a cross-section of the population which can be expected to exhibit similar characteristics to scheme pensioners.
- 6.6 Experience data was insufficient to enable a rigorous analysis of experience. However, the actual experience of the NHSSS over the period 1994-99 proved to be a reasonably close fit to the new tables, albeit closer for females than males (male mortality was a little heavier than the standard tables). We have adopted rates based on the NHSSS assumptions, adjusted to allow for the differences that might be expected between general populations in Scotland and England & Wales.

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- 6.7 The PA92 tables contain a facility to project anticipated future improvements in longevity. Increased longevity is a real risk to the costs of the scheme and I therefore consider it prudent to make some allowance for future improvement.
- 6.8 For the purpose of valuing current pensioners in the valuation we have therefore adopted the PA92 tables, projected to allow for longevity improvements to the next valuation date.
- 6.9 The pensions payable in due course to current contributors will continue much further into the future than pensions currently in payment, and it is appropriate to make an additional allowance for future longevity improvement. For contributing members and preserved pensioners, I have allowed for improvements in longevity over the average remaining service lifetime of current contributors.

**Mortality after Ill-health Retirement**

- 6.10 Those awarded ill-health pensions are subject, as a group, to heavy mortality in the early years after retirement. Then, as the period since retirement increases, ill-health pensioners' mortality converges towards that of age-pensioners, but on average remains higher. The mortality assumptions adopted are consistent with this experience.
- 6.11 A statistically reliable analysis of mortality from ill-health retirement was not possible. As a result the assumption we adopted was identical to that adopted for my last report.

**Rates of Retirement on Grounds of Age**

- 6.12 Contributors may retire on reaching the normal pension age 60 (or age 55 for members of the special classes, if they have completed the necessary period of relevant service). Many employees remain in NHS employment beyond these ages, continuing to make contributions and accrue further benefits. The valuation assumptions are based on the actual ages at which retirement takes place.
- 6.13 An examination of the experience in 1994-99 showed that the assumptions for the probabilities of retiring on grounds of age made at the last valuation remain broadly appropriate. The rates adopted for this valuation are shown in Appendix E, together with the implied average age of retirement.

**Early Retirement in Normal Health**

6.14 The facility to take actuarially reduced early retirement benefits was introduced to the scheme in April 1995. The reduction factors applied to the pension and lump sum of those who exercise the option are designed to be cost-neutral. I have therefore ignored the impact of such retirements in this investigation.

6.15 Employing Authorities have the option to offer members early retirement under different terms, either with consent but without actuarial reduction, or on premature retirement or redundancy. For retirements from 1 April 1995, the cost of the extra benefits which such a retirement creates is met wholly by the employer. No allowance has been made for the incidence of these early retirements.

**Retirement on Grounds of Ill-health**

6.16 Between 1994 and 1999 the total overall number of ill-health retirements was lower than expected based on the 1994 assumptions, although there was wide variation between different categories of member. The assumptions we adopted were identical to my last report which builds a small element of prudence due to the variability of the results. The rates adopted for men and women are shown in Appendix E for specimen ages.

**Mortality during Employment**

6.17 The number of deaths was too few for an analysis to be statistically reliable, so the rates used are identical to those adopted in my last report.

**Rates of Withdrawal**

6.18 The experience in the NHS Schemes in Great Britain shows that the length of membership has a significant impact on the withdrawal rates. In general, the probability of leaving is highest in the first year of service, and decreases quite sharply with increasing service until reaching an "ultimate" level, which in this investigation has been taken to occur after completion of five years' scheme membership. For medical practitioners, who have generally already undergone some years' NHS service before entering general practice, there was little evidence of withdrawal rates varying with period of membership.

6.19 After analysing information available at this valuation, I consider that the rates adopted for the last valuation remain appropriate for this investigation.

**Progression of Average Remuneration with Age**

- 6.20 As an employee becomes more experienced, pay may increase through promotion or performance-related increments, in addition to the general pay awards. For each employee group, a salary scale is developed which represents the progression of average superannuable pay with age. These scales make no allowance for future changes in the general level of remuneration, which are treated separately (see paragraph 6.25 below).
- 6.21 Analysis for this investigation suggests that, for most groups, the scales used at the last valuation remain appropriate. The salary scales used for this valuation are listed in Appendix H.

**Financial Assumptions**

- 6.22 The liabilities of the scheme depend on general salary inflation. The costs of pension increases were not, at the valuation date, met by the scheme, as explained in paragraph 2.2. Consequently, in the period after retirement, benefits payable from the notional account are generally fixed in money terms. In assessing the capital value of liabilities for comparison with the value of the notional assets held, assumptions are required both for the rate of interest which should be used to discount sums of money due in the future and for the rate of future increases in the general level of salaries. Past experience has shown that there is likely to be a high degree of correlation between interest rates and increases in salaries resulting from price inflation and general economic growth.
- 6.23 The liabilities of the scheme extend for a long period into the future. The scheme is restricted to notional investment in government securities, which it is not able to trade and so is locked into the yields on those assets at the time of their purchase. It is appropriate in setting an assumption for the rate of return to consider the yields likely to be available on these investments over the long-term. The scheme is unlikely to have to realise assets to any significant degree for many years and should be seen as a holder of long-dated government securities.
- 6.24 Yields on fixed interest government securities are affected by a number of factors, including the anticipated levels of future inflation and the general state of the economy. In the period since the last valuation the annualised redemption yields on these investments started in a reasonably stable range of 7¾% to 8½% before declining towards the end of the intervaluation period. Against this background I consider it appropriate to retain the assumed rate of interest of 8% a year used in the last valuation.

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6.25 In view of the correlation noted in paragraph 6.22, the assumption to be made about the rate of future general increases in salary levels should be consistent with the rate of interest adopted for the valuation. For those benefits affected by the impact of salary growth, the difference between the rate of interest and the rate of increases in salary assumed is far more important than the absolute levels of these rates. Over the long-term, the differences between investment returns and general earnings increases, and the investment returns in excess of price inflation, have been reasonably stable.

6.26 For this valuation, I have assumed that the rate of interest will exceed the rate of general increase in salary levels by 2% a year. This compares with an assumption of 1½% a year made in the last valuation. In conjunction with a valuation rate of interest of 8%, this implies increases in the general level of salaries of approximately 6% a year. These increases are in addition to the career increases on account of promotion and other factors, which are discussed in paragraph 6.20.

6.27 Although pensions are protected against rising prices through the Pensions (Increase) Acts, pensions increase payments were not debited to the scheme at the valuation date, and so an assumption about the future rate of price inflation is not strictly required for the purposes of this investigation.

**Value of the Notional Fund**

6.28 The value of that part of the notional fund invested in British Government fixed-interest stocks has been obtained by discounting at 8% a year the future interest and redemption proceeds of the notional assets. This rate of discount is the same as used for valuing the fixed monetary liabilities.

6.29 The value of that part of the notional fund invested in British Government index-linked stocks has been obtained by discounting at 3.5% a year the future interest and redemption proceeds of the notional assets. This corresponds with the assumption made in paragraph 6.27 for valuing index-linked liabilities.

6.30 The value placed on the notional assets on this basis is £5,821 million which is significantly higher than the book value of the balance of £4,168 million in the Superannuation Account.



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6.31 The values placed on the scheme's assets and liabilities have both been calculated by discounting future cashflows at appropriate rates of interest. I am satisfied that the methods and assumptions used to determine these values are consistent.

6.32 Approximately 90% of the scheme's notional assets are invested in index-linked securities and the remaining balance is held in fixed interest securities. The strategy of investing all new money in index-linked gilts is appropriate for a scheme whose liabilities are either related to salary or price inflation. As this valuation does not take account of pension increases, the result is sensitive to the rate at which cashflows in respect of pensioners liabilities and income from fixed-interest securities are discounted. Given that the Superannuation Account will, in future, accept responsibility for the payment of pension increases on all benefits, I am satisfied that the notional investment strategy remains appropriate.

*Section 7*

**RESULTS OF THE INVESTIGATION**

7.1 The outcome of my valuation of the assets and liabilities of the scheme, on the basis described in section 6 of this report, is set out in detail in the valuation statement in Appendix I. A summary is given in Table 7. The liabilities valued include all benefits payable under the Regulations in respect of pensioners, deferred pensioners and contributors as at 31 March 1999 for past service and assumed future service. At the valuation date, payments under the Pensions (Increase) Acts were not a liability of the Superannuation Account and are therefore excluded (however, see section 9 below).

**Table 7 - Summary of valuation statement at 31 March 1999**

	<i>£ million</i>
<b>Value at 31 March 1999 of benefits in respect of</b>	
Former members and their beneficiaries	1,957
Contributors	8,207
<b>Total liabilities</b>	<b>10,164</b>
<b>Value at 31 March 1999 of:</b>	
Future contributions payable by members	2,276
Investments in the notional fund	5,821
<b>Total</b>	<b>8,097</b>
<b>Balance of liabilities to be met by contributions from employing authorities</b>	<b>2,067</b>

*Note: Totals may not add up exactly due to rounding*

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7.2 The valuation discloses a balance of £2,067 million to be met by future contributions from employing authorities. If employing authorities were to continue to contribute at a rate of 5.5% of pensionable payroll in respect only of employees in the scheme at the valuation date, these contributions would have a value of £2,097 million. This would be sufficient to meet the outstanding balance. However, it is necessary to consider the level of contributions required to meet benefits to be provided for new entrants to the scheme after the valuation date, before making a recommendation as to the rate of contribution payable by employing authorities. This is examined in section 8.

7.3 The liability to be met by contributions from the employing authorities is higher, when expressed as a proportion of superannuable salaries, than would have been expected from the outcome of my last investigation. There have been a number of factors operating to increase and decrease the liability of the employers, which on balance has produced this less favourable outcome. Table 8 below summarises these main factors and their impact on the fund.

**Table 8 – Summary of analysis of surplus:**

<b>Beneficial Impact</b>	<b>Detrimental Impact</b>
<ul style="list-style-type: none"> <li>• Salary growth lower than assumed (significant)</li> </ul>	<ul style="list-style-type: none"> <li>• Allowance for increasing longevity (significant)</li> </ul>
<ul style="list-style-type: none"> <li>• Price inflation lower than assumed (significant)</li> </ul>	<ul style="list-style-type: none"> <li>• Lower investment return relative to that assumed in 1994 (significant)</li> </ul>
<ul style="list-style-type: none"> <li>• Price and salary inflation growth assumptions have been reduced (moderate)</li> </ul>	

7.4 As the composition of the valuation groups has changed since 1994, it is difficult to compare the increase in average salaries across all groups. For those groups where comparisons can be made, average salaries have increased overall by around 3% a year, compared with the 1994 valuation assumption of 6½%. Even allowing for possible distortions arising from changing proportions of part-time members, it is reasonably clear that NHS salary inflation over the intervaluation period has been less than assumed.

7.5 Over the intervaluation period, price inflation averaged around 3% a year, compared with the 1994 valuation assumption of nearly 5% a year.

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- 7.6 The investment return on the assessed value of assets averaged around 7% a year compound, compared with the assumed rate of 8%.

*Section 8*

**STANDARD CONTRIBUTION RATE**

- 8.1 The key purposes of this investigation are to assess a standard contribution rate which will support the cost of benefits accruing under the scheme, to assess whether the notional assets held are adequate to enable contributions at the standard contribution rate to be paid and, if not, what adjustment might be made, up or down, for a period to correct any imbalance. Under the valuation method adopted, the standard contribution rate is set to be the contribution necessary to meet the cost of benefits for a group of typical new entrants, if paid over their contributing membership of the scheme.
- 8.2 The standard contribution rates required for this investigation take into account only those benefits payable from the Superannuation Account. This has been assessed on the actuarial assumptions described in section 6, using a distribution of new entrants derived from that of the latest inter-valuation period. Overall, the combined standard contribution rate is calculated as 12.6% of pensionable salary. After allowing for member contributions, the balance to be met by the employing authorities is 6.7% of pensionable salary.

**Future rate of contribution for employing authorities**

- 8.3 Regulation 9 of the 1980 Regulations and regulation D2 of the 1995 Regulations place on the Secretary of State for Scotland the duty of specifying the rate of contribution payable by employing authorities. For entrants to the scheme after 31 March 1999, the rate of contribution required from employing authorities to meet the balance of cost excluding pension increases, after taking into account the contributions payable by employees, is 6.7% of pensionable pay (paragraph 8.2). However, if employer contributions at 6.7% were also paid in respect of members in the scheme at 31 March 1999, throughout the remaining period of their scheme membership, this would more than cover the balance of the liabilities shown in Table 7.
- 8.4 The employers' contribution rate was 4% of pensionable pay between 1 April 1994 and 31 March 2002 but this was increased to 5.5% from April 2002. This is sufficient to meet the balance of the liabilities in respect of staff in post at 31 March 1999 but will result in a small deficiency accruing in respect of new entrants to the scheme, if the valuation assumptions are fulfilled.

*Section 9*

**PENSIONS INCREASES**

- 9.1 The full cost of providing pension benefits to members of the NHS Superannuation Scheme can only be determined if allowance is made for the increases in pensions under the Pensions (Increase) Acts.
- 9.2 In the light of the general move in Government accounting to recognise costs where most appropriate, the Secretary of the State for Scotland and the Chancellor of the Exchequer agreed in principle that the financial structure of the NHS Superannuation Scheme should change. It was agreed that with effect from 1 April 2003 NHS Superannuation Scheme employers should assume liability for all pensions increases including those on pensions-in-payment, contingent pensions to dependants, deferred pensions and the benefits prospectively payable to contributors. The cost of pension increases had previously been met by the Exchequer.
- 9.3 Charging pension increases to the NHS Superannuation Scheme will lead to a substantially higher rate of contribution than is currently required from employing authorities. In the absence of data as at April 2003 upon which to undertake calculations, with effect from April 2003 the employer contribution rate was increased to 14% of pensionable pay, a figure consistent with the employer cost of benefits, including PI, accruing to members of the NHSPS (England and Wales). I consider this to be a reasonable approach in the circumstances. A more accurate figure will be assessed as part of the next quinquennial valuation as at 31 March 2004
- 9.4 It will also be necessary to reassess the level of notional fund to cover the cost associated with accrued pensions increase liabilities.

**Sensitivity of results**

- 9.5 As stated in paragraph 1.3 this report has, as far as possible, been prepared in accordance with Guidance Note 9 (GN9), issued by the Institute and Faculty of Actuaries. GN9 requires that this report should draw attention to those assumptions to which the valuation is particularly sensitive.
- 9.6 This report has been prepared on the basis that pension increases are not met from the Superannuation Account. The value of the liabilities is therefore sensitive to the assumed rate of investment return, 8% per annum. If the assumed rate were reduced to 7% per annum then the amount of the liabilities might increase by around £1 billion. Since around 90% of the notional assets are invested in index-linked gilts, and assuming that the assumed real rate of return on these assets remained at 3.5% per annum, any corresponding rise in the value of the notional assets, relative to the increase in the liabilities, would be very modest.

*Section 10*

**CONCLUSION**

- 10.1* My investigation shows that the NHS Superannuation Scheme continues to operate on a sound financial basis.
- 10.2* The next valuation of the scheme will be as at 31 March 2004. Assuming that the Secretary of the State for Scotland and the Chancellor of the Exchequer reach agreement on the detail of how the cost of pension increases will be brought into the scheme, the valuation report will recommend an employers' contribution rate appropriate to the new arrangements.
- 10.3* Since 1999, employers have contributed to the scheme at the rate of 5.5% of pensionable pay, rising to 14% of pensionable pay from 1 April 2003 when the scheme took over the liability to pay increases to pensions in payment. It is reasonable that employers should continue to contribute at 14% of pensionable pay until the results of the next valuation as at 31 March 2004 are known. Prior to completion of the 31 March 2004 valuation, the notional fund will also need to be re-rated to allow for the accrued pensions increase liabilities taken on by the scheme.



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**Appendix A**

**CONSOLIDATED REVENUE ACCOUNT FROM 1 APRIL 1994 TO 31 MARCH 1999**

*£ million*

<b>Balance at 1 April 1994</b>		<b>3,161</b>
<b>Income:</b>		
Employees' contributions	498	
Employers' contributions	356	
Transfer values received	93	
Interest	1,175	
		2,122
<b>Expenditure:</b>		
Pensions to members	750	
Lump sums on retirement	208	
Death gratuities	16	
Spouses' and dependants' pensions	47	
Returns of contributions	3	
Transfer values paid	88	
Payments to National Insurance Fund (less amounts recovered from employees)	2	
		1,114
<b>Balance at 31 March 1999</b>		<b>4,168</b>

*Note: Totals may not add up exactly due to rounding*

**Notes:**

1. *Payments under the Pensions (Increase) Acts are excluded from the Account; these payments amounted to £360 million during the five years.*
2. *Payments to the National Insurance Fund include payments of Contributions Equivalent Premiums.*

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**Appendix B**

**NOTIONAL ASSETS OF THE SCHEME AT 31 MARCH 1999**

<b>Stock</b>		<b>Amount Invested (Nominal Book Value)</b>	<b>Annual Interest</b>	<b>Yield</b>
		<i>£ million</i>	<i>£ million</i>	
1962 Balance (Note 1)		12	0	5.0%
5½% Treasury Stock	2008-12	134	11	8.1%
7¾% Treasury Stock	2012-15	103	16	15.2%
12% Exchequer Stock	2013-17	80	11	13.2%
13¾% Treasury Stock	2000-03	174	22	12.5%
12½% Treasury Stock	2003-05	70	12	16.7%
<b>Index-linked Stock</b>				
2% Treasury Stock	2006	272	10	3.9%
2½% Treasury Stock	2011	276	12	4.6%
2½% Treasury Stock	2001	185	10	5.6%
2½% Treasury Stock	2016	187	9	5.2%
2½% Treasury Stock	2009	193	10	5.2%
2½% Treasury Stock	2013	201	10	5.4%
2½% Treasury Stock	2020	227	11	5.0%
2½% Treasury Stock	2024	207	9	4.5%
4 <sup>1</sup> / <sub>8</sub> % Treasury Stock	2030	1,842	65	3.5%
<b>Total</b>		<b>4,161</b>	<b>221</b>	

*Note: Totals may not add up exactly due to rounding*

**Notes:**

1. *The balance in the Account at 1 April 1962 was deemed to be invested in the same proportion as the stocks in the Industrial Injuries Fund at that date. The amount shown above is the net balance remaining after allowing for notional redemptions up to 31 March 1999.*
2. *The balance of £4,168 million in the Account at 31 March 1999, as shown in Appendix A, includes half a year's interest on part of the notional holding of 4<sup>1</sup>/<sub>8</sub>% index-linked Treasury Stock 2030 (which is not deemed to be invested until 1 October 1999).*

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**Appendix C**

**CONTRIBUTORS AT 31 MARCH 1999**

<b>Group Number</b>	<b>Employee Group</b>		<b>Number of contributors</b> <i>thousands</i>	<b>Average annual pensionable earnings</b> <i>£</i>
1	Non-manuals administrative, executive, clerical officers,  including hospital medical and dental officers and male nurses	<i>Men</i>	17.1	25,795
		<i>Women</i>	40.2	19,591
2	Nurses, physiotherapists	<i>Men</i>	4.1	13,157
		<i>Women</i>	53.5	18,611
3	Mental health officers	<i>Men</i>	2.4	22,350
		<i>Women</i>	4.3	18,682
4	Mental health manual staff	<i>Men</i>	0.002	10,621
		<i>Women</i>	0.004	13,023
5	Medical practitioners	<i>Men</i>	2.3	55,888
		<i>Women</i>	1.6	38,484
6	Dental practitioners	<i>Men</i>	1.3	51,592
		<i>Women</i>	0.6	37,558
7	Manual staff (not mental health)	<i>Men</i>	5.5	12,252
		<i>Women</i>	6.7	8,755
	<b>Totals</b>	<b><i>Men</i></b>	<b>32.8</b>	<b>24,883</b>
		<b><i>Women</i></b>	<b>106.9</b>	<b>18,782</b>
		<b><i>All</i></b>	<b>139.7</b>	<b>20,214</b>

*Note: Totals may not add up exactly due to rounding*

*Appendix D*

**RATES OF MORTALITY OF PENSIONERS**

**(a) Probability of death for current age pensioners in the year following the age stated**

Age at beginning of year	Men	Women
60	.0047	.0038
65	.0102	.0078
70	.0210	.0150
75	.0401	.0276
80	.0710	.0476
85	.1164	.0778
90	.1765	.1199
95	.2480	.1745
<b>Average number of years pensioners expected to live after retiring at age</b>		
<b>55</b>	<b>26.5</b>	<b>29.5</b>
<b>60</b>	<b>21.9</b>	<b>24.9</b>
<b>65</b>	<b>17.5</b>	<b>20.5</b>

**(b) Probability of death of future age pensioners in the year following the age stated**

Age at beginning of year	Men	Women
60	.0030	.0024
65	.0071	.0055
70	.0158	.0114
75	.0322	.0221
80	.0600	.0402
85	.1025	.0685
90	.1611	.1094
95	.2332	.1641
<b>Average number of years pensioners expected to live after retiring at age</b>		
<b>55</b>	<b>28.3</b>	<b>31.2</b>
<b>60</b>	<b>23.5</b>	<b>26.5</b>
<b>65</b>	<b>19.0</b>	<b>21.9</b>

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**Appendix D (continued)**

**(c) Probability of death of current ill-health pensioners in the year following the age stated**

The mortality rates shown are for the year following the age stated.

Age at beginning of year	Men	Women
45	0.0118	0.0107
50	0.0126	0.0115
55	0.0144	0.0129
60	0.0185	0.0159
65	0.0269	0.0217
70	0.0422	0.0318
75	0.0680	0.0485
<b>Average number of years pensioners expected to live after retiring at age</b>		
<b>45</b>	<b>27.4</b>	<b>30.0</b>
<b>55</b>	<b>24.0</b>	<b>26.5</b>
<b>60</b>	<b>20.5</b>	<b>23.0</b>

**(d) Probability of death of future ill-health pensioners**

The mortality rates shown are for the year following the age stated, according to the duration since the date of retirement.

Age at start of year	Men				Women			
	First Year	Second Year	Third Year	Fourth and subsequent years	First Year	Second Year	Third Year	Fourth and subsequent years
45	0.018	0.018	0.015	0.0118	0.020	0.015	0.015	0.0067
50	0.030	0.020	0.016	0.0126	0.025	0.015	0.015	0.0075
55	0.030	0.020	0.020	0.0144	0.025	0.018	0.018	0.0089
60	0.037	0.030	0.026	0.0185	0.030	0.022	0.022	0.0119
65	0.037	0.037	0.037	0.0269	0.030	0.030	0.030	0.0177
70	-	-	-	0.0422	-	-	-	0.0278
75	-	-	-	0.0680	-	-	-	0.0445

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**Appendix E**

**PROBABILITY OF RETIREMENT - MEN**

Probability of retirement from service with pension or other benefit in the year following the age stated:

Age at beginning of year	Group						
	1	2	3	4	5	6	7
<b>Ill-health retirement</b>							
27	.0005	.0005	.0018	.0018	.0003	.0003	.0046
32	.0008	.0008	.0036	.0036	.0003	.0003	.0077
37	.0015	.0015	.0054	.0054	.0006	.0006	.0117
42	.0030	.0030	.0090	.0090	.0011	.0021	.0163
47	.0056	.0056	.0150	.0150	.0025	.0051	.0214
52	.0090	.0090	.0300	.0300	.0070	.0104	.0335
57	.0200	.0200	.0500	.0500	.0150	.0225	.0483
62	.0300	.0300	.0600	.0600	.0050	.0070	.0670
<b>Age retirement</b>							
55	-	.06	.13	.10	-	-	-
56	-	.05	.07	.05	-	-	-
57	-	.03	.07	.05	-	-	-
58	-	.03	.06	.05	-	-	-
59	-	.02	.02	.03	-	-	-
60	.08	.08	.15	.10	.25	.40	.02
61	.06	.06	.08	.10	.13	.22	.02
62	.06	.06	.08	.10	.13	.22	.02
63	.06	.06	.08	.10	.16	.22	.02
64	.08	.08	.08	.10	.20	.22	.05
65	.80	1.00	1.00	1.00	.55	.70	.85
66	.50	-	-	-	.20	.30	.50
67	.40	-	-	-	.20	.30	.50
68	1.00	-	-	-	1.00	1.00	1.00
<b>Approximate average age on retirement assumed for those retiring on age grounds</b>	<b>64.2</b>	<b>62.4</b>	<b>59.9</b>	<b>60.4</b>	<b>63.1</b>	<b>62.0</b>	<b>64.8</b>

**Notes:**

1. The composition of the Groups is given in Appendix C.
2. Retirement on age grounds is assumed to occur on a birthday

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*Appendix E (continued)*

**PROBABILITY OF RETIREMENT - WOMEN**

Probability of retirement from service with pension or other benefit in the year following the age stated:

Age at beginning of year	Group						
	1	2	3	4	5	6	7
<b>Ill-health retirement</b>							
27	.0014	.0015	.0029	.0029	.0010	.0010	.0072
32	.0020	.0027	.0046	.0046	.0010	.0010	.0108
37	.0025	.0044	.0068	.0068	.0015	.0015	.0162
42	.0035	.0050	.0111	.0111	.0023	.0023	.0204
47	.0060	.0090	.0200	.0200	.0043	.0058	.0264
52	.0085	.0200	.0359	.0359	.0080	.0120	.0364
57	.0210	.0350	.0540	.0540	.0140	.0245	.0483
62	.0250	.0450	.0800	.0800	.0100	.0100	.0600
<b>Age retirement</b>							
55	-	.05	.06	.06	-	-	-
56	-	.03	.04	.04	-	-	-
57	-	.04	.04	.04	-	-	-
58	-	.05	.04	.04	-	-	-
59	-	.03	.02	.02	-	-	-
60	.35	.40	.30	.38	.35	.40	.40
61	.17	.20	.17	.20	.15	.20	.17
62	.17	.20	.17	.20	.15	.20	.17
63	.17	.20	.17	.20	.15	.20	.17
64	.17	.20	.17	.20	.15	.20	.17
65	.75	1.00	1.00	1.00	.45	.85	.80
66	.45	-	-	-	.40	.30	.50
67	.40	-	-	-	.40	.30	.50
68	1.00	-	-	-	1.00	1.00	1.00
<b>Approximate average age on retirement assumed for those retiring on age grounds</b>	<b>62.3</b>	<b>60.7</b>	<b>60.5</b>	<b>60.2</b>	<b>62.7</b>	<b>62.0</b>	<b>61.9</b>

**Notes:**

1. The composition of the Groups is given in Appendix C.
2. Retirement on age grounds is assumed to occur on a birthday

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**Appendix F**

**PROBABILITY OF DEATH IN SERVICE**

Probability of dying while a contributor to the scheme in the year following the age stated:

(i) Men

Age at beginning of year	Groups 1,2,3,4,5 and 6	Group 7
22	0.0007	0.0007
27	0.0007	0.0007
32	0.0008	0.0008
37	0.0009	0.0012
42	0.0016	0.0018
47	0.0025	0.0028
52	0.0040	0.0042
57	0.0059	0.0065
62	0.0091	0.0099
67	0.0137	0.0149

(ii) Women

Age at beginning of year	Groups 1,2,3,4,5 and 6	Group 7
22	0.0003	0.0003
27	0.0004	0.0004
32	0.0005	0.0006
37	0.0007	0.0008
42	0.0010	0.0011
47	0.0014	0.0015
52	0.0021	0.0022
57	0.0031	0.0034
62	0.0051	0.0056
67	0.0083	0.0092



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**Appendix G**

**PROBABILITY OF WITHDRAWAL FROM SERVICE - MEN**

The rates shown are for withdrawal in the year following the age stated, according to the duration of service since date of entry to the scheme:

Age at beginning of year of withdrawal	Groups 1,2 and 3			Group 4 and 7		
	First year	Third year	After 5 years	First year	Third Year	After 5 years
22	.20	.10	.065	.20	.10	.100
32	.20	.10	.046	.20	.10	.060
42	.20	.06	.021	.20	.06	.025
52	.07	.03	.006	.07	.03	.010

Age at beginning of year of withdrawal	Group 5	Group 6		
	Throughout	First Year	Third Year	After 5 years
22	.010	.075	.03	.015
32	.010	.075	.03	.015
42	.005	.075	.03	.013
52	.003	.075	.03	.008

**Notes:**

1. The composition of the Groups is given in Appendix C
2. The withdrawal rates for the second, fourth and fifth years of duration of service are intermediate between the rates shown above.

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**Appendix G (continued)**

**PROBABILITY OF WITHDRAWAL FROM SERVICE - WOMEN**

The rates shown are for withdrawal in the year following the age stated, according to the duration of service since date of entry to the scheme:

Age at beginning of year of withdrawal	Group 1 and 3			Groups 2			Group 4		
	First year	Third year	After 5 years	First year	Third year	After 5 years	First year	Third year	After 5 years
22	.26	.16	.100	.22	.14	.120	.26	.20	.200
32	.22	.15	.070	.18	.12	.060	.22	.12	.100
42	.16	.06	.025	.14	.06	.035	.16	.06	.050
52	.12	.04	.010	.10	.04	.010	.12	.04	.020

Age at beginning of year of withdrawal	Group 5	Group 6			Group 7		
	Throughout	First Year	Third Year	After 5 years	First Year	Third Year	After 5 years
22	.036	.05	.04	.040	.26	.16	.200
32	.026	.05	.04	.030	.22	.15	.110
42	.009	.05	.04	.017	.16	.06	.050
52	.006	.05	.04	.008	.12	.04	.020

**Notes:**

1. The composition of the Groups is given in Appendix C
2. The withdrawal rates for the second, fourth and fifth years of duration of service are intermediate between the rates shown above.

**REPORT BY THE GOVERNMENT ACTUARY ON THE  
NHS SUPERANNUATION SCHEME FOR SCOTLAND 1994-1999**

**Appendix H**

**PROGRESSION OF PENSIONABLE PAY**

(i) **Men** (related to an index of 100 at age 25)

Age	Group					
	1	2	3	5	6	4 and 7
20	60	78	70	80	80	86
25	100	100	100	100	100	100
30	135	122	123	120	117	110
35	170	143	146	145	118	116
40	200	160	167	152	119	118
45	225	170	185	154	124	118
50	244	175	197	156	120	118
55	252	178	200	158	116	118
60	255	180	200	160	102	118

(ii) **Women** (related to an index of 100 at age 25)

Age	Group					
	1	2	3	5	6	4 and 7
20	72	73	76	80	80	90
25	100	100	100	100	100	100
30	122	117	117	120	112	105
35	140	131	132	131	113	108
40	149	139	144	136	116	110
45	155	146	149	140	127	110
50	159	151	153	142	124	110
55	162	155	155	147	119	110
60	164	155	155	150	105	110

**Notes:**

1. The composition of the Groups is given in Appendix C

**REPORT BY THE GOVERNMENT ACTUARY ON THE  
NHS SUPERANNUATION SCHEME FOR SCOTLAND 1994-1999**

**Appendix I**

**VALUATION STATEMENT AS AT 31 MARCH 1999**

	<i>£ million</i>	
<b>Present value of benefits to former members and their beneficiaries:</b>		
Pensions in payment (including widows', widowers' and dependants' pensions)	1,712.9	
Contingent pensions to widows and widowers of existing pensioners	108.4	
Deferred pensions	135.8	
		<b>1,957.0</b>
<b>Present value of benefits in respect of current contributors:</b>		
Pensions to members	5,411.7	
Lump sums on retirement	1,587.9	
Death gratuities	181.4	
Widows', widowers' and dependants' pensions	457.1	
Deferred benefits, transfer values and refunds of contributions on withdrawal and free year cases	568.9	
		8,207.0
<b>Total liabilities</b>		<b>10,164.0</b>
Present value of future contributions from current members	2,275.7	
Value placed on notional investments	5,821.3	
<b>Total</b>		<b>8,097.0</b>
<b>Balance of liabilities to be met by contributions from employing authorities</b>		<b>2,067.0</b>

*Note: Totals may not add up exactly due to rounding*

## *Appendix J*

### **A SUMMARY OF THE MAIN BENEFITS PROVIDED UNDER THE NHS SUPERANNUATION SCHEME**

The summary below describes the principal benefits provided under the Scheme. For a complete description of the contributions and benefits reference should be made to the National Health Service (Superannuation) (Scotland) Regulations 1980, and the National Health Service Superannuation Scheme (Scotland) Regulations 1995.

#### **Eligibility for Membership**

All staff are eligible for membership of the Scheme. All part time members have been eligible to join the Scheme from 1 April 1991.

#### **State Scheme**

The Scheme is contracted out of the State Earnings-Related Pension Scheme (SERPS) except in respect of medical and dental practitioners who are self employed for National Insurance purposes and therefore not eligible. From April 1997 it is intended that the Scheme will be contracted-out of SERPS on a salary-related basis.

#### **Contributions**

Members contribute at the rate of 6 per cent (5 per cent for manual staff) of pensionable pay. Pensionable pay includes basic pay and some allowances but excludes any overtime pay.

#### **Normal Pension Age**

The normal pension age for most members is age 60. Mental health officers, nurses, physiotherapists, midwives and health visitors who joined the scheme before 1 April 1995, may retire at age 55 with an immediate pension provided they have completed the necessary service in relevant employment (20 years for mental health officers, 5 years for the other categories). On retirement before 60, benefits in respect of service before 17 May 1990 for male nurses will be either actuarially reduced for early payment, or deferred until age 60.

#### **Pension on Retirement at or after Normal Pension Age**

The standard benefit is 1/80th of final pay per year of service, where final pay is the best year's pay in the last three years of service. For any service as a mental health officer in excess of 20 years, pension accrues at double rate. (This only applies to those who joined the scheme before 31 March 1995). Pensions for practitioners are calculated as 1.4 per cent of total career pay uprated to the earnings levels at retirement.

#### **Pension on Retirement due to Ill-Health**

Members with more than two years' service receive an immediate pension if they are retired due to ill-health. Where service exceeds five years, the pension is calculated using specially enhanced service, with a maximum enhancement of 10 years.

#### **Lump Sum Benefit on Retirement**

A lump sum of 3 times the pension is payable. For service before 1972, the lump sum for married men is only 1 times the pension, unless the member has paid additional contributions for an unreduced lump sum.

**Lump Sum Benefit on Death in Service**

The benefit payable was the larger of 1 year's final pensionable pay and the lump sum that would have been payable on ill-health retirement. From 1 April 1995, the lump sum on death in service is twice pensionable pay.

**Benefits on Withdrawal**

Members who leave with less than 2 years' service receive a refund of their own contributions. A deduction is made for those who are contracted-out of SERPS to provide the members' share of the contributions equivalent premium payable to the National Insurance Fund.

Members with more than 2 years' service are entitled to a deferred pension payable from age 60. A lump sum of three times the pension will be payable in addition at age 60.

Transfer values are available in either case.

**Widows', Widowers' and Children's Benefits**

A widow's pension is paid if a member dies after retirement at the rate of one-half of the husband's pension or if he dies in service at the rate of one-half of the pension he would have received if he had retired due to ill-health on the date of death. Pensions at the same rate are also paid to widowers, except that no benefit is provided in respect of service before 6 April 1988. A widow's or widower's pension at a higher rate is payable for the first three or six months of payment. Children's pensions are payable in respect of dependent children. Widows' and widowers' pensions cease on the remarriage of the recipient.

**Early Retirement**

From 1 April 1995, members aged 50 or above may take voluntary early retirement on leaving pensionable service. The pension and lump sum paid are calculated as for normal retirement, but actuarially reduced for early payment. With the consent of the employer, no actuarial reduction will be paid, provided the employer meets the additional costs.