



# Government Actuary's Department

## **Principal Civil Service Pension Scheme (PCSPS)**

Factors for actuarial reduction buy out (ARBO) - all members except those retiring before age 55 whose deemed date for pension increases occurs before the date of early retirement

Date: 26 June 2015

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## 1 Summary

- 1.1 This note is addressed to The Pension Scheme Executive (TPSE) of the Cabinet Office as scheme manager of the PCSPS (the 'Principal Civil Service Pension Scheme' or the 'Scheme').
- 1.2 The purpose of this note is to provide TPSE with the method and tables to be used to calculate the cost of buying out the full actuarial reduction for a member taking early retirement.
- 1.3 Scheme members who are eligible to take actuarially reduced early retirement have the option to pay a lump sum to the scheme and then receive an unreduced pension and lump sum.
- 1.4 In the remainder of this note, the lump sum payment required to buy out the actuarial reduction is referred to as the actuarial reduction buy out (ARBO) cost. The ARBO cost should be calculated before the member commutes pension for lump sum.
- 1.5 The ARBO cost for added pensions will be calculated in the same way as for main scheme benefits (and using the same tables as determined by paragraphs 2.1 and/or 3.1).

### Assumptions

- 1.6 The factors provided in this note have been prepared in accordance with our note *Principal Civil Service Pension Scheme: Advice on actuarial calculation factors* dated 18 November 2014, as subsequently amended.

### Relevant scheme rules

- 1.7 The PCSPS rules on actuarial reduction buy out are set out below. The rules state that the factors covered by this note are to be prepared by the Minister for the Civil Service, after consulting the scheme actuary.

1972 Section	– rule 3.51 (final salary benefits) – rule 14.18A (added pension benefits) – rule 12.4 (pension credit member benefits)
2002 Section	– rule D.3A ( <b>premium</b> final salary benefits) – rule L.11A ( <b>classic plus</b> final salary benefits) – rule C1.15A (added pension benefits)
2007 Section	– rule E.15A (all benefits)

### Implementation

- 1.8 We understand the actuarial reduction buy out factors are the responsibility of the Minister. We recommended that the new factors be adopted as soon as possible. Cabinet Office have confirmed that the revised PCSPS factors have been implemented from 1 April 2015 and are aware of any risks in selecting this implementation date.



### Cases not covered by this note

- 1.9 This note does not apply to PCSPS members who retire before age 55 whose deemed date for pension increases occurs before the date of early retirement. For such members, refer to the guidance *PCSPS: Factors for actuarial reduction buy out (ARBO) when retirement age is less than 55 and the deemed date for pension increases occurs before the date of early retirement* dated 19 March 2015, as subsequently amended.
- 1.10 Calculations for members whose NPA is not age 60 or 65 years should be referred to GAD.
- 1.11 We do not anticipate any other special cases not covered by this note (or the guidance note referenced in section 1.9 above). However, if any do occur they should be referred to GAD.
- 1.12 This note does not apply to benefits in the **alpha** scheme (or Civil Service and Others Pension Scheme). We have provided separate advice for the **alpha** scheme in our note *Civil Service and Others Pension Scheme: Factors for actuarial reduction buy out (ARBO) for alpha members* dated 14 October 2014, as subsequently amended.

### Further information

- 1.13 Please contact Nick Horne (020 7211 2679) or Cody Shek (020 7211 2684) for further information on this note.

### Limitations

- 1.14 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.
- 1.15 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.
- 1.16 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.
- 1.17 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 rules. If users of this guidance believe it to contain any inconsistencies with the scheme rules, they should bring this to the attention of Cabinet Office and GAD.

## 2 Classic and Classic Plus members

- 2.1 The ARBO cost, for a **classic** or **classic plus** member retiring before NPA, should be calculated as:

$$Cost = P \times F_x + (LS - (LS \times ERF(LS)_x))$$

where:

- $x$  = member's age at retirement date in years and complete months
- $P$  = unreduced pension at retirement date (including added and transfer in pension)
- $F_x$  = relevant factor for a member aged  $x$ , taken from:
- Table 1 for a member with NPA 60
  - Table 2 for a member with NPA 65<sup>1</sup>
- $LS$  = unreduced lump sum at retirement date
- $ERF(LS)_x$  = lump sum early retirement factor for a member aged  $x$

- 2.2 The ARBO cost should be calculated before the member commutes pension for lump sum.
- 2.3 The lump sum early retirement factor,  $ERF(LS)_x$ , is the actuarial reduction factor that would apply to the member's lump sum, if they received actuarially reduced benefits and did not take up the buy out option. The relevant tables are taken from our guidance note *Principal Civil Service Pension Scheme: Early and late retirement factors* dated 4 March 2015 (as subsequently amended) with NPA 60 members using table 2: P1ER60LS1 and NPA 65 members using table 6: P1ER65LS1.
- 2.4 Pension credit members in **classic** and **classic plus** have the option to buy out the actuarial reduction. The ARBO cost should be calculated as described in paragraph 2.1.

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<sup>1</sup> We understand that there are a small number of **classic** members with an NPA of 65.



### 3 Premium and Nuvos

- 3.1 The ARBO cost, for a member retiring early who is a **premium** or **nuvos** member, should be calculated as:

$$Cost = P \times F_x$$

where:

- $x$  = member's age at retirement date in years and complete months
- $P$  = unreduced pension at retirement date (including added and transfer in pension)
- $F_x$  = relevant factor for a member aged  $x$ , taken from:
- Table 1 for a NPA60 **premium** member
  - Table 2 for a NPA 65 **premium** member<sup>2</sup> or linked service benefits for a **nuvos** member
  - Table 3 for a **nuvos** member (excluding pension credit members)
  - Table 4 for a **nuvos** pension credit member

- 3.2 The ARBO cost should be calculated before the member commutes pension for lump sum.
- 3.3 Pension credit members in **premium** have the option to buy out the actuarial reduction. The ARBO cost should be calculated as described in paragraph 3.1 for a **premium** member.
- 3.4 Pension credit members in **nuvos** have the option to buy out the actuarial reduction. We understand that their pension is payable unreduced from age 60. Different factors are required to calculate the ARBO cost for **nuvos** pension credit members compared to those used for normal **nuvos** members. The appropriate factors are described in paragraph 3.1.

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<sup>2</sup> We understand that there are a small number of **premium** members with an NPA of 65.



## 4 Example

### Member details:

> Scheme section	<b>classic</b>
> Normal Pension age (NPA)	60 years
> Date of birth	18/08/1957
> Unreduced pension at retirement date	£5,600
> Lump sum (unreduced)	£16,800
> Retirement date	14/12/2015

### Calculations:

> Age at retirement (in years and complete months)	58 years 3 months
> Table to use	Table 1 (P1ARBO60)
> Factor for buy out of pension ( $F_x$ )	1.70
> ERF for Lump sum $ERF(LS)_x$ *	0.945 (from <i>PCSPS: early and late retirement factors</i> note dated 4 March 2015, as subsequently amended)

$$\begin{aligned}
 > \text{ARBO cost} &= P \times F_x + (LS - (LS \times ERF(LS)_x)) \\
 &= £5,600 \times 1.70 + (16,800 - (16,800 \times 0.945)) \\
 &= £10,444.00
 \end{aligned}$$

\* The relevant factor is taken from our guidance note *Principal Civil Service Pension Scheme: Early and late retirement factors* dated 4 March 2015 (as subsequently amended) table 2: P1ER60LS1.



## Appendix A: Factor tables

### List of Tables

- > Table 1: P1ARBO60 – **classic** or **premium** members with an NPA of 60.
- > Table 2: P1ARBO65FS – **classic** or **premium** members with NPA of 65.
- > Table 3: P1ARBO65NUV – **nuvos** members (excluding pension credit members).
- > Table 4: P1ARBO60NUV – **nuvos** pension credit members.



**Table 1: P1ARBO60 - ARBO factors for classic or premium members with an NPA of 60**

months	Age at early retirement									
	50	51	52	53	54	55	56	57	58	59
<b>0</b>	8.36	7.69	6.98	6.23	5.45	4.62	3.75	2.86	1.94	0.98
<b>1</b>	8.30	7.63	6.92	6.17	5.38	4.55	3.68	2.78	1.86	0.90
<b>2</b>	8.25	7.57	6.86	6.10	5.31	4.48	3.60	2.71	1.78	0.82
<b>3</b>	8.19	7.51	6.79	6.04	5.24	4.40	3.53	2.63	1.70	0.74
<b>4</b>	8.14	7.45	6.73	5.97	5.17	4.33	3.45	2.55	1.62	0.65
<b>5</b>	8.08	7.39	6.67	5.91	5.10	4.26	3.38	2.48	1.54	0.57
<b>6</b>	8.03	7.34	6.61	5.84	5.04	4.19	3.31	2.40	1.46	0.49
<b>7</b>	7.97	7.28	6.54	5.78	4.97	4.11	3.23	2.32	1.38	0.41
<b>8</b>	7.91	7.22	6.48	5.71	4.90	4.04	3.16	2.25	1.30	0.33
<b>9</b>	7.86	7.16	6.42	5.65	4.83	3.97	3.08	2.17	1.22	0.25
<b>10</b>	7.80	7.10	6.36	5.58	4.76	3.90	3.01	2.09	1.14	0.16
<b>11</b>	7.75	7.04	6.29	5.52	4.69	3.82	2.93	2.02	1.06	0.08

**Note:**

These factors should not be used for members who retire before age 55 and whose deemed date for pension increases occurs before the date of early retirement.

**Table 2: P1ARBO65FS - ARBO factors for classic or premium members with an NPA of 65**

months	Age at early retirement														
	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
0	11.70	11.14	10.54	9.91	9.24	8.53	7.79	7.03	6.25	5.44	4.60	3.74	2.85	1.93	0.98
1	11.65	11.09	10.49	9.85	9.18	8.47	7.73	6.97	6.18	5.37	4.53	3.67	2.77	1.85	0.90
2	11.61	11.04	10.44	9.80	9.12	8.41	7.66	6.90	6.12	5.30	4.46	3.59	2.70	1.77	0.82
3	11.56	10.99	10.38	9.74	9.06	8.35	7.60	6.84	6.05	5.23	4.39	3.52	2.62	1.69	0.74
4	11.51	10.94	10.33	9.69	9.00	8.28	7.54	6.77	5.98	5.16	4.31	3.44	2.54	1.61	0.65
5	11.47	10.89	10.28	9.63	8.94	8.22	7.47	6.71	5.91	5.09	4.24	3.37	2.47	1.53	0.57
6	11.42	10.84	10.23	9.58	8.89	8.16	7.41	6.64	5.85	5.02	4.17	3.30	2.39	1.46	0.49
7	11.37	10.79	10.17	9.52	8.83	8.10	7.35	6.58	5.78	4.95	4.10	3.22	2.31	1.38	0.41
8	11.33	10.74	10.12	9.46	8.77	8.04	7.28	6.51	5.71	4.88	4.03	3.15	2.24	1.30	0.33
9	11.28	10.69	10.07	9.41	8.71	7.98	7.22	6.45	5.64	4.81	3.96	3.07	2.16	1.22	0.25
10	11.23	10.64	10.02	9.35	8.65	7.91	7.16	6.38	5.58	4.74	3.88	3.00	2.08	1.14	0.16
11	11.19	10.59	9.96	9.30	8.59	7.85	7.09	6.32	5.51	4.67	3.81	2.92	2.01	1.06	0.08

**Note:**

These factors should not be used for members who retire before age 55 and whose deemed date for pension increases occurs before the date of early retirement.

**Table 3: P1ARBO65NUV - ARBO factors for nuvos members**

months	Age at early retirement									
	55	56	57	58	59	60	61	62	63	64
0	8.47	7.69	6.93	6.19	5.48	4.58	3.72	2.89	1.90	0.95
1	8.40	7.62	6.87	6.13	5.40	4.51	3.65	2.81	1.82	0.87
2	8.34	7.56	6.80	6.07	5.33	4.44	3.58	2.72	1.74	0.79
3	8.27	7.50	6.74	6.01	5.25	4.37	3.51	2.64	1.66	0.71
4	8.21	7.43	6.68	5.95	5.18	4.30	3.44	2.56	1.58	0.63
5	8.14	7.37	6.62	5.89	5.11	4.22	3.38	2.48	1.50	0.55
6	8.08	7.31	6.56	5.83	5.03	4.15	3.31	2.39	1.42	0.47
7	8.01	7.24	6.49	5.77	4.96	4.08	3.24	2.31	1.34	0.39
8	7.95	7.18	6.43	5.71	4.88	4.01	3.17	2.23	1.26	0.32
9	7.88	7.12	6.37	5.66	4.81	3.94	3.10	2.14	1.18	0.24
10	7.82	7.05	6.31	5.60	4.73	3.87	3.03	2.06	1.10	0.16
11	7.75	6.99	6.25	5.54	4.66	3.79	2.96	1.98	1.02	0.08

**Table 4: P1ARBO60NUV - ARBO factors for nuvos pension credit members**

months	Age at early retirement				
	55	56	57	58	59
0	5.01	4.07	3.18	2.08	1.05
1	4.93	4.00	3.08	2.00	0.96
2	4.85	3.92	2.99	1.91	0.87
3	4.77	3.85	2.90	1.82	0.78
4	4.70	3.77	2.81	1.74	0.70
5	4.62	3.70	2.72	1.65	0.61
6	4.54	3.62	2.63	1.56	0.52
7	4.46	3.55	2.54	1.48	0.44
8	4.38	3.47	2.45	1.39	0.35
9	4.31	3.40	2.35	1.31	0.26
10	4.23	3.32	2.26	1.22	0.17
11	4.15	3.25	2.17	1.13	0.09

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