Government Actuary's Department

# Civil Service and Others Pension Scheme (CSOPS)

Factors for Added Pension for alpha members

Date: 29 June 2015

Author: Sandra Bell and Brian Allan

# Contents

# 1 Introduction

1.1 This note is addressed to The Pension Scheme Executive (TPSE) of the Cabinet Office as scheme manager of the Civil Service and Others Pension Scheme ('CSOPS' or **alpha** scheme). The **alpha** scheme was established by The Public Service (Civil Servants and Others) Pensions Regulations 2014 (SI 2014/1964) ("the Regulations") and came into force on 1 April 2015.

1.2 The purpose of the note is to provide TPSE with specific factors, and accompanying guidance to demonstrate how these factors should be applied to calculate the amount of added pension (AP) to be awarded when an **alpha** member, their employer or third party opts to make a lump sum payment or a member makes regular periodic payments. These tables do not apply to members in the **classic**, **classic plus**, **premium** or **nuvos** sections of the Principal Civil Service Pension Scheme. Factors and added pension guidance for PCSPS has been provided separately to TPSE.

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 accordance with our note *CSOPS: Advice on actuarial calculation factors* dated 19 September 2014, as subsequently amended.

1.5 We understand the added pension factors are the responsibility of the Minister. These factors came into force when the **alpha** scheme came into force on 1 April 2015.

1.6 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 made before allowing the member to exercise the option to buy added pension. 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 document *Enhanced Effective Pension Age (EEPA) and Effective Pension Age (EPA) options for alpha members: Contribution rates, 'headroom' calculation factors and guidance* dated 21 November 2014, as subsequently amended.

1.7 We do not envisage any special cases not covered by this note. However, if any do occur they should be referred to GAD.

1.8 Please contact Nick Horne (020 7221 2679) or Brian Allan (020 7211 2629) for further information on this note.

# 2 Instructions

2.1 Added pension can be purchased either by a lump sum or by regular annual contributions.

**Lump Sum election**

2.2 The factors are shown per £1 pa of added pension purchased.

2.3 The factors should be selected with reference to the member's:

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

2.4 If a member has a non-integer NPA then 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).

2.5 If a member purchases added pension by a lump sum payment, then 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.

[1] Normal pension age is defined as a member's state pension age (or 65, if that is higher) in the alpha section. For the purpose of this note, a member's expected NPA in the alpha section is the same as their state pension age as set out in The Public Service Pensions (Valuations and Employer Cost Cap) Directions 2014, as subsequently amended – https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/411287/HMT_Directions_9_Mar_2015.pdf

2.6 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:

$$LS = P \times F_x^{LS} \times F_y^{\text{Re}val}$$

Where:

$P$ = amount of added pension purchased

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

$F_x^{LS}$ = lump sum factor at age x from appropriate NPA table (see Appendix A Tables 1-4: P2APLS65-68)

$F_y^{\text{Re}val}$ = relevant revaluation factor for a member with y 1 Aprils between calculation date and up to and including NPA (see Appendix A Table 9 - P2APREVAL)

Where the 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.

2.7 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:

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

Where:

$LS$ = amount of Lump Sum payment

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

$F_x^{LS}$ = lump sum factor at age x from appropriate NPA table (see Appendix A Tables 1-4: P2APLS65-68)

$F_y^{\text{Re}val}$ = relevant revaluation factor for a member with y 1 Aprils between calculation date and up to and including NPA (see Appendix A Table 9 - P2APREVAL)

Where the 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**

2.8 The factors are shown per £1 pa of added pension purchased.

2.9 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.

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

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

2.11 If a member has a non-integer NPA then 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).

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

2.13 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.

2.14 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).

2.15 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:

$$P = \frac{C}{F_x^{RC} \times F_y^{\mathrm{Re}val}}$$

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 (ie at the calculation date)

$F_x^{RC}$ = regular contribution factor at age x from corresponding NPA table (see Appendix A Tables 5-8 – P2APPC65-68)

$F_y^{\mathrm{Re}val}$ = 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 9 - P2APREVAL)

2.16 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:

$$MP = \frac{P \times F_x^{RC} \times F_y^{\mathrm{Re}val}}{12}$$

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

$F_x^{RC}$ = regular contribution factor at age x from corresponding NPA table (see Appendix A Tables 5-8 – P2APPC65-68)

$F_y^{\mathrm{Re}val}$ = 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 9 - P2APREVAL)

2.17 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.

# 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 | £1000 |
| > Calculation date | 01/09/2015 |
| > Age (last birthday) of member on calculation date | 54 years |
| > Number of 1 Aprils between calculation date up to and including NPA | 12 |
| > Lump Sum factor $F_x^{LS}$ | 8.7733 (interpolated) |
| > Revaluation factor $F_y^{Reval}$ (from P2APREVAL) | 1.27 |
| > Added pension purchased immediately on payment, $P$ | $= \frac{LS}{F_x^{LS} \times F_y^{Reval}}$ <br> $= \frac{£1000}{8.7733 \times 1.27}$ <br> = £89.75 p.a. |

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

Factor at NPA 66 years 7 months

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

eg for the Lump Sum factor for 54 year old male

$$= \left(\frac{5}{12}\right) * 9.17 + \left(\frac{7}{12}\right) * 8.49 = 8.7733$$

Note: The factor at NPA 66 comes from Table 2 (P2APLS66) whilst the factor at NPA 67 comes from Table 3 (P2APLS67).

**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 | 01/09/2015 |
| > Age (last birthday) of member on calculation date | 54 years |
| > Number of 1 Aprils between calculation date up to and including NPA | 12 |
| > Lump Sum factor $F_x^{LS}$ | 9.6375 (interpolated) |
| > Revaluation factor $F_y^{Reval}$ (from P2APREVAL) | 1.27 |

> Lump Sum, *LS*, payment required to immediately purchase added pension

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

= £200 x 9.6375 x 1.27

= £2447.93

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

Factor at NPA 66 years 7 month

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

eg for the Lump Sum factor for 54 year old (unisex factors for self + dependent)

$$= \left(\frac{5}{12}\right) * 10.04 + \left(\frac{7}{12}\right) * 9.35 = 9.6375$$

Note: The factor at NPA 66 comes from Table 2 (P2APLS66) whilst the factor at NPA 67 comes from Table 3 (P2APLS67).

**Example 3 – Periodic payments – Added Pension purchased for self and dependant by a percentage of salary in the scheme year 2015-16**

| | |
|---|---|
| > Sex | Male |
| > Date of Birth | 01/04/1980 |
| > Normal Pension Age | 68 years |
| > Pensionable Earnings (PE) | £48,000 pa |
| > Amount of monthly contribution | 5% of PE |
| > Start of periodic payment (calculation date) | 01/04/2015 |
| > 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 | (£48,000 × 5%) / 12 = £200 pm |
| > Expected amount of periodic contributions over scheme year 2015-16, $C$ | £2400 |
| > Regular Contribution factor $F_x^{RC}$ | 3.74 |
| > Revaluation factor $F_y^{\text{Re}val}$ | 1.92 |

> Added pension, $P$, expected to be purchased by end of scheme year

$$P = \frac{C}{F_x^{RC} \times F_y^{\text{Re}val}}$$

$$= \frac{2400}{3.74 \times 1.92}$$

= £ 334.22 p.a.

**Accounting for a promotion part way through the year**

> Salary Increase — 20%

> Date of Salary Increase — 01/01/2016

> Amount of monthly contribution in final three months — (£48,000 × 120% × 5%)/12 = £240 pm

> Total amount of periodic contributions over scheme year 2015-16, $C$ — £200 × 9 + £240 × 3 = £2520

> Regular Contribution factor $F_x^{RC}$ — 3.74

> Revaluation factor $F_y^{\text{Re}val}$ — 1.92

> added pension purchased, $P$

$$= \frac{C}{F_x^{RC} \times F_y^{\text{Re}val}}$$

$$= \frac{2520}{3.74 \times 1.92}$$

= £ 350.94 p.a.

Therefore the member should be granted an added pension of £350.94 pa at the end of the scheme year.

**Example 4 – Periodic payments – Added Pension purchased for self and dependant by level payments from 2017-18**

| | |
|---|---|
| > Sex | Female |
| > Date of Birth | 18/06/1975 |
| > Normal Pension Age | 67 years |
| > Amount of monthly contribution | £100 pm |
| > Start date of periodic payments (calculation date) | 01/04/2017 |
| > Age of member at start of scheme year | 41 years |
| > Number of 1 Aprils between calculation date up to and including NPA | 25 |

**Accounting for the member leaving the scheme before completing the payments**

| | |
|---|---|
| > Date of leaving scheme | 31/01/2018 |
| > Number of months in which member has made contributions | 10 |
| > Total amount of periodic contributions over scheme year 2017-18, $C$ | £100 ×10 = £1000 |
| > Regular Contribution factor $F_x^{RC}$ | 5.29 |
| > Revaluation factor $F_y^{Reval}$ | 1.64 |

> Added pension purchased, $P = \dfrac{C}{F_x^{RC} \times F_y^{Reval}}$

$$= \frac{1000}{5.29 \times 1.64}$$

= £ 115.27 p.a.

Therefore the member should be granted an added pension of £115.27 pa at the date of leaving.

# 4 Limitations of this guidance

4.1 This note is intended for the use of the Cabinet Office and the scheme administrators for the purposes of demonstrating the application of the factors covered by this guidance only. The information and advice in this note should not be relied upon, or assumed to be appropriate, for any other purpose or by any other person. GAD does not accept any liability to third parties, whether or not GAD has agreed to the disclosure of its advice to the third party.

4.2 The factors contained in this note are subject to regular review. 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 read and used as a whole, not in parts. 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 note only covers the actuarial principles around the factors covered in this note. Any legal advice in this area should be sought from an appropriately qualified person or source. In no circumstances should this guidance take precedence over the scheme regulations. If users of this guidance believe it to contain any inconsistencies with the scheme regulations, they should bring this to the attention of Cabinet Office and GAD.

# Appendix A: Factor tables

**List of Tables**

**Table 1: P2APLS65 – Alpha Added Pension by Lump Sum factors for normal pension age of 65**

| | Males | Females | Unisex |
|---|---|---|---|
| Age | Member's pension factor | Member's pension factor | Member + spouse |
| 16 | 1.64 | 1.75 | 1.80 |
| 17 | 1.73 | 1.84 | 1.89 |
| 18 | 1.81 | 1.93 | 1.98 |
| 19 | 1.90 | 2.02 | 2.08 |
| 20 | 2.00 | 2.12 | 2.18 |
| 21 | 2.10 | 2.23 | 2.29 |
| 22 | 2.20 | 2.34 | 2.40 |
| 23 | 2.31 | 2.45 | 2.52 |
| 24 | 2.42 | 2.57 | 2.65 |
| 25 | 2.54 | 2.70 | 2.78 |
| 26 | 2.66 | 2.84 | 2.91 |
| 27 | 2.79 | 2.97 | 3.05 |
| 28 | 2.93 | 3.12 | 3.20 |
| 29 | 3.07 | 3.27 | 3.36 |
| 30 | 3.22 | 3.43 | 3.52 |
| 31 | 3.38 | 3.60 | 3.70 |
| 32 | 3.54 | 3.78 | 3.87 |
| 33 | 3.71 | 3.96 | 4.06 |
| 34 | 3.89 | 4.15 | 4.26 |
| 35 | 4.08 | 4.35 | 4.46 |
| 36 | 4.28 | 4.56 | 4.68 |
| 37 | 4.48 | 4.78 | 4.90 |
| 38 | 4.70 | 5.01 | 5.13 |
| 39 | 4.92 | 5.25 | 5.38 |
| 40 | 5.15 | 5.51 | 5.63 |
| 41 | 5.40 | 5.77 | 5.90 |
| 42 | 5.66 | 6.04 | 6.18 |
| 43 | 5.93 | 6.33 | 6.48 |
| 44 | 6.21 | 6.64 | 6.78 |

**Table 1: P2APLS65 – Alpha Added Pension by Lump Sum factors for normal pension age of 65 (continued)**

| | Males | Females | Unisex |
|---|---|---|---|
| Age | Member's pension factor | Member's pension factor | Member + spouse |
| 45 | 6.50 | 6.95 | 7.10 |
| 46 | 6.81 | 7.29 | 7.44 |
| 47 | 7.14 | 7.63 | 7.79 |
| 48 | 7.48 | 8.00 | 8.16 |
| 49 | 7.83 | 8.38 | 8.55 |
| 50 | 8.21 | 8.78 | 8.95 |
| 51 | 8.60 | 9.20 | 9.38 |
| 52 | 9.01 | 9.64 | 9.82 |
| 53 | 9.44 | 10.10 | 10.28 |
| 54 | 9.89 | 10.58 | 10.77 |
| 55 | 10.37 | 11.09 | 11.28 |
| 56 | 10.87 | 11.62 | 11.82 |
| 57 | 11.40 | 12.18 | 12.39 |
| 58 | 11.97 | 12.78 | 12.99 |
| 59 | 12.56 | 13.40 | 13.62 |
| 60 | 13.19 | 14.07 | 14.28 |
| 61 | 13.86 | 14.76 | 14.99 |
| 62 | 14.57 | 15.50 | 15.73 |
| 63 | 15.34 | 16.30 | 16.53 |
| 64 | 16.15 | 17.14 | 17.39 |
| 65 | 16.34 | 17.36 | 17.60 |
| 66 | 15.89 | 16.91 | 17.16 |
| 67 | 15.42 | 16.46 | 16.71 |
| 68 | 14.95 | 16.00 | 16.25 |
| 69 | 14.47 | 15.53 | 15.78 |
| 70 | 13.99 | 15.06 | 15.31 |
| 71 | 13.50 | 14.58 | 14.83 |
| 72 | 13.01 | 14.09 | 14.35 |
| 73 | 12.52 | 13.60 | 13.86 |
| 74 | 12.04 | 13.11 | 13.38 |
| 75 | 11.56 | 12.63 | 12.89 |

**Table 2: P2APLS66 – Alpha Added Pension by Lump Sum factors for normal pension age of 66**

| | Males | Females | Unisex |
|---|---|---|---|
| Age | Member's pension factor | Member's pension factor | Member + spouse |
| 16 | 1.53 | 1.63 | 1.68 |
| 17 | 1.61 | 1.71 | 1.77 |
| 18 | 1.69 | 1.80 | 1.85 |
| 19 | 1.77 | 1.89 | 1.95 |
| 20 | 1.86 | 1.98 | 2.04 |
| 21 | 1.95 | 2.08 | 2.14 |
| 22 | 2.05 | 2.18 | 2.25 |
| 23 | 2.15 | 2.29 | 2.36 |
| 24 | 2.25 | 2.40 | 2.47 |
| 25 | 2.36 | 2.52 | 2.59 |
| 26 | 2.48 | 2.65 | 2.72 |
| 27 | 2.60 | 2.78 | 2.86 |
| 28 | 2.73 | 2.91 | 3.00 |
| 29 | 2.86 | 3.06 | 3.14 |
| 30 | 3.00 | 3.21 | 3.29 |
| 31 | 3.14 | 3.36 | 3.45 |
| 32 | 3.30 | 3.53 | 3.62 |
| 33 | 3.46 | 3.70 | 3.80 |
| 34 | 3.62 | 3.88 | 3.98 |
| 35 | 3.80 | 4.06 | 4.17 |
| 36 | 3.98 | 4.26 | 4.37 |
| 37 | 4.17 | 4.46 | 4.58 |
| 38 | 4.37 | 4.68 | 4.80 |
| 39 | 4.57 | 4.90 | 5.02 |
| 40 | 4.79 | 5.14 | 5.26 |
| 41 | 5.02 | 5.38 | 5.51 |
| 42 | 5.26 | 5.64 | 5.77 |
| 43 | 5.51 | 5.91 | 6.05 |
| 44 | 5.77 | 6.19 | 6.33 |

**Table 2: P2APLS66 – Alpha Added Pension by Lump Sum factors for normal pension age of 66 (continued)**

| | Males | Females | Unisex |
|---|---|---|---|
| Age | Member's pension factor | Member's pension factor | Member + spouse |
| 45 | 6.04 | 6.48 | 6.63 |
| 46 | 6.33 | 6.79 | 6.94 |
| 47 | 6.63 | 7.11 | 7.27 |
| 48 | 6.94 | 7.45 | 7.61 |
| 49 | 7.27 | 7.81 | 7.97 |
| 50 | 7.61 | 8.18 | 8.35 |
| 51 | 7.98 | 8.57 | 8.74 |
| 52 | 8.36 | 8.97 | 9.15 |
| 53 | 8.75 | 9.40 | 9.58 |
| 54 | 9.17 | 9.85 | 10.04 |
| 55 | 9.61 | 10.32 | 10.51 |
| 56 | 10.07 | 10.81 | 11.01 |
| 57 | 10.56 | 11.33 | 11.53 |
| 58 | 11.08 | 11.88 | 12.08 |
| 59 | 11.63 | 12.46 | 12.67 |
| 60 | 12.20 | 13.07 | 13.28 |
| 61 | 12.82 | 13.71 | 13.93 |
| 62 | 13.47 | 14.39 | 14.61 |
| 63 | 14.16 | 15.11 | 15.34 |
| 64 | 14.91 | 15.89 | 16.13 |
| 65 | 15.71 | 16.72 | 16.96 |
| 66 | 15.89 | 16.91 | 17.16 |
| 67 | 15.42 | 16.46 | 16.71 |
| 68 | 14.95 | 16.00 | 16.25 |
| 69 | 14.47 | 15.53 | 15.78 |
| 70 | 13.99 | 15.06 | 15.31 |
| 71 | 13.50 | 14.58 | 14.83 |
| 72 | 13.01 | 14.09 | 14.35 |
| 73 | 12.52 | 13.60 | 13.86 |
| 74 | 12.04 | 13.11 | 13.38 |
| 75 | 11.56 | 12.63 | 12.89 |

**Table 3: P2APLS67 – Alpha Added Pension by Lump Sum factors for normal pension age of 67**

| | Males | Females | Unisex |
|---|---|---|---|
| Age | Member's pension factor | Member's pension factor | Member + spouse |
| 16 | 1.42 | 1.52 | 1.57 |
| 17 | 1.49 | 1.60 | 1.65 |
| 18 | 1.57 | 1.68 | 1.73 |
| 19 | 1.64 | 1.76 | 1.82 |
| 20 | 1.73 | 1.85 | 1.91 |
| 21 | 1.81 | 1.94 | 2.00 |
| 22 | 1.90 | 2.03 | 2.10 |
| 23 | 1.99 | 2.13 | 2.20 |
| 24 | 2.09 | 2.24 | 2.31 |
| 25 | 2.20 | 2.35 | 2.42 |
| 26 | 2.30 | 2.47 | 2.54 |
| 27 | 2.42 | 2.59 | 2.67 |
| 28 | 2.53 | 2.72 | 2.80 |
| 29 | 2.66 | 2.85 | 2.94 |
| 30 | 2.79 | 2.99 | 3.08 |
| 31 | 2.92 | 3.14 | 3.23 |
| 32 | 3.06 | 3.29 | 3.38 |
| 33 | 3.21 | 3.45 | 3.55 |
| 34 | 3.37 | 3.61 | 3.72 |
| 35 | 3.53 | 3.79 | 3.90 |
| 36 | 3.70 | 3.97 | 4.08 |
| 37 | 3.87 | 4.16 | 4.28 |
| 38 | 4.06 | 4.36 | 4.48 |
| 39 | 4.25 | 4.57 | 4.69 |
| 40 | 4.45 | 4.79 | 4.91 |
| 41 | 4.66 | 5.01 | 5.15 |
| 42 | 4.88 | 5.25 | 5.39 |
| 43 | 5.11 | 5.50 | 5.64 |
| 44 | 5.35 | 5.76 | 5.91 |

**Table 3: P2APLS67 – Alpha Added Pension by Lump Sum factors for normal pension age of 67 (continued)**

| | Males | Females | Unisex |
|---|---|---|---|
| Age | Member's pension factor | Member's pension factor | Member + spouse |
| 45 | 5.61 | 6.04 | 6.19 |
| 46 | 5.87 | 6.32 | 6.48 |
| 47 | 6.15 | 6.63 | 6.78 |
| 48 | 6.44 | 6.94 | 7.10 |
| 49 | 6.74 | 7.27 | 7.43 |
| 50 | 7.06 | 7.61 | 7.78 |
| 51 | 7.39 | 7.97 | 8.15 |
| 52 | 7.74 | 8.35 | 8.53 |
| 53 | 8.11 | 8.74 | 8.93 |
| 54 | 8.49 | 9.16 | 9.35 |
| 55 | 8.90 | 9.59 | 9.78 |
| 56 | 9.32 | 10.05 | 10.24 |
| 57 | 9.77 | 10.53 | 10.73 |
| 58 | 10.25 | 11.03 | 11.24 |
| 59 | 10.75 | 11.57 | 11.78 |
| 60 | 11.28 | 12.13 | 12.34 |
| 61 | 11.84 | 12.72 | 12.94 |
| 62 | 12.43 | 13.34 | 13.57 |
| 63 | 13.07 | 14.01 | 14.23 |
| 64 | 13.75 | 14.71 | 14.95 |
| 65 | 14.48 | 15.47 | 15.71 |
| 66 | 15.26 | 16.28 | 16.52 |
| 67 | 15.42 | 16.46 | 16.71 |
| 68 | 14.95 | 16.00 | 16.25 |
| 69 | 14.47 | 15.53 | 15.78 |
| 70 | 13.99 | 15.06 | 15.31 |
| 71 | 13.50 | 14.58 | 14.83 |
| 72 | 13.01 | 14.09 | 14.35 |
| 73 | 12.52 | 13.60 | 13.86 |
| 74 | 12.04 | 13.11 | 13.38 |
| 75 | 11.56 | 12.63 | 12.89 |

**Table 4: P2APLS68 – Alpha Added Pension by Lump Sum factors for normal pension age of 68**

| | Males | Females | Unisex |
|---|---|---|---|
| Age | Member's pension factor | Member's pension factor | Member + spouse |
| 16 | 1.31 | 1.41 | 1.46 |
| 17 | 1.38 | 1.49 | 1.54 |
| 18 | 1.45 | 1.56 | 1.62 |
| 19 | 1.53 | 1.64 | 1.70 |
| 20 | 1.60 | 1.72 | 1.78 |
| 21 | 1.68 | 1.80 | 1.87 |
| 22 | 1.76 | 1.89 | 1.96 |
| 23 | 1.85 | 1.99 | 2.06 |
| 24 | 1.94 | 2.09 | 2.16 |
| 25 | 2.04 | 2.19 | 2.26 |
| 26 | 2.14 | 2.30 | 2.37 |
| 27 | 2.24 | 2.41 | 2.49 |
| 28 | 2.35 | 2.53 | 2.61 |
| 29 | 2.47 | 2.65 | 2.74 |
| 30 | 2.59 | 2.79 | 2.87 |
| 31 | 2.71 | 2.92 | 3.01 |
| 32 | 2.84 | 3.06 | 3.16 |
| 33 | 2.98 | 3.21 | 3.31 |
| 34 | 3.12 | 3.37 | 3.47 |
| 35 | 3.27 | 3.53 | 3.64 |
| 36 | 3.43 | 3.70 | 3.81 |
| 37 | 3.59 | 3.88 | 3.99 |
| 38 | 3.76 | 4.06 | 4.18 |
| 39 | 3.94 | 4.26 | 4.38 |
| 40 | 4.13 | 4.46 | 4.59 |
| 41 | 4.33 | 4.67 | 4.80 |
| 42 | 4.53 | 4.89 | 5.03 |
| 43 | 4.74 | 5.12 | 5.27 |
| 44 | 4.96 | 5.37 | 5.51 |

**Table 4: P2APLS68 – Alpha Added Pension by Lump Sum factors for normal pension age of 68 (continued)**

| | Males | Females | Unisex |
|---|---|---|---|
| Age | Member's pension factor | Member's pension factor | Member + spouse |
| 45 | 5.20 | 5.62 | 5.77 |
| 46 | 5.44 | 5.89 | 6.04 |
| 47 | 5.70 | 6.17 | 6.32 |
| 48 | 5.96 | 6.46 | 6.62 |
| 49 | 6.24 | 6.76 | 6.93 |
| 50 | 6.54 | 7.08 | 7.25 |
| 51 | 6.85 | 7.42 | 7.59 |
| 52 | 7.17 | 7.76 | 7.94 |
| 53 | 7.51 | 8.13 | 8.31 |
| 54 | 7.86 | 8.51 | 8.70 |
| 55 | 8.23 | 8.91 | 9.10 |
| 56 | 8.62 | 9.34 | 9.53 |
| 57 | 9.03 | 9.78 | 9.98 |
| 58 | 9.47 | 10.24 | 10.45 |
| 59 | 9.93 | 10.74 | 10.94 |
| 60 | 10.42 | 11.25 | 11.46 |
| 61 | 10.93 | 11.79 | 12.01 |
| 62 | 11.47 | 12.37 | 12.58 |
| 63 | 12.05 | 12.97 | 13.20 |
| 64 | 12.67 | 13.62 | 13.85 |
| 65 | 13.33 | 14.30 | 14.54 |
| 66 | 14.04 | 15.04 | 15.29 |
| 67 | 14.80 | 15.83 | 16.08 |
| 68 | 14.95 | 16.00 | 16.25 |
| 69 | 14.47 | 15.53 | 15.78 |
| 70 | 13.99 | 15.06 | 15.31 |
| 71 | 13.50 | 14.58 | 14.83 |
| 72 | 13.01 | 14.09 | 14.35 |
| 73 | 12.52 | 13.60 | 13.86 |
| 74 | 12.04 | 13.11 | 13.38 |
| 75 | 11.56 | 12.63 | 12.89 |

## Table 5: P2APPC65 – Alpha Added Pension by Periodical Contribution factors for normal pension age of 65

| | Males | Females | Unisex |
|---|---|---|---|
| Age | Member's pension factor | Member's pension factor | Member + spouse |
| 16 | 1.69 | 1.79 | 1.84 |
| 17 | 1.77 | 1.89 | 1.94 |
| 18 | 1.86 | 1.98 | 2.04 |
| 19 | 1.95 | 2.08 | 2.14 |
| 20 | 2.05 | 2.18 | 2.24 |
| 21 | 2.15 | 2.29 | 2.35 |
| 22 | 2.26 | 2.40 | 2.47 |
| 23 | 2.37 | 2.52 | 2.59 |
| 24 | 2.49 | 2.64 | 2.72 |
| 25 | 2.61 | 2.77 | 2.85 |
| 26 | 2.74 | 2.91 | 2.99 |
| 27 | 2.87 | 3.05 | 3.14 |
| 28 | 3.01 | 3.21 | 3.29 |
| 29 | 3.16 | 3.36 | 3.45 |
| 30 | 3.31 | 3.53 | 3.62 |
| 31 | 3.47 | 3.70 | 3.80 |
| 32 | 3.64 | 3.88 | 3.98 |
| 33 | 3.81 | 4.07 | 4.17 |
| 34 | 4.00 | 4.27 | 4.37 |
| 35 | 4.19 | 4.47 | 4.58 |
| 36 | 4.39 | 4.69 | 4.80 |
| 37 | 4.60 | 4.91 | 5.03 |
| 38 | 4.82 | 5.15 | 5.27 |
| 39 | 5.05 | 5.40 | 5.52 |
| 40 | 5.29 | 5.65 | 5.79 |
| 41 | 5.55 | 5.92 | 6.06 |
| 42 | 5.81 | 6.21 | 6.35 |
| 43 | 6.09 | 6.51 | 6.65 |
| 44 | 6.38 | 6.82 | 6.97 |

**Table 5: P2APPC65 – Alpha Added Pension by Periodical Contribution factors for normal pension age of 65 (continued)**

| | Males | Females | Unisex |
|---|---|---|---|
| Age | Member's pension factor | Member's pension factor | Member + spouse |
| 45 | 6.68 | 7.14 | 7.30 |
| 46 | 7.00 | 7.48 | 7.64 |
| 47 | 7.33 | 7.84 | 8.00 |
| 48 | 7.68 | 8.21 | 8.38 |
| 49 | 8.04 | 8.61 | 8.78 |
| 50 | 8.43 | 9.02 | 9.19 |
| 51 | 8.83 | 9.45 | 9.63 |
| 52 | 9.25 | 9.90 | 10.08 |
| 53 | 9.70 | 10.37 | 10.56 |
| 54 | 10.16 | 10.87 | 11.06 |
| 55 | 10.65 | 11.39 | 11.59 |
| 56 | 11.17 | 11.94 | 12.14 |
| 57 | 11.71 | 12.51 | 12.72 |
| 58 | 12.29 | 13.12 | 13.34 |
| 59 | 12.90 | 13.77 | 13.98 |
| 60 | 13.55 | 14.45 | 14.67 |
| 61 | 14.23 | 15.16 | 15.39 |
| 62 | 14.96 | 15.92 | 16.16 |
| 63 | 15.75 | 16.74 | 16.98 |
| 64 | 16.59 | 17.61 | 17.85 |
| 65 | 16.78 | 17.82 | 18.08 |
| 66 | 16.32 | 17.37 | 17.62 |
| 67 | 15.84 | 16.91 | 17.16 |
| 68 | 15.36 | 16.43 | 16.69 |
| 69 | 14.87 | 15.95 | 16.21 |
| 70 | 14.37 | 15.46 | 15.72 |
| 71 | 13.87 | 14.97 | 15.23 |
| 72 | 13.36 | 14.47 | 14.73 |
| 73 | 12.86 | 13.97 | 14.24 |
| 74 | 12.36 | 13.47 | 13.74 |
| 75 | 11.87 | 12.97 | 13.24 |

## Table 6: P2APPC66 – Alpha Added Pension by Periodical Contribution factors for normal pension age of 66

| | Males | Females | Unisex |
|---|---|---|---|
| Age | Member's pension factor | Member's pension factor | Member + spouse |
| 16 | 1.57 | 1.67 | 1.72 |
| 17 | 1.65 | 1.76 | 1.81 |
| 18 | 1.73 | 1.85 | 1.90 |
| 19 | 1.82 | 1.94 | 2.00 |
| 20 | 1.91 | 2.04 | 2.10 |
| 21 | 2.00 | 2.14 | 2.20 |
| 22 | 2.10 | 2.24 | 2.31 |
| 23 | 2.20 | 2.35 | 2.42 |
| 24 | 2.31 | 2.47 | 2.54 |
| 25 | 2.43 | 2.59 | 2.66 |
| 26 | 2.55 | 2.72 | 2.80 |
| 27 | 2.67 | 2.85 | 2.93 |
| 28 | 2.80 | 2.99 | 3.08 |
| 29 | 2.94 | 3.14 | 3.23 |
| 30 | 3.08 | 3.29 | 3.38 |
| 31 | 3.23 | 3.45 | 3.55 |
| 32 | 3.39 | 3.62 | 3.72 |
| 33 | 3.55 | 3.80 | 3.90 |
| 34 | 3.72 | 3.98 | 4.09 |
| 35 | 3.90 | 4.17 | 4.28 |
| 36 | 4.08 | 4.37 | 4.49 |
| 37 | 4.28 | 4.58 | 4.70 |
| 38 | 4.48 | 4.80 | 4.93 |
| 39 | 4.70 | 5.03 | 5.16 |
| 40 | 4.92 | 5.27 | 5.41 |
| 41 | 5.15 | 5.53 | 5.66 |
| 42 | 5.40 | 5.79 | 5.93 |
| 43 | 5.66 | 6.07 | 6.21 |
| 44 | 5.92 | 6.35 | 6.50 |

**Table 6: P2APPC66 – Alpha Added Pension by Periodical Contribution factors for normal pension age of 66 (continued)**

| | Males | Females | Unisex |
|---|---|---|---|
| Age | Member's pension factor | Member's pension factor | Member + spouse |
| 45 | 6.20 | 6.66 | 6.81 |
| 46 | 6.50 | 6.97 | 7.13 |
| 47 | 6.80 | 7.31 | 7.47 |
| 48 | 7.13 | 7.65 | 7.82 |
| 49 | 7.47 | 8.02 | 8.19 |
| 50 | 7.82 | 8.40 | 8.57 |
| 51 | 8.19 | 8.80 | 8.98 |
| 52 | 8.58 | 9.22 | 9.40 |
| 53 | 8.99 | 9.65 | 9.84 |
| 54 | 9.42 | 10.11 | 10.31 |
| 55 | 9.87 | 10.60 | 10.79 |
| 56 | 10.35 | 11.10 | 11.31 |
| 57 | 10.85 | 11.64 | 11.84 |
| 58 | 11.38 | 12.20 | 12.41 |
| 59 | 11.94 | 12.79 | 13.01 |
| 60 | 12.53 | 13.42 | 13.64 |
| 61 | 13.16 | 14.08 | 14.30 |
| 62 | 13.83 | 14.78 | 15.01 |
| 63 | 14.54 | 15.52 | 15.76 |
| 64 | 15.31 | 16.32 | 16.56 |
| 65 | 16.13 | 17.17 | 17.42 |
| 66 | 16.32 | 17.37 | 17.62 |
| 67 | 15.84 | 16.91 | 17.16 |
| 68 | 15.36 | 16.43 | 16.69 |
| 69 | 14.87 | 15.95 | 16.21 |
| 70 | 14.37 | 15.46 | 15.72 |
| 71 | 13.87 | 14.97 | 15.23 |
| 72 | 13.36 | 14.47 | 14.73 |
| 73 | 12.86 | 13.97 | 14.24 |
| 74 | 12.36 | 13.47 | 13.74 |
| 75 | 11.87 | 12.97 | 13.24 |

## Table 7: P2APPC67 – Alpha Added Pension by Periodical Contribution factors for normal pension age of 67

| | Males | Females | Unisex |
|---|---|---|---|
| Age | Member's pension factor | Member's pension factor | Member + spouse |
| 16 | 1.46 | 1.56 | 1.61 |
| 17 | 1.53 | 1.64 | 1.69 |
| 18 | 1.61 | 1.72 | 1.78 |
| 19 | 1.69 | 1.81 | 1.87 |
| 20 | 1.77 | 1.90 | 1.96 |
| 21 | 1.86 | 1.99 | 2.05 |
| 22 | 1.95 | 2.09 | 2.16 |
| 23 | 2.05 | 2.19 | 2.26 |
| 24 | 2.15 | 2.30 | 2.37 |
| 25 | 2.25 | 2.41 | 2.49 |
| 26 | 2.37 | 2.53 | 2.61 |
| 27 | 2.48 | 2.66 | 2.74 |
| 28 | 2.60 | 2.79 | 2.87 |
| 29 | 2.73 | 2.93 | 3.01 |
| 30 | 2.86 | 3.07 | 3.16 |
| 31 | 3.00 | 3.22 | 3.32 |
| 32 | 3.15 | 3.38 | 3.48 |
| 33 | 3.30 | 3.54 | 3.64 |
| 34 | 3.46 | 3.71 | 3.82 |
| 35 | 3.62 | 3.89 | 4.00 |
| 36 | 3.79 | 4.08 | 4.19 |
| 37 | 3.98 | 4.27 | 4.39 |
| 38 | 4.17 | 4.48 | 4.60 |
| 39 | 4.36 | 4.69 | 4.82 |
| 40 | 4.57 | 4.92 | 5.05 |
| 41 | 4.79 | 5.15 | 5.29 |
| 42 | 5.01 | 5.40 | 5.54 |
| 43 | 5.25 | 5.65 | 5.80 |
| 44 | 5.50 | 5.92 | 6.07 |

**Table 7: P2APPC67 – Alpha Added Pension by Periodical Contribution factors for normal pension age of 67 (continued)**

| | Males | Females | Unisex |
|---|---|---|---|
| Age | Member's pension factor | Member's pension factor | Member + spouse |
| 45 | 5.76 | 6.20 | 6.35 |
| 46 | 6.03 | 6.50 | 6.65 |
| 47 | 6.31 | 6.80 | 6.96 |
| 48 | 6.61 | 7.13 | 7.29 |
| 49 | 6.92 | 7.46 | 7.63 |
| 50 | 7.25 | 7.82 | 7.99 |
| 51 | 7.59 | 8.19 | 8.37 |
| 52 | 7.95 | 8.58 | 8.76 |
| 53 | 8.33 | 8.98 | 9.17 |
| 54 | 8.72 | 9.41 | 9.60 |
| 55 | 9.14 | 9.85 | 10.05 |
| 56 | 9.58 | 10.32 | 10.52 |
| 57 | 10.04 | 10.81 | 11.02 |
| 58 | 10.52 | 11.33 | 11.54 |
| 59 | 11.04 | 11.88 | 12.09 |
| 60 | 11.58 | 12.46 | 12.67 |
| 61 | 12.16 | 13.06 | 13.28 |
| 62 | 12.77 | 13.70 | 13.93 |
| 63 | 13.42 | 14.38 | 14.62 |
| 64 | 14.12 | 15.11 | 15.35 |
| 65 | 14.87 | 15.89 | 16.13 |
| 66 | 15.67 | 16.72 | 16.97 |
| 67 | 15.84 | 16.91 | 17.16 |
| 68 | 15.36 | 16.43 | 16.69 |
| 69 | 14.87 | 15.95 | 16.21 |
| 70 | 14.37 | 15.46 | 15.72 |
| 71 | 13.87 | 14.97 | 15.23 |
| 72 | 13.36 | 14.47 | 14.73 |
| 73 | 12.86 | 13.97 | 14.24 |
| 74 | 12.36 | 13.47 | 13.74 |
| 75 | 11.87 | 12.97 | 13.24 |

## Table 8: P2APPC68 – Alpha Added Pension by Periodical Contribution factors for normal pension age of 68

| | Males | Females | Unisex |
|---|---|---|---|
| Age | Member's pension factor | Member's pension factor | Member + spouse |
| 16 | 1.35 | 1.45 | 1.50 |
| 17 | 1.42 | 1.53 | 1.58 |
| 18 | 1.49 | 1.60 | 1.66 |
| 19 | 1.57 | 1.68 | 1.74 |
| 20 | 1.65 | 1.77 | 1.83 |
| 21 | 1.73 | 1.85 | 1.92 |
| 22 | 1.81 | 1.95 | 2.01 |
| 23 | 1.90 | 2.04 | 2.11 |
| 24 | 2.00 | 2.14 | 2.22 |
| 25 | 2.09 | 2.25 | 2.32 |
| 26 | 2.20 | 2.36 | 2.44 |
| 27 | 2.30 | 2.48 | 2.56 |
| 28 | 2.42 | 2.60 | 2.68 |
| 29 | 2.54 | 2.73 | 2.82 |
| 30 | 2.66 | 2.86 | 2.95 |
| 31 | 2.79 | 3.00 | 3.10 |
| 32 | 2.92 | 3.15 | 3.25 |
| 33 | 3.06 | 3.30 | 3.40 |
| 34 | 3.21 | 3.46 | 3.57 |
| 35 | 3.36 | 3.63 | 3.74 |
| 36 | 3.52 | 3.80 | 3.91 |
| 37 | 3.69 | 3.98 | 4.10 |
| 38 | 3.87 | 4.17 | 4.29 |
| 39 | 4.05 | 4.37 | 4.50 |
| 40 | 4.24 | 4.58 | 4.71 |
| 41 | 4.44 | 4.80 | 4.93 |
| 42 | 4.65 | 5.02 | 5.16 |
| 43 | 4.87 | 5.26 | 5.41 |
| 44 | 5.10 | 5.51 | 5.66 |

**Table 8: P2APPC68 – Alpha Added Pension by Periodical Contribution factors for normal pension age of 68 (continued)**

| | Males | Females | Unisex |
|---|---|---|---|
| Age | Member's pension factor | Member's pension factor | Member + spouse |
| 45 | 5.34 | 5.77 | 5.93 |
| 46 | 5.59 | 6.05 | 6.20 |
| 47 | 5.85 | 6.33 | 6.49 |
| 48 | 6.13 | 6.63 | 6.80 |
| 49 | 6.41 | 6.95 | 7.11 |
| 50 | 6.71 | 7.27 | 7.45 |
| 51 | 7.03 | 7.62 | 7.79 |
| 52 | 7.36 | 7.97 | 8.16 |
| 53 | 7.71 | 8.35 | 8.54 |
| 54 | 8.07 | 8.74 | 8.93 |
| 55 | 8.45 | 9.16 | 9.35 |
| 56 | 8.85 | 9.59 | 9.79 |
| 57 | 9.28 | 10.04 | 10.24 |
| 58 | 9.72 | 10.52 | 10.73 |
| 59 | 10.20 | 11.03 | 11.24 |
| 60 | 10.70 | 11.56 | 11.77 |
| 61 | 11.22 | 12.11 | 12.33 |
| 62 | 11.78 | 12.70 | 12.92 |
| 63 | 12.38 | 13.32 | 13.55 |
| 64 | 13.01 | 13.99 | 14.22 |
| 65 | 13.69 | 14.69 | 14.93 |
| 66 | 14.42 | 15.45 | 15.70 |
| 67 | 15.20 | 16.26 | 16.51 |
| 68 | 15.36 | 16.43 | 16.69 |
| 69 | 14.87 | 15.95 | 16.21 |
| 70 | 14.37 | 15.46 | 15.72 |
| 71 | 13.87 | 14.97 | 15.23 |
| 72 | 13.36 | 14.47 | 14.73 |
| 73 | 12.86 | 13.97 | 14.24 |
| 74 | 12.36 | 13.47 | 13.74 |
| 75 | 11.87 | 12.97 | 13.24 |

### Table 9: P2APREVAL – Alpha Added Pension Revaluation factors

| Number of 1 Aprils | Factor | Number of 1 Aprils | Factor | Number of 1 Aprils | Factor |
|---|---|---|---|---|---|
| 0 | 1.00 | 17 | 1.40 | 34 | 1.96 |
| 1 | 1.02 | 18 | 1.43 | 35 | 2.00 |
| 2 | 1.04 | 19 | 1.46 | 36 | 2.04 |
| 3 | 1.06 | 20 | 1.49 | 37 | 2.08 |
| 4 | 1.08 | 21 | 1.52 | 38 | 2.12 |
| 5 | 1.10 | 22 | 1.55 | 39 | 2.16 |
| 6 | 1.13 | 23 | 1.58 | 40 | 2.21 |
| 7 | 1.15 | 24 | 1.61 | 41 | 2.25 |
| 8 | 1.17 | 25 | 1.64 | 42 | 2.30 |
| 9 | 1.20 | 26 | 1.67 | 43 | 2.34 |
| 10 | 1.22 | 27 | 1.71 | 44 | 2.39 |
| 11 | 1.24 | 28 | 1.74 | 45 | 2.44 |
| 12 | 1.27 | 29 | 1.78 | 46 | 2.49 |
| 13 | 1.29 | 30 | 1.81 | 47 | 2.54 |
| 14 | 1.32 | 31 | 1.85 | 48 | 2.59 |
| 15 | 1.35 | 32 | 1.88 | 49 | 2.64 |
| 16 | 1.37 | 33 | 1.92 | 50 | 2.69 |

**Government Actuary's Department**