



Government Actuary's Department

JPS actuarial valuation as at 31 March 2012

Report on data used for experience analysis

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1 Introduction

- 1.1 This report is addressed to the Ministry of Justice (MoJ). This report should not be reproduced or disseminated to other parties without prior consent. The Government Actuary's Department (GAD) does not accept any liability to third parties, whether or not it has agreed to the disclosure.
- 1.2 The purpose of this report is to discuss and summarise the membership experience data provided and to be used for the purposes of the actuarial valuation as at 31 March 2012 and to ensure users of the valuation report understand the issues relating to the experience data used and how these issues affect the derivation of assumptions to be adopted for the valuation itself and the reliability of the actuarial calculations. There are no specific decisions required based on the information contained in this report.
- 1.3 The experience data considered for this report covers the period 1 April 2009 to 31 March 2012 (the inter-valuation period).
- 1.4 Membership data used for the actuarial valuation calculations are the subject of a separate report.
- 1.5 All member experience data, other data, and supplementary accounting information provided and discussed in this report were supplied by MoJ. Resource accounts for the relevant period are publicly available
- 1.6 Throughout this report the totals given for summed data may not be exactly the same as the sum of the components shown due to rounding effects.
- 1.7 In preparing this report, GAD has relied on data and other information supplied by MoJ as described in the report. Any checks that GAD has made on this information are limited to those described in the report, including any checks on the overall reasonableness and consistency of the data. These checks do not represent a full independent audit of the data supplied. In particular, GAD has relied on the general completeness and accuracy of the information supplied without independent verification.
- 1.8 A draft of this report was circulated to the Ministry of Justice in September 2013. It has been signed alongside the formal valuation report. No substantive changes have been made.



2 Description of data provided

Movements data – actives

- 2.1 MoJ provided data in the form of individual member records for active members who died in service, were promoted and retired over the inter-valuation period. The data items provided for each member are set out in Appendix A.

Movements data – deferreds

- 2.2 MoJ provided data in the form of individual member records for new deferred members and those exiting deferred status in the inter-valuation period. The data items provided for each member are set out in Appendix B.

Movements data – pensioners

- 2.3 Data were provided by MoJ showing pensioner deaths occurring, and reported by the extract date in each of the years 2009/10, 2010/11 and 2011/12. The data items provided for each member are set out in Appendix C.
- 2.4 The pensioner deaths data was used to indicate whether a member death gives rise to payment of a pension to a dependant and this information was analysed to inform the assumptions around proportions married or with an eligible dependant. The data does not provide information on the age difference between deceased members and their spouses.

Year-end data

- 2.5 Detailed membership data as at 31 March 2010 and 31 March 2011 was provided by MoJ for the resource accounts. This was not used in the analysis of movements in the inter-valuation period.



3 Summary of membership movements

3.1 The table below summarises the membership movements over the inter-valuation period compared to the corresponding figures based on information published in the resource accounts. There are some differences and we comment on these further below.

	Valuation data 000s	Resource accounts 000s
Actives		
Number at 31/3/09	2135	2140
Additions		
• New entrants	420	420
Deductions:	-335	-320
• Deaths		
• Age retirements		
• Ill-health retirements		
• Withdrawals		
Number expected at 31/3/12	2220	2240
Data at 2012	2227	2240
Deferreds		
Number at 31/3/09	5	7
Additions	6	6
• New deferreds		
Deductions:	-3	-3
• Deaths		
• Age retirements		
• Ill-health retirements		
Number expected at 31/3/12	8	10
Data at 2012	9	10
Pensioners		
Number at 31/3/08	1549	1530
Additions	409	467
• New pensioners		
• New dependants		
Deductions:	-222	-272
• Deaths - no dependant		
• Deaths - dependant		
• Child cessations		
• Other cessations		
Number expected at 31/3/12	1736	1725
Data at 2012	1735	1725



4 Limitations of analysis based on data

- 4.1 The data described in this report is to be used to inform the process of setting assumptions for the valuation to be undertaken as at 31 March 2012. The results of the analysis are dependent on the quality and correctness of the data used.
- 4.2 The analysis of ill health retirement was not done using any movement data. Instead, we were able to do this by analysing the new members in the pensioners' data with a 'Retirement (Ill Health)' type of retirement.
- 4.3 Past experience over a particular period does not necessarily correlate to an exact expectation for a particular future period. Therefore the weight that is attached to the precise outcome of the intervaluation experience analysis depends on the analysis itself and an assessment of the extent to which recent experience is a guide to the future.
- 4.4 Where other information is considered as part of the process of agreeing assumptions for the valuation such information will be discussed within the report providing our advice on those assumptions.
- 4.5 The dates of birth for many of the pensioner deaths were missing. Although this limited the detail of our analysis, the small number of deaths means that it would have been very unlikely that more conclusions could be drawn from an analysis that used date of birth information.
- 4.6 We did not have enough information to analyse age differences between deceased members and their spouses so we did not analyse this information. We do not think that this assumption will make a significant difference to the valuation result.



Appendix A: Actives movements data

The following data was provided for the whole intervaluation period for active staff who left the Scheme during the valuation period:

- a. Section of scheme (ie 1991 or 1983)
- b. Gender
- c. Date of birth
- d. Date of first entry to Scheme
- e. Date of exit
- f. Reason for exit from active membership
- g. Final pensionable pay at exit
- h. Service at exit
- i. Unique identifier.



Appendix B: Deferreds movements data

The following data was provided for the whole intervaluation period for deferred members:

- a. Section of scheme (ie 1991 or 1983)
- b. Gender
- c. Date of birth
- d. Date of deferral
- e. Preserved annual pension
- f. Date pension due
- g. Unique identifier.



Appendix C: Pensioner deaths data

The following data was provided for the whole intervaluation period for pensioner deaths:

- a. Gender
- b. Date of birth
- c. Section of Scheme
- d. Date of death
- e. Type of pension (dependant or pensioner)
- f. Unique identifier.