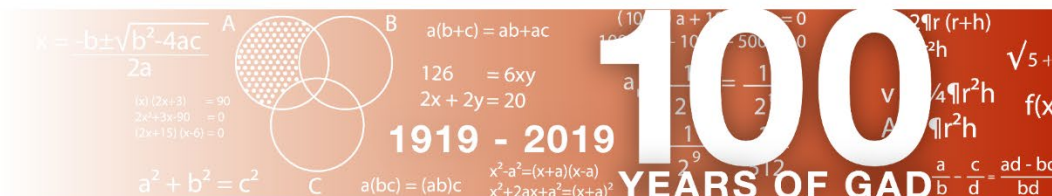




Government
Actuary's
Department



New Judicial Pension Scheme 2015

Purchase of Additional Pension – Factors and guidance

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1 Introduction

- 1.1 This note is addressed to the Lord Chancellor in his capacity as the Scheme Manager of the New Judicial Pension Scheme 2015 (NJPS 2015), which came into force from 1 April 2015 by the Judicial Pension Regulations 2015 ("the Regulations").
- 1.2 The purpose of the note is to provide the Lord Chancellor with specific factors, and accompanying guidance to demonstrate how these factors should be applied to calculate the amount of additional pension (AP) to be awarded when a member, their employer or third party opts to make a lump sum payment or a member makes regular periodic payments.
- 1.3 Members, their employer or a third party may make payments for extra pension in accordance with Schedule 1, part two of the Regulations.
- 1.4 The factors provided in this note have been prepared in light of our '2018 review of actuarial factors – SCAPE discount rate' letter to MoJ dated 30 October 2018 and its instructions following that advice.
- 1.5 This guidance supersedes the AP guidance
- 1.6 The factors in this guidance have been updated but the calculation methodology remains unchanged.
- 1.7 Schedule 1, part one, paragraphs 3-5 of the Regulations provide for a restriction on the maximum amount of extra pension (which includes accrued added pension) that can be purchased by a member. This test must be applied before allowing the member to exercise the option to buy added pension.
- 1.8 If a member has elected to purchase an effective pension age or enhanced effective pension age option then this can impact on their eligibility to purchase added pension. Further details can be found in our guidance document "*New Judicial Pension Scheme 2015: Effective Pension Age options for members*".
- 1.9 Where the member elects to purchase a regular contribution AP contract, the AP will increase in line with Consumer Prices Index (CPI) before coming into payment.
- 1.10 The Lord Chancellor has confirmed that State Pension Age for the purpose of calculating early payment of pension should be as set out in HM Treasury Directions made in exercise of the powers conferred on them by sections 11(2) and 12(3) of the Public Service Pensions Act 2013¹, and not legislation in force at the time of the transfer.

¹ A consolidated version of HM Treasury Directions dated 11 March 2014, including amendments made up to and including 3 March 2015, is found in the following link; SPA assumptions are set out at direction 18.
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/411287/HMT_Directions_9_Mar_2015.pdf
As at the date of this guidance note, no update has been made to Paragraph 18 of the directions which set out the assumptions for SPA.



- 1.11 Factors are provided to accommodate the range of pension ages members will have in relation to service on and after 1 April 2015 in accordance with the HM Treasury Directions.
- 1.12 Appendix A sets out the revised factor tables and Appendix B sets out the assumptions underlying the factors contained in this guidance note.

Implementation and Review

- 1.13 The factors contained in this guidance will apply from 1 April 2019 as determined by the Ministry of Justice. This guidance will apply with immediate effect upon receipt of the guidance.
- 1.14 This guidance has been written for pension administrators and assumes some knowledge of general pension terminology, and some familiarity with retirement calculations for the Judge's Pension Scheme. Any questions concerning the application of the guidance should, in the first instance, be referred to MoJ.
- 1.15 In line with best practice and in order to make sure that factors are being used as intended and the instructions are fit for purpose, we suggest that some example calculations are sent to GAD for review.
- 1.16 The factors contained in this guidance will be subject to review periodically. This will depend on external circumstances, for example whenever there is a change in the SCAPE basis; when changes in the actuarial assumptions adopted for other scheme factors take place; or following each future actuarial valuation where mortality and other relevant experience is reviewed or if other credible and material information comes to light.

Third party reliance

- 1.17 This guidance has been prepared for the use of MoJ and the scheme administrators for the purposes of demonstrating the application of the factors covered by this guidance only. This guidance may be published on MoJ and the scheme administrator's website but must not otherwise be reproduced, distributed or communicated in whole or in part to any other person without GAD's prior written permission.
- 1.18 Other than MoJ and the scheme administrators, no person or third party is entitled to place any reliance on the contents of this guidance, except to any extent explicitly stated herein. GAD has no liability to any person or third party for any action taken or for any failure to act, either in whole or in part, on the basis of this guidance, whether or not GAD has agreed to the disclosure of its advice to the third party.



2 Instructions

- 2.1 Added pension can be purchased either by a lump sum or by regular contributions over the scheme year.
- 2.2 Where a member makes an AP election, a check needs to be carried out to ensure the member has enough headroom within the overall extra pension limit to purchase the desired amount of AP, taking into account any previous AP elections.

Lump Sum election

- 2.3 The factors are shown per £1 pa of added pension purchased.
- 2.4 The factors should be selected with reference to the member's:
- age in complete years,
 - gender,
 - whether the pension is for the member only, or for all beneficiaries,
 - normal pension age (NPA), and
 - for the revaluation factor, the number of 1 Aprils falling between the calculation date and the NPA
- 2.5 If a member has a non-integer NPA, more than one factor is required and these factors are interpolated to obtain the actual factor to use corresponding to their NPA (in complete years and complete months, ignoring part months). Examples of how the added pension factor is calculated for a non-integer NPA is illustrated in examples 1 and 2 in section 3.
- 2.6 If a member purchases added pension by a lump sum payment, the amount credited is either that set out on any statement of amount of added pension given to the member following their election to buy added pension by lump sum, or the amount determined as at the date of receipt of payment by the member if this occurs more than 1 month after the date of the statement.
- 2.7 To purchase a specific increase to a member's pension for the relevant scheme year, then the lump sum payment (LS) required is determined as follows:

$$LS = P \times F_x^{LS} \times F_y^{Reval}$$

Where:

- P = amount of added pension purchased
- x = member's age in complete years on the date of calculation
- F_x^{LS} = gender specific lump sum factor at age x from appropriate NPA table (see Appendix A Tables 1-4, 9-12: SM65-68, SF65-68)



F_y^{Reval} = relevant revaluation factor for a member with y 1 Aprils between calculation date and up to and including NPA (see Appendix A Table 17 - REVAL)

Calculation date is either the date of the statement of amount of added pension to be purchased or the date of receipt of payment if this occurs more than 1 month after the date of the statement.

- 2.8 The amount of added pension, P, added to a member's pension for the relevant scheme year in respect of a lump sum payment received is determined as follows:

$$P = \frac{LS}{F_x^{LS} \times F_y^{\text{Reval}}}$$

Where:

LS = amount of Lump Sum payment

x = member's age in complete years on the date of calculation

F_x^{LS} = gender specific lump sum factor at age x from appropriate NPA table (see Appendix A Tables 1-4, 9-12: SM65-68, SF65-68)

F_y^{Reval} = relevant revaluation factor for a member with y 1 Aprils between calculation date and up to and including NPA (see Appendix A Table 17 - REVAL)

Calculation date is either the date of the statement of amount of added pension to be purchased or the date of receipt of payment if this occurs more than 1 month after the date of the statement.

Periodical Payments election

- 2.9 The factors are shown per £1 pa of added pension purchased.
- 2.10 A member may buy added pension by opting for a deduction from their pensionable earnings expressed as either a fixed amount or percentage of their pay. Unless the member opts to buy added pension within 3 months of joining the scheme, this will start from beginning of the next scheme year.



2.11 Factors should be selected with reference to the member's:

- age in complete years,
- gender,
- whether the pension is for the member only, or for all beneficiaries,
- normal pension age (NPA), and
- for the revaluation factor the number of 1 Aprils falling between the calculation date and the NPA

2.12 If a member has a non-integer NPA, more than one factor is required and these factors are interpolated to obtain the actual factor to use corresponding to their NPA (in complete years and complete months, ignoring part months). Examples of how the added pension factor is calculated for a non-integer NPA is illustrated in examples 1 and 2 in section 3.

2.13 The scheme year runs from 1 April to 31 March.

2.14 To calculate the amount of added pension to be awarded for a given scheme year, the total amount of periodic contributions over the scheme year is required.

2.15 The amount of pension added for a scheme year needs to be adjusted to allow for any variations during the year in the level of contributions due to pay awards, members exiting active service or periods of assumed pay, and the commencement of payments falling later than the start of the scheme year (in the case of members starting to buy added pension by periodic payments within 3 months of joining the scheme).

2.16 The amount of added pension, P , added to a member's pension at the end of the period of contributions during that scheme year is determined as follows:

$$P = \frac{C}{F_x^{RC} \times F_y^{Reval}}$$

Where:

C = total amount of periodic contributions over scheme year

x = member's age in complete years at the start of scheme year or start of the period of payment if later

F_x^{RC} = gender specific regular contribution factor at age x from corresponding NPA table (see Appendix A Tables 5-8, 13-16: RM65-68, RF65-68)

F_y^{Reval} = relevant revaluation factor for a member with y 1 Aprils (from the day after the date of commencement of contributions) up to and including NPA (see Appendix A Table 17 - REVAL)



- 2.17 The amount of level monthly payments, MP, required to purchase a given amount of added pension if paid over a single full scheme year is determined as follows:

$$MP = \frac{P \times F_x^{RC} \times F_y^{Reval}}{12}$$

Where:

- P = amount of added pension the member wishes to buy
- x = member's age in complete years at the start of the scheme year or start of the period of payment if later
- F_x^{RC} = gender specific regular contribution factor at age x from corresponding NPA table (see Appendix A Tables 5-8, 13-16: RM65-68, RF65-68)
- F_y^{Reval} = relevant revaluation factor for a member with y 1 Aprils (from the day after the date of commencement of contributions) up to and including NPA (see Appendix A Table 17 - REVAL)

- 2.18 The formula in 2.16 should only be used for illustrative purposes and only for cases where level payments are to be made over a complete scheme year. It is not appropriate for cases where a percentage of salary is to be paid to buy added pension.

Members over NPA

- 2.19 For a member aged over NPA that wishes to purchase Added Pension, F_y^{Reval} is equal to 1. We have provided factors for members up to age 74.



3 Worked Examples

Example 1 – Lump sum election – Added Pension for self only purchased by a given lump sum payment

- Sex Male
- Date of Birth 15/10/1960
- Normal Pension Age 66 years 7 months
- Amount of lump sum payment £1,000
- Calculation date 01/09/2020
- Age (last birthday) of member on calculation date 59 years
- Number of 1 Aprils between calculation date up to and including NPA 7
- Lump Sum factor F_x^{LS} 12.76 (interpolated)
- Revaluation factor F_y^{Reval} (from REVAL) 1.15
- Added pension purchased immediately on payment, P

$$= \frac{LS}{F_x^{LS} \times F_y^{Reval}}$$

$$= \frac{£1,000}{12.76 \times 1.15}$$

$$= £68.15 \text{ p.a.}$$

The factors used above were interpolated for non-integer NPA as shown below:

Factor at NPA 66 years 7 months

$$= \left(\frac{5}{12}\right) * \text{Factor at NPA 66} + \left(\frac{7}{12}\right) * \text{Factor at NPA 67}$$

e.g. for the Lump Sum factor for 59 year old male

$$= \left(\frac{5}{12}\right) * 13.33 + \left(\frac{7}{12}\right) * 12.36 = 12.76$$

Note: The factor at NPA 66 comes from Table 2 (SM66) whilst the factor at NPA 67 comes from Table 3 (SM67).



Example 2 – Lump sum election – Lump sum payment required to purchase Added Pension for member and dependant

- Sex Male
- Date of Birth 15/10/1960
- Normal Pension Age 66 years 7 months
- Amount of AP intended to purchase £200 pa
- Calculation date 01/09/2020
- Age (last birthday) of member on calculation date 59 years
- Number of 1 Aprils between calculation date up to 7
 - and including NPA
- Lump Sum factor F_x^{LS} 14.34 (interpolated)
- Revaluation factor F_y^{Reval} (from P2APREVAL) 1.15
- Lump Sum, LS, payment required to immediately purchase added pension

$$\begin{aligned}
 LS &= P \times F_x^{LS} \times F_y^{Reval} \\
 &= £200 \times 14.34 \times 1.15 \\
 &= £3,298.20
 \end{aligned}$$

The factors used above were interpolated for non-integer NPA as shown below:

Factor at NPA 66 years 7 month

$$= \left(\frac{5}{12}\right) * \text{Factor at NPA 66} + \left(\frac{7}{12}\right) * \text{Factor at NPA 67}$$

e.g. for the Lump Sum factor for 59 year old (male factors for self + dependant)

$$= \left(\frac{5}{12}\right) * 14.92 + \left(\frac{7}{12}\right) * 13.92 = 14.34$$

Note: The factor at NPA 66 comes from Table 2 (SM66) whilst the factor at NPA 67 comes from Table 3 (SM67).



Example 3 – Periodic payments – Added Pension purchased for self and dependant by a percentage of salary in the scheme year 2019-20

- Sex Male
- Date of Birth 01/04/1984
- Normal Pension Age 68 years
- Pensionable Earnings (PE) £120,000 pa
- Amount of monthly contribution 5% of PE
- Start of periodic payment 01/04/2019
- Age of member at the start of scheme year 35 years
- Number of 1 Aprils between calculation date up to and including NPA 33
- Expected monthly contributions $(£120,000 \times 5\%) / 12$
= £500 pm
- Expected amount of periodic contributions over scheme year 2019-20, C £6,000
- Regular Contribution factor F_x^{RC} 4.98
- Revaluation factor F_y^{Reval} 1.92
- Added pension, P , expected to be purchased by end of scheme year

$$\begin{aligned}
 P &= \frac{C}{F_x^{RC} \times F_y^{Reval}} \\
 &= \frac{6,000}{4.98 \times 1.92} \\
 &= £ 627.51 \text{ p.a.}
 \end{aligned}$$



Accounting for a promotion part way through the year

- Salary Increase 20%
- Date of Salary Increase 01/01/2020
- Amount of monthly contribution in final three months $(£120,000 \times 120\% \times 5\%)/12$
= £600 pm
- Total amount of periodic contributions over scheme year 2019-20, C $£500 \times 9 + £600 \times 3$
= £6,300
- Regular Contribution factor F_x^{RC} 4.98
- Revaluation factor F_y^{Reval} 1.92
- added pension purchased, P

$$= \frac{C}{F_x^{RC} \times F_y^{Reval}}$$

$$= \frac{6,300}{4.98 \times 1.92}$$

$$= £ 658.89 \text{ p.a.}$$

Therefore the member should be granted an added pension of £658.89 pa at the end of the scheme year.



Example 4 – Periodic payments – Added Pension purchased for self and dependant by level payments from 2020-21

• Sex	Female
• Date of Birth	18/06/1978
• Normal Pension Age	68 years
• Amount of monthly contribution	£100 pm
• Start date of periodic payments	01/04/2020
• Age of member at start of scheme year	41 years
• Number of 1 Aprils between calculation date up to and including NPA	26

Accounting for the member leaving the scheme before completing the payments

• Date of leaving scheme	31/01/2021
• Number of months in which member has made contributions	10
• Total amount of periodic contributions over scheme year 2020-21, C	$£100 \times 10$ $= £1000$
• Regular Contribution factor F_x^{RC}	6.25
• Revaluation factor F_y^{Reval}	1.67

$$\begin{aligned}
 \bullet \text{ Added pension purchased, } P &= \frac{C}{F_x^{RC} \times F_y^{Reval}} \\
 &= \frac{1000}{6.25 \times 1.67} \\
 &= £ 95.81 \text{ p.a.}
 \end{aligned}$$

Therefore the member should be granted an added pension of £95.81 pa at the date of leaving.



4 Limitations of this guidance

- 4.1 This guidance should not be used for any purpose other than those set out in this guidance.
- 4.2 The factors contained in this guidance are subject to regular review. Scheme managers and administrators need to ensure that they are using the latest factors, as relevant, when processing cases.
- 4.3 Advice provided by GAD must be taken in context and is intended to be considered in its entirety. Individual sections, if considered in isolation, may be misleading, and conclusions reached by a review of some sections on their own may be incorrect. GAD does not accept responsibility for advice that is altered or used selectively. Clarification should be sought if there is any doubt about the intention or scope of advice provided by GAD.
- 4.4 This guidance only covers the actuarial principles around the calculation and application of additional pension factors. Any legal advice in this area should be sought from an appropriately qualified person or source.
- 4.5 Scheme managers and administrators should satisfy themselves that additional pension calculations and benefit awards comply with all legislative requirements including, but not limited to, tax and contracting-out requirements.
- 4.6 This guidance is based on the Regulations in force at the time of writing. It is possible that future changes to the Regulations might create inconsistencies between this guidance and the Regulations. If users of this guidance believe there to be any such inconsistencies, they should bring this to the attention of MoJ and GAD. Under no circumstances should this guidance take precedence over the Regulations. Administrators should ensure that they comply with all relevant Regulations.



Appendix A: Factor tables

List of Tables

- **Table 1: SM65 (Table 701 in consolidated factors spreadsheet) – Added Pension by Lump Sum factors for males with normal pension age of 65 (cost for buying £1 p.a. added pension)**

Age when notice of election given	Lump Sum Factors	
	Member Benefits Only	Member and Dependant Benefits
30	4.30	4.82
31	4.48	5.02
32	4.67	5.23
33	4.86	5.45
34	5.07	5.68
35	5.28	5.92
36	5.50	6.17
37	5.73	6.43
38	5.97	6.70
39	6.22	6.98
40	6.48	7.27
41	6.76	7.58
42	7.04	7.90
43	7.34	8.23
44	7.65	8.58
45	7.97	8.94
46	8.31	9.31
47	8.66	9.70
48	9.03	10.11
49	9.42	10.54
50	9.82	10.98
51	10.23	11.45
52	10.67	11.93
53	11.13	12.43
54	11.60	12.96
55	12.10	13.51
56	12.63	14.09
57	13.18	14.69
58	13.75	15.31
59	14.36	15.97
60	14.99	16.66
61	15.66	17.38
62	16.36	18.13
63	17.10	18.93



64	17.88	19.76
65	17.99	19.92
66	17.43	19.37
67	16.85	18.82
68	16.28	18.26
69	15.70	17.70
70	15.12	17.13
71	14.53	16.56
72	13.94	15.98
73	13.35	15.39
74	12.76	14.80



- **Table 2: SM66 (Table 702 in consolidated factors spreadsheet)** – Added Pension by Lump Sum factors for males with normal pension age of 66 (cost for buying £1 p.a. added pension)

Age when notice of election given	Lump Sum Factors	
	Member Benefits Only	Member and Dependant Benefits
30	4.01	4.52
31	4.17	4.71
32	4.35	4.91
33	4.53	5.11
34	4.72	5.33
35	4.92	5.55
36	5.12	5.78
37	5.34	6.02
38	5.56	6.28
39	5.79	6.54
40	6.04	6.81
41	6.29	7.10
42	6.55	7.40
43	6.83	7.71
44	7.12	8.03
45	7.42	8.36
46	7.73	8.71
47	8.06	9.08
48	8.40	9.46
49	8.75	9.86
50	9.13	10.27
51	9.51	10.70
52	9.92	11.16
53	10.34	11.63
54	10.78	12.12
55	11.25	12.63
56	11.73	13.16
57	12.24	13.72
58	12.77	14.31
59	13.33	14.92
60	13.92	15.56
61	14.53	16.23
62	15.18	16.93
63	15.86	17.66
64	16.58	18.44
65	17.34	19.25
66	17.45	19.39
67	16.87	18.84
68	16.29	18.27



69	15.71	17.70
70	15.12	17.13
71	14.53	16.56
72	13.94	15.98
73	13.35	15.39
74	12.76	14.80



- **Table 3: SM67 (Table 703 in consolidated factors spreadsheet) – Added Pension by Lump Sum factors for males with normal pension age of 67 (cost for buying £1 p.a. added pension)**

Age when notice of election given	Lump Sum Factors	
	Member Benefits Only	Member and Dependant Benefits
30	3.73	4.23
31	3.88	4.41
32	4.05	4.60
33	4.21	4.79
34	4.39	4.99
35	4.57	5.20
36	4.76	5.41
37	4.96	5.64
38	5.17	5.87
39	5.39	6.12
40	5.61	6.37
41	5.85	6.64
42	6.09	6.92
43	6.35	7.21
44	6.61	7.51
45	6.89	7.82
46	7.18	8.15
47	7.48	8.49
48	7.80	8.84
49	8.13	9.21
50	8.47	9.60
51	8.83	10.00
52	9.20	10.42
53	9.60	10.86
54	10.00	11.31
55	10.43	11.79
56	10.88	12.29
57	11.35	12.81
58	11.84	13.35
59	12.36	13.92
60	12.90	14.51
61	13.47	15.13
62	14.07	15.79
63	14.70	16.47
64	15.36	17.19
65	16.06	17.94
66	16.81	18.73
67	16.90	18.86
68	16.31	18.29



69	15.72	17.72
70	15.13	17.14
71	14.53	16.56
72	13.94	15.98
73	13.35	15.39
74	12.76	14.80



- **Table 4: SM68 (Table 704 in consolidated factors spreadsheet) – Added Pension by Lump Sum factors for males with normal pension age of 68 (cost for buying £1 p.a. added pension)**

Age when notice of election given	Lump Sum Factors	
	Member Benefits Only	Member and Dependant Benefits
30	3.47	3.96
31	3.61	4.13
32	3.76	4.30
33	3.92	4.48
34	4.08	4.67
35	4.25	4.86
36	4.42	5.06
37	4.61	5.27
38	4.80	5.49
39	5.00	5.72
40	5.21	5.96
41	5.43	6.21
42	5.65	6.47
43	5.89	6.73
44	6.14	7.02
45	6.39	7.31
46	6.66	7.61
47	6.94	7.93
48	7.23	8.26
49	7.54	8.60
50	7.85	8.96
51	8.18	9.34
52	8.53	9.73
53	8.89	10.13
54	9.27	10.56
55	9.66	11.00
56	10.08	11.46
57	10.51	11.94
58	10.96	12.45
59	11.44	12.97
60	11.94	13.53
61	12.46	14.10
62	13.02	14.71
63	13.60	15.34
64	14.21	16.00
65	14.86	16.70
66	15.54	17.44
67	16.26	18.21
68	16.34	18.32



69	15.74	17.74
70	15.14	17.16
71	14.54	16.57
72	13.95	15.98
73	13.35	15.39
74	12.76	14.80



- **Table 5: RM65 (Table 705 in consolidated factors spreadsheet) – Added Pension by Periodical Contribution factors for males with normal pension age of 65 (cost for buying £1 p.a. added pension)**

Age when notice of election given	Periodical Contribution Factors	
	Member Benefits Only	Member and Dependant Benefits
30	4.40	4.94
31	4.59	5.14
32	4.78	5.36
33	4.98	5.58
34	5.19	5.82
35	5.40	6.06
36	5.63	6.32
37	5.87	6.58
38	6.11	6.86
39	6.37	7.15
40	6.64	7.45
41	6.92	7.76
42	7.21	8.09
43	7.51	8.43
44	7.83	8.78
45	8.16	9.15
46	8.51	9.53
47	8.87	9.94
48	9.25	10.35
49	9.64	10.79
50	10.05	11.24
51	10.48	11.72
52	10.92	12.21
53	11.39	12.73
54	11.88	13.27
55	12.39	13.83
56	12.93	14.42
57	13.49	15.03
58	14.08	15.68
59	14.70	16.35
60	15.35	17.05
61	16.03	17.79
62	16.75	18.57
63	17.50	19.38
64	18.30	20.23
65	18.42	20.39
66	17.84	19.83
67	17.25	19.27
68	16.66	18.69



69	16.07	18.12
70	15.48	17.54
71	14.88	16.95
72	14.27	16.36
73	13.67	15.75
74	13.06	15.15



- **Table 6: RM66 (Table 706 in consolidated factors spreadsheet) – Added Pension by Periodical Contribution factors for normal pension age of 66 (cost for buying £1 p.a. added pension)**

Age when notice of election given	Periodical Contribution Factors	
	Member Benefits Only	Member and Dependant Benefits
30	4.10	4.63
31	4.27	4.82
32	4.45	5.02
33	4.64	5.23
34	4.83	5.45
35	5.03	5.68
36	5.24	5.92
37	5.46	6.17
38	5.69	6.43
39	5.93	6.69
40	6.18	6.97
41	6.44	7.27
42	6.71	7.57
43	6.99	7.89
44	7.29	8.22
45	7.59	8.56
46	7.91	8.92
47	8.25	9.30
48	8.60	9.69
49	8.96	10.09
50	9.34	10.52
51	9.74	10.96
52	10.15	11.42
53	10.59	11.90
54	11.04	12.40
55	11.51	12.93
56	12.01	13.48
57	12.53	14.05
58	13.07	14.65
59	13.65	15.27
60	14.25	15.93
61	14.88	16.61
62	15.54	17.33
63	16.24	18.08
64	16.98	18.88
65	17.76	19.71
66	17.86	19.85
67	17.27	19.28
68	16.68	18.71



69	16.08	18.12
70	15.48	17.54
71	14.88	16.95
72	14.27	16.36
73	13.67	15.75
74	13.06	15.15



- **Table 7: RM67 (Table 707 in consolidated factors spreadsheet) – Added Pension by Periodical Contribution factors for males with normal pension age of 67 (cost for buying £1 p.a. added pension)**

Age when notice of election given	Periodical Contribution Factors	
	Member Benefits Only	Member and Dependant Benefits
30	3.82	4.33
31	3.98	4.52
32	4.14	4.70
33	4.31	4.90
34	4.49	5.11
35	4.68	5.32
36	4.88	5.54
37	5.08	5.77
38	5.29	6.01
39	5.51	6.26
40	5.74	6.53
41	5.99	6.80
42	6.24	7.08
43	6.50	7.38
44	6.77	7.69
45	7.06	8.01
46	7.35	8.34
47	7.66	8.69
48	7.98	9.05
49	8.32	9.43
50	8.67	9.83
51	9.04	10.24
52	9.42	10.67
53	9.82	11.12
54	10.24	11.58
55	10.68	12.07
56	11.14	12.58
57	11.62	13.11
58	12.12	13.67
59	12.65	14.25
60	13.21	14.86
61	13.79	15.49
62	14.40	16.16
63	15.05	16.86
64	15.73	17.60
65	16.45	18.37
66	17.21	19.18
67	17.30	19.31
68	16.70	18.73



69	16.09	18.14
70	15.49	17.55
71	14.88	16.95
72	14.27	16.36
73	13.67	15.75
74	13.06	15.15



- **Table 8: RM68 (Table 708 in consolidated factors spreadsheet) – Added Pension by Periodical Contribution factors for males with normal pension age of 68 (cost for buying £1 p.a. added pension)**

Age when notice of election given	Periodical Contribution Factors	
	Member Benefits Only	Member and Dependant Benefits
30	3.55	4.06
31	3.70	4.23
32	3.85	4.40
33	4.01	4.59
34	4.18	4.78
35	4.35	4.98
36	4.53	5.18
37	4.72	5.40
38	4.91	5.62
39	5.12	5.86
40	5.33	6.10
41	5.56	6.36
42	5.79	6.62
43	6.03	6.90
44	6.28	7.18
45	6.55	7.48
46	6.82	7.79
47	7.11	8.12
48	7.40	8.46
49	7.72	8.81
50	8.04	9.18
51	8.38	9.56
52	8.73	9.96
53	9.10	10.37
54	9.49	10.81
55	9.89	11.26
56	10.32	11.73
57	10.76	12.23
58	11.22	12.74
59	11.71	13.28
60	12.22	13.85
61	12.76	14.44
62	13.33	15.06
63	13.92	15.70
64	14.55	16.38
65	15.21	17.10
66	15.91	17.85
67	16.65	18.64
68	16.73	18.75



69	16.12	18.16
70	15.50	17.56
71	14.89	16.96
72	14.28	16.36
73	13.67	15.75
74	13.06	15.15



- **Table 9: SF65 (Table 709 in consolidated factors spreadsheet) – Added Pension by Lump Sum factors for females with normal pension age of 65 (cost for buying £1 p.a. added pension)**

Age when notice of election given	Lump Sum Factors	
	Member Benefits Only	Member and Dependant Benefits
30	4.48	4.76
31	4.67	4.96
32	4.86	5.16
33	5.07	5.38
34	5.28	5.61
35	5.50	5.84
36	5.73	6.09
37	5.98	6.34
38	6.23	6.61
39	6.49	6.88
40	6.76	7.17
41	7.05	7.47
42	7.35	7.79
43	7.66	8.12
44	7.98	8.46
45	8.32	8.81
46	8.68	9.18
47	9.05	9.57
48	9.43	9.97
49	9.84	10.39
50	10.26	10.83
51	10.70	11.29
52	11.16	11.77
53	11.64	12.27
54	12.15	12.79
55	12.68	13.34
56	13.23	13.91
57	13.81	14.50
58	14.42	15.13
59	15.06	15.78
60	15.73	16.47
61	16.43	17.18
62	17.16	17.94
63	17.94	18.72
64	18.75	19.55
65	18.89	19.70
66	18.35	19.15
67	17.79	18.60
68	17.23	18.03



69	16.66	17.47
70	16.09	16.89
71	15.52	16.32
72	14.94	15.73
73	14.36	15.14
74	13.77	14.54



- **Table 10: SF66 (Table 710 in consolidated factors spreadsheet) – Added Pension by Lump Sum factors for females with normal pension age of 66 (cost for buying £1 p.a. added pension)**

Age when notice of election given	Lump Sum Factors	
	Member Benefits Only	Member and Dependant Benefits
30	4.19	4.46
31	4.36	4.64
32	4.54	4.84
33	4.73	5.04
34	4.93	5.25
35	5.14	5.47
36	5.35	5.70
37	5.58	5.94
38	5.81	6.19
39	6.06	6.44
40	6.31	6.71
41	6.58	6.99
42	6.85	7.29
43	7.14	7.59
44	7.44	7.91
45	7.76	8.24
46	8.09	8.59
47	8.43	8.95
48	8.79	9.32
49	9.17	9.72
50	9.56	10.12
51	9.97	10.55
52	10.40	11.00
53	10.84	11.46
54	11.31	11.95
55	11.80	12.46
56	12.32	12.99
57	12.86	13.54
58	13.42	14.12
59	14.02	14.73
60	14.64	15.37
61	15.29	16.03
62	15.97	16.73
63	16.69	17.46
64	17.44	18.23
65	18.23	19.04
66	18.36	19.17
67	17.80	18.61
68	17.24	18.05



69	16.67	17.47
70	16.10	16.90
71	15.52	16.32
72	14.94	15.73
73	14.36	15.14
74	13.77	14.54



- **Table 11: SF67 (Table 711 in consolidated factors spreadsheet) – Added Pension by Lump Sum factors for females with normal pension age of 67 (cost for buying £1 p.a. added pension)**

Age when notice of election given	Lump Sum Factors	
	Member Benefits Only	Member and Dependant Benefits
30	3.90	4.17
31	4.07	4.35
32	4.24	4.53
33	4.41	4.72
34	4.60	4.91
35	4.79	5.12
36	4.99	5.33
37	5.20	5.55
38	5.42	5.79
39	5.64	6.03
40	5.88	6.28
41	6.13	6.54
42	6.39	6.81
43	6.65	7.10
44	6.93	7.39
45	7.23	7.70
46	7.53	8.02
47	7.85	8.36
48	8.18	8.71
49	8.53	9.07
50	8.90	9.45
51	9.28	9.85
52	9.67	10.26
53	10.09	10.70
54	10.52	11.15
55	10.98	11.62
56	11.46	12.11
57	11.96	12.63
58	12.48	13.17
59	13.03	13.73
60	13.60	14.32
61	14.21	14.94
62	14.84	15.59
63	15.50	16.27
64	16.20	16.98
65	16.94	17.73
66	17.71	18.51
67	17.82	18.63
68	17.25	18.06



69	16.68	17.48
70	16.10	16.90
71	15.52	16.32
72	14.94	15.73
73	14.36	15.14
74	13.77	14.54



- **Table 12: SF68 (Table 712 in consolidated factors spreadsheet) – Added Pension by Lump Sum factors for females with normal pension age of 68 (cost for buying £1 p.a. added pension)**

Age when notice of election given	Lump Sum Factors	
	Member Benefits Only	Member and Dependant Benefits
30	3.64	3.90
31	3.79	4.07
32	3.95	4.23
33	4.11	4.41
34	4.28	4.59
35	4.46	4.78
36	4.65	4.98
37	4.84	5.19
38	5.04	5.41
39	5.25	5.63
40	5.47	5.86
41	5.70	6.11
42	5.94	6.36
43	6.19	6.63
44	6.45	6.90
45	6.72	7.19
46	7.01	7.49
47	7.30	7.80
48	7.61	8.13
49	7.93	8.46
50	8.27	8.82
51	8.62	9.19
52	8.99	9.57
53	9.37	9.97
54	9.78	10.39
55	10.20	10.83
56	10.64	11.29
57	11.10	11.77
58	11.59	12.27
59	12.09	12.79
60	12.63	13.34
61	13.18	13.91
62	13.77	14.51
63	14.38	15.14
64	15.03	15.79
65	15.71	16.49
66	16.42	17.21
67	17.18	17.98
68	17.28	18.08



69	16.70	17.50
70	16.12	16.92
71	15.53	16.33
72	14.94	15.73
73	14.36	15.14
74	13.77	14.54



- **Table 13: RF65 (Table 713 in consolidated factors spreadsheet) – Added Pension by Periodical Contribution factors for females with normal pension age of 65 (cost for buying £1 p.a. added pension)**

Age when notice of election given	Periodical Contribution Factors	
	Member Benefits Only	Member and Dependant Benefits
30	4.59	4.87
31	4.78	5.07
32	4.98	5.29
33	5.19	5.51
34	5.41	5.74
35	5.63	5.98
36	5.87	6.23
37	6.12	6.49
38	6.38	6.77
39	6.64	7.05
40	6.92	7.34
41	7.22	7.65
42	7.52	7.97
43	7.84	8.31
44	8.17	8.66
45	8.52	9.02
46	8.88	9.40
47	9.26	9.80
48	9.66	10.21
49	10.07	10.64
50	10.50	11.09
51	10.95	11.56
52	11.42	12.05
53	11.92	12.56
54	12.44	13.10
55	12.98	13.65
56	13.54	14.24
57	14.14	14.85
58	14.76	15.49
59	15.42	16.16
60	16.10	16.86
61	16.82	17.59
62	17.57	18.36
63	18.36	19.17
64	19.20	20.02
65	19.34	20.17
66	18.78	19.61
67	18.21	19.04
68	17.64	18.46



69	17.06	17.88
70	16.48	17.30
71	15.89	16.70
72	15.30	16.10
73	14.70	15.50
74	14.10	14.89



- **Table 14: RF66 (Table 714 in consolidated factors spreadsheet) – Added Pension by Periodical Contribution factors for females with normal pension age of 66 (cost for buying £1 p.a. added pension)**

Age when notice of election given	Periodical Contribution Factors	
	Member Benefits Only	Member and Dependant Benefits
30	4.28	4.56
31	4.46	4.75
32	4.65	4.95
33	4.85	5.16
34	5.05	5.38
35	5.26	5.60
36	5.48	5.83
37	5.71	6.08
38	5.95	6.33
39	6.20	6.60
40	6.46	6.87
41	6.73	7.16
42	7.02	7.46
43	7.31	7.77
44	7.62	8.10
45	7.94	8.44
46	8.28	8.79
47	8.63	9.16
48	9.00	9.54
49	9.38	9.95
50	9.79	10.36
51	10.20	10.80
52	10.64	11.26
53	11.10	11.73
54	11.58	12.23
55	12.09	12.75
56	12.61	13.30
57	13.16	13.86
58	13.74	14.46
59	14.35	15.08
60	14.98	15.73
61	15.65	16.41
62	16.35	17.13
63	17.08	17.88
64	17.86	18.66
65	18.67	19.49
66	18.80	19.63
67	18.23	19.05
68	17.65	18.47



69	17.06	17.89
70	16.48	17.30
71	15.89	16.70
72	15.30	16.10
73	14.70	15.50
74	14.10	14.89



- **Table 15: RF67 (Table 715 in consolidated factors spreadsheet) – Added Pension by Periodical Contribution factors for females with normal pension age of 67 (cost for buying £1 p.a. added pension)**

Age when notice of election given	Periodical Contribution Factors	
	Member Benefits Only	Member and Dependant Benefits
30	4.00	4.27
31	4.16	4.45
32	4.34	4.64
33	4.52	4.83
34	4.71	5.03
35	4.90	5.24
36	5.11	5.46
37	5.32	5.69
38	5.55	5.92
39	5.78	6.17
40	6.02	6.43
41	6.27	6.70
42	6.54	6.97
43	6.81	7.27
44	7.10	7.57
45	7.40	7.88
46	7.71	8.21
47	8.04	8.56
48	8.38	8.92
49	8.74	9.29
50	9.11	9.68
51	9.50	10.08
52	9.90	10.51
53	10.33	10.95
54	10.77	11.41
55	11.24	11.90
56	11.73	12.40
57	12.24	12.93
58	12.78	13.48
59	13.34	14.06
60	13.93	14.66
61	14.54	15.30
62	15.19	15.96
63	15.87	16.65
64	16.59	17.38
65	17.34	18.15
66	18.13	18.95
67	18.25	19.08
68	17.67	18.49



69	17.08	17.90
70	16.48	17.30
71	15.89	16.71
72	15.30	16.10
73	14.70	15.50
74	14.10	14.89



- **Table 16: RF68 (Table 716 in consolidated factors spreadsheet) – Added Pension by Periodical Contribution factors for females with normal pension age of 68 (cost for buying £1 p.a. added pension)**

Age when notice of election given	Periodical Contribution Factors	
	Member Benefits Only	Member and Dependant Benefits
30	3.73	4.00
31	3.88	4.16
32	4.04	4.34
33	4.21	4.52
34	4.39	4.70
35	4.57	4.90
36	4.76	5.10
37	4.96	5.31
38	5.16	5.53
39	5.38	5.76
40	5.60	6.00
41	5.84	6.25
42	6.08	6.51
43	6.34	6.78
44	6.60	7.07
45	6.88	7.36
46	7.17	7.67
47	7.47	7.99
48	7.79	8.32
49	8.12	8.67
50	8.47	9.03
51	8.83	9.41
52	9.20	9.80
53	9.60	10.21
54	10.01	10.64
55	10.44	11.09
56	10.89	11.56
57	11.37	12.05
58	11.86	12.56
59	12.38	13.09
60	12.93	13.65
61	13.50	14.24
62	14.10	14.85
63	14.72	15.50
64	15.38	16.17
65	16.08	16.88
66	16.81	17.62
67	17.59	18.41
68	17.69	18.51



69	17.10	17.92
70	16.50	17.32
71	15.90	16.71
72	15.30	16.11
73	14.70	15.50
74	14.10	14.89



- **Table 17: REVAL (Table 717 in consolidated factors spreadsheet) – Added Pension Revaluation factors**

Number of 1 Aprils before NRA	Revaluation Factor
0	1.00
1	1.02
2	1.04
3	1.06
4	1.08
5	1.10
6	1.13
7	1.15
8	1.17
9	1.20
10	1.22
11	1.24
12	1.27
13	1.29
14	1.32
15	1.35
16	1.37
17	1.40
18	1.43
19	1.46
20	1.49
21	1.52
22	1.55
23	1.58
24	1.61
25	1.64
26	1.67
27	1.71
28	1.74
29	1.78
30	1.81
31	1.85
32	1.88
33	1.92
34	1.96
35	2.00
36	2.04
37	2.08
38	2.12
39	2.16
40	2.21



Appendix B: Assumptions underlying factors

Financial assumptions

Nominal discount rate	4.448% pa
CPI	2.00% pa
Long term earnings growth	4.20% pa
Real discount rate (in excess of CPI)	2.40% pa
Real discount rate (in excess of long term earnings growth)	0.24% pa

Mortality assumptions

Base mortality tables and adjustments	Males: 92% of S2NMA_L Females: 80% of S2NFA
Future mortality improvement	Based on ONS principal UK population projections 2016
Year of use	2020

Other assumptions

Allowance for commutation	Nil
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