Report to FBU

Impact of Government's proposals for members of the FPS and NFPS

Rob Hammond
Fellow of the Institute and Faculty of Actuaries
First Actuarial

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Furness House, Furness Quay, Salford Quays, Manchester, M50 3XZ
T: 0161 876 0883 F: 0870 879 4200 W: www.firstactuarial.co.uk

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1 LIKELY COST OF BENEFITS

- In this Section we consider the likely cost of the Government's proposed **Reference Scheme** based on accrual rates of 80ths, 75ths, 70ths, 65ths and 60ths and assuming a NPA of 60. This is compared to the cost of the FPS and the NFPS in their current form and also assuming that the NPA is reduced from age 60 to ages 50 and 55.
- We also provide commentary on the data, methodology and assumptions recommended by GAD to compare the cost of different scheme designs. Further commentary on the use of the Projected Unit Method is provided in Appendix D.

1.1 Firefighters in the UK are members of the Firefighters Pension Scheme (FPS), the New Firefighters Pension Scheme (NFPS) or the Local Government Pension Scheme (LGPS).

1.2 The Government is currently reviewing public service pension schemes including the LGPS, FPS and the NFPS, and has commissioned the Government Actuary's Department (GAD) to provide advice on the appropriate data, methodology and assumptions to be used for the purpose of setting cost ceilings and comparing different pension scheme designs.

1.3 In this section we consider the likely cost of the **Reference Scheme** as defined by HM Treasury and set out in Appendix C, in relation to the FPS and the NFPS, based on a number of different accrual rates.

1.4 The Reference Scheme design is a Career Average Revalued Earnings (CARE) pension scheme in all cases. A further point to note is that the Reference Scheme design assumes that ancillary benefits (such as ill-health benefits) should match those provisions in the schemes that are currently open to new members (e.g. lower tier ill health pensioners would receive an unreduced CARE pension).

1.5 We then compare the cost of this scheme to the costs under a number of variations of scheme design including different Normal Pension Age (NPA).

DATA, METHODOLOGY AND ASSUMPTIONS

1.6 HM Treasury has commissioned GAD to provide initial advice on appropriate data, methodology and assumptions to be used for the purpose of setting cost ceilings and comparing different pension scheme designs. GAD's initial advice is set out in Stephen Humphrey's report dated 22 July 2011[1]. A summary of this initial advice is provided below with commentary on how this relates to the FPS and the NFPS.

[1] "HM Treasury, Cost ceilings for scheme level discussions, Initial advice on data, methodology and assumptions", Stephen Humphrey, GAD, 22 July 2011

DATA

1.7 GAD recommend that the membership data used for the purpose of setting cost ceilings is that used for the last completed full actuarial valuation of the pension scheme. The last completed full actuarial valuation for the FPS and the NFPS in England was as at 31 March 2007 which was carried out by Ian Boonin of GAD in his report dated 23 October 2009. We understand that no such recent valuation exists for the Northern Ireland schemes and we comment further on the implications of this in Section 9.

1.8 Calculations will have an effective date of 1 April 2015. However, GAD recommend that valuation data should be used without projection unless the use of projected membership data would have a material impact on the comparison of a scheme design with the reference scheme. Given that the NFPS had only been open for a relatively short period of time when the 2007 valuation was undertaken, it may be necessary to obtain more up-to-date data for this scheme.

1.9 It is also of vital importance in designing the schemes that the data should reflect the actual age profile of the schemes. When considering the incidence of ill-health early retirements at different NPAs, the proportion of members aged at or around NPA will have a material impact on the relative costings of schemes with different NPAs. Therefore, it may be necessary to project the data forward depending on the approach taken by GAD in using the valuation data.

1.10 The FPS was closed to new entrants on 5 April 2006. Therefore, by 1 April 2015 the active members at the last valuation, which had an effective date of 31 March 2007, will be 8 years older. As a closed scheme, no new entrants will have joined the scheme at the younger ages and hence the average age of the active membership will have increased. It is not clear whether the calculations will allow for this by using the actual dates of birth of active members at the last valuation, or whether the calculations will simply assume that a 20 year old at the 2007 valuation will be a 20 year old when carrying out the calculations as at 1 April 2015.

1.11 The NFPS is not a closed scheme. However, as at 31 March 2007, 70% of the active membership of the NFPS consisted of Retained Firefighters (employees who are “on call” to respond to emergencies). Prior to 6 April 2006, Retained Firefighters did not have access to the FPS but they have since been allowed to join the NFPS and backdate their service to 6 April 2006, or to their date of joining, whichever is the later. Therefore, this significant group of membership will also be 8 years older as at 1 April 2015, and consequently is likely to have increased the average age of the NFPS.

1.12 For the purpose of this report, we have used information about the valuation data as at 31 March 2007 for both the FPS and the NFPS, and assumed active members are all 8 years older.

ASSUMPTIONS

1.13 GAD recommend that HM Treasury adopts demographic assumptions (such as normal retirement, withdrawal and ill-health early retirement rates) in line with those underlying the most recent full actuarial valuation. In order to make comparisons with scheme designs with a higher NPA than is currently the case, GAD recommend that the schemes' own actuary should be asked to propose assumptions for the experience of the members at ages above the NPA in the existing schemes (currently age 55 for the FPS and age 60 for the NFPS).

1.14 For the purpose of this report we have used the demographic assumptions disclosed in the 2007 valuation report for England and applied actuarial judgement on the assumptions for withdrawal, death in service and ill-health rates at ages above the NPA. This is discussed further below.

1.15 Using only valuation data and consequently the demographic assumptions established for use in carrying out the valuation of the English scheme does not account for the possibility that different demographic assumptions might apply in Scotland, Northern Ireland and Wales. This may create a problem, for example, if the rate of ill-health retirements is higher in Scotland than it is in England. By designing the scheme based on assumptions about ill-health on the English data, the actual cost of the scheme may increase if the experience in other countries differs from that in England.

1.16 GAD have provided subsequent advice to their initial advice dated 22 July 2011, in a report dated 31 August 2011: "HM Treasury – Cost ceilings for scheme level discussions – Final draft advice on data, methodology and assumptions". GAD recommend that it is assumed that members with little or no automatic lump sum commute 75% of the HMRC limit.

1.17 This is relevant to schemes that currently provide for pension to be commuted for lump sum at a rate of £12 of lump sum for each £1 a year of pension. For the FPS, GAD recognise that different commutation rates, and different considerations apply, and state that the assumption for the proportion of pension commuted in the FPS will be considered separately. In our report, we assume that the existing commutation factors apply and adopt the assumption that members will commute 75% of the HMRC limit.

METHODOLGY

1.18 GAD recommend that the Projected Unit Method with a one year control period is adopted to carry out the calculations, because this approach measures the cost of accrual over the next year and avoids placing undue weight on any particular membership category. It is worth noting that the latest actuarial valuation of the FPS and NFPS adopted the New Entrant Method (or Entry Age Method) which considers the cost over the entire career of a New Entrant with an assumed New Entrant age of 25.

1.19 Further commentary on the use of the Projected Unit Method is provided in Appendix D.

1.20 GAD argue that the New Entrant method is not appropriate given that the existing schemes will be closed to future accrual and so not all the members of the CARE schemes will be at the start of their careers.

1.21 This is a valid argument. However, equally, in order to obtain a stable contribution rate, the Projected Unit method assumes that the profile of the active membership remains stable over time – that is, if the average age of the scheme is 40 now, and the next valuation is done in say 4 years time, individual members will have aged but the oldest will have retired and young members will replace them so the average age would remain at 40. As discussed above, this is not the case for the FPS which closed to new entrants in 2006.

1.22 The important point is that to provide a fair comparison between schemes with different designs, the cost of the two scheme designs should use consistent data, methodology and assumptions.

1.23 The recommendation on data, methodology and assumptions provided by GAD is not funding advice. So, the actual cost in terms of employer and employee contributions required to fund any scheme agreed as a result of discussions may be more or less than the cost ceilings established for the purpose of comparing scheme designs.

1.24 This could result in the loss of confidence in the process and create problems going forwards. For example, once a scheme is set up and the formal funding valuation is carried out based on different data, methodology and assumptions, the actual cost of the scheme may be deemed too expensive. Cost control mechanisms recommended by Lord Hutton may be invoked resulting in immediate reductions in the benefits offered by the schemes or further increases to member contributions.

1.25 There are arguments therefore in ensuring that the data, methodology and assumptions used for reference scheme cost ceilings are the same as those that will be used for the funding valuation. Further, government should be asked to clarify what data, methodology and assumptions it intends to use for the formal scheme valuations and how soon cost control mechanisms will be implemented.

LIKELY COST

1.26 The tables below show the cost of benefits using the methodology and assumptions recommended by GAD. As mentioned above, we have used information on the data from the 2007 valuations of FPS and NFPS and assumed active members are all 8 years older.

1.27 Demographic assumptions (such as normal retirement, withdrawal and ill-health early retirement rates) are required at ages above the NPA in the existing schemes (currently age 55 for the FPS and age 60 for the NFPS).

1.28 In this section, we have assumed that the rate per 1000 lives remains constant between the ages of 55 and 60 for normal retirement, withdrawals and ill-health early retirements. In Section 2, we provide estimated costs based on a range of assumed rates of ill-health early retirement between the ages of 55 and 60.

1.29 Under the assumptions recommended by GAD, the cost of providing a final salary scheme is identical to the cost of providing a CARE scheme assuming that salaries increase in line with Average Weekly Earnings. The figures shown in this report assume a CARE scheme design, however, the costs could equally apply to a final salary scheme.

1.30 The table below shows the estimated cost of the FPS in its current form, expressed as a percentage of salary and ignoring member contributions. This is then compared to the cost of the Reference Scheme adopting accrual rates 1/80ths, 1/75ths, 1/70ths, 1/65ths and 1/60ths and NPAs of 50, 55 and 60. These estimates are based on active membership data for the FPS as at 31 March 2007 projected forward to 1 April 2015.

FPS		**Accrual rate (5% of firefighters at age 60 retire on ill-health)**				
Scheme design	**FPS***	**80**	**75**	**70**	**65**	**60**
FPS (current form)	38.9%	n/a	n/a	n/a	n/a	n/a
Reference Scheme (NPA 50)	n/a	28.2%	30.0%	32.1%	34.5%	37.3%
Reference Scheme (NPA 55)	n/a	27.3%	29.0%	31.0%	33.3%	35.9%
Reference Scheme (NPA 60)	n/a	24.9%	26.5%	28.2%	30.2%	32.6%

** Benefits in the FPS are based on 1/60ths accrual with "double-accrual" applying for each year over 20 years' service*

1.31 This shows that the cost of the FPS in its current form, under GAD's assumptions, is around 38.9% of salaries. The cost of the Reference Scheme with NPA 60 ranges between 24.9% and 32.6% for accrual rates of 1/80ths to 1/60ths.

1.32 The table below shows the estimated cost of the NFPS in its current form and assuming an NPA of 55, expressed as a percentage of salary and ignoring member contributions. This is then compared to the cost of the Reference Scheme adopting accrual rates 1/80ths, 1/75ths, 1/70ths, 1/65ths and 1/60ths and NPAs of 50, 55 and 60. These estimates are based on active membership data for the NFPS (including Retained Firefighters) as at 31 March 2007 projected forward to 1 April 2015.

NFPS	**Accrual rate (5% of firefighters at age 60 retire on ill-health)**				
Scheme design	**80**	**75**	**70**	**65**	**60**
NFPS (current form)	n/a	n/a	n/a	n/a	28.9%
NFPS (NPA 55)	n/a	n/a	n/a	n/a	31.2%
Reference Scheme (NPA 50)	24.5%	26.1%	27.9%	30.0%	32.5%
Reference Scheme (NPA 55)	23.5%	25.0%	26.8%	28.8%	31.0%
Reference Scheme (NPA 60)	21.9%	23.3%	24.8%	26.6%	28.7%

1.33 This shows that the cost of the NFPS in its current form, under GAD's assumptions, is around 28.9% of salaries (31.2% assuming NPA 55). The cost of the Reference Scheme with NPA 60 ranges between 21.9% and 28.7% for accrual rates of 1/80ths to 1/60ths.

1.34 The cost of the Reference Scheme using the active membership data for the NFPS is lower than the corresponding cost of the Reference Scheme using the active membership data for the FPS. This is due to the average age of active members of the FPS being greater than that for the NFPS. When using the Projected Unit Method (with a 1-year control period) to calculate the cost of benefits, the older the members the higher the cost of benefits building up over the next year.

2 IMPACT OF ILL-HEALTH EARLY RETIREMENT

- In this Section we show the impact on the cost of the benefits if the rate of ill-health retirements at age 60 is higher than 50.5 lives per 1000.
- We also show the impact of assuming members commute less pension for cash at retirement as a result of a lower set of commutation factors being introduced.

2.1 The incidence of ill-health early retirements at different ages will have a material impact on the cost of the Reference Scheme and alternative scheme designs which adopt different NPAs.

2.2 The 2007 valuation of the FPS and the NFPS adopted the following assumption for the incidence of ill-health early retirements in the year following the age stated. For example, at age 55 it is assumed that 50.5 per 1000 (or around 5%) of firefighters will retire on ill-health. (Linear interpolation is applied between ages.)

Exact Age	Ill-health Retirement (rate per 1000 lives)
30	1.5
35	3.1
40	6.3
45	12.8
50	26.0
55	50.5

2.3 In Section 1 above, we assumed that the rate per 1000 lives remains constant between the ages of 55 and 60 for normal retirement, withdrawals and ill-health early retirements. In this section, we provide estimated costs based on a range of assumed rates of ill-health early retirement between the ages of 55 and 60.

2.4 Fire Authorities are required to pay an ill health charge in respect of all ill-health retirements. The charge is currently four times pensionable pay for upper tier ill-health retirements and twice pensionable pay for lower tier ill-health retirements. In lieu of this charge, a deduction is made from the contributions payable by Fire Authorities. For the 2007 valuation of the FPS and the NFPS, a deduction was made to the contribution rate to reflect this charge assuming that 25% of ill-health retirements are upper tier and 75% are lower tier.

2.5 The deduction reflects the expected charge received by the schemes from Fire Authorities and can be considered to be a cost to the taxpayer one way or another. It does not change the actual cost of the scheme. Therefore, this deduction is ignored in this report and the contribution rates shown throughout this report are the cost of benefits *before* this deduction is applied.

2.6 The Reference Scheme design assumes that ill-health benefits will match provisions in schemes that are currently open to new members. The calculations in this report are therefore based on the lower tier and upper tier ill-health benefits for the NFPS. That is, a lower tier ill-health pensioner receives an unreduced CARE pension. An enhancement of 2% for each year of past service multiplied by prospective service applies for upper tier ill-health pensions.

2.7 The 2007 valuation assumed that 25% of ill-health retirements are upper tier and 75% are lower tier across all ages. GAD have not provided an assumption for this which would imply that this assumption adopted at the last valuation will be used for the cost comparisons.

2.8 It can be argued that the proportion of upper tier ill-health retirements is higher at older ages and this could have a material impact on comparing the costs of different schemes with different NPAs, with a higher proportion of upper tier ill-health retirements at older ages likely to increase the cost of scheme designs with higher NPAs. However, this has much less of an impact on the cost than the actual incidence of ill-health retirements and has therefore been ignored in this report.

IMPACT ON COST

2.9 The tables in Section 1 assume that the rate per 1000 lives of ill-health early retirements at ages 55 to 60 is 50.5 (i.e. around 5%) in line with the assumption adopted at age 55 for the 2007 valuation. If this rate increases, i.e. more ill-health early retirements are expected at ages 55 to 60, the cost of the Reference Scheme with NPA 60 increases.

2.10 The table below shows the cost of the Reference Scheme with NPA 60, based on the active membership of the FPS, assuming the rate of firefighters retiring on ill-health at age 60 ranges between 5% and 20%. (Linear interpolation is applied between ages 55 and 60 in each case.)

FPS	Accrual rate				
Scheme design	**80**	**75**	**70**	**65**	**60**
Reference Scheme (NPA 50)	28.2%	30.0%	32.1%	34.5%	37.3%
Reference Scheme (NPA 55)	27.3%	29.0%	31.0%	33.3%	35.9%
Reference Scheme (NPA 60), 5% ill-health at age 60	24.9%	26.5%	28.2%	30.2%	32.6%
Reference Scheme (NPA 60), 10% ill-health at age 60	26.2%	27.8%	29.6%	31.7%	34.2%
Reference Scheme (NPA 60), 15% ill-health at age 60	27.5%	29.2%	31.1%	33.2%	35.7%
Reference Scheme (NPA 60), 20% ill-health at age 60	28.8%	30.5%	32.5%	34.7%	37.3%

2.11 It can be seen that at ill-health rates of 20% or higher, the Reference Scheme using NPA 60 is more expensive than using NPA 50, based on the active membership of the FPS. At rates of only 15% or higher, the cost using NPA 60 is similar to the cost of using NPA 55.

2.12 For example, the cost of the Reference Scheme using 1/60ths accrual and based on the active membership of the FPS, is 37.3% and 35.9% for NPA 50 and NPA 55, respectively. For NPA 60, the cost of 1/60ths accrual assuming an ill-health rate of 20% at age 60 is 37.3% and assuming an ill-health rate of 15% at age 60 is 35.7%.

2.13 The table below shows the cost of the Reference Scheme with NPA 60, based on the active membership of the NFPS, assuming the rate of firefighters retiring on ill-health at age 60 ranges between 5% and 25%. (Linear interpolation is applied between ages 55 and 60 in each case.)

NFPS	Accrual rate				
Scheme design	**80**	**75**	**70**	**65**	**60**
Reference Scheme (NPA 50)	24.5%	26.1%	27.9%	30.0%	32.5%
Reference Scheme (NPA 55)	23.5%	25.0%	26.8%	28.8%	31.0%
Reference Scheme (NPA 60), 5% ill-health at age 60	21.9%	23.3%	24.8%	26.6%	28.7%
Reference Scheme (NPA 60), 10% ill-health at age 60	22.6%	24.0%	25.6%	27.5%	29.9%
Reference Scheme (NPA 60), 15% ill-health at age 60	23.4%	24.8%	26.4%	28.3%	30.5%
Reference Scheme (NPA 60), 20% ill-health at age 60	24.1%	25.6%	27.3%	29.2%	31.4%
Reference Scheme (NPA 60), 25% ill-health at age 60	24.8%	26.4%	28.1%	30.0%	32.3%

2.14 It can be seen that at ill-health rates of 25% or higher, the Reference Scheme using NPA 60 is more expensive than using NPA 50, based on the active membership of the NFPS. At rates of only 15% or higher, the cost using NPA 60 is similar to the cost of using NPA 55.

2.15 For example, the cost of the Reference Scheme using 1/60ths accrual and based on the active membership of the NFPS, is 32.5% and 31.0% for NPA 50 and NPA 55, respectively. For NPA 60, the cost of 1/60ths accrual assuming an ill-health rate of 25% at age 60 is 32.3% and assuming an ill-health rate of 20% at age 60 is 31.4%.

2.16 Again, the cost of benefits is higher, and the impact of the incidence of ill-health retirements has a bigger effect on the FPS data because this membership has a greater concentration of members at the older ages where the incidence of ill-health retirements is more likely.

SENSITIVITY TO THE DATA USED

2.17 This difference between the results on the FPS and the NFPS shows how sensitive the results are to the membership for which the calculations are carried out. To remove any bias in the membership used, the calculations could be carried out assuming a uniform distribution. That is, assuming that there are the same proportion of members at every age up to NPA.

2.18 The table below shows the costs assuming a uniform distribution of membership between the ages of 25 and NPA (i.e. assuming the same number of members at every age and an average age of around 42.5 for NPA 60). The start age of 25 is in line with the Entry Age assumption adopted for the 2007 valuation.

Uniform distribution of ages	Accrual rate				
Scheme design	**80**	**75**	**70**	**65**	**60**
Reference Scheme (NPA 50)	24.1%	25.7%	27.5%	29.6%	32.0%
Reference Scheme (NPA 55)	23.2%	24.7%	26.4%	28.4%	30.7%
Reference Scheme (NPA 60), 5% ill-health at age 60	21.7%	23.1%	24.7%	26.5%	28.5%
Reference Scheme (NPA 60), 10% ill-health at age 60	22.8%	24.2%	25.8%	27.6%	29.8%
Reference Scheme (NPA 60), 15% ill-health at age 60	23.8%	25.2%	26.9%	28.8%	31.0%
Reference Scheme (NPA 60), 20% ill-health at age 60	24.8%	26.3%	28.0%	30.0%	32.2%

2.19 At ill-health rates of 20% or higher, the Reference Scheme using NPA 60 is more expensive than using NPA 50, based on a uniform distribution of ages. At rates of only 10% or higher, the cost using NPA 60 is similar to the cost of using NPA 55.

IMPACT OF LOWER CASH COMMUTATION FACTORS BEING INTRODUCED

2.20 GAD have provided subsequent advice to their initial advice dated 22 July 2011, in a report dated 31 August 2011: "HM Treasury – Cost ceilings for scheme level discussions – Final draft advice on data, methodology and assumptions". GAD recommend that it is assumed that members with little or no automatic lump sum commute 75% of the HMRC limit.

2.21 This is relevant to schemes that currently provide for pension to be commuted for lump sum at a rate of £12 of lump sum for each £1 a year of pension. For the FPS, GAD recognise that different commutation rates, and different considerations apply, and state that the assumption for the proportion of pension commuted in the FPS will be considered separately. In our report, we have assumed that the existing commutation factors apply and adopt the assumption that members will commute 75% of the HMRC limit.

2.22 If commutation factors are introduced that are significantly lower than the current commutation factors for the FPS, this could have an impact on the proportion of pension that members commute for cash. All other things being equal, the less pension that is commuted for cash, the more expensive the benefits in the scheme.

2.23 Looking back to the cost of the Reference Scheme based on 1/60ths for the FPS members, the cost assuming a 5% ill-health rate at age 60 for NPA 60 was 32.6%. If members do not commute any pension for cash, this increases to 33.2%. If we also combine this with increasing the ill-health rate at age 60 to 15% and 20%, then the cost of the NPA 60 scheme is 36.4% and 38.0%, respectively. These are similar to the costs of providing NPA 55 and NPA 50 benefits (assuming nil commutation) which are 36.5% and 38.2%, respectively.

3 IMPACT ON MEMBERS' BENEFITS

- In this Section we show the potential impact on members' benefits.
- We also consider the *adequacy* of benefits provided under the FPS, NFPS and the new CARE scheme assessed on the benchmark Turner Replacement Rates.

3.1 In this section, we examine the potential impact of the proposed changes on members' benefits. We have calculated members' benefits under the following benefit structures:

- FPS
- NFPS
- New CARE scheme (accrual rates of 1/80ths, 1/75ths, 1/70ths and 1/65ths)

3.2 Appendix B sets out the salary progression for a firefighter under three different career profiles: No promotion, "Typical career" and "High-flyer". For the purpose of this paper, we have calculated benefits showing comparisons for the following examples:

FPS

1. No promotion: Member currently aged 40, retiring at age 50
2. "Typical career": Member currently aged 40, retiring at age 50
3. "High flyer": Member currently aged 40, retiring at age 50

NFPS

4. No promotion: New joiner currently aged 20, retiring at age 55
5. "Typical career": New joiner currently aged 20, retiring at age 55
6. "High flyer": New joiner currently aged 20, retiring at age 55
7. No promotion: Member currently aged 40, retiring at age 55
8. "Typical career": Member currently aged 40, retiring at age 55
9. "High flyer": Member currently aged 40, retiring at age 55

3.3 In examples 1 to 3, we compare the benefits provided by the FPS scheme with the benefits provided under a new CARE scheme across a range of accrual rates.

3.4 In examples 4 to 9, we compare the benefits provided by the NFPS scheme with the benefits provided under a new CARE scheme across a range of accrual rates. For these examples we have shown the impact of the NFPS having a normal retirement age of 60 and the corresponding pension if the NFPS had a normal retirement age of 55.

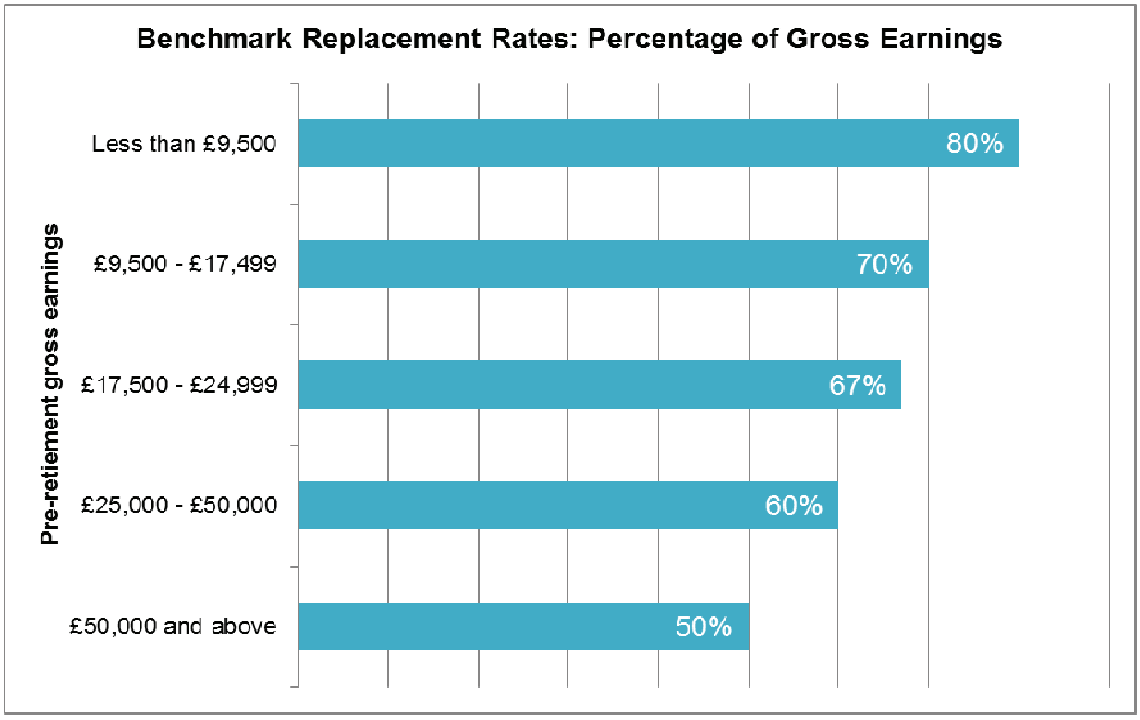
ADEQUACY

3.5 Lord Hutton's Final Report highlighted the importance of ensuring that public service pensions continue to provide at least an adequate level of income in retirement in light of any structural reforms of the schemes.

3.6 Responses to the Independent Public Service Pensions Commission's final call for evidence generally agreed that the benchmark replacement rates set out by the Turner Commission[2] in 2004 were an appropriate way of thinking about adequacy of income in retirement.

3.7 These Replacement Rates compare the level of income immediately after retirement to the level of income immediately before retirement, and present benchmarks replacement rates for a 'minimum' income in retirement rather than a comfortable level of income[3]. Lord Hutton recommended that a public service pension built up over a full career should deliver at least an income at these levels.

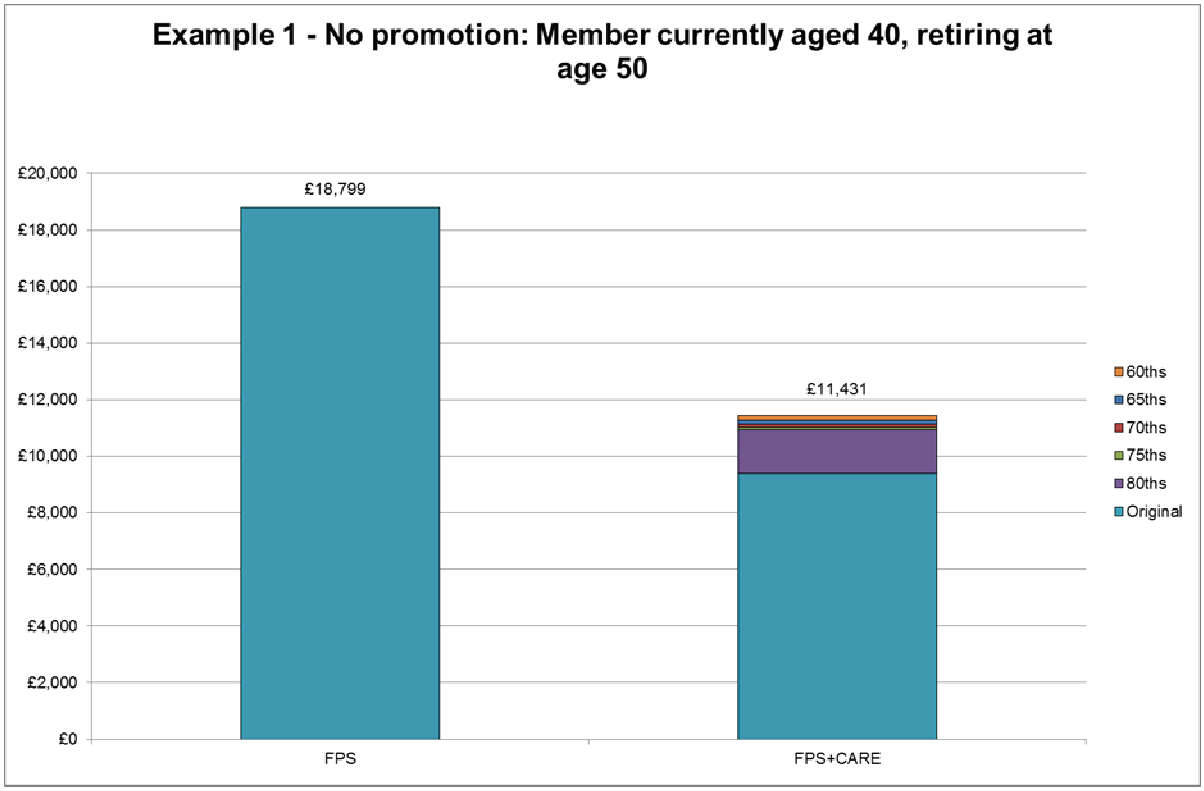
3.8 The recommended Benchmark Replacement Rates are shown in the chart below.



3.9 In order to examine the potential impact of the proposed changes on members' benefits, we have also calculated the replacement rates being delivered under different benefit structures to allow for a comparison to the above Benchmark Replacement Rates.

[2] *Pensions: Challenges and Choices:* The first report of the Pensions Commission, 2004.
[3] A New Pension Settlement for the Twenty-First Century: The Second Report of the Pensions Commission, Appendix D, 2005.

EXAMPLE 1 – NO PROMOTION: MEMBER CURRENTLY AGED 40, RETIRING AT AGE 50



3.10 The annual pension amount of £18,799 shown in the graph above is the annual pension that a 40 year old firefighter with no promotion throughout their career could expect retiring at age 50 after joining the FPS at age 20.

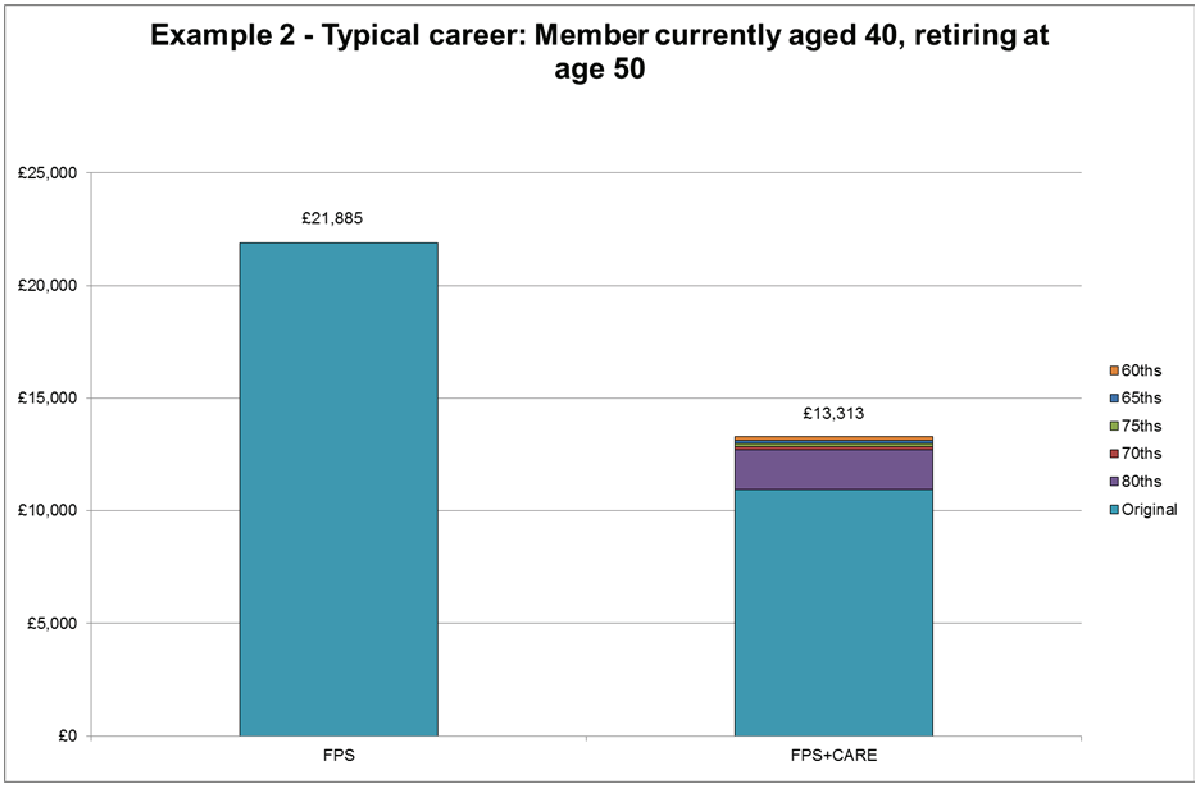
3.11 The annual pension amount of £11,431 shown for the CARE scheme is the pension available from age 50 assuming 20 years in the FPS and 10 years in the new CARE scheme based on an accrual rate of 1/60ths.

3.12 The table below shows how the benefits provided under the new CARE scheme could vary across a range of accrual rates.

Final salary	Required Benchmark Replacement Rate	Pension (and lump sum)	Equivalent pension assuming no lump sum	Benefits from CARE scheme with earnings uprating and accrual rate of:				
				1/80ths	1/75ths	1/70ths	1/65ths	1/60ths
£28,199	60%	£13,916 (£92,774[4])	£18,799	£10,932	£11,034	£11,151	£11,285	£11,431
Replacement rate			67%	38.8%	39.1%	39.5%	40.0%	40.5%

[4] A lump sum is available by commutation of pension for cash

EXAMPLE 2 – TYPICAL CAREER: MEMBER CURRENTLY AGED 40, RETIRING AT AGE 50



3.13 The annual pension amount of £21,885 shown in the graph above is the annual pension that a 40 year old firefighter under a "typical career" could expect retiring at age 50 after joining the FPS at age 20.

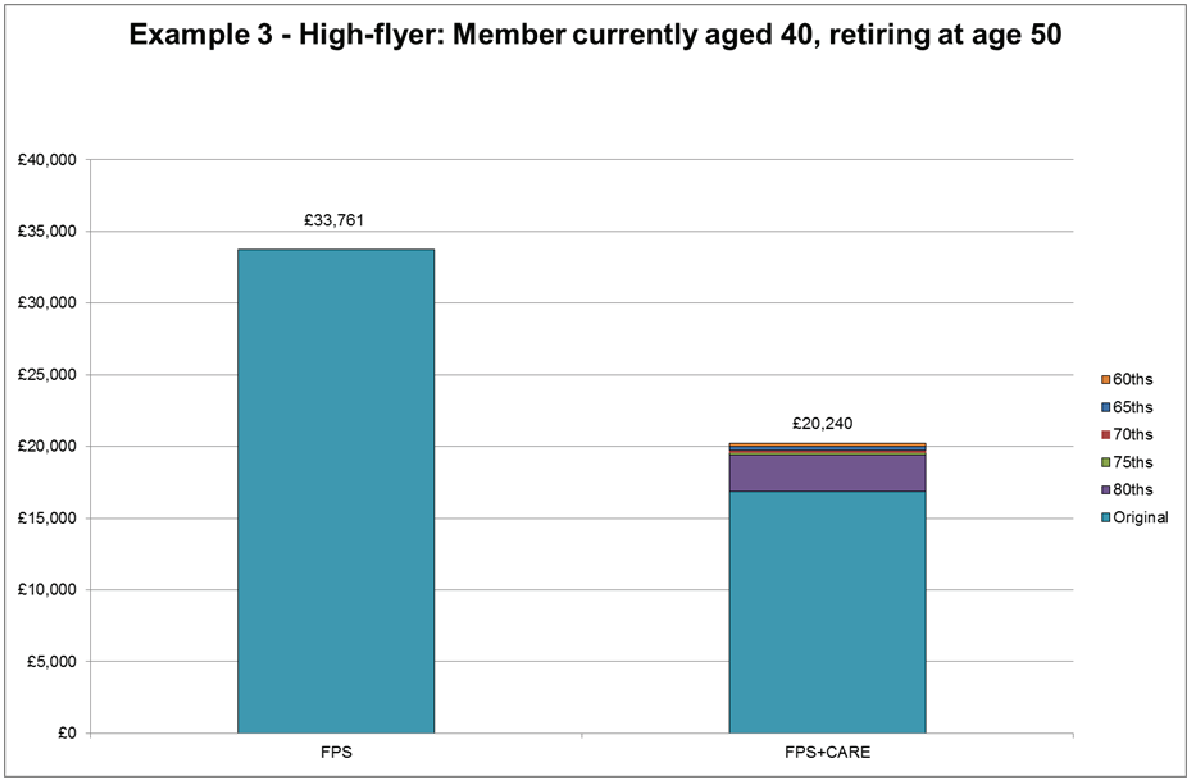
3.14 The annual pension amount of £13,313 shown for the CARE scheme is the pension available from age 50 assuming 20 years in the FPS and 10 years in the new CARE scheme based on an accrual rate of 1/60ths.

3.15 The table below shows how the benefits provided under the new CARE scheme could vary across a range of accrual rates.

Final salary	Benchmark Replacement Rate	Pension (and lump sum)	Equivalent pension assuming no lump sum	Benefits from CARE scheme with earnings uprating and accrual rate of:				
				1/80ths	1/75ths	1/70ths	1/65ths	1/60ths
£32,827	60%	£16,201 (£108,004[5])	£21,885	£12,720	£12,839	£12,974	£13,131	£13,313
Replacement rate			67%	38.7%	39.1%	39.5%	40.0%	40.6%

[5] A lump sum is available by commutation of pension for cash

EXAMPLE 3 – HIGH-FLYER: MEMBER CURRENTLY AGED 40, RETIRING AT AGE 50



3.16 The annual pension amount of £33,761 shown in the graph above is the annual pension that a 40 year old firefighter under a "high-flyer" career could expect retiring at age 50 after joining the FPS at age 20.

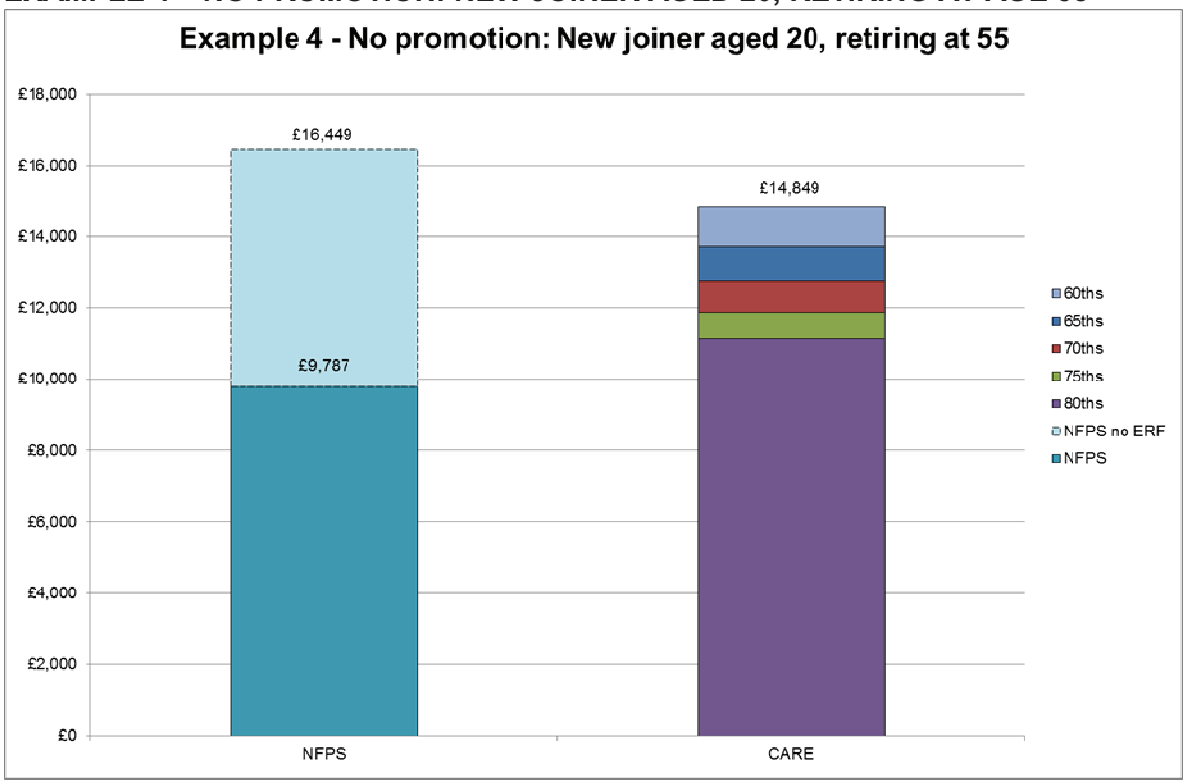
3.17 The annual pension amount of £20,240 shown for the CARE scheme is the pension available from age 50 assuming 20 years in the FPS and 10 years in the new CARE scheme based on an accrual rate of 1/60ths.

3.18 The table below shows how the benefits provided under the new CARE scheme could vary across a range of accrual rates.

Final salary	Benchmark Replacement Rate	Pension (and lump sum)	Equivalent pension assuming no lump sum	Benefits from CARE scheme with earnings uprating and accrual rate of:				
				1/80ths	1/75ths	1/70ths	1/65ths	1/60ths
£50,642	50%	£24,992 (£166,613[6])	£33,761	£19,400	£19,568	£19,760	£19,982	£20,240
Replacement rate			67%	38.3%	38.6%	39.0%	39.4%	40.0%

[6] A lump sum is available by commutation of pension for cash

EXAMPLE 4 – NO PROMOTION: NEW JOINER AGED 20, RETIRING AT AGE 55



3.19 The annual pension amount of £9,787 shown in the graph above is the annual pension that a 20 year old firefighter with no promotion throughout their career could expect retiring at age 55 after the application of an early retirement factor (ERF). If the NPA for the NFPS was 55, no such ERF would be applied and the annual pension would be £16,449. This is equivalent to a Replacement Rate of 58%.

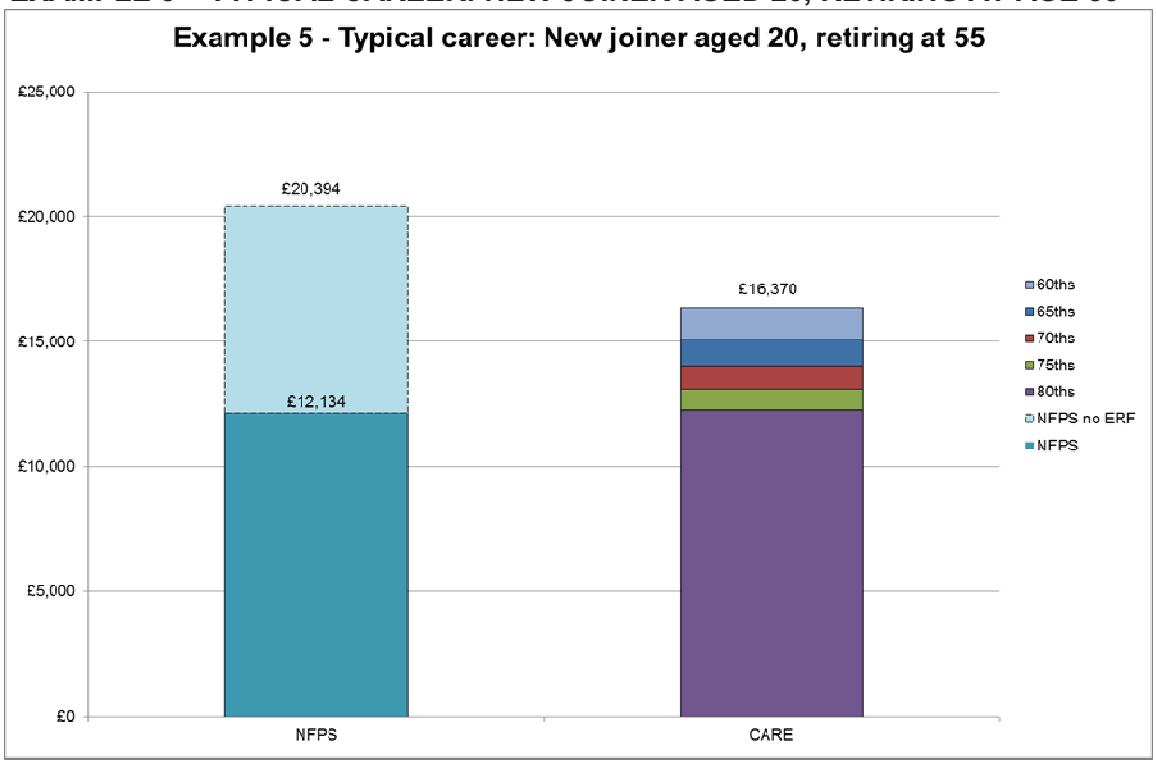
3.20 The annual pension amount of £14,849 shown for the CARE scheme is the pension available from age 55 assuming 35 years in the new CARE scheme based on an accrual rate of 1/60ths and a NPA of 60.

3.21 The table below shows how the benefits provided under the new CARE scheme could vary across a range of accrual rates.

Final salary	Benchmark Replacement Rate	Pension (and lump sum)	Equivalent pension assuming no lump sum	Benefits from CARE scheme with earnings uprating and accrual rate of:				
				1/80ths	1/75ths	1/70ths	1/65ths	1/60ths
£28,199	60%	£6,292 (£41,944[7])	£9,787	£11,137	£11,879	£12,728	£13,707	£14,849
Replacement rate			35%	39.4%	42.1%	45.4%	48.6%	52.7%

[7] A lump sum is available by commutation of pension for cash

EXAMPLE 5 – TYPICAL CAREER: NEW JOINER AGED 20, RETIRING AT AGE 55



3.22 The annual pension amount of £12,134 shown in the graph above is the annual pension that a 20 year old firefighter under a "typical career" could expect retiring at age 55 after the application of an ERF. If the NPA for the NFPS was 55, no such ERF would be applied and the annual pension would be £20,394. This is equivalent to a Replacement Rate of 58%.

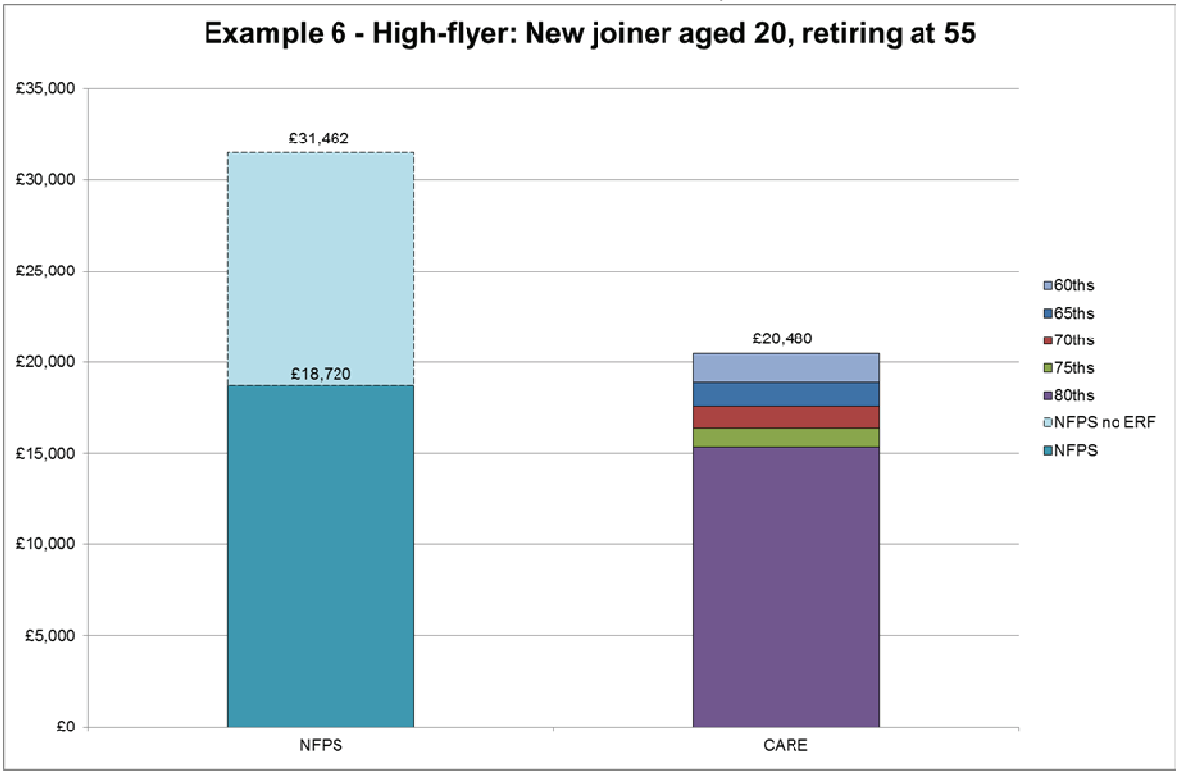
3.23 The annual pension amount of £16,370 shown for the CARE scheme is the pension available from age 55 assuming 35 years in the new CARE scheme based on an accrual rate of 1/60ths and a NPA of 60.

3.24 The table below shows how the benefits provided under the new CARE scheme could vary across a range of accrual rates.

Final salary	Benchmark Replacement Rate	Pension (and lump sum)	Equivalent pension assuming no lump sum	Benefits from CARE scheme with earnings uprating and accrual rate of:				
				1/80ths	1/75ths	1/70ths	1/65ths	1/60ths
£34,961	60%	£7,800 (£52,003[8])	£12,134	£12,277	£13,096	£14,031	£15,111	£16,370
Replacement rate			35%	35.1%	37.5%	40.1%	43.2%	46.8%

[8] A lump sum is available by commutation of pension for cash

EXAMPLE 6 – HIGH-FLYER: NEW JOINER AGED 20, RETIRING AT AGE 55



3.25 The annual pension amount of £18,720 shown in the graph above is the annual pension that a 20 year old firefighter under a "high-flyer career" could expect retiring at age 55 after the application of an ERF. If the NPA for the NFPS was 55, no such ERF would be applied and the annual pension would be £31,462. This is equivalent to a Replacement Rate of 58%.

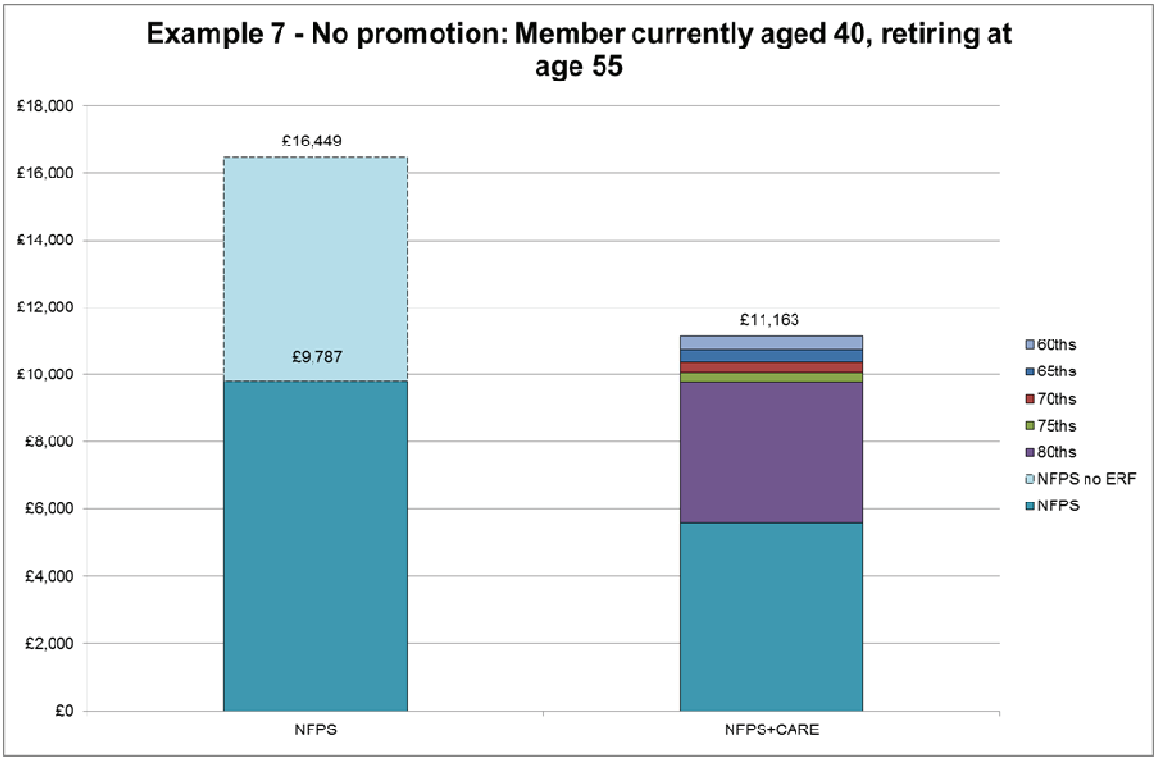
3.26 The annual pension amount of £20,480 shown for the CARE scheme is the pension available from age 55 assuming 35 years in the new CARE scheme based on an accrual rate of 1/60ths and a NPA of 60.

3.27 The table below shows how the benefits provided under the new CARE scheme could vary across a range of accrual rates.

Final salary	Benchmark Replacement Rate	Pension (and lump sum)	Equivalent pension assuming no lump sum	Benefits from CARE scheme with earnings uprating and accrual rate of:				
				1/80ths	1/75ths	1/70ths	1/65ths	1/60ths
£53,934	50%	£12,034 (£80,229[9])	£18,720	£15,360	£16,384	£17,554	£18,905	£20,480
Replacement rate			35%	28.4%	30.4%	32.5%	35.1%	38.0%

[9] A lump sum is available by commutation of pension for cash

EXAMPLE 7 – NO PROMOTION: MEMBER CURRENTLY AGED 40, RETIRING AT AGE 55



3.28 The annual pension amount of £9,787 shown in the graph above is the annual pension that a 40 year old firefighter with no promotion throughout their career could expect retiring at age 55 after the application of an ERF. If the NPA for the NFPS was 55, no such ERF would be applied and the annual pension would be £16,449. This is equivalent to a Replacement Rate of 58%.

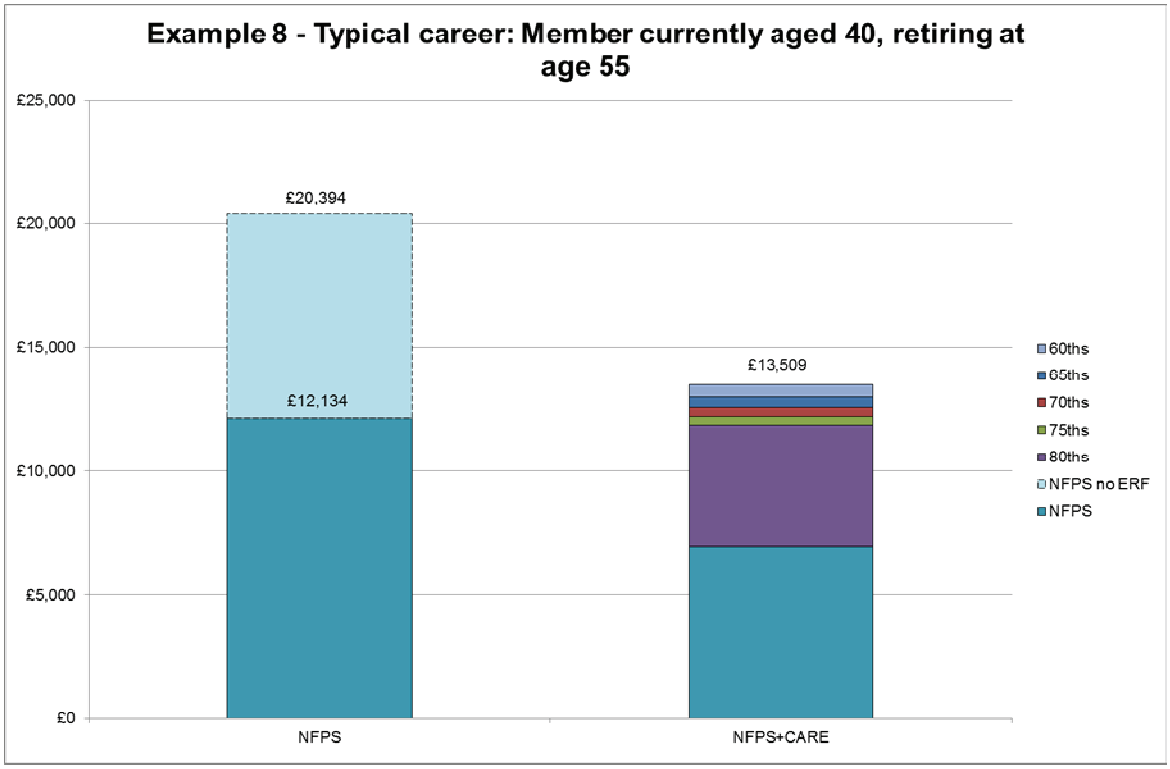
3.29 The annual pension amount of £11,163 shown for the CARE scheme is the pension available from age 55 assuming 20 years in the NFPS and 15 years in the new CARE scheme based on an accrual rate of 1/60ths.

3.30 The table below shows how the benefits provided under the new CARE scheme could vary across a range of accrual rates.

Final salary	Benchmark Replacement Rate	Pension (and lump sum)	Equivalent pension assuming no lump sum	Benefits from CARE scheme with earnings uprating and accrual rate of:				
				1/80ths	1/75ths	1/70ths	1/65ths	1/60ths
£28,199	60%	£6,292 (£41,944[10])	£9,787	£9,771	£10,050	£10,368	£10,735	£11,163
Replacement rate			35%	34.7%	35.6%	36.8%	38.1%	40.0%

[10] A lump sum is available by commutation of pension for cash

EXAMPLE 8 – TYPICAL CAREER: MEMBER CURRENTLY AGED 40, RETIRING AT AGE 55



3.31 The annual pension amount of £12,134 shown in the graph above is the annual pension that a 40 year old firefighter under a "typical career" could expect retiring at age 55 after the application of an ERF. If the NPA for the NFPS was 55, no such ERF would be applied and the annual pension would be £20,394. This is equivalent to a Replacement Rate of 58%.

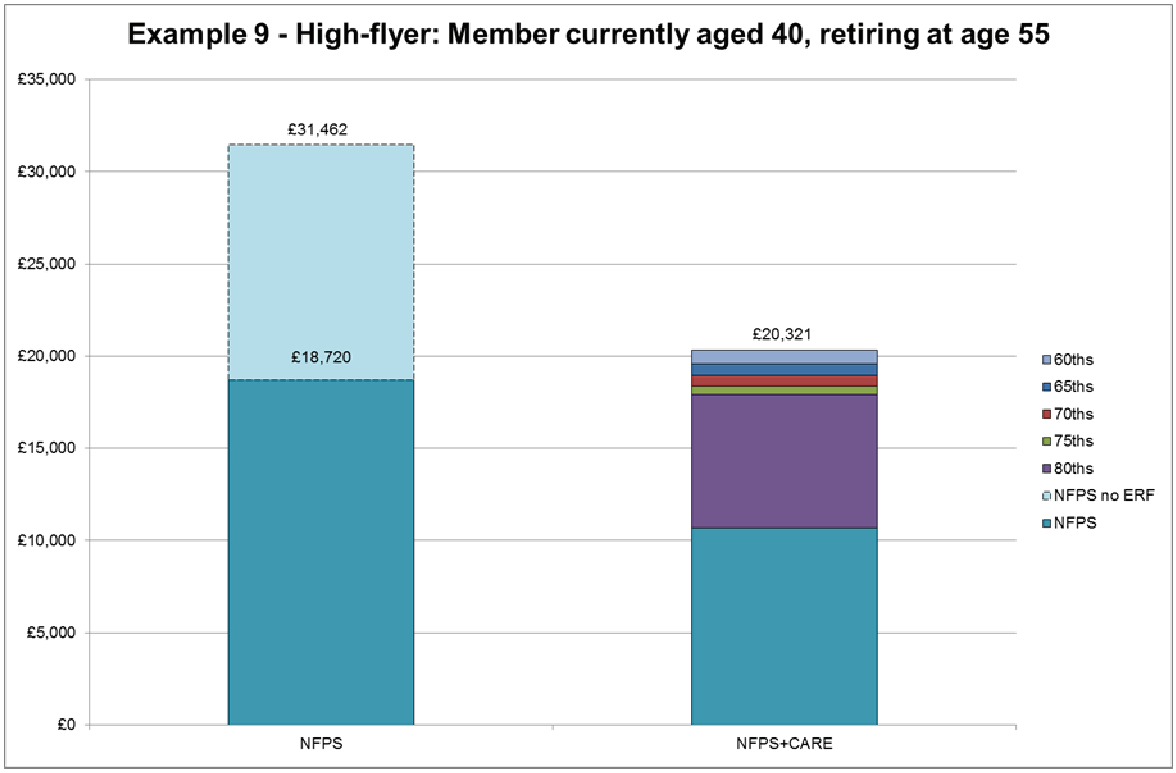
3.32 The annual pension amount of £13,509 shown for the CARE scheme is the pension available from age 55 assuming 20 years in the NFPS and 15 years in the new CARE scheme based on an accrual rate of 1/60ths.

3.33 The table below shows how the benefits provided under the new CARE scheme could vary across a range of accrual rates.

Final salary	Benchmark Replacement Rate	Pension (and lump sum)	Equivalent pension assuming no lump sum	Benefits from CARE scheme with earnings uprating and accrual rate of:				
				1/80ths	1/75ths	1/70ths	1/65ths	1/60ths
£34,961	60%	£7,800 (£52,003[11])	£12,134	£11,865	£12,194	£12,570	£13,003	£13,509
Replacement rate			35%	33.9%	34.9%	36.0%	37.2%	38.6%

[11] A lump sum is available by commutation of pension for cash

EXAMPLE 9 – HIGH-FLYER: MEMBER CURRENTLY AGED 40, RETIRING AT AGE 55



3.34 The annual pension amount of £18,720 shown in the graph above is the annual pension that a 40 year old firefighter under a "high-flyer career" could expect retiring at age 55 after the application of an ERF. If the NPA for the NFPS was 55, no such ERF would be applied and the annual pension would be £31,462. This is equivalent to a Replacement Rate of 58%.

3.35 The annual pension amount of £20,321 shown for the CARE scheme is the pension available from age 55 assuming 20 years in the NFPS and 15 years in the new CARE scheme based on an accrual rate of 1/60ths.

3.36 The table below shows how the benefits provided under the new CARE scheme could vary across a range of accrual rates.

Final salary	Benchmark Replacement Rate	Pension (and lump sum)	Equivalent pension assuming no lump sum	Benefits from CARE scheme with earnings uprating and accrual rate of:				
				1/80ths	1/75ths	1/70ths	1/65ths	1/60ths
£53,934	50%	£12,034 (£80,229[12])	£18,720	£17,915	£18,396	£18,946	£19,580	£20,321
Replacement rate			35%	33.2%	34.1%	35.1%	36.3%	37.7%

[12] A lump sum is available by commutation of pension for cash

COMMENT

3.37 In each of the examples above, it is clear that the potential impact on members' benefits at retirement is significant.

3.38 Example 1 shows that a 40 year old currently in the FPS might expect an annual pension of around £19,000 at age 50, whereas by moving to the new scheme his pension could reduce to around £11,000 pa. Under the FPS the pension would represent 67% of the firefighter's final salary which is slightly higher than the Turner Benchmark Replacement Rate of 60% (recommended by Lord Hutton as the minimum benchmark pension provision), whereas moving to the new scheme the pension would only represent 40% of the firefighter's final salary.

3.39 Examples 4 to 9 show the impact on members' benefits of having a NPA of 60 for the NFPS rather than a NPA of 55 in line with the FPS. For example, Example 5 shows that a firefighter joining the NFPS and pursuing a "typical career" before retiring at age 55, would receive a pension equivalent to a Replacement Rate of 58% if the NPA is 55 or 35% if the NPA is 60. The Turner Benchmark Replacement Rate for this firefighter based on his final salary would be 60%, hence adopting an NPA of 60 results in a pension that is significantly below the recommended level of adequacy.

4 MEMBER CONTRIBUTIONS

- In this Section we show the additional contributions members may have to pay as a result of the proposed increases to member contribution rates.
- We also look at the impact a tiered contribution structure could have on firefighters' ambitions for promotion.

4.1 The Comprehensive Spending Review 2010 announced a 3.2% pa average increase to member contributions to be phased in over a three year period from April 2012. This is equivalent to an increase from 11% to 14.2% for the FPS and from 8.5% to 11.7% for the NFPS.

TIERED CONTRIBUTIONS

4.2 The Chief Secretary to the Treasury, Danny Alexander, announced on 19 July 2011 that lower earners are to be protected from the impact of any contribution increases. Government has proposed that those earning less that £15,000 should see no increase to their contributions and that there should be no more than a 1.5% increase in total (before tax relief) for those earning up to £21,000.

4.3 The total increase will be capped at 6% (before tax relief) by 2014-15 for the highest earners. This amounts to a 2.4% cap (before tax relief) in 2012-13 on a pro-rata basis.

4.4 The tables below show the potential tiered contribution structure for members of the FPS and NFPS:

Pensionable Pay	FPS			
	2011/12	2012/13	2013/14	2014/15+
Up to £14,999	11.0%	11.0%	11.0%	11.0%
£15,000 to £21,000	11.0%	11.6%	12.5%	12.5%
£21,001 to £30,000	11.0%	12.3%	13.4%	14.0%
£30,001 to £40,000	11.0%	12.4%	13.4%	14.0%
£40,001 to £50,000	11.0%	12.6%	14.6%	16.2%
£50,001 to £60,000	11.0%	12.8%	16.6%	17.0%
£60,001 to £100,000	11.0%	13.0%	16.6%	17.0%
£100,001 and above	11.0%	13.1%	16.6%	17.0%

Source: Communities and Local Government, Firefighters' Pension Scheme (1992) and New Firefighters' Pension Scheme (2006): Proposed increases to employee contribution rates

Pensionable Pay	NFPS			
	2011/12	2012/13	2013/14	2014/15+
Up to £14,999	8.5%	8.5%	8.5%	8.5%
£15,000 to £30,000	8.5%	9.1%	10.0%	10.0%
£30,001 to £40,000	8.5%	9.3%	10.5%	11.0%
£40,001 to £50,000	8.5%	9.4%	10.5%	11.0%
£50,001 to £60,000	8.5%	9.5%	10.5%	11.0%
£60,001 to £100,000	8.5%	9.6%	10.5%	11.0%
£100,001 and above	8.5%	9.7%	10.5%	11.0%

Source: Communities and Local Government, Firefighters' Pension Scheme (1992) and New Firefighters' Pension Scheme (2006): Proposed increases to employee contribution rates

4.5 The impact of the proposed increases to member contributions and the introduction of a tiered contribution structure will have three main effects:

- Additional contributions
- Impact on ambitions for promotion
- Increased proportion of contributions made up by members

ADDITIONAL CONTRIBUTIONS

4.6 The impact of the above contribution structure will be that the following career profiles will have to make additional contributions over their entire career as follows:

FPS

FPS	Age 40 now		
NPA	50	55	60
No promotion	£6,965	£11,195	£15,425
"Typical" career	£8,141	£13,321	£18,565
"High-flyer"	£20,987	£37,167	£53,348

4.7 For example, a 40 year old firefighter in the FPS may have to pay an additional £53,300 over the next 20 years until retirement at age 60.

NFPS

NFPS	Age 20 now			Age 40 now		
NPA	**50**	**55**	**60**	**50**	**55**	**60**
No promotion	£11,883	£13,998	£16,113	£3,553	£5,668	£7,783
"Typical" career	£19,451	£23,767	£28,137	£6,664	£10,981	£15,351
"High-flyer"	£25,685	£32,427	£39,168	£9,678	£16,420	£23,162

4.8 For example, a 20 year old firefighter in the NFPS may have to pay an additional £39,200 over the next 40 years until retirement at age 60.

4.9 These additional contributions will clearly be seen as a barrier-to-entry for many firefighters wanting to join the scheme. Lord Hutton recommended that the public service pension schemes should form a benchmark for private sector pension schemes to follow. A contribution rate of around 17% would not appear to be a good example to set for private sector pension schemes and it is questionable whether such a high contribution rate would meet auto-enrolment requirements which private sector employers will have to adhere to from 2012.

IMPACT ON AMBITIONS FOR PROMOTION

4.10 The introduction of tiered contributions could have implications for firefighters' promotion aspirations. If a firefighter receives a promotion and subsequently moves to a higher contribution band, the additional member contributions he would be required to pay will erode the increase in take-home pay.

4.11 For example, an Area Manager in development in the FPS who receives a promotion in 2012/13 to competent Area Manager (A) would receive a salary increase of **£1,475** (£49,167 to £50,642) but will face an increase in contributions from 12.6% to 12.8%. This is equivalent to an extra **£287** in contributions, resulting in an increase in take-home pay of only **£713** after tax.

4.12 Another example, is a Station Manager (A) in the FPS who receives a promotion to Station Manager (B) in 2014 or later would receive a salary increase of **£2,653** but could face an increase in pension contributions from 14% to 16.2% (under the proposed tiered contribution structure). This is equivalent to an extra **£1,254** in pension contributions, resulting in an increase in take-home pay of only **£1,119** after tax.

4.13 A further example is an Area Manager in development in the FPS who receives a promotion to competent Area Manager (A) in 2013/14. This firefighter would receive a salary increase of **£1,475** (£49,167 to £50,642) but could face an increase in contributions from 12.6% to 16.6%. This is equivalent to an extra **£2,212** in contributions, and actually results in a **decrease** in take-home pay of **£490** after tax.

4.14 The YouGov survey carried out on behalf of FBU showed that 62% of respondents said that the proposed contribution changes would affect their decision to apply for promotion. This reflects the concern that a tiered contribution structure could result in contribution rates at the higher salary bands being a deterrent for career progression. The results of the YouGov survey are explored in more detail in Section 5 below.

PROPORTION OF COST OF BENEFITS MADE UP BY MEMBERS

4.15 For the FPS, member contributions made up around one third of the proportion of the theoretical cost of benefits calculated for the 2007 valuation (i.e. 11% paid by members, 24.4% paid by fire authorities, so total cost of 35.4%). Fire Authorities actually pay 21.3% towards the FPS, after the deduction of an ill-health charge.

4.16 For the NFPS, member contributions made up around 42% of the theoretical cost of benefits calculated for the 2007 valuation (i.e. 8.5% paid by members, 11.8% paid by fire authorities, so total cost of 20.3%). Again, Fire Authorities actually pay 11% towards the NFPS, after the deduction of an ill-health charge.

4.17 Bringing together the cost of benefits outlined in Sections 1 and 2 and the proposed increase in member contributions outlined above, the proportion of the theoretical cost of benefits in the FPS and the NFPS made up of members' contributions could be around half, or even as much as two-thirds for members contributing at 17% in the FPS.

5 YOUGOV SURVEY

- In this Section we briefly summarise the results of a YouGov survey carried out on behalf of FBU from 18 May 2011 to 17 June 2011 which shows that a large number of firefighters say they would be likely or very likely to opt out of the scheme.
- We look at circumstances in which members may be better off opting out of the new scheme.
- We also explain how large opt-outs of younger members could increase the cost of benefits.

5.1 FBU carried out a YouGov survey which ran from 18 May 2011 to 17 June 2011. The total sample size was 7,981 current Fire Brigade Union members.

5.2 The main points of the YouGov survey were:

- 97% of members opposed the plans for firefighters to work five more years until they are 60. The potential impact on members' benefits of an increase of the NPA to age 60 is shown in Section 3 above.
- Nearly two-thirds (62%) of respondents indicated that the pension changes were likely to affect their decision to apply for future promotion. We commented on this in Section 4 above.
- 91% said they opposed plans to increase the current rate of pension contributions. 45% said they would actually consider leaving the profession if the contribution rates were increased.
- 27% said they would be likely or very likely to opt out of the pension scheme. At younger ages this figure is higher with up to 41% of 18 to 29 year olds indicating that they would be likely to opt out of the pension scheme if the proposal to increase member contributions is implemented.

5.3 Notwithstanding that the results of an anonymous survey are likely to show a higher proportion of members saying that they are likely to opt out of the scheme than would actually do so, the principal finding of the survey is that a large number of firefighters would opt out of their pension scheme if increased contributions are imposed.

5.4 Further, we provide below some examples of firefighters for whom it may be in their financial interest to opt-out of the scheme. We also consider the potential impact on the cost of benefits if large opt-outs are experienced.

MEMBERS BETTER OFF OPTING OUT OF THE SCHEME

5.5 It may be in the financial interest of some members to opt out of the scheme if the proposed increase in member contributions is implemented.

5.6 For example, a firefighter who has already reached the maximum number of years' service or is approaching retirement may be better off opting out and paying his member contributions into a personal pension. On reaching the maximum number of years' service, a firefighter's pension will only increase if his salary at or near retirement increases.

5.7 Often, close to retirement, a member's salary does not increase (or actually reduces if the member goes part time). Therefore, the only real benefit of remaining in the scheme is the life cover provided (e.g. a lump sum of twice pensionable pay for FPS and three times pensionable pay for the NFPS). However, it is likely that the firefighter would be able to obtain equivalent life cover from an insurance company for less than the potential increase in member contributions to 11% or even 17% of pensionable pay.

5.8 At the other extreme, those firefighters just starting their career could be better off opting out of the scheme from the start and instead putting their member contributions into a personal pension of their own. For example, based on the increased member contributions outlined in Section 4 above, a 25 year old pursuing the "high-flyer" career profile who joined the FPS five years ago, could build a further £5,900 annual pension from age 50 in the new CARE scheme (assuming 1/80ths accrual), whereas by investing his future member contributions into a personal pension he could build up £6,100 in annual pension from age 50 from his personal pension. This pension could also be tailored to the firefighter's specific needs, such as receiving a higher pension with no attaching spouse's pension if the firefighter is single at retirement and has no dependants. This flexibility would not be possible with the scheme pension.

5.9 The design of the Reference Scheme suggests that deferred members will have a NPA linked to State Pension Age. This would mean that a firefighter who leaves the scheme before reaching the minimum age at which members are allowed to retire (this may be age 55 if set in line with current limits) would have their pension actuarially reduced from State Pension Age rather than from age.

5.10 So, for example, a 54 year old who leaves the fire service and subsequently wants to retire at age 55 could have his pension reduced from age 68 (rather than 60 as for active members). This reduction could be as high as 50% to 80% (for 13 years early) compared to a reduction of around 20% to 30% (for 5 years early). Therefore, a member intending to leave the fire service before his 55th birthday may be better off opting out of the scheme and using his or her member contributions to build up a personal pension more tailored to their preferred retirement age.

5.11 To see this more clearly, consider a firefighter under a "typical career" who joins the new scheme (CARE, 80ths) at age 20 and leaves at age 54. If he subsequently retires at age 55, the pension available to him from the scheme assuming NPA 60 (i.e. as for active members) or NPA 68 (i.e. in line with State Pension Age), compared to the pension he could have built up by using his member contributions in a personal pension arrangement providing a similar spouse's pension and increases in payment, would be as follows:

Pension at 55 (NPA 60):	£12,600 pa	(See Note 1)
Pension at 55 (NPA 68):	£5,900 pa	(See Note 2)
Pension at 55 (Personal Pension):	£6,600 pa	(See Note 3)

Notes:

1. Assuming an Early Retirement Factor of 5% pa (simple) is applied, i.e. the pension is reduced by around 25% to reflect retirement 5 years early.

2. Assuming an Early Retirement Factor of 5% pa (simple) is applied, i.e. the pension is reduced by around 65% to reflect retirement 13 years early.

3. Using assumptions in line with "TM1 Statutory Money Purchase Illustrations (Version 1.4), February 2011 and assuming 7% pa investment return.

IMPACT OF OPT-OUTS ON COST OF BENEFITS

5.12 The results of the YouGov survey showed that younger firefighters are more likely to opt-out than older firefighters. As many as 41% of 18 to 29 year olds indicated that they would be likely to opt out of the pension scheme if the proposal to increase member contributions is implemented. This compares to the average of 27% across all ages.

5.13 A high number of opt-outs among 18 to 29 year olds will increase the average age of the scheme, thus increasing the cost of benefits. This will be exacerbated if firefighters who have previously opted out of the scheme choose to join the scheme at a later date, thus further increasing the average age of the membership.

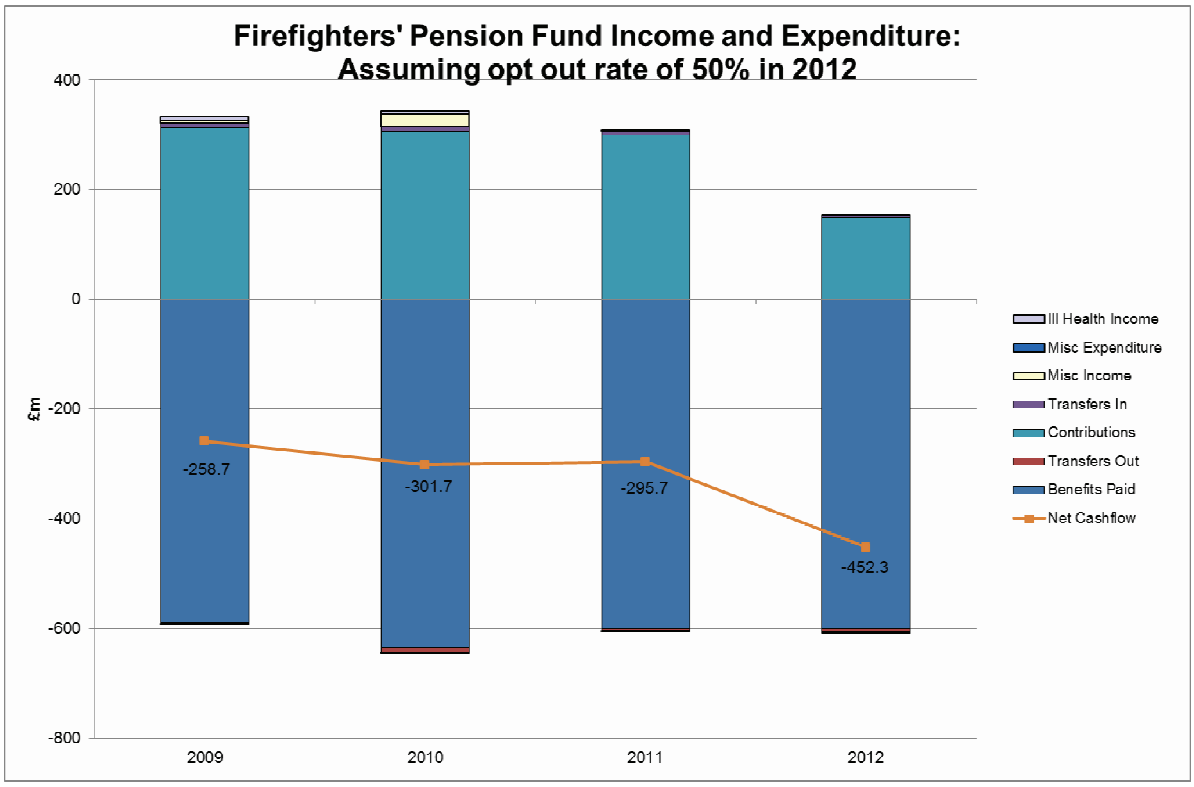
5.14 As a broad indication, under the assumptions recommended by GAD, a 1-year increase to the average age of the Reference Scheme would increase the absolute cost by between 0.2% and 0.3% of salaries. So, if the average age increased by 5 years, say, the cost of benefits could increase by around 1% to 1.5% of salaries.

6 POTENTIAL IMPACT OF OPT-OUTS ON CASHFLOW

- In this Section we show the potential negative impact of opt-outs on cashflow for the Firefighters' Pension Scheme in England.
- We also show the pension cost per firefighter of an involuntary redundancy exercise.

6.1 As an unfunded scheme, the firefighters' pension scheme relies on contributions to pay for pensions and other benefits. The net cash flow of the scheme in England in 2010/11 was £296 million (negative).

6.2 The chart below shows the potential impact on the scheme's cashflow position in 2012. Data was taken from "Statistical Release: Firefighters' Pension Income and Expenditure", dated 29 July 2011. The net cash flow positions shown for 2009 to 2011 are based on data from the Statistical Release. This information has then been used to project the cash flow for the scheme to 2012 based on an assumed opt-out rate of 50%.



6.3 The table below shows the potential impact on net cashflow in 2011/2012 for opt-out rates varying between 10% and 50%:

£ million		Assumed opt-out rate in 2011/2012				
	2010/2011	10%	20%	30%	40%	50%
Net cashflow	- 296	- 327	- 358	- 390	- 421	- 452
Reduction in net cashflow	-	- 31	- 62	- 94	- 125	- 156

6.4 The YouGov survey showed that 27% of respondents would be likely or very likely to opt out. This could worsen the net cash flow position by around £84 million, taking net cashflow to around £380 million (negative). This is ultimately a direct cost to the tax payer.

IMPACT OF INVOLUNTARY REDUNDANCY EXERCISE

6.5 An involuntary redundancy exercise would reduce the amount of contributions received by the scheme and reduce the net cash flow position of the scheme.

6.6 For example, if the average salary of firefighters in the scheme is £30,000 (in line with the average age of FPS members at the 2007 valuation and the overall average salary at the 2007 valuation), and assuming that the cost of benefits is around 20% to 30%, then the reduction in cash flow would be between £6,000 and £9,000 per firefighter made redundant.

6.7 A further cost in the case of an involuntary redundancy exercise relates to firefighters in the NFPS aged 50 and over who can retire early on an unreduced pension, thus placing a funding strain on the scheme. For example, it was shown in Section 3 above (Example 4) that a firefighter in the NFPS retiring at age 55 would receive an annual pension of £9,787 after the application of an early retirement factor (ERF). If instead the firefighter were made redundant at age 55 and the ERF not applied, the annual pension would be £16,449, i.e. an additional £6,662 a year. This would create a funding strain on the scheme of around £125,000, (based on the assumptions recommended by GAD described in Section 1 above).

6.8 Therefore, the combined cost per firefighter would range between £6,000 and £9,000 for firefighters aged under 50 and between £131,000 and £134,000 for firefighters in the NFPS aged 50 and over.

7 COMPARISON OF NFPS AND LGPS

- In this Section we show that the cost of benefits in the NFPS is similar to the LGPS.

7.1 Firefighters in control are not eligible to join the firefighters' pension scheme and instead join the Local Government Pension Scheme (LGPS). The LGPS currently has a NPA of 65 and is likely to have a NPA linked to State Pension Age going forwards. It would be preferable for all firefighters to be eligible to join the NFPS such that it could truly be regarded as "The Firefighters Pension Scheme".

7.2 As a funded scheme with assumptions that reflect the strength of the employer covenant for a range of employers including private sector employers, the cost of benefits in the LGPS is higher than the corresponding cost of benefits in the unfunded NFPS which adopts assumptions reflecting the crown guarantee.

7.3 The discount rate assumption adopted by a LGPS is likely to reflect the returns available on government bonds (gilts) which, when considered as a single discount rate for pre-retirement and post-retirement, may be below the 5%pa single discount rate assumption recommended by GAD for the cost comparisons. Also, the inflation assumption for a LGPS will reflect the market implied inflation rate which is likely to be more than the 2.0%pa GAD assumption.

7.4 The net effect of these assumptions would mean that the cost of a NPA 65 benefit calculated on the LGPS assumptions would be greater than the cost of a NPA 65 benefit calculated on the GAD assumptions.

7.5 Now, ignoring the impact of allowing for higher incidences of ill-health retirements given that the membership concerned are employed in control, the cost of a NPA 60 benefit calculated on the GAD assumptions would be similar to the cost of a NPA 65 benefit calculated on the LGPS assumptions.

7.6 For example, a typical total contribution rate in the LGPS is around 25%. Let us assume that this was determined based on a discount rate assumption of 6%pa pre-retirement (i.e. gilts plus 2%pa) and 4%pa post-retirement (i.e. gilts plus 0%), a market implied inflation assumption of 3%pa and a future working lifetime of the membership of 15 years. Therefore, the cost of a NPA 65 benefit calculated on the GAD assumptions would be around 22%, i.e. lower than the corresponding cost of 25% using the LGPS assumptions. Moving to a NPA 60 benefit, under the GAD assumptions, would increase the cost from 22% to around 25%, i.e. a similar to the cost of the NPA 65 benefit using the LGPS assumptions.

7.7 Furthermore, higher member contributions in the NFPS would mean that the actual cost to taxpayers of providing benefits to firefighters in control via the NFPS rather than the LGPS would actually be lower as a greater proportion of the costs in the NFPS are met by the firefighter compared to the LGPS, which has currently has an average member contribution rate of 6.5% expected to rise to around 9.5% by 2014/15. Therefore, it could be argued that the cost of providing a pension for firefighters in control from the NFPS would be similar (or even lower) to the cost in the LGPS.

8 IMPACT ON RETAINED FREFIGHTERS OF CLOSURE OF MODIFIED SCHEME IN 2015

- In this Section we consider the impact on Retained Firefighters of the closure of the Modified Scheme.

8.1 Since April 2006 Retained Firefighters (employees who are "on call" to respond to emergencies) have been able to join the NFPS. Prior to this date Retained Firefighters did not have access to the FPS. Retained Firefighters joining the NFPS are permitted to backdate their service to 6 April 2006, or to their date of joining, whichever is the later.

8.2 For Retained Firefighters with service prior to 6 April 2006, the FBU has been negotiating with the Department for Communities and Local Government (DCLG) to implement a "modified scheme" which will mean many Retained Firefighters will be able to access a pension scheme which provides all the benefits of the FPS, including the "double accrual" of service after 20 years and the ability to retire from age 50 with 25 years service.

8.3 It is important that pressure is maintained on the DCLG to implement the "modified scheme" as soon as possible and to ensure that Retained Firefighters receive benefits they are entitled to for service up to any proposed change to the schemes from 2015.

8.4 Any detrimental changes to the FPS and the NFPS that are subsequently introduced will have an impact on the benefits available to Retained Firefighters and any scheme they become eligible to join.

8.5 The impact on benefits was shown in Section 3 for members who are currently members of the FPS and the NFPS. The outcome of the negotiations with DCLG will determine whether Retained Firefighters with service prior to 6 April 2006 should consider Examples 1 to 3 in Section 3 (FPS benefits) or Examples 4 to 9 (NFPS benefits).

8.6 Finally, government should be asked to clarify which scheme the Retained Firefighters will be considered as part of for the cost comparison calculations. As explained above, the age of the active membership will have a material impact on the comparison of scheme designs with different NPAs.

9 NORTHERN IRELAND FIREFIGHTERS' PENSION SCHEME

- In this section we consider the Northern Ireland's Firefighters' Pension Scheme (NIFPS) which is made up of two schemes. These are the Firefighters' Pension Scheme N.I. (NIFPS) and the New Firefighters' Pension Scheme (NINFPS). These schemes are both statutory, tax approved, unfunded, final salary occupational pension schemes.
- We highlight the problems associated with not having recent valuation data for the NIFPS and the impact this could have on the comparison of different scheme designs.
- We also show the potential negative impact on cashflow for the NIFPS.

9.1 Regular firefighters employed before 6 April 2006 were eligible for membership of the NIFPS. This scheme was closed to new membership in April 2006. At 31/03/2011 it had a membership of approximately 723 members.

9.2 The NINFPS was introduced for regular and retained firefighters employed since 6 April 2006. At 31/03/2011 it had a membership of approximately 773 members of which approximately 600 are retained firefighters.

9.3 The responsibility for policy on both the NIFPS and NINFPS in Northern Ireland rests with the Department of Health Social Services and Public Safety (DHSSPS) whilst the administration and payment of individual pensions and benefits is the responsibility of Northern Ireland Fire and Rescue Service.

9.4 Under the current financing arrangements of both pension schemes, the employers' contribution together with the employees' contribution is paid into a local pension fund account. Northern Ireland Fire and Rescue Service pays pension costs out of this account. Any shortfall between receipts and expenditure is met by a top up payment paid by DHSSPS.

REVIEW OF PUBLIC SERVICE PENSION SCHEMES

9.5 The Government has decided to set scheme-specific cost ceilings for scheme-specific discussions of pension scheme designs with unions and other interested groups. HM Treasury has commissioned GAD to provide advice on the appropriate data, methodology and assumptions to be used for the purpose of setting cost ceilings.

9.6 GAD recommend that membership data used for the purpose of setting cost ceilings is that used for the last completed full actuarial valuation of the pension scheme.

9.7 However, for the Northern Ireland schemes no such valuation exists. This could create the following problems:

- Data for a full actuarial valuation is required in order to accurately compare different pension scheme designs and determine whether or not they meet the cost ceilings set by Government. Without this data, it will be questionable whether proper comparisons can be made between different pension scheme designs.

- GAD recommend that HM Treasury adopts demographic assumptions (such as normal retirement, withdrawal and ill-health early retirement rates) in line with those underlying the most recent full actuarial valuation. Again, without such a valuation having been carried out, the credibility of these assumptions is questionable.
- For the NIFPS and the NINFPS, the assumptions for the rate of normal retirements and ill-health early retirements will have a material impact on the comparison of different scheme designs with different normal retirement ages. For example, the higher the NPA, the greater the incidence of firefighters likely to retire on grounds of ill-health. Therefore it is important that sufficient, credible data is gathered and analysed to derive scheme-specific experience.
- This is particularly true at and around NPA. GAD recommend that the schemes' own actuary should be asked to propose assumptions for ages above the NPA in the existing schemes (currently 55 for the NIFPS and 60 for the NINFPS but proposed to be 60 for all firefighters).
- Using only valuation data and consequently the demographic assumptions established for use in carrying out the valuation of the English scheme does not account for the possibility that different demographic assumptions might apply in Northern Ireland. This may create a problem, for example, if the rate of ill-health retirements is higher in Northern Ireland than it is in England. By designing the scheme based on assumptions about ill-health on the English data, the actual cost of the scheme may increase if the experience in Northern Ireland differs from that in England.

VALUATIONS CARRIED OUT FOR ANNUAL RESOURCE ACCOUNTS

9.8 FRS17-type calculations have been carried out on an annual basis for the purpose of inclusion in the Northern Ireland Fire and Rescue Service's annual accounts. However, an FRS17 valuation is not as accurate as a full actuarial valuation and it is unlikely that the same level of data scrutiny has been carried out as would be the case for a full actuarial valuation. Therefore, the credibility of this data for use in comparing different pension scheme designs is questionable.

POTENTIAL IMPACT OF OPT-OUTS

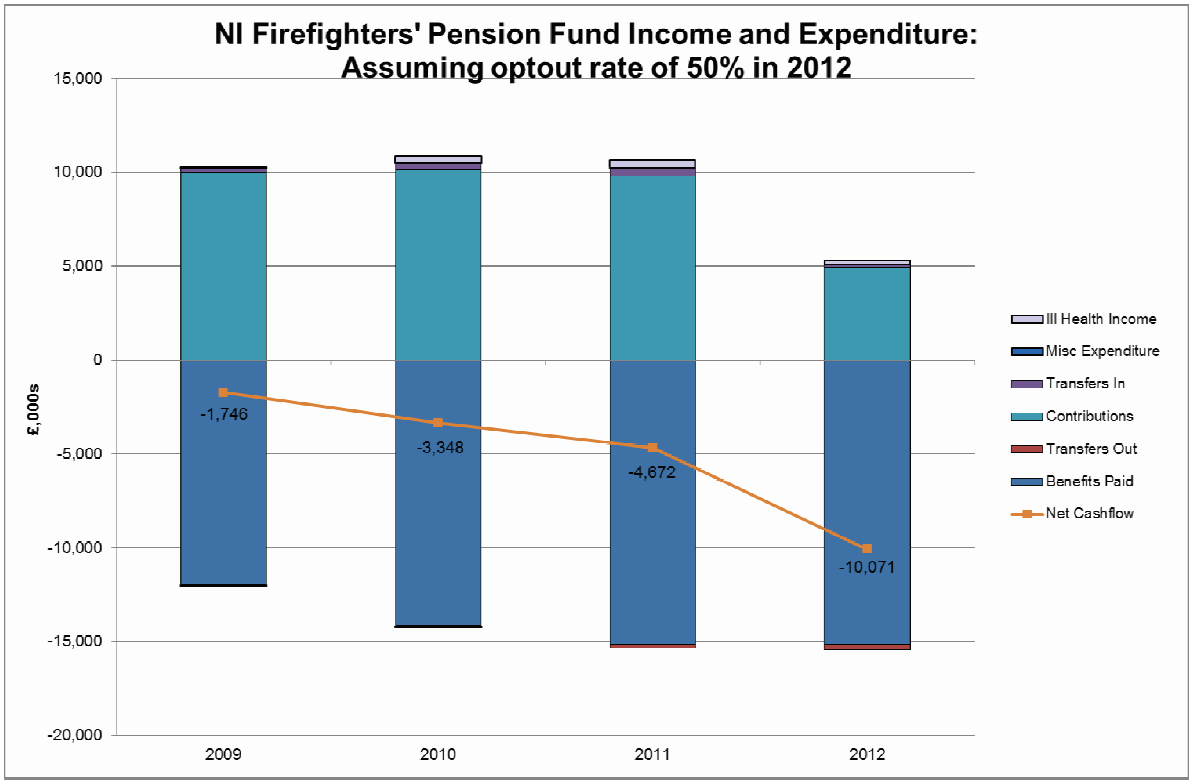
9.9 As mentioned in Section 5 above, a YouGov survey showed that 27% of firefighters responding would be likely or very likely to opt out of the schemes.

9.10 This could have significant implications for the schemes, not least the potential impact on the net cash flow position of the schemes. As unfunded schemes, the NIFPS and the NINFPS rely on contribution income to pay for pensions and other expenditure of the schemes.

9.11 For example, in 2010-11, the largest source of income into the NIFPS was employer contributions making up 59%, whilst employee contributions make up a further 33% of the total. 99% of NIFPS' expenditure was on benefits in the form of pensions and early retirements.

9.12 The chart below illustrates the potential impact on the cash flow for 2012 for the Northern Ireland schemes. Data was taken from "Statistical Release: Northern Ireland Firefighters' Pension Income and Expenditure", dated 5 August 2011, compiled by Northern Ireland Fire and Rescue Service.

9.13 The net cash flow shown for 2009 to 2011 are based on data from the Statistical Release. This information has then been used to project the cash flow for the NIFPS for 2012 based on an assumed opt-out rate of 50%.



9.14 The table below shows the potential impact on net cash flow in 2011/2012 for opt-out rates varying between 10% and 50%:

		Assumed opt-out rate in 2011/2012				
	2010/2011	**10%**	**20%**	**30%**	**40%**	**50%**
Net cashflow (£m)	- 4.8	- 5.8	- 6.8	- 7.9	- 9.0	- 10.1
Reduction in net cashflow (£m)	-	- 1.0	- 2.0	- 3.1	- 4.2	- 5.3

9.15 If 27% of members opted out of the schemes, this could result in a reduction in net cash flow for the Northern Ireland firefighters' pension schemes (NIFPS) of between £2.0m and £3.1m a year.

9.16 Under the current financing arrangements for firefighters pensions, where Northern Ireland Fire and Rescue Services' total pension income is less than the total pension expenditure this will create a pension deficit for the NIFPS pension account, which will be reimbursed to NIFPS by the DHSSPS. Ultimately, such a deficit is payable by the taxpayer.

APPENDIX A: ASSUMPTIONS

A.1 The financial and demographic assumption used in this report are set out below.

GAD ASSUMPTIONS

A.2 The following assumptions were set out in the paper: "HM Treasury – Cost Ceilings for scheme level discussions – Initial advice on data, methodology and assumptions", 22 July 2011, Stephen Humphrey, GAD.

Assumption	GAD recommendation
Nominal discount rate	5.0% pa
Earnings increases	4.25% pa
CPI increases	2.0% pa
Assumed improvements in post-retirement life expectancy	ONS 2008-based principal population projections
Proportion of pension commuted in exchange for a lump sum	75% of HMRC limit (for schemes with little or no automatic lump sum)

ASSUMPTIONS FROM THE 2007 ACTUARIAL VALUATION

A.3 The following demographic assumptions were set out in the 2007 valuation report: "The Firefighters' Pension Schemes in England – Actuarial Valuation as at 31 March 2007", 23 October 2009, Ian Boonin, GAD.

A.4 The 2007 valuation report also provided assumptions for promotional pay progression. The initial advice on data, methodology and assumptions provided by GAD did not mention promotional salary scales. This has been ignored for the purpose of this report.

A.5 Assumed number of exits per 1,000 members in the year following the age stated. All Members are assumed to be male.

Exact Age	Death in Service	Ill-Health Retirement	Withdrawal (FPS) Lower Bound (NFPS)
30	0.2	1.5	11
35	0.3	3.1	10
40	0.4	6.3	6
45	0.7	12.8	3
50	1.1	26.0	2
55	1.7	50.5	1

APPENDIX B: CAREER PROFILES

"No promotion" Career Progression

Firefighter: No promotion			
Years of Service	**Age over period**	**Role**	**Salary**
1	20 to 21	(Firefighter) Trainee	£21,157
2	21 to 22	(Firefighter) Development	£22,038
3	22 to 23	(Firefighter) Development	£22,038
4	23 to 24	(Firefighter) Competent	£28,199
5	24 to 25	(Firefighter) Competent	£28,199
6	25 to 26	(Firefighter) Competent	£28,199
7	26 to 27	(Firefighter) Competent	£28,199
8	27 to 28	(Firefighter) Competent	£28,199
9	28 to 29	(Firefighter) Competent	£28,199
10	29 to 30	(Firefighter) Competent	£28,199
11	30 to 31	(Firefighter) Competent	£28,199
12	31 to 32	(Firefighter) Competent	£28,199
13	32 to 33	(Firefighter) Competent	£28,199
14	33 to 34	(Firefighter) Competent	£28,199
15	34 to 35	(Firefighter) Competent	£28,199
16	35 to 36	(Firefighter) Competent	£28,199
17	36 to 37	(Firefighter) Competent	£28,199
18	37 to 38	(Firefighter) Competent	£28,199
19	38 to 39	(Firefighter) Competent	£28,199
20	39 to 40	(Firefighter) Competent	£28,199
21	40 to 41	(Firefighter) Competent	£28,199
22	41 to 42	(Firefighter) Competent	£28,199
23	42 to 43	(Firefighter) Competent	£28,199
24	43 to 44	(Firefighter) Competent	£28,199
25	44 to 45	(Firefighter) Competent	£28,199
26	45 to 46	(Firefighter) Competent	£28,199
27	46 to 47	(Firefighter) Competent	£28,199
28	47 to 48	(Firefighter) Competent	£28,199
29	48 to 49	(Firefighter) Competent	£28,199
30	49 to 50	(Firefighter) Competent	£28,199
31	50 to 51	(Firefighter) Competent	£28,199
32	51 to 52	(Firefighter) Competent	£28,199
33	52 to 53	(Firefighter) Competent	£28,199
34	53 to 54	(Firefighter) Competent	£28,199
35	54 to 55	(Firefighter) Competent	£28,199
36	55 to 56	(Firefighter) Competent	£28,199
37	56 to 57	(Firefighter) Competent	£28,199
38	57 to 58	(Firefighter) Competent	£28,199
39	58 to 59	(Firefighter) Competent	£28,199
40	59 to 60	(Firefighter) Competent	£28,199
41	60 to 61	(Firefighter) Competent	£28,199
42	61 to 62	(Firefighter) Competent	£28,199
43	62 to 63	(Firefighter) Competent	£28,199
44	63 to 64	(Firefighter) Competent	£28,199
45	64 to 65	(Firefighter) Competent	£28,199
46	65 to 66	(Firefighter) Competent	£28,199
47	66 to 67	(Firefighter) Competent	£28,199
48	67 to 68	(Firefighter) Competent	£28,199

"Typical" Career Progression

Firefighter: "Typical"			
Years of Service	**Age over period**	**Role**	**Salary**
1	20 to 21	(Firefighter) Trainee	£21,157
2	21 to 22	(Firefighter) Development	£22,038
3	22 to 23	(Firefighter) Development	£22,038
4	23 to 24	(Firefighter) Competent	£28,199
5	24 to 25	(Firefighter) Competent	£28,199
6	25 to 26	(Firefighter) Competent	£28,199
7	26 to 27	(Firefighter) Competent	£28,199
8	27 to 28	(Firefighter) Competent	£28,199
9	28 to 29	(Firefighter) Competent	£28,199
10	29 to 30	(Crew Manager) Development	£29,971
11	30 to 31	(Crew Manager) Competent	£31,263
12	31 to 32	(Crew Manager) Competent	£31,263
13	32 to 33	(Crew Manager) Competent	£31,263
14	33 to 34	(Crew Manager) Competent	£31,263
15	34 to 35	(Crew Manager) Competent	£31,263
16	35 to 36	(Crew Manager) Competent	£31,263
17	36 to 37	(Crew Manager) Competent	£31,263
18	37 to 38	(Crew Manager) Competent	£31,263
19	38 to 39	(Crew Manager) Competent	£31,263
20	39 to 40	(Crew Manager) Competent	£31,263
21	40 to 41	(Watch Manager) Development	£31,940
22	41 to 42	(Watch Manager) Competent A	£32,827
23	42 to 43	(Watch Manager) Competent A	£32,827
24	43 to 44	(Watch Manager) Competent A	£32,827
25	44 to 45	(Watch Manager) Competent A	£32,827
26	45 to 46	(Watch Manager) Competent A	£32,827
27	46 to 47	(Watch Manager) Competent A	£32,827
28	47 to 48	(Watch Manager) Competent A	£32,827
29	48 to 49	(Watch Manager) Competent A	£32,827
30	49 to 50	(Watch Manager) Competent A	£32,827
31	50 to 51	(Watch Manager) Competent A	£32,827
32	51 to 52	(Watch Manager) Competent B	£34,961
33	52 to 53	(Watch Manager) Competent B	£34,961
34	53 to 54	(Watch Manager) Competent B	£34,961
35	54 to 55	(Watch Manager) Competent B	£34,961
36	55 to 56	(Watch Manager) Competent B	£34,961
37	56 to 57	(Watch Manager) Competent B	£34,961
38	57 to 58	(Watch Manager) Competent B	£34,961
39	58 to 59	(Watch Manager) Competent B	£34,961
40	59 to 60	(Watch Manager) Competent B	£34,961
41	60 to 61	(Watch Manager) Competent B	£34,961
42	61 to 62	(Watch Manager) Competent B	£34,961
43	62 to 63	(Watch Manager) Competent B	£34,961
44	63 to 64	(Watch Manager) Competent B	£34,961
45	64 to 65	(Watch Manager) Competent B	£34,961
46	65 to 66	(Watch Manager) Competent B	£34,961
47	66 to 67	(Watch Manager) Competent B	£34,961
48	67 to 68	(Watch Manager) Competent B	£34,961

“High-Flyer” Career Progression

Firefighter: "High-Flyer"			
Years of Service	**Age over period**	**Role**	**Salary**
1	20 to 21	(Firefighter) Trainee	£21,157
2	21 to 22	(Firefighter) Development	£22,038
3	22 to 23	(Firefighter) Development	£22,038
4	23 to 24	(Firefighter) Competent	£28,199
5	24 to 25	(Firefighter) Competent	£28,199
6	25 to 26	(Crew Manager) Development	£29,971
7	26 to 27	(Crew Manager) Competent	£31,263
8	27 to 28	(Crew Manager) Competent	£31,263
9	28 to 29	(Watch Manager) Development	£31,940
10	29 to 30	(Watch Manager) Competent A	£32,827
11	30 to 31	(Watch Manager) Competent A	£32,827
12	31 to 32	(Watch Manager) Competent A	£32,827
13	32 to 33	(Watch Manager) Competent B	£34,961
14	33 to 34	(Watch Manager) Competent B	£34,961
15	34 to 35	(Station Manager) Development	£36,365
16	35 to 36	(Station Manager) Competent A	£37,456
17	36 to 37	(Station Manager) Competent A	£37,456
18	37 to 38	(Station Manager) Competent A	£37,456
19	38 to 39	(Station Manager) Competent B	£40,109
20	39 to 40	(Station Manager) Competent B	£40,109
21	40 to 41	(Group Manager) Development	£41,881
22	41 to 42	(Group Manager) Competent A	£43,138
23	42 to 43	(Group Manager) Competent A	£43,138
24	43 to 44	(Group Manager) Competent A	£43,138
25	44 to 45	(Group Manager) Competent B	£46,428
26	45 to 46	(Group Manager) Competent B	£46,428
27	46 to 47	(Area Manager) Development	£49,167
28	47 to 48	(Area Manager) Competent A	£50,642
29	48 to 49	(Area Manager) Competent A	£50,642
30	49 to 50	(Area Manager) Competent A	£50,642
31	50 to 51	(Area Manager) Competent B	£53,934
32	51 to 52	(Area Manager) Competent B	£53,934
33	52 to 53	(Area Manager) Competent B	£53,934
34	53 to 54	(Area Manager) Competent B	£53,934
35	54 to 55	(Area Manager) Competent B	£53,934
36	55 to 56	(Area Manager) Competent B	£53,934
37	56 to 57	(Area Manager) Competent B	£53,934
38	57 to 58	(Area Manager) Competent B	£53,934
39	58 to 59	(Area Manager) Competent B	£53,934
40	59 to 60	(Area Manager) Competent B	£53,934
41	60 to 61	(Area Manager) Competent B	£53,934
42	61 to 62	(Area Manager) Competent B	£53,934
43	62 to 63	(Area Manager) Competent B	£53,934
44	63 to 64	(Area Manager) Competent B	£53,934
45	64 to 65	(Area Manager) Competent B	£53,934
46	65 to 66	(Area Manager) Competent B	£53,934
47	66 to 67	(Area Manager) Competent B	£53,934
48	67 to 68	(Area Manager) Competent B	£53,934

APPENDIX C: REFERENCE SCHEME

The Reference Scheme design is set out in Appendix B of GAD's paper: "HM Treasury – Cost Ceilings for scheme level discussions – Initial advice on data, methodology and assumptions", 22 July 2011, Stephen Humphrey, GAD.

The Reference Scheme design set out in that paper is as follows:

a. a Career Average Revalued Earnings (CARE) pension scheme;

b. an accrual rate to be determined centrally in due course. This will be set consistent with the Chief Secretary's statement that the pension individuals receive at normal pension age would be broadly as generous for low and middle income earners as it is now;

c. a normal pension age linked to State Pension Age, or to age 60 for active members of the firefighter's scheme (or the same age as other schemes for deferred members);

d. earnings indexation of past CARE service for active members;

e. pensions in payment and in deferment will be indexed by CPI;

f. average member contributions should be assumed to be 3.2% above their current level;

g. no fixed lump sums; optional commutation, with a 12:1 factor for converting pension to lump sum;

h. ancillary benefits (ill-health, death and survivors benefits) that match provision in schemes that are currently open to new members (e.g. a lower tier ill health pensioner receives an unreduced CARE pension; a partner receives the same proportion of member's pension as now);

i. members rejoining after a period of deferment of less than 5 years can link new service with previous service, as if they had always been an active member (so previous accruals are indexed by earnings for that period of deferment); and

j. members transferring between public service pension schemes would be treated as having continuous active service (which would include those transferring between schemes who had rejoined public service after a gap of less than 5 years).

APPENDIX D:METHODOLOGY

GAD's paper dated 22 July 2011 (and their subsequent report dated 31 August 2011) recommended the use of the Projected Unit method, with a one year control period.

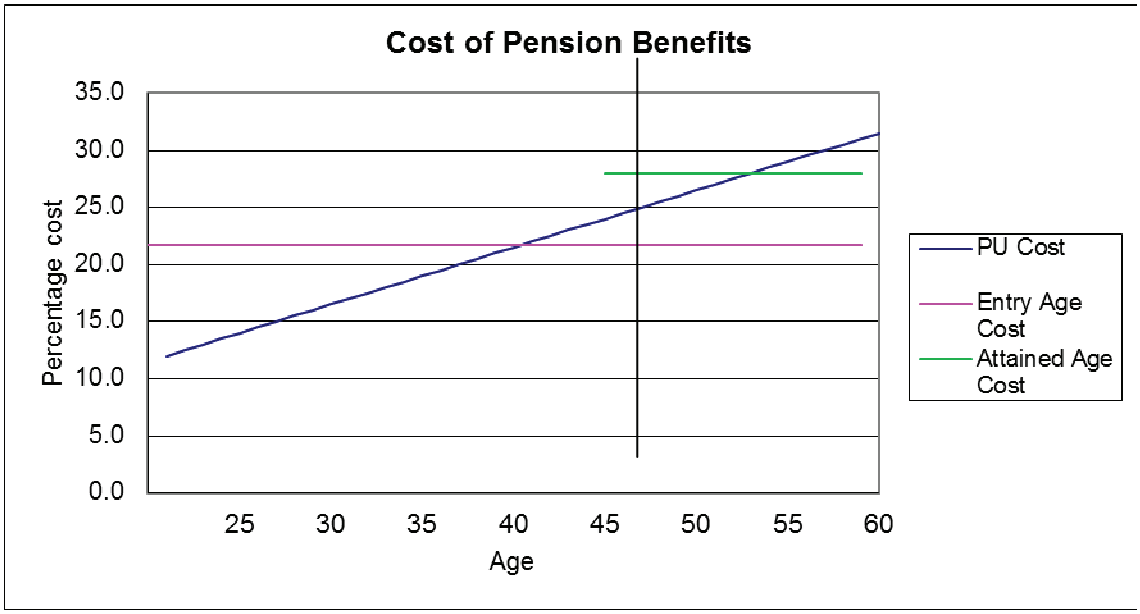
The rationale for this is set out in paragraphs 5.2 to 5.7 of these papers as:

a) this methodology is standard and is used in resource accounts;
b) a New Entrant method may not be appropriate for a new scheme for which many members will be joining mid-career;
c) an Attained Age method would "overweight" changes made to the benefits of younger members in a comparison.

Whilst none of these points are wrong there are alternative views which might be suggested. For example, both Attained Age and New Entrant are methods that are regularly used for funding valuations. The importance of using a method that is consistent with the method used for resource accounts is not explained.

There are two specific potential problems with the use of the Projected Unit method which are explained below. However it might first help to offer a lay explanation of the different methodologies.

The blue line in the diagram below shows the cost of pension benefits accruing in a scheme on a year-by-year basis. Pension benefits are cheaper for younger members as the contributions have a longer period over which to accrue investment returns.



Using a Projected Unit method, the cost of this scheme for any particular member varies on a year-by-year basis. If this were scheme with only 1 member, and we used a Projected Unit method of valuation, we would pay 12% in the first year, 12.5% in the second year then up to 22% at age 40 and 32% at age 60.

If we used an Entry Age method for the member, we would pay the average cost for the member. That is, 22% over the whole of their lifetime. An Attained Age method is similar to the Entry Age method in using an average cost over the future lifetime, but the starting point is a member's current actual age rather than the age at which they joined the scheme.

Consider one specific member – say one aged 45 (represented by the vertical line above). If we used a Projected Unit method of valuation, the future contribution rate required would be 24%, the Entry Age would give an answer of 22%, whilst Attained Age would give 28%.

It might be thought that using the Projected Unit method would be unhelpful since the cost will rise each year as members get older. This is indeed a problem with the use of the method in closed schemes where the average age of members is rising. But if the profile of a scheme remains fairly constant, the Projected Unit method will also produce a stable contribution – for example if the average age of the scheme is 45 now, then the next valuation is done in say 4 years time, individual members will have aged but the oldest will have retired and younger members will replace them – so the average age would remain at 45.

This background will hopefully assist in understanding two potential problems with using a Projected Unit method for the comparison of scheme designs in the cost ceiling calculations.

Stable population?

The first is the question of whether the profile of the members will remain stable. For example, the impact of opt-outs at younger ages could result in the profile of the membership changing (i.e. the average age increasing) over time.

Different methodology used for funding valuations?

The second problem is that this methodology may not be the same as that used in the funding valuation. This problem has a number of facets:

i) it is likely that any funding valuation, even if using the Projected Unit method, would consider benefits accruing in the period up to the next valuation rather than just considering the benefits accruing in the next year. The lack of consistency between the cost ceiling considered in the reference scheme and the actual cash cost ceiling imposed could be problematic.

ii) the lack of consistency between any new methodology used in funding and that used in the past will give rise to inconsistencies between past and future valuations. The diagram above demonstrates that an Entry Age method only works if it is applied over a full career. If a switch is made to another method for funding, the scheme will have overcharged for past benefits. Indeed this is precisely the opposite argument to that outlined in b) above which is a summary of the argument in 5.5 of the GAD papers.

iii) For clarity, it will be helpful to tie up current scheme benefit costs with those used for this cost ceiling exercise. Given existing costs are based on Entry Age methods, it might be simpler to follow this funding valuation methodology. If not it will be necessary to account for the differences between:

a. The costs of the current scheme structures on the current methodology and current assumptions;
b. The costs of the current scheme structures based on new methodology and old assumptions;
c. The costs of the current scheme structures based on new methodology and new assumptions;
d. The costs of the reference scheme based on new methodology and new assumptions;
e. The costs of any alternative scheme designs based on new methodology and new assumptions.

Having said all this, it should be noted that it is difficult to predict in advance how sensitive the results would be to the methodology used. It would be helpful to see whether these sensitivities have been tested in any background work done before the GAD papers were issued.