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Dear Andrew

**Firefighters' Pension Scheme (England)
Review of Commutation Factors in the Firefighters' Pension Scheme (England)**

1. The Government Actuary is responsible for preparing tables of commutation factors, in accordance with rule B7 of the Firefighters' Pension Scheme Order 1992 (SI 1992/129). The regulation requires that the lump sum is the actuarial equivalent of the commuted portion at the date of retirement.
2. We have reviewed the commutation factors offered by the scheme in light of the information emerging from the actuarial valuation currently in progress and are now issuing new factors. The revised commutation factors are set out in Annex A to this letter. The main demographic assumptions we have adopted are set out in Annex B.
3. The revised factors should be distributed to English Fire Authorities as soon as possible. These factors replace the factors in the guidance dated 11 October 2012 with immediate effect.

Previous review

4. The commutation factors in the Firefighters' Pension Scheme ("FPS") were last considered for review in April 2012, following the publication of the ONS 2010-based principal population projections and publication of further information on ill-health retirements in the scheme (which showed that the number of ill-health retirements had fallen significantly since the previous valuation). The commutation factors were not revised at this time.
5. The factors currently in use are those prepared and set out in guidance dated 19 April 2011. Updated guidance was issued on 11 October 2012 although there was again no change in the factors.

Current review

6. We are currently undertaking an actuarial valuation of the Firefighters Pension Scheme in England as at 31 March 2012 under Treasury Directions. As part of that valuation process we have reviewed the demographic experience of the Scheme. Our analysis of the mortality experience of the Scheme over the period 1 April 2007 to 31 March 2012 shows that there were more deaths than expected under the previous 2007 valuation assumption. Additionally, our analysis of the number of ill health retirements over the same period shows that the decrease in number of ill-health retirements observed previously appears to have levelled off.

7. In light of the above, we have undertaken a review of the commutation factors taking into account the new demographic evidence available. We have also taken into account the revised proportion of males to females in the data received for the 2012 valuation of the scheme.
8. We have set demographic assumptions in line with the proposal set out in Colin Wilson's letter of 26 February. For the Firefighters' Pension Scheme in England this means that the demographic assumptions have been set by reference to the evidence emerging from the valuation of the scheme.

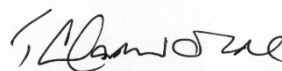
Comparison with previous tables

9. The revised factors are lower than the factors currently in force, primarily as a result of a revised (lower) expectation of the life expectancy for future pensioners of the scheme. As will be appreciated this might seem unusual given the increase in longevity seen over recent years in the population as a whole. We have therefore undertaken some analysis to better understand why this might have occurred.
10. As part of our analysis for the 2012 actuarial valuation, and as would be common practice for an actuarial valuation of a pension scheme, we sought to reconcile the numbers of scheme members at 2007 and 2012 with the number of retirements and pensioner deaths over the period. The numbers did not initially reconcile and we therefore requested revised data from Fire Authorities. As a result, we were able to identify that there were a significant number of additional deaths in the period 2007 to 2012 which were not in the original data that had been sent to us. We were able to reconcile the revised data, and then carried out a robust analysis of mortality. The longevity assumptions adopted for this review are based on that analysis of mortality.
11. The 2007 actuarial valuation of the FPS was the first such valuation of the scheme. Consequently there was no previous valuation data against which to reconcile the deaths data which had been provided by Fire Authorities for that valuation. Further, no audited accounts are available for the FPS as a whole, each Fire Authority producing their own accounts on an individual basis. As such there would have been no way of carrying out an independent analysis on the data received in 2007 to, for example, check whether there had been any systematic under-reporting of deaths – as was subsequently done, and identified, for the 2012 valuation. In hindsight, not being able to reconcile the reported number of deaths at the 2007 valuation may have introduced an element of inaccuracy in setting the mortality assumption at that time.
12. Had there been any systematic under-reporting of deaths for the previous 2007 actuarial valuation of the scheme, this would have led to life expectancy being over-stated at the 2007 valuation (and in subsequent reviews of the commutation factors), and hence the more robust analysis for the 2012 valuation would have resulted in an apparent decrease in expected longevity between the two valuations dates, as is now being seen.
13. The revised factors in Annex A represent our best estimate at the current time, based on the detailed movements analyses we were able to perform at the 2012 valuation.

Yours sincerely



Ian Boonin
Chief Actuary



Trevor Llanwarne
Government Actuary

Annex A

This table replaces Table 1 in the GAD Guidance dated 11 October 2012:
"Firefighters' Pension Scheme 1992/ Firefighters' Pension Scheme (Northern Ireland) 2007 – Commutation on Retirement" where it is used by English Fire and Rescue Authorities.

| Years | Age in years and completed months on relevant day | | | | | | | | | | | |
|----------|---|------|------|------|------|------|------|------|------|------|------|------|
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| Below 50 | 21.9 | | | | | | | | | | | |
| 50 | 21.9 | 21.9 | 21.8 | 21.8 | 21.8 | 21.8 | 21.7 | 21.7 | 21.7 | 21.7 | 21.7 | 21.6 |
| 51 | 21.6 | 21.6 | 21.6 | 21.5 | 21.5 | 21.5 | 21.5 | 21.4 | 21.4 | 21.4 | 21.3 | 21.3 |
| 52 | 21.3 | 21.3 | 21.2 | 21.2 | 21.2 | 21.2 | 21.1 | 21.1 | 21.1 | 21.1 | 21.0 | 21.0 |
| 53 | 21.0 | 20.9 | 20.9 | 20.9 | 20.9 | 20.8 | 20.8 | 20.8 | 20.7 | 20.7 | 20.7 | 20.6 |
| 54 | 20.6 | 20.6 | 20.6 | 20.5 | 20.5 | 20.5 | 20.4 | 20.4 | 20.4 | 20.4 | 20.3 | 20.3 |
| 55 | 20.3 | 20.2 | 20.2 | 20.2 | 20.1 | 20.1 | 20.1 | 20.0 | 20.0 | 20.0 | 19.9 | 19.9 |
| 56 | 19.9 | 19.8 | 19.8 | 19.8 | 19.7 | 19.7 | 19.7 | 19.6 | 19.6 | 19.6 | 19.5 | 19.5 |
| 57 | 19.5 | 19.4 | 19.4 | 19.4 | 19.3 | 19.3 | 19.3 | 19.2 | 19.2 | 19.2 | 19.1 | 19.1 |
| 58 | 19.1 | 19.0 | 19.0 | 18.9 | 18.9 | 18.9 | 18.8 | 18.8 | 18.8 | 18.7 | 18.7 | 18.7 |
| 59 | 18.6 | 18.6 | 18.6 | 18.5 | 18.5 | 18.5 | 18.4 | 18.4 | 18.3 | 18.3 | 18.3 | 18.2 |
| 60 | 18.2 | 18.2 | 18.1 | 18.1 | 18.1 | 18.0 | 18.0 | 17.9 | 17.9 | 17.9 | 17.8 | 17.8 |
| 61 | 17.8 | 17.7 | 17.7 | 17.7 | 17.6 | 17.6 | 17.5 | 17.5 | 17.5 | 17.4 | 17.4 | 17.4 |
| 62 | 17.3 | 17.3 | 17.3 | 17.2 | 17.2 | 17.1 | 17.1 | 17.1 | 17.0 | 17.0 | 17.0 | 16.9 |
| 63 | 16.9 | 16.8 | 16.8 | 16.8 | 16.7 | 16.7 | 16.6 | 16.6 | 16.6 | 16.5 | 16.5 | 16.5 |
| 64 | 16.4 | 16.4 | 16.3 | 16.3 | 16.3 | 16.2 | 16.2 | 16.2 | 16.1 | 16.1 | 16.0 | 16.0 |
| 65 | 16.0 | | | | | | | | | | | |

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Annex B

Demographic assumptions

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|--|--|
| Base mortality table: Age Ill health | 110% S1NMA/S1NFA ¹ 100% S1IMA/S1IFA |
| Future mortality improvement | Based on ONS principal population projections 2012 ² (Year of Use 2016) ³ |
| Ill Health Weighting | Below 50 100% 50 1.6% 51 1.6% 52 1.6% 53 1.6% 54 1.6% 55 0.0% above age 55 0.0% |
| Gender weighting | 5% female/ 95% male |

¹ The 'S1' mortality tables are SAPS tables published by the Actuarial Profession, based on the experience of self-administered pension schemes over the period 2000 to 2006. The 'S1' series has separate standard tables based on experience of male members retiring in normal health (S1NMA) and in ill health (S1IMA) and for female dependants (S1DFA)

² For the period between 2002, the base year of the standard tables, and 2012, mortality improvements take account of improvements in population mortality using rates derived from the ONS's UK Interim Life Tables

³ Allowance for future improvements on mortality is based on members commuting in 2016 (ie Year of Use 2016). If factors are next reviewed in four years' time in line with the valuation cycle, 2016 will be the mid-point of the period during which these factors are in force.