# Judicial Pension Schemes

**Actuarial valuation as at 31 March 2016**
**Report on membership data**

Date:     5 March 2019
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# Contents

# 1    Introduction

1.1    This report is addressed to the Lord Chancellor (LC). It has been made available in draft dated July 2018 to the Ministry of Justice (MoJ), the Judicial Pension Schemes ('JPS' or 'the Schemes') Scheme Advisory Board and Judicial Pension Committee as part of the consultation process relating to the actuarial valuation of the JPS as at 31 March 2016. There have been no substantive changes compared to the draft.

1.2    Pension scheme membership data for the Judicial Pension Schemes is required for the actuarial valuation of the Scheme as at 31 March 2016, carried out in accordance with HM Treasury's Public Service Pensions (Valuations and Employer Cost Cap) Directions 2014 ('HMT Directions')[1] as amended.

1.3    The membership data in respect of the 2015 scheme for salaried and fee-paid members and the membership data in respect of the final salary schemes for salaried members is used in the valuation as follows:

>    To calculate valuation results including uncorrected employer contribution rate, corrected employer contribution rate and past service liability (all valuation data)

>    To assess the initial cost cap fund (membership data as at 31 March 2015)

>    To assess elements of the Scheme's demographic experience in order to recommend assumptions for the valuation (movements data 31 March 2012 to 31 March 2016)

1.4    Membership data in respect of the 2017 scheme for fee-paid members is also used for the same purposes set out in the preceding paragraph. The 2017 scheme for final salary benefits for fee-paid judges came into effect from 1 April 2017 (with benefits backdated as far as the year 2000). Therefore data for fee-paid judges' final salary benefits was provided as at 31 March 2017, rather than as at 31 March 2015 and 31 March 2016.

1.5    The results of the valuation are critically dependent on the quality and correctness of the data used. The data provided was not fully complete for a small minority of the members and approximations have been made to enable valuation calculations to be undertaken.

1.6    The purposes of this report are:

>    to discuss and summarise the membership data provided, and any checks and adjustments made to the data;

>    to enable users of the valuation report to understand the underlying membership data used in the valuation and any issues relating to it; particularly those issues that may impact on the valuation results; and

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[1] https://www.gov.uk/government/publications/public-service-pensions-actuarial-valuations-and-the-employer-cost-cap-mechanism

> to discuss and summarise the movements data provided and to be used to inform decisions around scheme specific assumptions to be used for the valuation.

1.7    The data was provided by MoJ and Punter Southall Administration Limited (PSAL), the Scheme's administrators, as follows:

> Data for active, deferred and pensioner members of the scheme as at 31 March 2016 was provided by PSAL for salary paid judges and, in respect of their CARE benefits in the 2015 scheme only, for fee-paid judges.

> Data for active members of the scheme as at 31 March 2015 was provided by MoJ for salary paid judges.

> Movements data on members entering or leaving active, deferred or pensioner status between 31 March 2012 to 31 March 2016 was provided by PSAL for salary paid judges.

> Data for active, deferred and pensioner members of the scheme as at 31 March 2017 was provided by PSAL for fee-paid judges in respect of their final salary benefits in the 2017 scheme.

> Accounts for the relevant period are publicly available.

1.8    In preparing this report, GAD has relied on data and other information supplied by MoJ and PSAL as described in the report. Any checks that GAD has made on this data and 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 and do not by themselves confirm or guarantee the overall quality or correctness of the data. In particular, GAD has relied on the general completeness and accuracy of the information supplied without independent verification.

1.9    The data provided covers active, deferred and pensioner members of the following Judicial Pension Schemes:

> Salaried judiciary in the 1981 and 1993 schemes (final salary schemes) and predecessor schemes

> Salaried and fee-paid judiciary in the 2015 scheme (CARE scheme)

> Fee-paid judiciary in the 2017 scheme (final salary scheme).

1.10   The data provided does not include:

> Devolved judiciary in the Northern Ireland Judicial Pension Scheme, as these members are excluded by the terms of the Public Service Pensions Act 2013

1.11   Summaries of the membership data at 31 March 2016 for the 1981, 1993 and 2015 scheme and movements data used for the valuation are provided in Section 2 of this report with further information in Appendices A and C of this report respectively. This covers all except the data as at 31 March 2017 provided for members of the 2017 scheme, which are covered in Section 4 and Appendix B of this report.

1.12   In our opinion the data provided is adequate for the purposes of the valuation.

1.13   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.

1.14   We are content for the Lord Chancellor to release this report to third parties, provided that:

>   it is released in full

>   the advice is not quoted selectively or partially

>   GAD is identified as the source of the report, and

>   GAD is notified of such release.

1.15   Third parties whose interests may differ from those of the Lord Chancellor should be encouraged to seek their own actuarial advice where appropriate. Other than to the Lord Chancellor, GAD has no liability to any person or third party for any act or omission taken, either in whole or in part, on the basis of this report.

1.16   This report has been prepared in accordance with the applicable Technical Actuarial Standards: TAS 100 and TAS 300 issued by the Financial Reporting Council (FRC). The FRC sets technical standards for actuarial work in the UK.

# 2 Summary of data as at 31 March 2016 used for the valuation

**Membership data at 31 March 2016**

2.1 The membership data to be used for the purposes of the 2016 valuation is summarised below together with comparative data at 2015 (where relevant) and as used for the 2012 valuation. Detailed tables are set out in Appendix A.

**Graph 2.1: Number of active members**
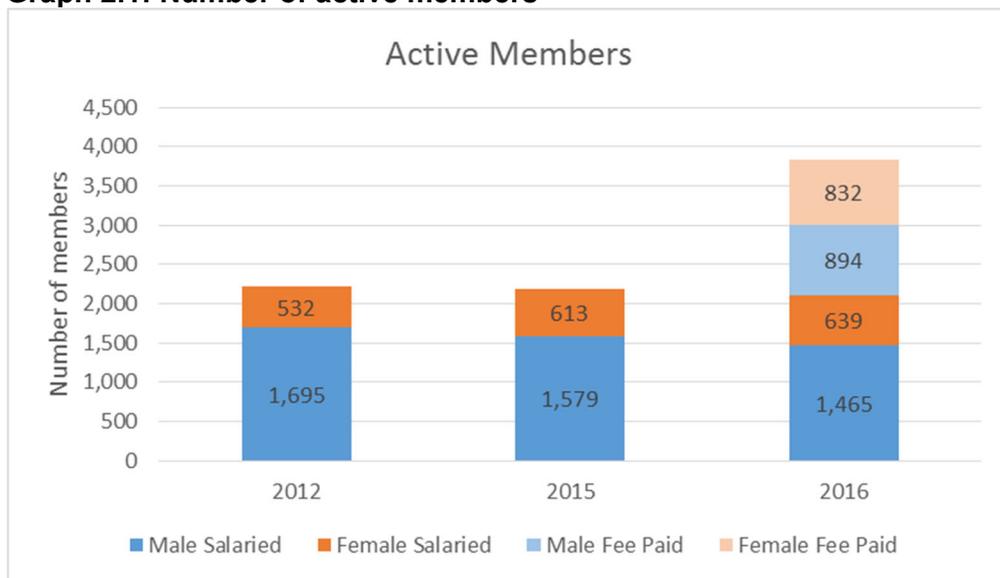


**Graph 2.2: Active total pensionable pay (actual annualised pay)[2]**



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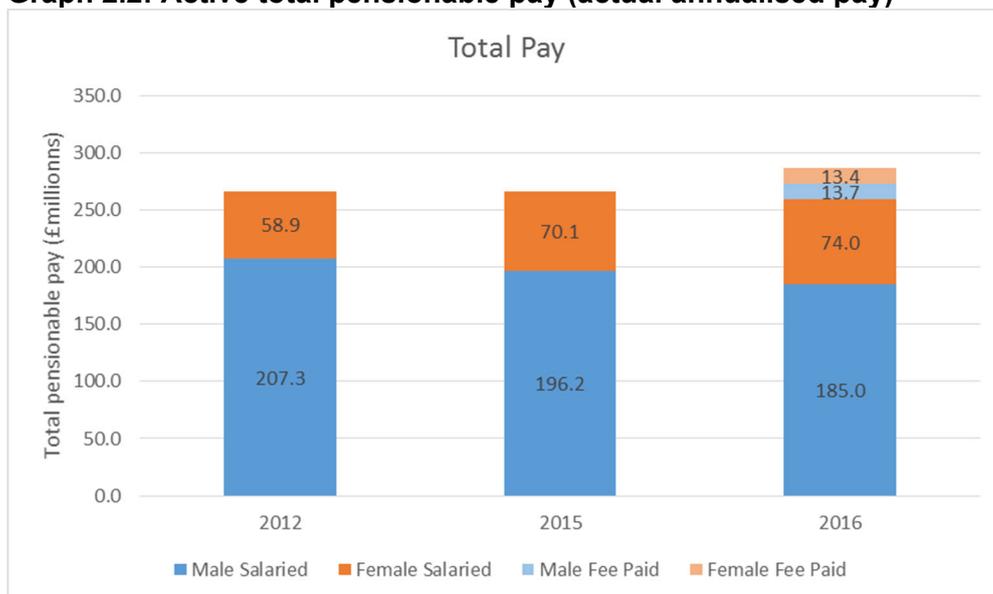
[2] See Appendix F for details of the pay used.

**Graph 2.3: Number of pensioners and dependants**



**Graph 2.4: Total pension in payment (pensioners and dependants)**
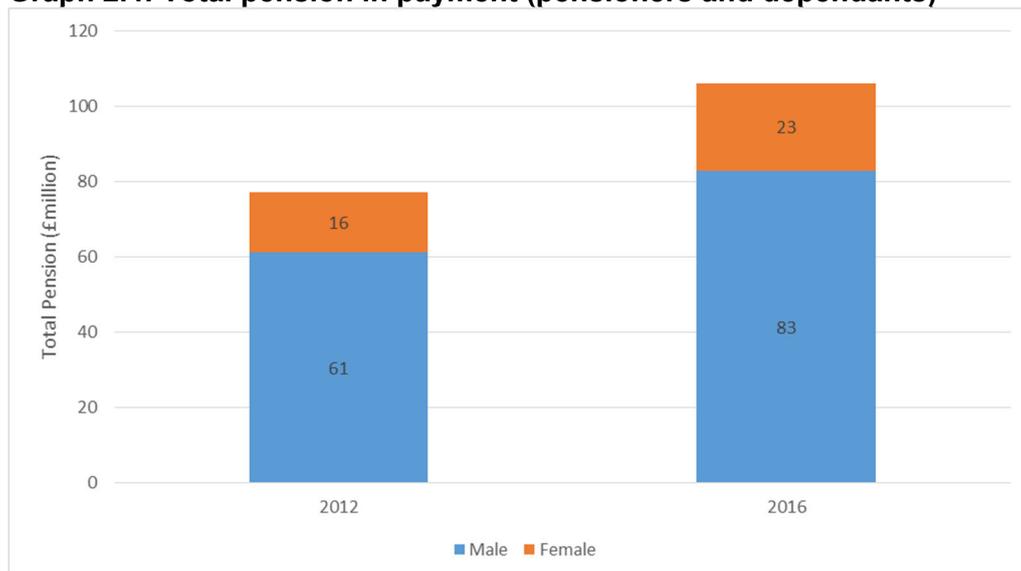


2.2    The graphs show that the number of salaried judiciary (and total pensionable pay) has fallen between 2012 and 2016.  The number of members (and total pensionable pay) in 2016 has increased due to the inclusion of fee-paid judges in the 2015 scheme.

2.3    The graphs also show an increase between 2012 and 2016 in the pensioner membership by both headcount and total pension roll.

2.4    The data provided also includes 38 deferred pensioners and pension credit members aged under 65.  This is much smaller than the number of active members or pensioner members.

2.5     Around 6,076 records were provided to GAD across all three membership categories (active, deferred and pensioner) as at 31 March 2016. Checks were applied to these records to ensure all key data items are provided and reliable for valuation purposes. Records with key data items either missing or unreliable were excluded and remaining data uprated. This approach implicitly assumes that the records with missing/unreliable data have the same average profile as the complete/reliable records. The derivation of the uprating factors and the checks and adjustments applied to the data are explained further in the next section of this report. The overall uprating factors applied to each category of member are shown below with the comparative factors at 2015 and at the 2012 valuation.

**Table 2.1: Uprating factors**

|  | Uprating factor 2016 | Uprating factor 2015 | Uprating factor 2012 |
|---|---|---|---|
| Active members | 1.008 | 1.000 | 1.004 |
| Deferred members | 1.000 | n/a | 1.060 |
| Pensioner members | 1.000 | n/a | 1.010 |
| **Total membership** | **1.005** | **n/a** | **1.007** |

2.6     Making assumptions about missing data and allowing for known members with unusable data by uprating introduces uncertainty into the valuation results. Appendix H gives an indication of the potential level of uncertainty introduced.

2.7     The rate up factors applied to the data are relatively small.  We have no evidence to indicate that this approach and the implicit assumption is not appropriate. In our opinion the data used as summarised above is adequate for the purposes of the valuation.

**Movements data 31 March 2012 to 31 March 2016**

2.8     The movements data provided is used for the purposes of informing the demographic assumptions to be used for the 2016 valuation. The graphs below show a reconciliation of the movements between 2012 and 2016. The underlying numbers and some further information is set out in Appendix C.

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**Graph 2.5: Active membership reconciliation (1981 and 1993 schemes)**
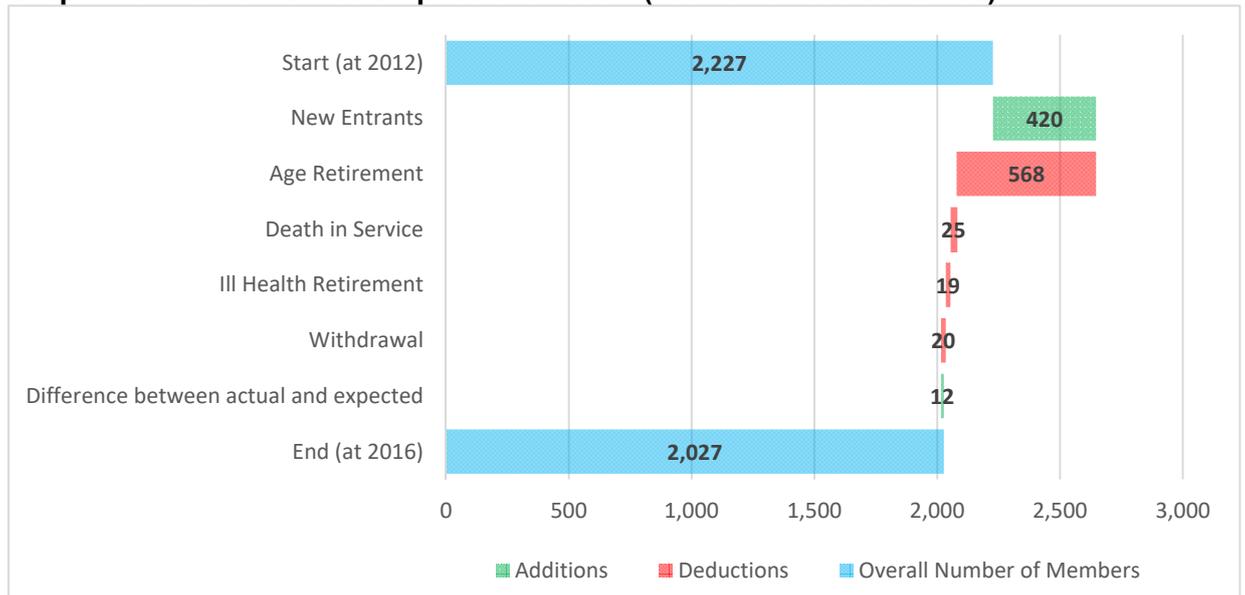


**Graph 2.6: Pensioner membership reconciliation (1981, 1993 and 2015 schemes)**
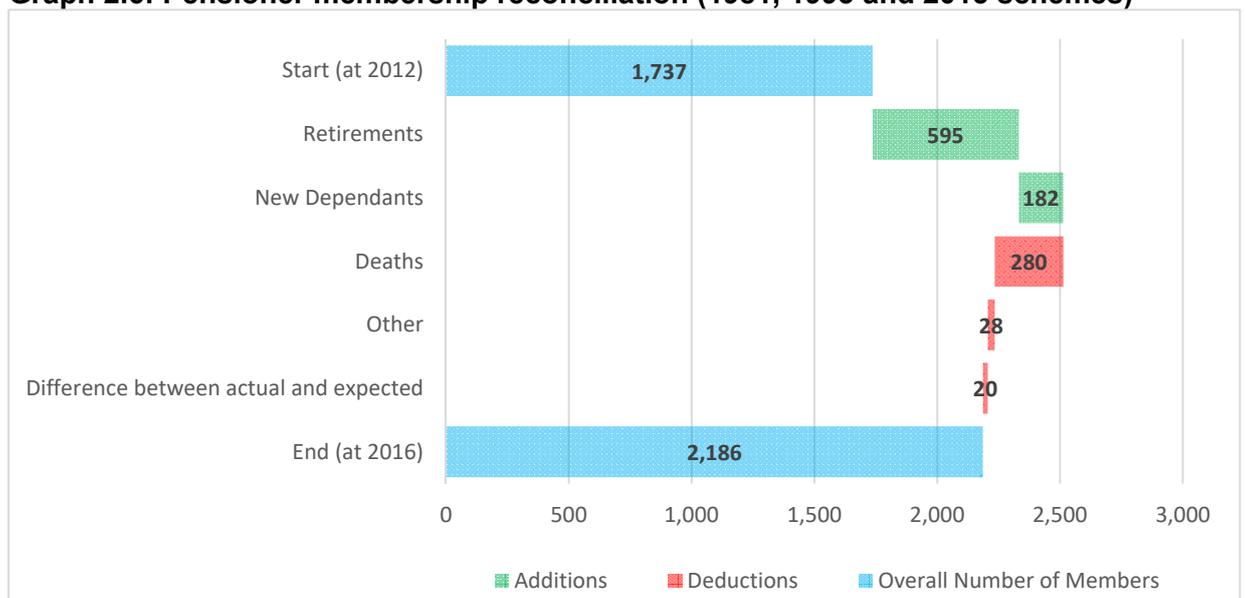
# 3    Data provided as at 31 March 2016 and checks and adjustments made

**Membership data at 31 March 2016 and 31 March 2015**

3.1    Individual member data was supplied for all active members, deferred members and current beneficiaries of the Schemes at the valuation date. The individual data items supplied which are critical to the valuation calculations are summarised in Appendix D.

3.2    As a result of the checks described later in this section:

> 1 deferred record and 3 pensioner records were excluded as it was determined there was no liability associated with these records

> 31 active records were replaced as critical data was missing; the remaining data was rated up to allow for a liability in respect of these records

3.3    The graph below shows

> The total number of records provided

> The number of valid records (i.e. excluding records where it was determined there was no liability associated)

> The total number of records excluding records where critical data was missing. This data was subsequently rated up in order to include a replacement liability in respect of the excluded records.

**Graph 3.1: Summary of data provided, excluded and replaced**
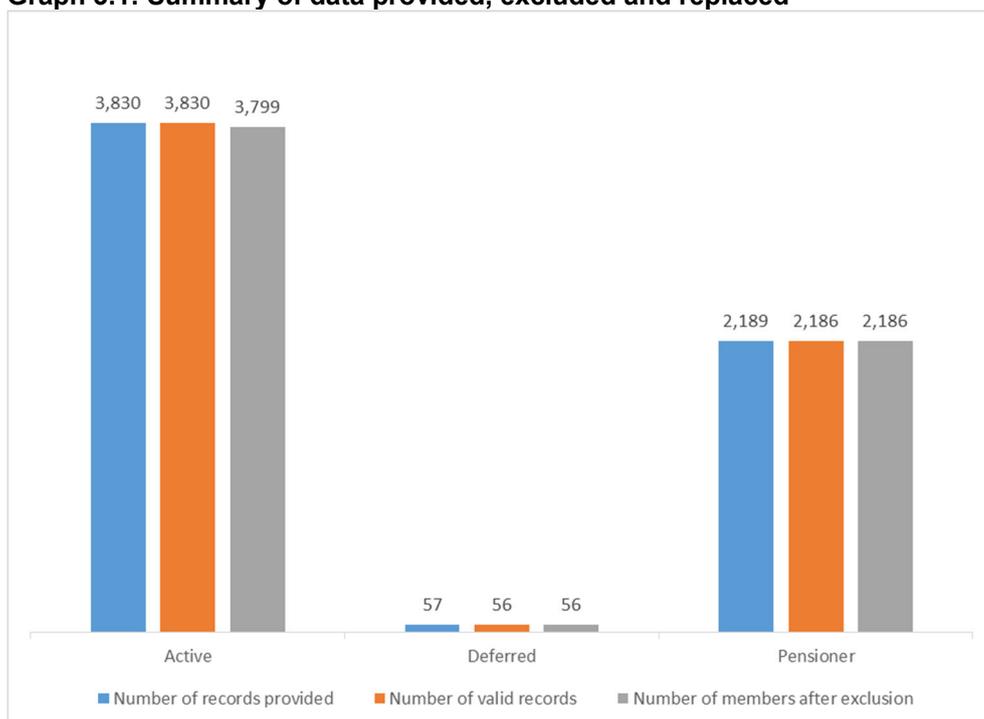
3.4  As can be seen from the graph, the vast majority of records were valid and contained all critical data items.

**Checks made and adjustments applied**

3.5  All key data items were checked against the specification requested for both completeness and consistency.

3.6  Checks were carried out to determine which records would need to be excluded by applying reasonableness tests. The checks also identified a number of areas where adjustments to the data were appropriate. The checks and adjustments applied are summarised in Appendix F.

3.7  Based on the checks applied some records were excluded from the dataset for valuation purposes. Uprating factors were determined for each membership category equal to the ratio of known valid records and the number of records with inadequate data. Implicitly this uprating approach assumes that excluded records have the same average profile (i.e. age, sex, pay, service) as included records. Tables 3.1 and 3.2 shows the derivation of the uprating factors.[3]

**Table 3.1: Derivation of uprating factors (31 March 2016)**

| 31-Mar-16 | No of records received | Number of valid records (A) | Number of exclusions | Number of members after exclusions (B) | Uprating factor (A/B) |
|---|---|---|---|---|---|
| Active members | 3,830 | 3,830 | 31 | 3,799 | 1.008 |
| Deferred members | 57 | 56 | 0 | 56 | 1.000 |
| Pensioners | 2,189 | 2,186 | 0 | 2,186 | 1.000 |
| **Total membership** | 6,076 | **6,072** | **31** | **6,041** | **1.005** |

**Table 3.2: Derivation of uprating factors (31 March 2015)**

| 31-Mar-15 | No of records received | Number of valid records (A) | Number of exclusions | Number of members after exclusions (B) | Uprating factor (A/B) |
|---|---|---|---|---|---|
| Active members | 2,192 | 2,192 | 0 | 2,192 | 1.000 |

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[3] In practice uprating factors are determined for each identifiable valuation group

**Movements data – 31 March 2012 to 31 March 2016**

3.8     Individual member movement records were supplied for all members who changed category of membership (i.e active, deferred or pensioner) between the previous and current valuation dates. The movements data is analysed and used to inform how assumptions of future members' behaviours should be set for the valuation. The key data items provided for member movements are set out in Appendix E.

3.9     Limited checks were applied to movements data. The checks and exclusions are summarised in Appendix G.

**Accounting information**

3.10    Published accounts were available for the full inter-valuation period. Certain pieces of financial accounting information have been used to perform independent checks on the dataset supplied. These checks and the data used are set out in Appendix F.  In summary:

> The total pay of active members in the valuation data as at 31 March 2016 is within 0.4% of a figure derived from the resource accounts

> The total pensions payable (to pensioners and dependants) in the valuation data as at 31 March 2016 is within 1.1% of a figure derived from the resource accounts

> The total pay of active members in the valuation data as at 31 March 2015 is within 0.1% of a figure derived from the resource accounts

3.11    The agreement between the valuation data and the accounts provides some assurance about the accuracy of the valuation data supplied.  We do not consider that the small differences above are a cause for concern.

# 4  Data provided as at 31 March 2017 and checks and adjustments made

### Membership data at 31 March 2017

4.1  The 2017 scheme for final salary benefits for fee-paid judges came into effect from 1 April 2017 (with benefits backdated as far as the year 2000). Therefore data for fee-paid judges' final salary benefits was provided as at 31 March 2017, rather than as at 31 March 2015 and 31 March 2016.

4.2  The membership data as at 31 March 2017 is summarised below. The graphs and tables in this report are based on the number of individual records held in the data. For actives the membership data includes a record for each office held by each member. One person may hold more than one office so the total number of active members is less than shown here.  The 4601 active records relate to 3512 individual members. Detailed tables are set out in Appendix B.

### Graph 4.1: Number of active members

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**Graph 4.2: Active total pensionable pay (actual annualised pay)[4]**



**Graph 4.3: Number of pensioners (excluding dependants)**



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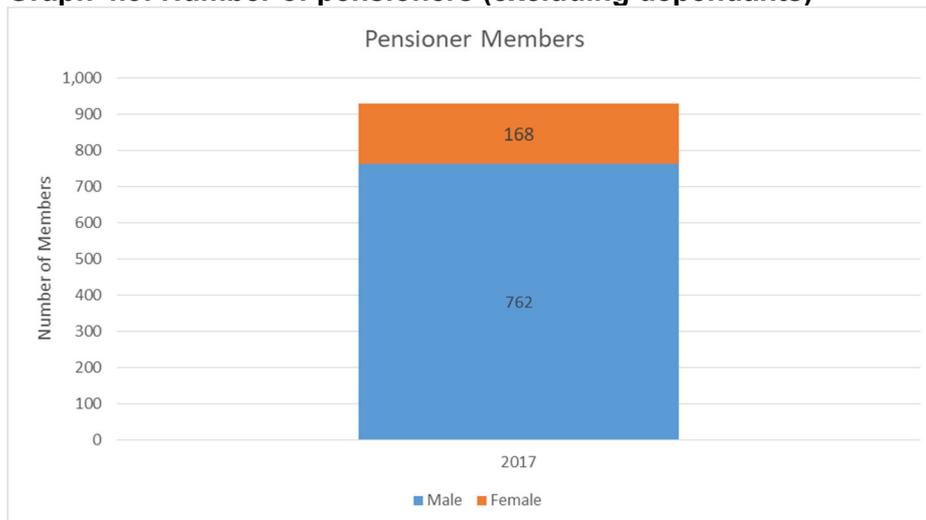
[4] See Appendix F for details of the pay used.

**Graph 4.4: Total pension in payment (excluding dependants)**



4.3     The data provided also includes 60 deferred pensioner records.  This is much smaller than the number of active members or pensioner members.

4.4     No complete, detailed data was provided for current dependant pensioners. However, this is again a very small group. Therefore, no adjustment has been made to the underlying data to account for this group.

4.5     Around 5,805 records were provided to GAD across the membership categories (active, deferred and pensioner) as at 31 March 2017. Checks were applied to these records to ensure all key data items are provided and reliable for valuation purposes. In general, records with key data items either missing or unreliable were excluded and remaining data uprated. This approach implicitly assumes that the records with missing/unreliable data have the same average profile as the complete/reliable records. However, for the 60 deferred pensioner records, so many records had key data items missing that it was not possible to process the data any further.[5] Therefore only 5,588 records were processed.

4.6     The derivation of the uprating factors and the checks and adjustments applied to the data are explained further from paragraph 4.15 of this report. The overall uprating factors applied to each category of member are shown below.

**Table 4.1: Uprating factors for members of the 2017 scheme**

|  | Uprating factor 2017 |
|---|---|
| Active members | 1.015 |
| Pensioner members | 1.013 |
| **Total membership** | 1.014 |

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[5] We subsequently received a later set of information with further deferred data, but did not process at that later stage given the very small number of deferred members and the immateriality for valuation results.

4.7    Making assumptions about missing data and allowing for known members with unusable data by uprating introduces uncertainty into the valuation results. There will also be uncertainty introduced as a result of missing data for dependant pensioners and unusable data for deferred pensioners which we were not able to allow for by uprating.  Appendix H gives an indication of the potential level of uncertainty introduced.

4.8    The rate up factors applied to the data are relatively small, particularly as the 2017 scheme is a relatively small proportion of the overall liabilities of the Schemes.  We have no evidence to indicate that this approach and the implicit assumption is not appropriate.

4.9    In our opinion the data used for actives and member pensioners as summarised above is adequate for the purposes of the valuation.

**Detail of checks to data at 31 March 2017**

4.10    Individual member data was supplied and checked for all active members and current beneficiaries of the Schemes at the valuation date. The individual data items supplied which are critical to the valuation calculations are summarised in Appendix D.

4.11    As a result of the checks described later in this section:

> 57 pensioner records were excluded as their date pension commenced was after 31 March 2017 so there is no pensioner liability associated with these records. These members were also present in the actives data so a liability will be included for them as active members.

> 3 active records were excluded and not rated up

> 67 active records and 12 pensioner records were replaced as critical data was missing or implausible; the remaining data was rated up to allow for a liability in respect of these records.

4.12    The graph below shows the following for actives and pensioners (excluding dependants):

> The total number of records provided

> The number of valid records (i.e. excluding records where it was determined there was no liability associated)

> The total number of records excluding records where critical data was missing. This data was subsequently rated up in order to include a replacement liability in respect of the excluded records.

**Graph 4.5: Summary of data provided, excluded and replaced**
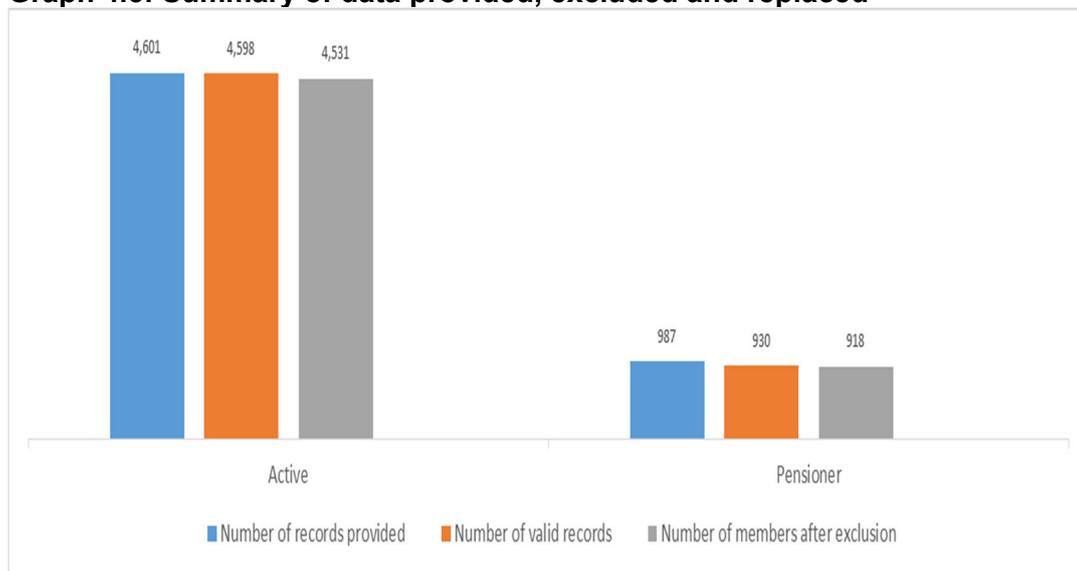


4.13    As can be seen from the graph, the vast majority of records for actives and pensioners (excluding dependants) were valid and contained all critical data items.

**Checks made and adjustments applied**

4.14    All key data items were checked against the specification requested for both completeness and consistency.

4.15    Checks were carried out to determine which records would need to be excluded by applying reasonableness tests. The checks also identified a number of areas where adjustments to the data were appropriate. The checks and adjustments applied are summarised in Appendix F.

4.16    Based on the checks applied some records were excluded from the dataset for valuation purposes. Uprating factors were determined for each membership category equal to the ratio of known valid records and the number of records with inadequate data. Implicitly this uprating approach assumes that excluded records have the same average profile (i.e. age, sex, pay, service) as included records. Table 4.2 shows the derivation of the uprating factors.[6]

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[6] In practice uprating factors are determined for each identifiable valuation group

**Table 4.2: Derivation of uprating factors (31 March 2017)**

| 31-Mar-17 | No of records received | Number of valid records (A) | Number of exclusions | Number of members after exclusions (B) | Uprating factor (A/B) |
|---|---|---|---|---|---|
| Active members | 4,601 | 4,598 | 70 | 4,531 | 1.015 |
| Pensioners | 987 | 930 | 12 | 918 | 1.013 |
| **Total membership** | 5,588 | 5,528 | 79 | 5,449 | 1.014 |

4.17    We also compared the pension roll and active salaries from the valuation data against interim 2017-18 accounting cashflows. There is a difference of 6% when payroll based on the active data supplied in respect of the 2017 scheme is compared to corresponding interim accounting figures. However, it seems likely that this simply reflects the limitations of this check in this context. The actual earnings inferred from the valuation data are an approximation based on members' working patterns over their entire careers to date so it is not directly comparable to recent cashflows.

## Appendix A: Summary of membership data as at 31 March 2016

**Table A1: Comparison of active membership as at 31 March 2012 and 31 March 2016 (final datasets after rating up)**

| Scheme (on date of joining) | 2012 | | | | | | 2016 | | | | | Average accrued pension (v) £ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number of members | Total pensionable pay (i) £m | Average pensionable pay £ | Average age (ii) | Average reckonable service (ii) Years | Average accrued pension £ | Number of members | Total actual pay (iii) £m | Average actual pay £ | Average age (iv) | Average calendar final salary service (ii) Years | |
| **1981 Scheme Males** | 167 | 21.7 | 130,182 | 66 | 16.9 | 63,805 | 63 | 8.5 | 134,816 | 68 | 23.4 | 67,408 |
| **1981 Scheme Females** | 26 | 3.1 | 118,814 | 64 | 17.7 | 57,275 | 12 | 1.6 | 133,888 | 65 | 21.8 | 65,776 |
| **1993 Scheme Males** | 1,528 | 185.6 | 121,466 | 60 | 8.6 | 26,924 | 1,362 | 172.1 | 126,287 | 61 | 9.7 | 31,102 |
| **1993 Scheme Females** | 506 | 55.8 | 110,302 | 55 | 7.1 | 20,718 | 590 | 68.6 | 116,371 | 57 | 8.0 | 24,423 |
| **2015 Scheme Males Salaried** | - | - | - | - | - | - | 40 | 4.5 | 111,284 | 49 | - | 1,580 |
| **2015 Scheme Females Salaried** | - | - | - | - | - | - | 37 | 3.8 | 101,546 | 49 | - | 2,529 |
| **2015 Scheme Males Fee-paid** | - | - | - | - | - | - | 894 | 13.7 | 15,272 | 49 | - | 368 |

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| Scheme (on date of joining) | 2012 | | | | | | 2016 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number of members | Total pensionable pay (i) £m | Average pensionable pay £ | Average age (ii) | Average reckonable service (ii) Years | Average accrued pension £ | Number of members | Total actual pay (iii) £m | Average actual pay £ | Average age (iv) | Average calendar final salary service (ii) Years | Average accrued pension (v) £ |
| **2015 Scheme Females Fee-paid** | - | - | - | - | - | - | 832 | 13.4 | 16,147 | 48 | - | 424 |
| **All males** | 1,695 | 207.3 | 122,325 | 60 | 9.5 | 30,557 | 2,359 | 198.7 | 84,197 | 60 | 10.3 | 19,926 |
| **All females** | 532 | 58.9 | 110,718 | 56 | 7.6 | 22,505 | 1,471 | 87.4 | 59,436 | 55 | 8.3 | 10,631 |
| **All** | 2,227 | 266.2 | 119,552 | 59 | 9.0 | 28,634 | 3,830 | 286.1 | 74,690 | 59 | 9.7 | 16,357 |

(i) The pay shown is full-time equivalent (FTE) pay
(ii) Weighted by FTE pay and is averaged across 1981 and 1993 Scheme members only. The figures showing service in 2012 include an adjustment for current part-time proportion and are capped at 20 years. The corresponding figures for 2016 are based on uncapped whole calendar years of service.
(iii) Details of the derivation of actual pay used for the valuation is set out in Appendix F
(iv) Weighted by actual pay
(v) Includes pension in the 1981, 1993 and 2015 schemes. Excludes pension purchased by AVCs, including the Judicial Added Benefits Scheme and the Judicial Added Years Scheme. Excludes revaluation of 2015 scheme pensions in April 2016.

**Table A2: Final membership data after rating up for setting initial cost cap fund (active membership as at 31 March 2015)**

| Scheme | 2015 | | | | | |
|---|---|---|---|---|---|---|
| | Number of members | Total actual pay (i) | Average actual pay | Average age (ii) | Average calendar service | Average accrued pension |
| | (000's) | (£m) | (£) | (years) | (years) | (£) |
| **1981 Scheme Males** | 59 | 7.9 | 134,093 | 67.9 | 22.3 | 67,046 |
| **1981 Scheme Females** | 13 | 1.7 | 127,470 | 64.2 | 21.5 | 63,735 |
| **1993 Scheme Males** | 1,520 | 188.2 | 123,844 | 60.3 | 9.4 | 29,091 |
| **1993 Scheme Females** | 600 | 68.5 | 114,116 | 56.2 | 7.7 | 22,172 |
| **All male** | **1,579** | **196.2** | **124,227** | **60.6** | **9.9** | **30,509** |
| **All female** | **613** | **70.1** | **114,400** | **56.4** | **8.0** | **23,053** |
| **All** | **2,192** | **266.3** | **121,479** | **59.5** | **9.4** | **28,424** |

(i)   The salary shown is the actual salary for the time worked.
(ii)  Weighted by actual pay.

The data as at 31 March 2017 in respect of the 2017 scheme will also be used in setting the initial cost cap fund.

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**Table A3: Active Membership split by protection status as at 31 March 2016**

| Scheme / Protection status | Number of members | Total actual pay (i) (£m) | Total WTE pensionable salary (£m) | Average age (ii) (years) | Average calendar final salary service (iii) (years) |
|---|---|---|---|---|---|
| **Protected 1993**[iv] | 1,084 | 138.7 | 141.8 | 63.8 | 11.8 |
| **Unprotected 1993**[iv] | 868 | 102.0 | 105.2 | 54.0 | 5.7 |
| **Protected 1981**[iv] | 75 | 10.1 | 10.2 | 67.3 | 23.2 |
| **Unprotected 1981**[iv] | 0 | 0 | 0 | 0 | 0 |
| **New to 2015 scheme Salaried** | 77 | 8.2 | n/k | 49.2 | n/a |
| **New to 2015 scheme Fee-paid** | 1,726 | 27.1 | n/k | 48.5 | n/a |
| **Total M** | 2,359 | 198.7 | n/k | 60.0 | n/a |
| **Total F** | 1,471 | 87.4 | n/k | 55.3 | n/a |
| **Total 2016** | **3,830** | **286.1** | n/k | **58.6** | n/a |
| **Total 2012** | **2,227** | **266.2** | n/k | **59** | **9.0** |

(i)   The pay shown is actual pay for the time worked
(ii)  Weighted by actual pay for the time worked.
(iii) The figures showing service in 2012 include an adjustment for current part-time proportion and are capped at 20 years.
(iv) Tapered members have been included in the unprotected membership category.

**Table A4: Comparison of deferred membership as at 31 March 2012 and 31 March 2016 (final datasets after rating up)**

| | | 2012 | | | | 2016 | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Number of members | Total deferred pension (i) (£m) | Average pension (i) (£) | Average age (ii) (years) | Number of members | Total deferred pension (i) (£m) | Average pension (i) (£) | Average age (ii) (years) |
| Deferred and Pension Credit | Males | 7 | 0.2 | 35,689 | 61 | 18 | 0.4 | 20,088 | 60 |
| | Females | 15 | 0.3 | 16,927 | 62 | 20 | 0.3 | 17,249 | 59 |
| | Total | 22 | 0.5 | 22,897 | 61 | 38 | 0.7 | 18,594 | 60 |
| Pension Debit | | 13 (iii) | 0.2 | 12,388 | 63 | 18 | 0.2 | 13,692 | 63 |

(i)   Pension amounts include revaluation to valuation date (but excluding the revaluation in the April immediately following the valuation date)
(ii)  Weighted by pension / pension credit / pension debit as applicable
(iii) Male and female data combined for data protection purposes

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**Table A5: Comparison of pensioner membership as at 31 March 2012 and 31 March 2016 (final datasets after rating up)**

| Type of Benefit | | 2012 | | | | 2016 | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Number of members | Total pension (i) (£m) | Average pension (i) (£) | Average age (ii) (years) | Number of members | Total pension (i) (£m) | Average pension (i) (£) | Average age (ii) (years) |
| Normal Health | Male | 1,099 | 60.4 | 54,988 | 76 | 1,402 | 81.7 | 58,305 | 76 |
| | Female | 124 | 5.0 | 40,159 | 72 | 195 | 8.5 | 43,843 | 73 |
| | Total | 1,223 | 65.4 | 53,459 | 75 | 1,597 | 90.3 | 56,539 | 76 |
| Ill-health retirement | Total | 12 | 0.6 | 45,865 | 64 | 31 | 1.3 | 41,246 | 65 |
| Dependants | Male | 19 | 0.3 | 14,100 | 57 | 22 | 0.4 | 18,570 | 61 |
| | Female | 483 | 11.1 | 22,996 | 78 | 536 | 14.3 | 26,589 | 79 |
| | Total | 502 | 11.4 | 21,646 | 78 | 558 | 14.7 | 26,273 | 79 |
| All | Male | 1,128 | 61.2 | 54,217 | 76 | 1,446 | 83.0 | 57,406 | 76 |
| | Female | 609 | 16.1 | 26,480 | 76 | 740 | 23.2 | 31,381 | 77 |
| | Total | 1,737 | 77.3 | 44,492 | 76 | 2,186 | 106.2 | 48,596 | 76 |

(i)  Pension amounts include increases awarded to the valuation date (but excluding the pension increase in the April immediately following the valuation date)

(ii)  Weighted by pension

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**Chart A1: Active Members pensionable pay by age**



JPS Active Membership - analysis of 2012 and 2016 datasets (FTE pay)

Legend: Protected · Unprotected/Taper · 2015 Salaried · 2015 Fee Paid · 2012 data
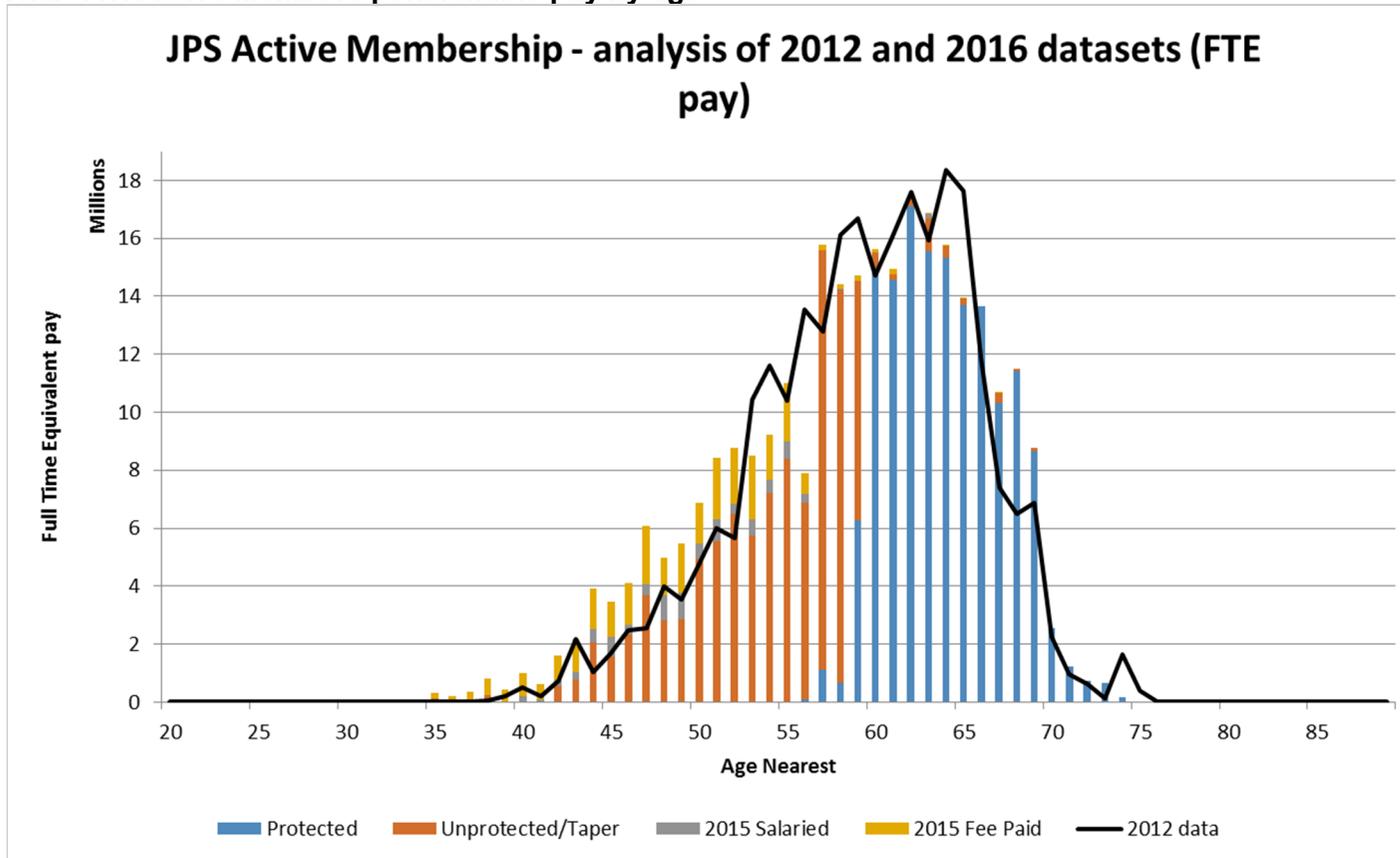
**Chart A2: Summary of pension amount by age**



JPS Pensioner Membership - analysis of 2012 and 2016 datasets

# Government Actuary's Department
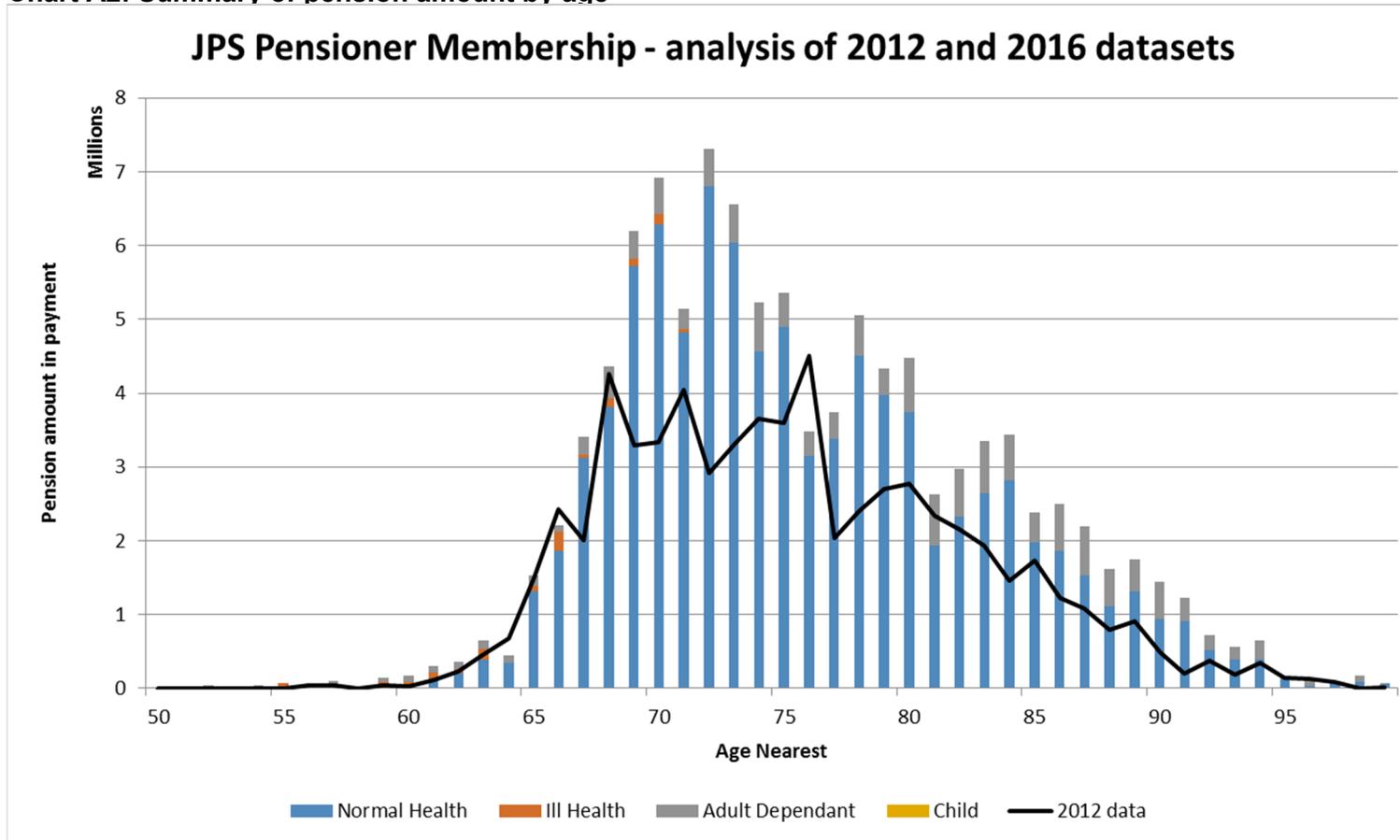
**Chart A3: Distribution of pensionable pay for salaried judiciary as at 31 March 2016**

**Table B2: Active Membership of the 2017 scheme split by protection status as at 31 March 2017**

| Scheme / Protection status | Number of members | Total actual pay (i) (£m) | Total FTE pensionable salary (£m) | Average age (ii) (years) | Average calendar final salary service (years) |
|---|---|---|---|---|---|
| **Protected 2017 fee-paid**[(iii)] | 2,014 | 34.9 | 241.5 | 65.3 | 12.5 |
| **Unprotected 2017 fee-paid**[(iii)] | 2,584 | 33.6 | 304.0 | 52.0 | 9.1 |
| **Total 2017** | 4,598 | 68.5 | 545.5 | 57.9 | 10.6 |

(i)  Details of the derivation of actual pay used for the valuation is set out in Appendix F. This field is constructed from data provided for the purpose of modelling valuation liability.
(ii)  Weighted by full time equivalent pay
(iii)  Tapered members have been included in the unprotected membership category.

**Table B3: Pensioner membership as at 31 March 2017 (final dataset after rating up, excluding dependants)**

| Type of Benefit | | **2017** | | | |
|---|---|---|---|---|---|
| | | **Number of members** | **Total pension (i) (£m)** | **Average pension (i) (£)** | **Average age (ii) (years)** |
| **Normal Health** | **Male** | 759 | 5.3 | 6,967 | 71.9 |
| | **Female** | 164 | 1.3 | 7,863 | 70.7 |
| | **Total** | 923 | 6.6 | 7,127 | 71.7 |
| **Ill-health retirement** | **Total** | 7 | 0.1 | 19,638 | 58.8 |
| **All (excluding dependants)** | **Male** | 762 | 5.3 | 6,997 | 71.8 |
| | **Female** | 168 | 1.4 | 8,234 | 69.8 |
| | **Total** | 930 | 6.7 | 7,221 | 71.4 |

(i)   Pension amounts include increases awarded to the valuation date and the pension increase in the April immediately following the valuation date
(ii)  Weighted by pension

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**Chart B1: Active Members pensionable pay by age (2017 only)**



JPS Active Membership - analysis of 2017 dataset (FTE pay)

Legend: ■ Protected ■ Tapered ■ Unprotected

31
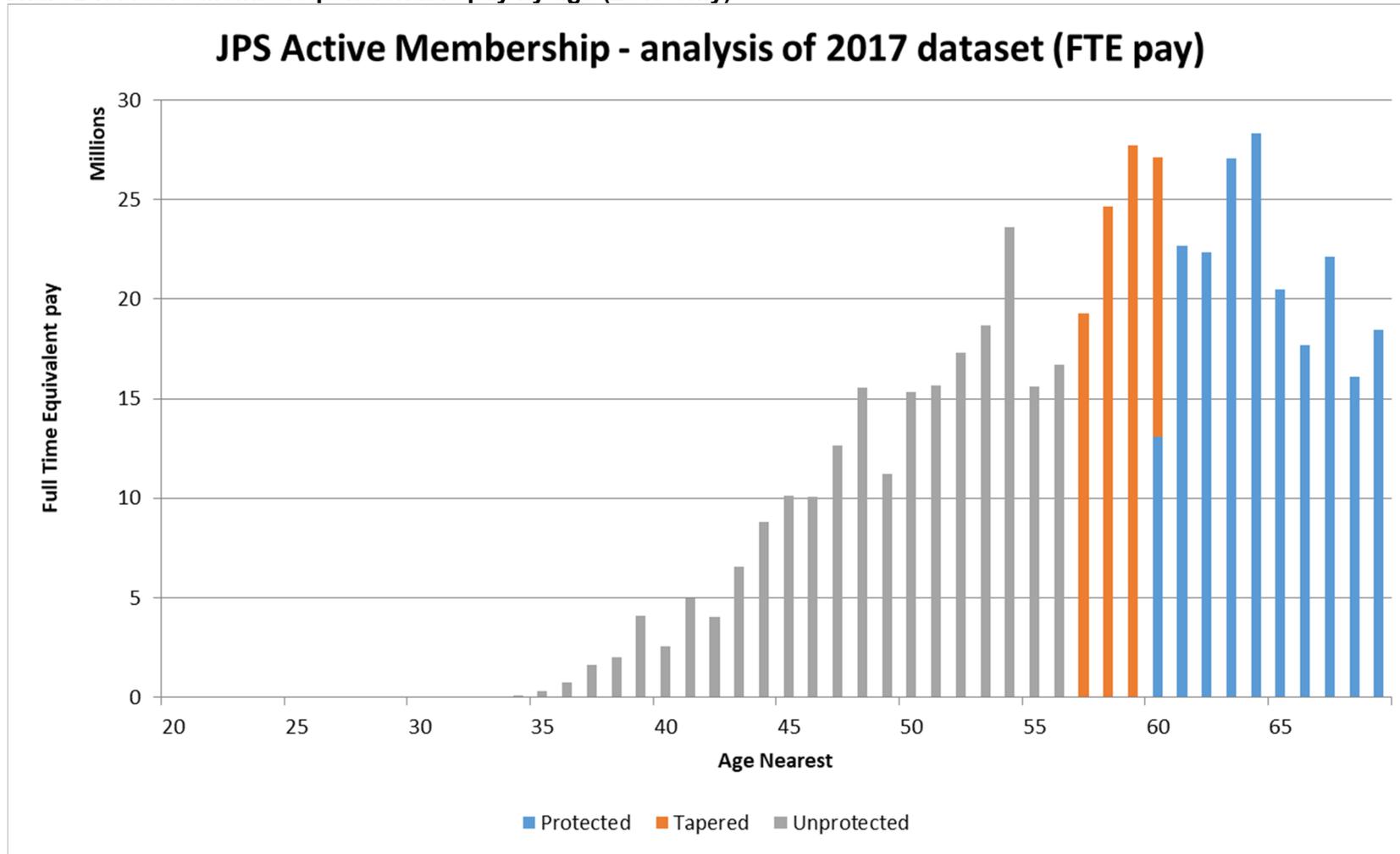
**Chart B2: Summary of pension amount by age (2017 only)**
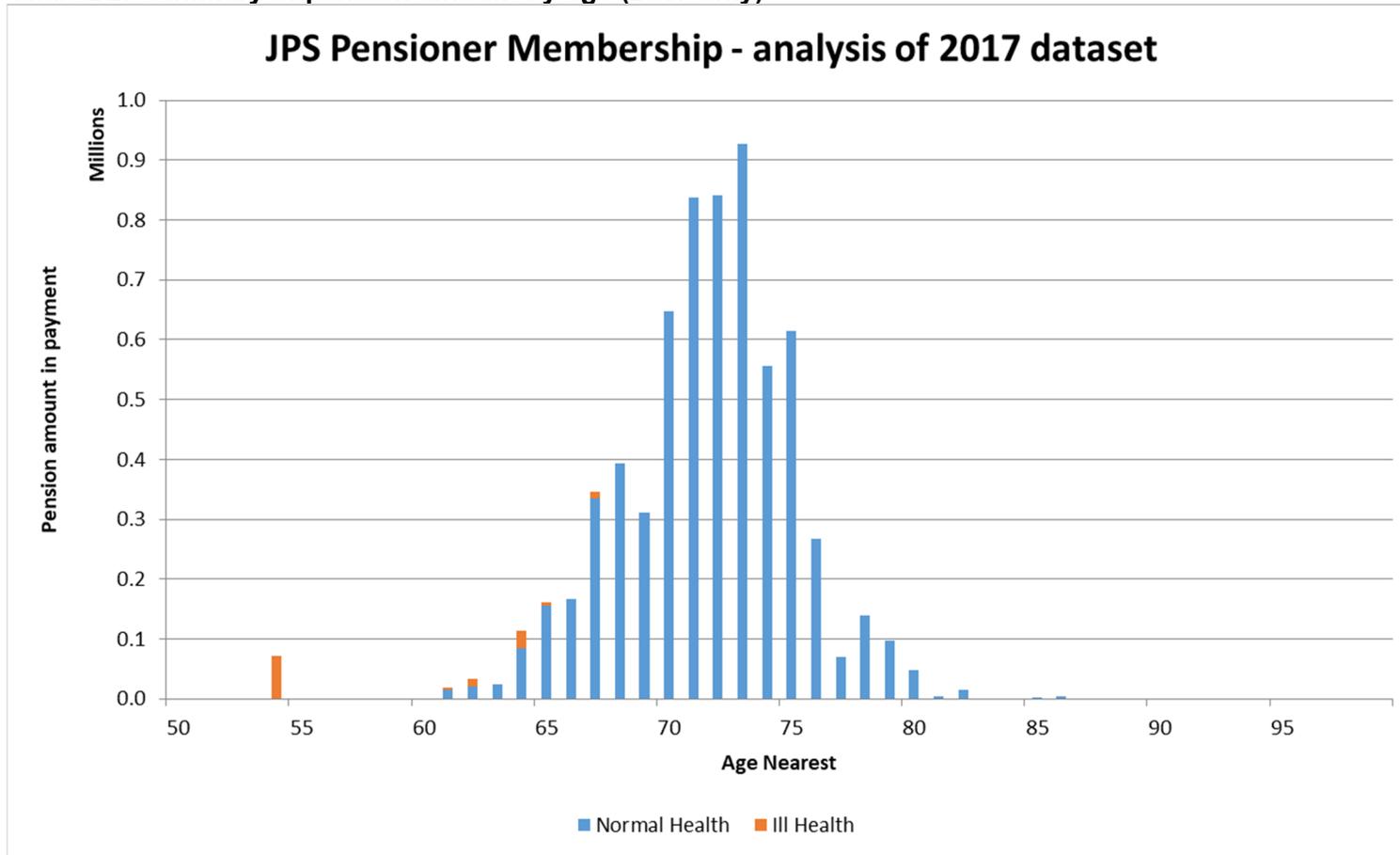
**Chart B3: Distribution of actual pay for fee-paid judiciary as at 31 March 2017**
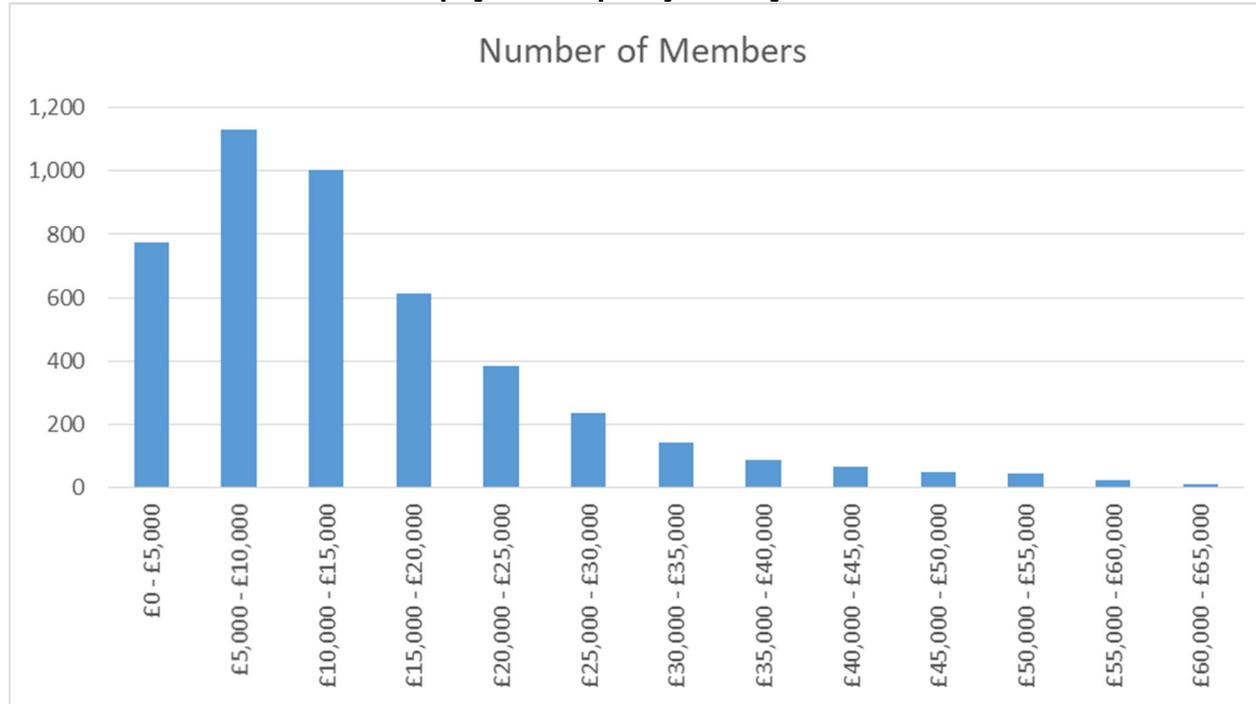
## Appendix C: Summary of movements data

**Table C1: Reconciliation of membership over the inter-valuation period (2012-16)**

| | Reconciliation of membership 2012-2016 000s | | |
|---|---|---|---|
| **Actives in the 1981 and 1993 schemes (including 'active deferred')** | | | |
| **Number at 31/3/12** | 2,227 | | |
| **Additions** | | | |
| • New entrants | 420 | | |
| **Deductions:** | | | |
| • Deaths | -25 | | |
| • Retirements (not ill health) | -568 | | |
| • Ill health retirements | -19 | | |
| • Withdrawals | -20 | | |
| **Number expected at 31/3/16** | 2,015 | | |
| **Valuation data at 2016** | 2,027 | | |
| **Difference between actual and expected** | 12 | | |
| **Deferreds** (including pension credit members below age 65) | | | |
| **Number at 31/3/12** | 22 | | |
| **Additions** | | | |
| New deferreds[2] | 23 | | |
| **Deductions:** | | | |
| • Deaths | -1 | | |
| • Age retirements | -6 | | |
| • Rejoiners to active | -1 | | |
| **Number expected at 31/3/16** | 37 | | |
| **Valuation data at 2016** | 38 | | |
| **Difference between actual and expected** | 1 | | |
| **Pensioners** | | | |
| | **Members** | **Dependants** | **Total** |
| **Number at 31/3/12** | 1,235 | 502 | 1,737 |
| **Additions** | | | |
| • Retirements | 595 | | 595 |
| • GMP into payment | 34 | | 34 |
| • New dependants | | 182 | 182 |
| **Deductions:** | | | |
| • Deaths | -188 | -92 | -280 |
| • Retirements included above, GMP previously in payment | -48 | | -48 |
| • Other cessations | -1 | -13 | -14 |
| **Number expected at 31/3/16** | 1,627 | 579 | 2,206 |
| **Valuation data at 2016** | 1,628 | 558 | 2,186 |
| **Difference between actual and expected** | 1 | -21 | -20 |

# Appendix D: Data items – membership data

Key data items are shown below. These are the items where a valid and reasonable data value is required to determine a liability.

**Actives**

> Unique identifier
> Gender
> Date of Birth
> Date Joined Scheme
> Protection Status
> Payroll Indicator (used to determine Salaried or Fee-paid)
> Previous Scheme
> FTE Pay
> Total Care Pension
> Actual Pay
> 2017 scheme reckonable service

**Pensioners and Dependants**

> Unique Identifier
> Type of Pension
> Current Scheme
> Gender
> Date of Birth
> Date Pension Commenced
> Member current basic final salary pensioner pay
> Member current basic care pension amount
> Member initial basic pension pre commutation
> Member initial basic pension post commutation

**Deferred pensioners**

> Unique Identifier
> Gender
> Date of Birth
> Date of Leaving
> Pension debit at valuation date
> Initial Final Salary Deferred Pension
> Sub Status
> Current Scheme

# Appendix E: Data items – movements data

The following data was provided collectively for active members, deferred members and pensioners for all members who joined / rejoined / left the Scheme during the inter-valuation period:

> Unique identifier
> Date of birth
> NI number
> Gender
> From_status
> From_sub_status
> To_status
> To_sub_status
> Current_status_start_date

(Movements data was not supplied for the 2017 scheme.)

# Appendix F:  Checks and adjustments applied to the membership data

**Checks and exclusion**

**2015 Actives**

Preparing Data

Four datasets were provided for actives: Ministry of Justice, Scotland, Northern Ireland and City of London.

Data Adjustments

The data included a date of appointment, and actual salary based on time worked.  Calendar length service has been calculated based on the date of appointment.  Accrued pensions have been calculated based on calendar length service and actual pay.  For part time members, the calculations assume that the current number of days worked has been the same throughout their career.

Protection status has been determined based on the date of birth and date of appointment. We are not able identify salary-paid members who are protected by virtue of fee-paid service prior to 1 April 2012.

The records of 12 members have been adjusted.

Exclusions

No records were excluded.

Check of 2015 payroll against the accounts

The active dataset was then subjected to an independent check using accounting data.  The total pensionable payroll in the data was compared against an estimated salary roll implied by the contribution payments recorded in the 2014/15 Resource Accounts.

Employer contributions amounted to £84.9m over the 2014-15 scheme year.  As employer contributions were payable at the rate of 31.9%, an estimate of the actual payroll for 2014-15 is £266.1m.  As there was no pay award between 1 April 2014 and 31 March 2015 we estimate the actual payroll at 31 March 2015 to be £266.1m.

The comparable salary figure from the valuation data is £266.3m.

The estimated salary roll from the 2014/15 accounts (£266.1m) is around £0.2m or 0.1% lower than the total pay figure from the valuation data as at 31 March 2016 (£266.3m).

Check of 2015 data provided by MoJ and PSAL

Data for active members of the scheme as at 31 March 2015 was provided by MoJ. To check for consistency between the data provided by MoJ, and the data held by PSAL, data for active members of the scheme as at 1 April 2015 was provided by PSAL. The data provided by MoJ did not include NI numbers, so it was necessary to match lines in the data using name, date of birth or other information. We were able to match 2,170 out of the 2,192 lines in the MoJ data to a line in the PSAL data. Of these 2,170 lines:

> 2,146 lines recorded the same gender (98.9%)
> 2,136 lines recorded the same date of birth (98.4%)
> 2,154 lines recorded the same date of joining (99.3%)

**2016 Actives**

Preparing Data

Four datasets were provided for actives. Three of these datasets (one each for members of the 1981, 1993 and 2015 Scheme) were merged. The fourth dataset contained the 1993 scheme benefits for members who have transitioned to the 2015 Scheme, and these members should have a 2015 Scheme record as well. This data set was appended to the 2015 Scheme records, so that the 1993 and 2015 Scheme data for these members was included within a single record.

Data Adjustments

Salaries

Salary data is required for both:

- The calculation of pensions in respect of service up to 31 March 2016 (final salary schemes only) – 'past service calculations'. Salary should be as defined by the rules of the scheme.
- The calculation of pensions accruing in the future (future service calculations). Salary should be the actual salary paid (i.e. weighted down for part time working, not FTE), as the amount of pension accruing depends on actual salary, not FTE salary.

The following salary fields and adjustments were performed:

- For members of the 1981 scheme, used the "Actual Pay (Final Pensionable Pay at 31/03/2016)" field but with the April 2016 salary increase of 1% stripped out. This will be used for past and future service.
- For members of the 1993 scheme, the "Actual Pay (Final Pensionable Pay at 05/04/2016)" field will be used for past and future service.
- For 2015 Scheme members, the "Earnings from 01.04.15 to 31.03.16" field will be used for future service. CARE pensions are provided separately. The field value is annualised for members joining after 1 April 2015.

- For members of the 1993 scheme who have already transitioned to the 2015 Scheme, their salary as described above for members of the 1993 scheme will be used for past service and their salary as described above for 2015 Scheme members will be used for future service.

The fields used for members of the 1981 and 1993 schemes are salaries adjusted for historic periods of part-time service. The implied assumption of using these fields for future service calculations is that the current part-time proportion is similar to the historic proportion. We do not expect that any differences between current and historic proportions are material to the calculation of future service costs.

The data processing derives salaries before the April 2016 increase. For this reason, an increase of 1% is stripped out of the salaries for members of the 1981 scheme

Data items v calculated items

A reckonable service field was provided in the data. Calendar service has been calculated as part of the data processing. Calendar service will be used for the valuation calculations.

Similarly, accrued JUPRA pensions were provided in the data. These items have also been calculated as part of the data processing and it is the calculated items which will be used for the valuation calculations. The calculated accrued pension is within 0.2% of the data provided.

The calculated accrued pension does not include pension purchased through AVCs, including the Judicial Added Benefits Scheme and the Judicial Added Year Scheme. An approximate allowance is made in the calculations to reflect the impact on the liability in respect of pension purchased through AVCs.

CARE pension

This has been calculated from six columns of information provided in the data.

Exclusions

31 members were excluded and the remainder of the data was rated up. These were members from the fourth dataset (containing JUPRA benefits for members who have transitioned to the 2015 Scheme) who did not have a matching 2015 Scheme record. There was minimal impact on average age and average service by excluding and rating up. Total actual salaries reduced by £0.2m (less than 0.1% of total actual payroll) and there was an increase to CARE pension of £64,000.

Check of 2016 payroll against the accounts

The active dataset was then subjected to an independent check using accounting data. The total pensionable payroll in the data was compared against an estimated salary roll implied by the contribution payments recorded in the 2015/16 Resource Accounts.

Employer contributions amounted to £109.8m over the 2015-16 scheme year. As employer contributions were payable at the rate of 38.2% (after the deduction of an admin fee of 0.25%), an estimate of the actual payroll for 2015-16 is £287.3m. As there was no pay award between 1 April 2015 and 31 March 2016 we estimate the actual payroll at 31 March 2016 to be £287.3m.

The comparable salary figure from the valuation data (after the adjustment described above) is £286.1m.

The estimated salary roll from the 2015/16 accounts (£287.3m) is around £1.2m or 0.4% higher than the total pay figure from the valuation data as at 31 March 2016 (£286.1m).

## 2016 Deferred members

### Preparing Data

Two datasets provided for deferred members were merged, one containing 39 deferred and pension credit members, the second containing 18 pension debit records.

### Data Adjustments

Initial Pension was provided in the data. This has been revalued up to the valuation date.

### Exclusions

One member was excluded without rate up. The exclusion was due to their date of leaving being after the valuation date.

### Deferred check against the accounts

For active and pensioner categories, the contributions received and pensions paid detailed in the Scheme's annual accounts are used to perform an independent check on the data for these categories. There is no data item in the annual accounts which can be used to perform a similar check on the accuracy of the total deferred pensions for the deferred category.

## 2016 Pensioners

### Preparing Data

Two datasets were provided and merged for pensioners, one containing 2,187 JUPRA members and the second containing two members of the 2015 Scheme.

The processing of data does not include Guaranteed Minimum Pensions (GMPs). The original data provided by PSAL includes GMPs for pensioners in the 1981 and 1993 schemes but none were provided for non-pensioners. It is proposed that an approximate allowance is made in the calculations to reflect the impact on the liability in respect of GMPs.

Data Adjustments

There were five children who failed a check on their ages as they were older than 23 at the valuation date.  These records were re-classified as Dependants.

There were also two members who failed the check on their CARE pensions.  This was because their CARE pensions were higher than could be accrued in the 2015/16.  These members were re-classified as ill-health members, on the assumption that the high pension reflected an enhancement on ill health retirement.

Exclusions

Three members were excluded but not rated up.  These exclusions were due to their date pension commenced being after the valuation date.

2016 pensioner payroll check against the accounts

The dataset was then subjected to an independent check using accounting data.  The total pensioner payroll in the data was compared against total pensions paid as recorded in the accounts.

Total pensions paid to pensioners in the 2015-16 scheme year amounted to £104.6m.  An adjustment is applied to this amount equal to half of the average real pension increases (i.e. after stripping out pension increases) over the last three years.  The adjustment applied is 2.71% providing an estimated pension payroll as at 31 March 2016 of £107.4m.

There is a difference of approximately 1.1% between the pension payroll derived from the valuation data (£106.2m) and that derived from the accounts (£107.4m).

A similar analysis based on the split of data into pensioners and dependants does not reconcile so well.  The differences are approximately -2.0% for pensioners (valuation data lower than accounts) and +5.4% for dependants (valuation data higher than accounts).

As the valuation data reconciles fairly well with the estimated pension payroll from the accounts in aggregate over pensioners and dependants we do not recommend making any adjustment to the pensions in the valuation data, as it is not clear that an adjustment would improve the quality of the valuation data.

**2017 Scheme Actives**

Data Adjustments

Salaries and service

Salary and service data is required for:

- The calculation of pensions in respect of service up to 31 March 2017 (final salary schemes only) – 'past service calculations'.  Salary should be as defined by the rules of the scheme.

Salary data is also required for:

- The calculation of pensions accruing in the future ('future service calculations'). Salary should be the actual salary paid (i.e. weighted down for part time working, not FTE), as the amount of pension accruing depends on actual salary, not FTE salary.

The following salary and service fields were provided:

- Days sat (over the member's full length of service)
- Divisor (the number of days the member could potentially work in a year)
- Rate 1_4_16 to 31_3_17 (the daily rate of pay applying in the year)

A pension as 1/40 x salary x service was also provided to us in the data but this has not been used as the formula appeared to have been applied incorrectly. Instead, we have calculated this with reference to the definitions in the scheme benefit structure. We have also calculated the following estimated fields:

- Calendar year service was calculated as  ((31/3/2017 – max(date joined pensionable service, 7/4/2000))/365.25)
- Annualised actual pay was calculated as [(current daily fee rate)x(total days sat)]/(calendar year service))

Annualised actual pay is an estimate of the current total fees received each year. It is relevant to the future service calculations, but not to past service calculations. Using this field as derived above assumes that the current part time working pattern is similar to the historic average days sat. Although we know that the days sat may be volatile from year-to-year, our view is that this is a reasonable approximation to the true amount.

The data processing derives salaries before the April 2017 increase.

Taper dates were provided but many appeared inconsistent with the age of the members. Hence protection status has been allocated based on date of birth alone and it has been assumed that all members were in service in 2012 (since they should otherwise not have been included in this data set).

Exclusions

70 members were excluded and the remainder of the data was rated up to compensate for these exclusions. These exclusions were mainly for members whose calculated actual and FTE pay was either missing or out of range (generally zero). Some members whose gender was missing were also excluded and rated up as was 1 member whose date of birth was recorded as equal to their date of appointment. There was minimal impact on average age as a result of excluding and rating up.

Check of 2017 scheme payroll against interim cashflow figures for 2017/18

This check can only be done approximately for fee-paid judges as it involves comparing the calculated value of annualised actual pay from the valuation data which is based on members' working patterns over the whole period since 7 April 2000 with contribution cashflows for a single year. Quite significant discrepancies can arise as a result of volatile working patterns so only a large discrepancy on this check would indicate an issue with the valuation data. There is also some additional uncertainty arising because the accounts cashflows were not yet audited at the time that checks were undertaken and they could be influenced by membership trends, since 31 March 2017 is not the midpoint of the period for which accounts cashflows were available.

It was possible to check the payroll in the valuation data at 31 March 2017 for protected members of the 2017 scheme and those tapered members with taper dates after 31 March 2017 against interim accounting cashflow data for 2017/18. The pensionable payroll in the valuation data provided was compared against an estimated salary roll implied by the contribution payments recorded in the interim cashflow figures for 2017/18.The payroll of other members of the 2017 scheme could not be checked because the contributions in the interim accounts data for fee-paid judges in the 2015 scheme was not split between those who had transferred from the 2017 scheme and fee-paid new entrants to the JPS since 2015.

Employer contributions for protected and tapered members of the 2017 scheme were expected to be £18.0m over the 2017-18 scheme year. As employer contributions were payable at the rate of 38.2% (after the deduction of an admin fee of 0.25%), an estimate of the actual payroll for 2017-18 is £46.7m. As there was no pay award between 1 April 2017 and 31 March 2018 we estimate the actual payroll at 1 April 2017 to be £46.7m, ignoring any change in membership over time. Stripping out the 1% salary increase on 1 April 2017 the figure at 31 March 2017 is £46.2m.

The comparable annualised actual salary figure for protected and tapered members of the 2017 scheme from the valuation data is £43.4m at 31 March 2017.

The estimated salary roll at 31 March 2017 from the 2017/18 interim accounts data (£46.2m) is around 6% higher than the total pay figure from the valuation data as at 31 March 2017 (£43.4m)

Given the limitations of this check, which does not compare like-with-like, the level of agreement does not seem unreasonable and does not give reason to doubt the valuation data provided for fee-paid judges.

**2017 Scheme Pensioners**

Preparing Data

Two data extracts were provided the first extract containing 811 members and the additional extract containing 176 members. Most of the records in the first extract had already undergone extensive checks by GAD in collaboration with the administrators.

Therefore, the data provided included 987 pensioners. All data was for member pensioners. No complete dependant data was provided. No genders were provided, so the data set was matched to an earlier data set and individuals present in both data sets had gender taken from the an earlier data set.

Data Adjustments

For members not present in the earlier data set, gender was assumed to be male.

Exclusions

57 members were excluded but not rated up. These exclusions were due to their date pension commenced being after the valuation date and the members were found to be included in the active data at 31 March 2017.

A further 12 members were excluded and rated up. These exclusions were due to the member's pension in the fee-paid scheme being missing or zero (It is possible for members with service in the salary paid scheme and the 2017 scheme to have a zero pension in the fee-paid scheme owing to the 20-year cap on pensionable service. Therefore where members in the first extract had 0 pensions their records were assumed to be correct and were not excluded or rated up. 18 records with zero pension were therefore left in the data). There was minimal impact on average age as a result of excluding and rating up. Total pension increased by around 1% and average pension increased by around 7% as the overall number of records also fell.

2017 pensioner payroll: reasonableness check against the interim accounts cashflows for 2017-18

It was not possible to make a fully accurate check of the pension roll at 31 March 2017 against the interim cashflows for 2017-18 as the pension roll in the interim accounts cashflows covered member and dependant pensions while the valuation data includes member pensions only. More significantly, the interim accounts figure may include arrears of pension. Hence we expect the pension roll from the interim accounts to be higher than that from the valuation data. As we did not have final audited accounts data at the time that this check was undertaken we would not expect this check to be robust in any case.

According to the interim accounts cashflows available at the time that the checks were undertaken the total expected pensions paid to pensioners of the 2017 scheme in the 2017-18 scheme year is £7.8m. There is a difference of approximately 15% between the pension payroll derived from the valuation data (£6.7m) and that derived from the cashflows (£7.8m). However, we would expect arrears of between £1.0m and £1.3m to have been included in the figure of £7.8m. Stripping this out gives a plausible range of £6.5m to £6.8m based on accounts data, compared to the actual figure in the valuation data of £6.7m. This indicates a level of uncertainty of around 3%. In addition, dependants are missing from the data, but we would not expect this to have a significant impact on this comparison.

# Appendix G: Checks and exclusions applied to the movement data

Movement data on members entering or leaving active, deferred or pension status between 31 March 2012 and 31 March 2016 was provided by PSAL.  PSAL was not the administrator of the scheme for the whole of this period, and we had some concerns about this movement data provided.

The movement data in charts 2.7, 2.8 and 2.9 and Appendix C have been constructed primarily using the movements set out in the accounts, supplemented where necessary using the movements data provided by PSAL.  This supplementation consists of

1) Splitting the retirements shown into the accounts into normal health and ill-health according to the number of ill-health retirements in the movements data, with normal health retirements as the balancing item.
2) Splitting pension deaths between members and dependants in 2015-16, with the number of dependant deaths in 2015-16 based on the movement data and member deaths as the balancing item.

It should be noted that the format of the reporting in the accounts changed in 2015-16, and this may affect the data shown in this report.

# Appendix H: Uncertainty in valuation results arising from data deficiencies

The tables below indicates the extent to which the valuation results might be incorrect owing to the approach taken to dealing with data deficiencies.

**Data uprating**

For each category we illustrate the potential impact on the results were the adjustment applied, which assumes an average liability for each missing member, to prove incorrect and in fact under/overstates the actuarial liability for these members by 10%.

| | Impact of error in assumption for excluded members | |
| --- | --- | --- |
| | Uncorrected employer contribution rate | Employer contribution correction cost |
| Active members 2016 data (uprating applied: 0.8%) | Less than 0.1% | Less than 0.1% |
| Deferred members 2016 data (uprating applied: nil) | Nil | Nil |
| Pensioners 2016 data (uprating applied: nil) | Nil | Nil |
| Actives 2017 data (uprating applied: 1.5%) | Less than 0.1% | Less than 0.1% |
| Pensioners 2017 data (uprating applied: 1.3%) | Less than 0.1% | Nil |

**Movements data**

*Setting assumptions*

1. Assumption setting relies on analysis of movements data in consideration with such other relevant information which is available. The setting of demographic assumptions is to some extent subjective and a matter of interpretation. Changes in assumptions may be expected at successive valuations as circumstances change even with full data. Thus the absence of fully complete movements data does not necessarily introduce uncertainty into the valuation results provided there is other relevant information available to inform those assumptions. Further commentary on assumption setting is provided in the report Judicial Pension Schemes: Actuarial Valuation at 31 March 2016; Advice on Assumptions report dated today.

*Cost Cap Net Leavers Liability (CCNLL)*

2. The CCNLL is a component part of the cost cap calculation and is a quantification of the amount of pre-reformed liabilities which fall out of the cost cap fund at a valuation owing to members which have left service since the previous valuation (or since the initial cost cap fund was set in the case of the 2016 valuation), net of the additional liabilities in respect of members with pre-reformed service who rejoined active membership during 2015-16.

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*Report on membership data*

3. To accurately calculate the CCNLL in accordance with the directions requires full movement data for all members who were active in 2015 and are no longer active at the 2016 valuation. Further details on the approach taken to determining the CCNLL in the absence of fully complete data is provided in the Assumptions Report.

4. We expect that the uncertainty introduced by the approach above is not more than 0.2% of pay. Although it should be noted that the deficiencies in the membership data discussed above could compound this scale of uncertainty.

# Appendix I: Summary of benefits

### 1981 scheme and 1993 scheme

### Table I1: Main benefit provisions of the Schemes for pre-2015 salaried entrants

|  | 1981 Scheme | 1993 Scheme |
|---|---|---|
| **Basis of provision** | Final salary | Final salary |
| **Contracted out/in prior to 2016+** | Contracted out | Contracted out |
| **Normal Pension Age (NPA)** | Higher Judiciary: On completion of 15 years' service or age 70 and<br><br>Other: age 65 and on completion of 15 years' service | 65, or on completion of five years' service (if later) |
| **Pension accrual rate** | Maximum pension of approximately 50% of final pensionable salary | 1/40 |
| **Retirement lump sum accrual rate** | 2 x pension | 2.25 x pension |
| **Final pensionable pay** | Annual salary in payment at the date of retirement | Highest salary received in any 12 months period within the last 3 years |
| **Dependant benefits- death in service** | Lump sum: 1 x pensionable remuneration | Lump sum: 2 x pensionable remuneration |
|  | A spouse's or civil partner's pension of half the member's notional pension based on the member retiring on ill health grounds at the date of death.<br><br>Children's pension may also be payable. | |
| **Dependant pension - death after retirement** | 50% x member's actual pension | 50% x member's actual pension |
| **Ill health pension** | Pension based on actual service, no reduction for immediate payment | Pension based on actual service plus half of potential service to NPA, no reduction for immediate payment |
| **Pension increases** | In payment – increased in line with the PI Act (for members over GMP payment age, only excess over GMP receives full increases)<br><br>In deferment – increased in line with the PI Act | |
| **Benefits on leaving service** | Either a refund of contributions, a preserved pension payable from NPA or a transfer payment to another scheme or to an insurance company. | |

+future benefits unaffected by contracting-out status

## 2015 Scheme (for post-2015 entrants and transitional members)

### Table I2: Main benefit provisions of 2015 Scheme

| | 2015 Scheme |
|---|---|
| **Basis of provision** | Career average with revaluation of CPI whilst in service |
| **Contracted out/in prior to 2016[+]** | Contracted out |
| **Normal Pension Age (NPA)** | State Pension age (or age 65, if later) |
| **Pension accrual rate** | 2.32% |
| **Retirement lump sum accrual rate** | Cash by commutation only (£12: £1pa) |
| **Final pensionable pay** | Not applicable |
| **Dependant benefits- death in service** | Lump sum: Greater of 2 x Final pay, 5 x member's pension<br><br>Surviving adult's pension: 37.5% of the scheme member's pension plus an enhancement factor<br><br>Children's pension may also be payable. |
| **Dependant pension - death after retirement** | 37.5% of member pension (pre-commutation) |
| **Ill health pension** | Pension equal to the accrued pension, plus half of the expected pension that the member would have accrued before scheme pension age, no reduction for immediate payment |
| **Early retirement** | Benefits reduced for early payment. The reduction is actuarially neutral on a deferred benefit basis. |
| **Pension increases** | In payment – increased in line with the PI Act (for members over GMP payment age, only excess over GMP receives full increases)<br><br>In deferment – increased in line with the PI Act |
| **Benefits on leaving service** | Either a refund of contributions, a preserved pension payable from NPA or a transfer payment to another scheme or to an insurance company. |

[+]benefits unaffected by contracting-out status

**2017 scheme**

### Table I3: Main benefit provisions of the Schemes for pre-2015 fee-paid entrants

| | Fee-Paid Judicial Pension Scheme (2017 scheme) |
|---|---|
| **Basis of provision** | Final salary (based on Full-Time Equivalent of daily fee rate) |
| **Contracted out/in prior to 2016[+]** | Not currently contracted out in respect of any period. |
| **Normal Pension Age (NPA)** | 65, or on completion of five years' service (if later) |
| **Pension accrual rate** | 1/40 |
| **Retirement lump sum accrual rate** | 2.25 x pension |
| **Final pensionable pay** | Highest Full-Time Equivalent fee-rate received within the last 3 years |
| **Dependant benefits-death in service** | Lump sum: 2 x pensionable remuneration x part-time working pattern<br><br>A spouse's or civil partner's pension of half the member's notional pension based on the member retiring on ill health grounds at the date of death.<br>Children's pensions may also be payable. |
| **Dependant pension - death after retirement** | 50% x member's actual pension |
| **Ill health pension** | Pension based on actual service plus half of potential service to NPA, no reduction for immediate payment |
| **Pension increases** | Increased in line with the PI Act in payment and deferment |
| **Benefits on leaving service** | Either a refund of contributions, a preserved pension payable from NPA or a transfer payment to another scheme or to an insurance company. |

[+]future benefits unaffected by contracting-out status

**Criteria for scheme membership from 1 April 2015**

**Protected Members**

All active members who, as of 1 April 2012, have 10 years or less to their current Normal Pension Age (i.e. aged 55 or over on 1 April 2012) saw no change in when they can retire, nor any decrease in the amount of pension they receive at their current Normal Pension Age. This protection is achieved by the member remaining in their current scheme until they retire.

**Tapered Members**

Active members who, as of 1 April 2012, are between 10 and 13½ years of their Normal Pension Age (i.e. aged between 51½ and 55 on 1 April 2012) had the option of limited protection (by remaining in their current scheme) with linear tapering so that for every month of age that they are beyond 10 years from their Normal Pension Age, they lose 2 months of protection. At the end of the protected period, they are transferred into the new pension arrangements. Alternatively, these members were able to opt to transfer into the 2015 Scheme with effect from 1 April 2015.

**Unprotected members**

All other active members transferred to the new arrangements on 1 April 2015.