



# Government Actuary's Department

## **Teachers' Pension Scheme**

Career average section

Election to buy out the standard reduction

Factors and guidance

Date: 7 November 2014

Author: Matt Wood & Donal Cormican



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## 1 Introduction

- 1.1 This note is provided for the Department for Education (DfE) as scheme manager of the Teachers' Pension Scheme (TPS).
- 1.2 A member in the career average section who has a Normal Pension Age (NPA) over 65 may elect to pay contributions to buy out the standard reduction ("buy-out election") for a period of up to 3 years. The purpose of the note is to provide the factors for determining the contributions required if a member makes a buy-out election.
- 1.3 This note relates to Part 4 of Schedule 2 to The Teachers' Pension Scheme Regulations 2014 (SI 2014/512).
- 1.4 The costs provided in this note have been prepared in light of our advice to DfE dated 27 August 2014 and its instructions following that advice.
- 1.5 Details on the member contributions required for buy-out elections can be found in Section 2. The factors are set out in Appendix A. Illustrative example calculations of the monthly contributions required to buy out the standard reduction can be found in Section 4.
- 1.6 There is a limit on how much extra pension a member can purchase in the career average section. Section 3 sets out how to determine the value of the buy-out election for the purpose of the extra pension limit. The required factors are set out in Appendix B. Illustrative examples of the buy-out value calculations can be found in Section 4 also.
- 1.7 The guidance and factors take effect from 1 April 2015.



## 2 Buy-out election

- 2.1 A member who has a NPA over 65 may elect to pay contributions to buy out the standard reduction for a period of up to 3 years.
- 2.2 This note sets out the factors to be used to determine the monthly contributions payable by a member who has made a buy-out election, in line with paragraph 33 of Schedule 2 to The Teachers' Pension Scheme Regulations 2014 (SI 2014/512).
- 2.3 The cost of the buy-out election should be calculated with reference to:
- > the member's age (last birthday) at the time of entering pensionable service under the career average section; and
  - > the number of years in respect of which the standard reduction is to be bought out.
- 2.4 The factors are set out in Appendix A. These show the percentage of a member's pensionable earnings that need to be paid for the duration of the contributions payment period to buy out the standard reduction for 1 year.
- 2.5 The contribution rate that a member is required to pay should be calculated using the formula below:
- $$\text{Contribution rate} = F^{BO} \times N$$
- where:
- $F^{BO}$  = buy-out factor from Table BO1 relating to the member's age
- $N$  = number of years to be bought out
- 2.6 Members with non-integer NPAs are able to buy-out the full non-integer period between age 65 and NPA, provided this period is less than 3 years. The formula above should also be used in this instance, where  $N$  should be the full non-integer period between age 65 and NPA.
- 2.7 Example calculations for members are set out in Section 4.



### **Payments after a gap in service**

- 2.8 A member who has a gap in service of less than 5 years may choose to resume paying contributions on re-entering pensionable service. The calculation of the contribution rate payable is not revisited in this instance, unless there has been a change in the guidance, in which case the member's contribution rate may be re-determined in the same way as for those members who did not have a gap in service.
- 2.9 A member is taken to revoke a buy-out election if their gap in service exceeds 5 years.

### **Interaction with faster accrual**

- 2.10 The buy-out election may also apply to a faster accrual election. The contribution factors set out in Appendix A only apply to the accrual of a member's normal scheme pension. The cost of the buy-out election applying to any additional accrual gained through a faster accrual election will be included in the faster accrual factors.



### 3 Limit on extra pension

- 3.1 There is a maximum overall amount of extra pension a member can purchase in the career average section. The maximum overall amount will be £6,500 per annum for the 2015-16 financial year.
- 3.2 This limit does not apply to the buy-out election. However, the value of the extra pension purchased through a buy-out election (the 'buy-out value') does count against the extra pension limit if the member wishes to make a subsequent faster accrual or additional pension election.
- 3.3 The buy-out value should be calculated using the formula below:

$$\text{Buy-out value} = 0.036 \times PE \times F^S \times N$$

where:

- $PE$  = the member's actual rate of pensionable earnings at the time of making the buy-out election.
- $F^S$  = buy-out value factor from Table BO2 relating to the number of years between the member's age (in complete years and months) at the time of entering service under the career average section and their 'buy-out retirement age' (see paragraph 3.5).
- $N$  = the number of years for which the standard reduction has been bought out.

The relevant factors are set out in Appendix B.

- 3.4 For a member who is in part-time employment,  $PE$  is the rate of pensionable earnings the member is receiving at the time of making the buy-out election, not the full-time equivalent rate.
- 3.5 A member's buy-out retirement age is equal to the member's expected NPA<sup>1</sup> less the number of years for which the standard reduction has been bought out. The buy-out value should be calculated at the time of the election. If a member subsequently makes a faster accrual election or an additional pension election, the buy-out value needs to be compared with the extra pension limit, to determine the remaining headroom available to the member. The buy-out value needs to be increased in line with inflation between the date the member entered pensionable service under the career average section and the date of any faster accrual or additional pension election.

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<sup>1</sup> NPA is defined as a member's state pension age (or 65, if that is higher) in the career average section. For the purpose of this note, a member's expected NPA in the career average section is the same as their state pension age as set out in *The Public Service Pensions (Valuations and Employer Cost Cap) Directions 2014* - [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/357130/HMT\\_valuations\\_and\\_cost\\_cap\\_directions\\_reconsolidated\\_Sept\\_2014.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/357130/HMT_valuations_and_cost_cap_directions_reconsolidated_Sept_2014.pdf)



- 3.6 The examples in Section 4 show how the buy-out value should be calculated.
- 3.7 It will be necessary to revisit the original buy-out value calculation when a buy-out election is revoked. In this instance, the original buy-out value should be revised in a proportional manner based on:
- > the actual number of years for which a member made contributions; and
  - > the number of years a member was expected to make contributions for, ie the number of years between the member's age (in complete years and months) at the time of entering service under the career average section and their buy-out retirement age.

**Interaction with faster accrual**

- 3.8 The buy-out election may also apply to a faster accrual election. The buy-out value factors set out in Appendix B only apply to the accrual of a member's normal scheme pension. The extra pension purchased through a buy-out election applying to any additional accrual gained through a faster accrual election will be included in the extra pension check carried out for the faster accrual election.



## 4 Buy-out election examples

### Example 1: Member with integer NPA

#### Determining cost of the buy-out election

##### Member Details

Date of Birth	1 May 1976
Sex	Male
Date joined career average section	1 April 2015
Normal Pension Date	1 May 2043
Normal Pension Age	67

##### Buy-out election

Date of election	1 July 2015
Number of years bought out	2
Age (last birthday) at date joined career average section	38
Factor $F^{BO}$ – age 38	0.76

$$\text{Contribution rate} = F^{BO} \times N$$

where:

$F^{BO}$	=	buy-out factor relating to the member's age = 0.76
$N$	=	number of years to be bought out = 2

$$\text{Contribution rate} = 0.76 \times 2 = 1.52$$

The member is required to pay regular contributions of 1.52% of his pensionable earnings.

#### Determining the buy-out value

Actual rate of pensionable earnings at time of making the buy-out election	£35,000
Age (complete months and years) at date joined career average section	38 years 11 months
Buy-out retirement age (NPA – number of years bought out)	= 67 – 2 = 65
Number of years between age joined career average section and buy-out retirement age	= 65 – 38 <sup>11/12</sup> = 26 <sup>1/12</sup>
Factor $F^S$ – 26 years	0.794
Factor $F^S$ – 27 years	0.842





$$\text{Buy-out value} = 0.036 \times PE \times F^S \times N$$

where:

- $PE$  = the member's actual rate of pensionable earnings at the time of making the buy-out election (£35,000)
- $F^S$  = buy-out value factor relating to the number of years between the member's age (in complete years and months) at the time of the election and the member's buy-out retirement age ( $F^S - 26^{1/12}$  years)
- $N$  = the number of years for which the standard reduction is to be bought out (2 years)

Since the number of years between the member's age and the buy-out age is not a whole number of years, the factor  $F^S$  must be interpolated.

$$\text{Interpolated } F^S = F^- + [Y^E - Y^-] \times [F^+ - F^-]$$

where:

- $Y^E$  = actual number of years between member's age and buy-out retirement age ( $26^{1/12}$ ),
- $Y^-$  =  $Y^E$  **rounded down** to nearest whole year (26),
- $Y^+$  =  $Y^E$  **rounded up** to nearest whole year (27),
- $F^-$  = factor  $F^S$  for  $Y^-$  (0.794),
- $F^+$  = factor  $F^S$  rate for  $Y^+$  (0.842).

$$\begin{aligned} \text{Interpolated } F^S &= 0.794 + [26^{1/12} - 26] \times [0.842 - 0.794] \\ &= 0.798 \end{aligned}$$

$$\begin{aligned} \text{Buy-out value} &= 0.036 \times PE \times F^S \times N \\ &= 0.036 \times 35,000 \times 0.798 \times 2 \\ &= \text{£}2,010.96 \end{aligned}$$



## Example 2: Member with non-integer NPA

### Determining cost of the buy-out election

#### Member Details

Date of Birth	6 June 1954
Sex	Female
Date joined career average section	1 April 2015
Normal Pension Date	6 March 2020
Normal Pension Age	65 years 9 months

#### Buy-out election

Date of election	1 June 2015
Number of years bought out	9 months
Age (last birthday) at date joined career average section	60
Factor – age 60	0.88

$$\text{Contribution rate} = F^{BO} \times N$$

where:

$$F^{BO} = \text{buy-out factor relating to the member's age} = 0.88$$

$$N = \text{number of years to be bought out} = \frac{9}{12}$$

$$\text{Contribution rate} = 0.88 \times \frac{9}{12} = 0.66$$

The member is required to pay regular contributions of 0.66% of her pensionable earnings.

### Determining the buy-out value

Actual rate of pensionable earnings at the time of making the buy-out election	£20,000
Age (complete months and years) at date joined career average section	60 years 9 months
Buy-out retirement age (NPA – number of years bought out)	$= 65\frac{9}{12} - \frac{9}{12}$ $= 65$
Number of years between age joined career average section and buy-out retirement age	$= 65 - 60\frac{9}{12} = 4\frac{3}{12}$
Factor $F^S$ – 4 years	0.076
Factor $F^S$ – 5 years	0.097



$$\text{Buy-out value} = 0.036 \times PE \times F^S \times N$$

where:

$PE$  = the member's actual rate of pensionable earnings at the time of making the buy-out election (£20,000)

$F^S$  = buy-out value factor relating to the number of years between the member's age (in complete years and months) at the time of the election and the member's buy-out retirement age ( $F^S - 4^{3/12}$  years)

$N$  = the number of years for which the standard reduction is to be bought out ( $9/12$  years)

Since the number of years between the member's age and the buy-out age is not a whole number of years, the factor  $F^S$  must be interpolated.

$$\text{Interpolated } F^S = F^- + [Y^E - Y^-] \times [F^+ - F^-]$$

where:

$Y^E$  = actual number of years between member's age and buy-out retirement age ( $4^{3/12}$ ),

$Y^-$  =  $Y^E$  **rounded down** to nearest whole year (4),

$Y^+$  =  $Y^E$  **rounded up** to nearest whole year (5),

$F^-$  = factor  $F^S$  for  $Y^-$  (0.076),

$F^+$  = factor  $F^S$  rate for  $Y^+$  (0.097).

$$\begin{aligned} \text{Interpolated } F^S &= 0.076 + [4^{3/12} - 4] \times [0.097 - 0.076] \\ &= 0.081 \end{aligned}$$

$$\text{Buy-out value} = 0.036 \times PE \times F^S \times N$$

$$= 0.036 \times 20,000 \times 0.081 \times 9/12$$

$$= \text{£}43.74$$



### Example 3: Member with non-integer NPA

#### Determining cost of the buy-out election

##### Member Details

Date of Birth	6 May 1977
Sex	Female
Date joined career average section	1 April 2017
Normal Pension Date	6 July 2044
Normal Pension Age	67 years 2 months

##### Buy-out election

Date of election	1 April 2017
Number of years bought out	2 years 2 months
Age (last birthday) at date joined career average section	39
Factor – age 39	0.76

$$\text{Contribution rate} = F^{BO} \times N$$

where:

$$F^{BO} = \text{buy-out factor relating to the member's age} = 0.76$$

$$N = \text{number of years to be bought out} = 2^{2/12}$$

$$\text{Contribution rate} = 0.76 \times 2^{2/12} = 1.65$$

The member is required to pay regular contributions of 1.65% of her pensionable earnings.

#### Determining the buy-out value

Actual rate of pensionable earnings at the time of making the buy-out election	£40,000
Age (complete months and years) at date joined career average section	39 years 10 months
Buy-out retirement age (NPA – number of years bought out)	$= 67^{2/12} - 2^{2/12}$ $= 65$
Number of years between age joined career average section and buy-out retirement age	$= 65 - 39^{10/12} = 25^{2/12}$
Factor $F^S$ – 25 years	0.747
Factor $F^S$ – 26 years	0.794



$$\text{Buy-out value} = 0.036 \times PE \times F^S \times N$$

where:

$PE$  = the member's actual rate of pensionable earnings at the time of making the buy-out election (£40,000)

$F^S$  = buy-out value factor relating to the number of years between the member's age (in complete years and months) at the time of the election and the member's buy-out retirement age ( $F^S - 25^{2/12}$  years)

$N$  = the number of years for which the standard reduction is to be bought out ( $2^{2/12}$  years)

Since the number of years between the member's age and the buy-out age is not a whole number of years, the factor  $F^S$  must be interpolated.

$$\text{Interpolated } F^S = F^- + [Y^E - Y^-] \times [F^+ - F^-]$$

where:

$Y^E$  = actual number of years between member's age and buy-out retirement age ( $25^{2/12}$ ),

$Y^-$  =  $Y^E$  **rounded down** to nearest whole year (25),

$Y^+$  =  $Y^E$  **rounded up** to nearest whole year (26),

$F^-$  = factor  $F^S$  for  $Y^-$  (0.747),

$F^+$  = factor  $F^S$  rate for  $Y^+$  (0.794).

$$\begin{aligned} \text{Interpolated } F^S &= 0.747 + [25^{2/12} - 25] \times [0.794 - 0.747] \\ &= 0.755 \end{aligned}$$

$$\text{Buy-out value} = 0.036 \times PE \times F^S \times N$$

$$= 0.036 \times 40,000 \times 0.755 \times 2^{2/12}$$

$$= \text{£}2,355.60$$



## Appendix A: Buy-out election contribution factors

Table BO1

Age entered pensionable service in career average section	Factor for buying out the standard reduction for 1 year (percentage of pensionable earnings) ( $F^{BO}$ )
16	0.70
17	0.71
18	0.71
19	0.71
20	0.71
21	0.71
22	0.72
23	0.72
24	0.72
25	0.72
26	0.72
27	0.73
28	0.73
29	0.73
30	0.73
31	0.74
32	0.74
33	0.74
34	0.75
35	0.75
36	0.75
37	0.76
38	0.76
39	0.76
40	0.77
41	0.77
42	0.78
43	0.78
44	0.79
45	0.79
46	0.80
47	0.80
48	0.81
49	0.81
50	0.82
51	0.82
52	0.83
53	0.83
54	0.84
55	0.85
56	0.85
57	0.86
58	0.87
59	0.87
60	0.88
61	0.89
62	0.90
63	0.92
64	0.94
65	-



## Appendix B: Buy-out value factors

Table BO2

Number of years between age entered pensionable service in career average section and 'buy-out retirement age'	Factor to determine buy-out value ( $F^S$ )
0	0.000
1	0.018
2	0.036
3	0.056
4	0.076
5	0.097
6	0.119
7	0.142
8	0.166
9	0.190
10	0.216
11	0.243
12	0.271
13	0.300
14	0.330
15	0.361
16	0.394
17	0.427
18	0.462
19	0.499
20	0.536
21	0.575
22	0.616
23	0.658
24	0.702
25	0.747
26	0.794
27	0.842
28	0.893
29	0.945
30	0.999
31	1.055
32	1.113
33	1.173
34	1.235
35	1.299
36	1.366
37	1.435
38	1.506
39	1.579
40	1.656
41	1.734
42	1.816
43	1.900
44	1.987
45	2.077
46	2.170
47	2.266
48	2.366
49	2.469
50	2.575