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1 Introduction

- 1.1 This note is provided for the Home Office (HO) as scheme manager of the Firefighters' Pension Schemes. This note relates to the age additions and assumed age additions in the Firefighters' Pension Scheme (England) 2015 in accordance with Regulations 26 and 27 of the 2015 Scheme Regulations. It sets out the general method for assessing
- the age additions and assumed age additions that should be applied to a member's benefits where an active member retires after their Normal Pension Age (NPA)
- 1.2 The Secretary of State, as responsible authority under Schedule 2 paragraph 6 of the Public Service Pensions Act 2013 ('the responsible authority') is required under the Firefighters' Pension Scheme (England) Regulations 2014 ('the 2015 Scheme Regulations') (SI 2014/2848), to issue actuarial guidance on age additions and assumed age additions (Regulations 26 and 27 of the 2015 Scheme Regulations).
- 1.3 The scheme managers are required to determine:
- the age addition to be awarded for a Scheme Year by reference to the opening balance for the previous Scheme Year under Regulation 26(2) of the 2015 Scheme Regulations, and
 - the assumed age addition for the amount of accrued earned pension and accrued added pension (if any) specified in a deferred member's account or retirement account under Regulation 27(2) of the 2015 Scheme Regulations when the accounts are established.
- 1.4 This guidance relates only to benefits accrued under the 2015 Scheme Regulations. Some firefighters may also have benefits under the 1992 Scheme or the NFPS which should be dealt with separately according to relevant scheme guidance.
- 1.5 The factors provided in this note have been prepared in light of our advice to the HO dated 30 October 2018 and its instructions following that advice.
- 1.6 The remainder of this introduction contains:
- Details of the implementation and future review of this guidance
 - Statements about third party reliance
- 1.7 In the remainder of this note:
- Section 2 provides guidance on age addition and assumed age addition calculations
 - Sections 3 and 4 sets out worked examples
 - Appendix A contains the factors required to determine age additions and assumed age additions, as follows:



Factor table	Description
Table A (Consolidated spreadsheet table number 404)	Age addition percentage factors for members retiring from active service – 2015 scheme (active member account) Unisex factors
Table B (Consolidated spreadsheet table number 405)	Age addition percentage factors for members retiring from active service – 2015 scheme (added pension account) Unisex factors
Table C (Consolidated spreadsheet table number 406)	Assumed age addition percentage factors for members retiring from active service – 2015 scheme (active member account) Unisex factors
Table D (Consolidated spreadsheet table number 407)	Assumed age addition percentage factors for members retiring from active service – 2015 scheme (added pension account) Unisex factors

- Appendix B sets out the principal assumptions underlying the factors contained in this guidance note
- Appendix C sets out the limitations of the factors and this guidance

Implementation and Review

- 1.8 The responsible authority is required to consult the scheme actuary before issuing actuarial guidance under the 2015 Scheme Regulations.
- 1.9 As part of this consultation the responsible authority has asked GAD, as scheme actuary, to recommend actuarial guidance in respect of the regulations detailed below. This document forms GAD's recommendation for the actuarial guidance required by these regulations.
- 1.10 This note has effect only when this guidance is issued by the responsible authority to scheme managers as defined in Regulation 4 of the 2015 Scheme Regulations, and is subject to the implementation instructions provided at that time.
- 1.11 The factors contained in this guidance apply from 6 December 2018. This implementation date has been determined by the Home Office. This guidance will apply with immediate effect upon receipt.
- 1.12 This guidance replaces the previous guidance dated 20 May 2015. Factors have been updated but the calculation methodology remains unchanged.



- 1.13 This guidance has been written for pension administrators and assumes some knowledge of general pension terminology, and some familiarity with retirement calculations for the Firefighters' Pension Scheme (England) 2015. Any questions concerning the application of the guidance should, in the first instance, be referred to the Home Office.
- 1.14 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.
- 1.15 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.
- 1.16 Scheme managers and administrators should ensure that they use the latest factors in circulation.

Third party reliance

- 1.17 This guidance has been prepared for the use of HO 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 HO 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 HO 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 Age additions and assumed age additions

- 2.1 These factors are used to increase the benefits of 2015 scheme members who do not retire once they reach their NPA.

Age additions

- 2.2 In accordance with regulation 26, an age addition should be calculated at the start of the scheme year ("the calculation date") for an active member who was over NPA during the previous scheme year.
- 2.3 Eligibility for age addition should be checked against the provisions in regulation 26.
- 2.4 There are separate age additions required for the opening balance in each of the member's pension accounts (i.e. standard earned pension, club transfer earned pension, transferred pension and added pension).
- 2.5 This guidance does not supply the factors required to calculate the age addition applicable to pension accounts in respect of Club transfers from other public service pension schemes or for members who retire over the age of 70. If such a case arises, the details should be forwarded to the HO as per paragraph 1.13.
- 2.6 The age addition arising from each opening balance should be calculated in line with the following formula,

$$\text{Age addition} = \text{Opening balance from previous scheme year} \times F$$

where:

- Opening balance from previous scheme year is taken from the relevant pension account, without any allowance for revaluation over the scheme year.
- **F** is the age addition factor chosen by reference to the member's age in complete years and months at the start of the current scheme year (i.e. the calculation date) and taken from the table applicable to the relevant pension account, as shown below:

Pension Type	Factor Table(s)
Standard earned pension Non-Club transfers	Table A
Added pension	Table B

- 2.7 Each opening balance for the current scheme year should then be calculated, in accordance with regulation 35, including the age additions calculated in paragraph 2.6.



Assumed age additions

- 2.8 This note covers the assumed age addition to apply to a member's benefits if they retire after their NPA.
- 2.9 In accordance with regulation 27, an assumed age addition should be calculated at retirement for active members who retire at least one month after reaching NPA.
- 2.10 The assumed age addition is applied to the member's retirement account.
- 2.11 The assumed age addition is calculated by reference to the member's opening balance from the scheme year in which they leave active service.
- 2.12 There are separate age additions made in respect of the opening balances for each of the member's pension accounts (i.e. standard earned pension, club transfer earned pension, transferred pension and added pension).
- 2.13 This guidance does not supply the factors required to calculate the age addition applicable to pension accounts in respect of Club transfers from other public service pension schemes or for members who retire from active service after age 70. If such a case arises, the details should be forwarded to the HO as per paragraph 1.13.
- 2.14 The assumed age addition arising from each opening balance should be calculated in line with the following formula,

$$\text{Assumed age addition} = \text{Opening balance in leaving scheme year} \times F$$

where:

- The opening balance should be taken from the relevant pension account at the start of the leaving scheme year, without any allowance for revaluation over the scheme year.
- **F** is the age addition factor which should be chosen by reference to the term in complete months between the start of the Scheme Year of leaving or retirement (or normal pension age if later) and the date of leaving or retirement i.e. the date when the relevant deferred member's account or retirement account is established. The factor is taken from the relevant pension account, as shown below:



Pension Type	Factor Table
Standard earned pension Non-Club transfers	Table C
Added pension	Table D

- 2.15 Commutation takes place after the age addition has been applied on the establishment of a retirement account.
- 2.16 In accordance with regulation 51, each amount of accrued pension specified in the retirement account should then be calculated including the assumed age additions calculated in paragraph 2.14.
- 2.17 Worked examples have been provided in the following sections as follows:

Worked Examples	Age additions at the start of the 2019/20 Scheme Year (Section 3)		Assumed age additions during the 2019/20 Scheme Year (Section 4)	
	Active Member Accounts	Added Pension Accounts	Active Member Accounts	Added Pension Accounts
Member A	Example 1(a)	Example 1(b)	Example 1(c)	Example 1(d)
Member B	Example 2(a)	Example 2(b)	Example 2(c)	Example 2(d)
Member C	N/A	N/A	Example 3(a)	Example 3(b)



3 Worked examples – age additions

Active Member Accounts

3.1 Example 1(a)

Member A

Date of Birth	01/10/1958
Normal Pension Age	01/10/2018
Start of <u>current</u> Scheme Year	01/04/2019
Active member account at start of <u>previous</u> Scheme Year	£500.00
Age at start of <u>current</u> Scheme Year	60 years and 6 months
Age addition percentage (from Table A)	1.4%
Age addition at start of <u>current</u> Scheme Year	$£500.00 \times 1.4\% = £7.00$

3.2 Example 2(a)

Member B

Date of Birth	01/10/1955
Normal Pension Age	01/10/2015
Start of <u>current</u> Scheme Year	01/04/2019
Active member account at start of <u>previous</u> Scheme Year	£5,000.00
Age at start of <u>current</u> Scheme Year	63 years and 6 months
Age addition percentage (from Table A)	2.9%
Age addition at start of <u>current</u> Scheme Year	$£5,000.00 \times 2.9\%$ $= £145.00$



Added Pension Accounts

3.3 Example 1(b) (based on Member A in Example 1(a))

Member A

Date of Birth	01/10/1958
Normal Pension Age	01/10/2018
Start of <u>current</u> Scheme Year	01/04/2019
Added pension account at start of <u>previous</u> Scheme Year	£250.00
Age at start of <u>current</u> Scheme Year	60 years and 6 months
Age addition percentage (from Table B)	2.6%
Age addition at start of <u>current</u> Scheme Year	£250.00 x 2.6% = £6.50

3.4 Example 2(b) (based on Member B in Example 2(a))

Member B

Date of Birth	01/10/1955
Normal Pension Age	01/10/2015
Start of <u>current</u> Scheme Year	01/04/2019
Added pension account at start of <u>previous</u> Scheme Year	£2,500.00
Age at start of <u>current</u> Scheme Year	63 years and 6 months
Age addition percentage (from Table B)	5.1%
Age addition at start of <u>current</u> Scheme Year	£2,500.00 x 5.1% = £127.50



4 Worked examples – assumed age additions

Active Member Accounts

4.1 Example 1(c) (based on Member A in Example 1(a))

Member A

Date of Birth	01/10/1958
Normal Pension Age	01/10/2018
Start of <u>current</u> Scheme Year	01/04/2019
Date of leaving	15/09/2019
Active member account at start of <u>current</u> Scheme Year	£1,250.00
Age at start of <u>current</u> Scheme Year (complete years)	60 years
Duration between start of Scheme Year and date of leaving (complete months)	5 months
Assumed age addition percentage (from Table C)	1.1%
Assumed age addition at start of <u>current</u> Scheme Year	£1,250.00 x 1.1% = £13.75

4.2 Example 2(c) (based on Member B in Example 2(a))

Member B

Date of Birth	01/10/1955
Normal Pension Age	01/10/2015
Start of <u>current</u> Scheme Year	01/04/2019
Date of retirement	05/11/2019
Active member account at start of <u>current</u> Scheme Year	£6,000.00
Age at start of <u>current</u> Scheme Year (complete years)	63 years
Duration between start of Scheme Year and date of retirement (complete months)	7 months
Assumed age addition percentage (from Table C)	1.7%
Assumed age addition at start of current Scheme Year	£6,000.00 x 1.7% = £102.00



4.3 Example 3(a) (being a member that retires after normal pension age but before the end of the Scheme Year in which retirement takes place)

Member C

Date of Birth	05/07/1959
Normal Pension Age	05/07/2019
Start of <u>current</u> Scheme Year	01/04/2019
Date of retirement	15/03/2020
Active member account at start of <u>current</u> Scheme Year	£1,250.00
Age at start of <u>current</u> Scheme Year (complete years)	59 years
Duration between normal pension age and date of retirement (complete months)	8 months
Assumed age addition percentage (from Table C)	1.7%
Assumed age addition at start of <u>current</u> Scheme Year	£1,250.00 x 1.7% = £21.25

Added Pension Accounts

4.4 Example 1(d) (based on Member A in Example 1(a))

Member A

Date of Birth	01/10/1958
Normal Pension Age	01/10/2018
Start of <u>current</u> Scheme Year	01/04/2019
Date of leaving	15/09/2019
Added pension account at start of <u>current</u> Scheme Year	£750.00
Age at start of <u>current</u> Scheme Year (complete years)	60 years
Duration between start of Scheme Year and date of leaving (complete months)	5 months
Assumed age addition percentage (from Table D)	2.0%
Assumed age addition at start of <u>current</u> Scheme Year	£750.00 x 2.0% = £15.00



4.5 Example 2(d) (based on Member B in Example 2(a))

Member B

Date of Birth	01/10/1955
Normal Pension Age	01/10/2018
Start of <u>current</u> Scheme Year	01/04/2019
Date of retirement	05/11/2019
Added pension account at start of <u>current</u> Scheme Year	£3,000.00
Age at start of <u>current</u> Scheme Year (complete years)	63 years
Duration between start of Scheme Year and date of retirement (complete months)	7 months
Assumed age addition percentage (from Table D)	3.0%
Assumed age addition at start of current Scheme Year	£3,000.00 x 3.0% = £90.00

4.6 Example 3(b) (based on Member C in Example 3(a))

Member C

Date of Birth	05/07/1959
Normal Pension Age	05/07/2019
Start of <u>current</u> Scheme Year	01/04/2019
Date of retirement	15/03/2020
Added pension account at start of <u>current</u> Scheme Year	£750.00
Age at start of <u>current</u> Scheme Year (complete years)	59 years
Duration between normal pension age and date of retirement (complete months)	8 months
Assumed age addition percentage (from Table D)	3.2%
Assumed age addition at start of <u>current</u> Scheme Year	£750.00 x 3.2% = £24.00



Appendix A: Factor tables

Table A: Age addition percentage factors for members retiring from active service – 2015 scheme (active member account)

Age addition percentage (active member account)										
Age at Start of Scheme Year	Years									
Months	60	61	62	63	64	65	66	67	68	69
0	0.1%	2.6%	2.7%	2.9%	3.0%	3.1%	3.3%	3.4%	3.6%	3.7%
1	0.3%	2.6%	2.7%	2.9%	3.0%	3.2%	3.3%	3.5%	3.6%	3.8%
2	0.5%	2.6%	2.7%	2.9%	3.0%	3.2%	3.3%	3.5%	3.6%	3.8%
3	0.8%	2.6%	2.8%	2.9%	3.0%	3.2%	3.3%	3.5%	3.6%	3.8%
4	1.0%	2.6%	2.8%	2.9%	3.0%	3.2%	3.3%	3.5%	3.6%	3.8%
5	1.2%	2.6%	2.8%	2.9%	3.1%	3.2%	3.4%	3.5%	3.6%	3.9%
6	1.4%	2.7%	2.8%	2.9%	3.1%	3.2%	3.4%	3.5%	3.7%	3.9%
7	1.6%	2.7%	2.8%	2.9%	3.1%	3.2%	3.4%	3.5%	3.7%	3.9%
8	1.8%	2.7%	2.8%	2.9%	3.1%	3.2%	3.4%	3.5%	3.7%	3.9%
9	2.0%	2.7%	2.8%	3.0%	3.1%	3.3%	3.4%	3.5%	3.7%	4.0%
10	2.3%	2.7%	2.8%	3.0%	3.1%	3.3%	3.4%	3.6%	3.7%	4.0%
11	2.5%	2.7%	2.8%	3.0%	3.1%	3.3%	3.4%	3.6%	3.7%	4.0%

Table B: Age addition percentage factors for members retiring from active service – 2015 scheme (added pension account)

Age addition percentage (added pension account)										
Age at Start of Scheme Year	Years									
Months	60	61	62	63	64	65	66	67	68	69
0	0.2%	4.8%	4.9%	5.1%	5.2%	5.4%	5.5%	5.7%	5.8%	6.0%
1	0.6%	4.8%	4.9%	5.1%	5.2%	5.4%	5.5%	5.7%	5.8%	6.0%
2	1.0%	4.8%	5.0%	5.1%	5.2%	5.4%	5.5%	5.7%	5.8%	6.0%
3	1.4%	4.8%	5.0%	5.1%	5.3%	5.4%	5.6%	5.7%	5.9%	6.1%
4	1.8%	4.8%	5.0%	5.1%	5.3%	5.4%	5.6%	5.7%	5.9%	6.1%
5	2.2%	4.9%	5.0%	5.1%	5.3%	5.4%	5.6%	5.7%	5.9%	6.1%
6	2.6%	4.9%	5.0%	5.1%	5.3%	5.4%	5.6%	5.7%	5.9%	6.1%
7	3.0%	4.9%	5.0%	5.2%	5.3%	5.5%	5.6%	5.8%	5.9%	6.2%
8	3.4%	4.9%	5.0%	5.2%	5.3%	5.5%	5.6%	5.8%	5.9%	6.2%
9	3.8%	4.9%	5.0%	5.2%	5.3%	5.5%	5.6%	5.8%	5.9%	6.2%
10	4.2%	4.9%	5.0%	5.2%	5.3%	5.5%	5.6%	5.8%	5.9%	6.2%
11	4.6%	4.9%	5.1%	5.2%	5.4%	5.5%	5.7%	5.8%	6.0%	6.2%



Table C: Assumed age addition percentage factors for members retiring from active service – 2015 scheme (active member account)

Assumed age addition percentage (active member account)											
Term in months between normal pension age (or start of Scheme Year if later) and date of leaving or retirement	Age (in complete years at the start of the Scheme Year or normal pension age if later)										
	59	60	61	62	63	64	65	66	67	68	69
0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	0.2%	0.2%	0.2%	0.2%	0.2%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%
2	0.4%	0.4%	0.5%	0.5%	0.5%	0.5%	0.5%	0.6%	0.6%	0.6%	0.7%
3	0.6%	0.6%	0.7%	0.7%	0.7%	0.8%	0.8%	0.9%	0.9%	0.9%	1.0%
4	0.9%	0.9%	0.9%	0.9%	1.0%	1.0%	1.1%	1.1%	1.2%	1.2%	1.3%
5	1.1%	1.1%	1.1%	1.2%	1.2%	1.3%	1.4%	1.4%	1.5%	1.6%	1.7%
6	1.3%	1.3%	1.4%	1.4%	1.5%	1.6%	1.6%	1.7%	1.8%	1.9%	2.0%
7	1.5%	1.5%	1.6%	1.7%	1.7%	1.8%	1.9%	2.0%	2.1%	2.2%	2.3%
8	1.7%	1.7%	1.8%	1.9%	2.0%	2.1%	2.2%	2.3%	2.4%	2.5%	2.7%
9	1.9%	1.9%	2.0%	2.1%	2.2%	2.4%	2.5%	2.6%	2.7%	2.8%	3.0%
10	2.2%	2.2%	2.3%	2.4%	2.5%	2.6%	2.7%	2.9%	3.0%	3.1%	3.3%
11	2.4%	2.4%	2.5%	2.6%	2.7%	2.9%	3.0%	3.1%	3.3%	3.4%	3.7%

Table D: Assumed age addition percentage factors for members retiring from active service – 2015 scheme (added pension account)

Assumed age addition percentage (added pension account)											
Term in months between normal pension age (or start of Scheme Year if later) and date of leaving or retirement	Age (in complete years at the start of the Scheme Year or normal pension age if later)										
	59	60	61	62	63	64	65	66	67	68	69
0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.5%	0.5%	0.5%	0.5%	0.5%
2	0.8%	0.8%	0.8%	0.8%	0.9%	0.9%	0.9%	0.9%	1.0%	1.0%	1.0%
3	1.2%	1.2%	1.2%	1.3%	1.3%	1.3%	1.4%	1.4%	1.5%	1.5%	1.6%
4	1.6%	1.6%	1.6%	1.7%	1.7%	1.8%	1.8%	1.9%	1.9%	2.0%	2.1%
5	2.0%	2.0%	2.1%	2.1%	2.2%	2.2%	2.3%	2.4%	2.4%	2.5%	2.6%
6	2.4%	2.4%	2.5%	2.5%	2.6%	2.7%	2.8%	2.8%	2.9%	3.0%	3.1%
7	2.8%	2.8%	2.9%	3.0%	3.0%	3.1%	3.2%	3.3%	3.4%	3.5%	3.6%
8	3.2%	3.2%	3.3%	3.4%	3.5%	3.6%	3.7%	3.8%	3.9%	4.0%	4.2%
9	3.6%	3.6%	3.7%	3.8%	3.9%	4.0%	4.1%	4.2%	4.4%	4.5%	4.7%
10	4.0%	4.0%	4.1%	4.2%	4.3%	4.5%	4.6%	4.7%	4.8%	5.0%	5.2%
11	4.4%	4.4%	4.5%	4.6%	4.8%	4.9%	5.1%	5.2%	5.3%	5.5%	5.7%



Appendix B: Principal assumptions underlying factors

Financial assumptions

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

Mortality assumptions

Base mortality tables and adjustments	113% of S2NMA for Males and 113% of S2NFA for Females (as per 2016 valuation)
Future mortality improvement	Based on ONS principal UK population projections 2016
Year of use	2020

Other assumptions

Proportion of male members for the unisex factors	95%
Allowance for commutation	Nil



Appendix C: Limitations

- C.1 This guidance should not be used for any purpose other than those set out in this guidance.
- C.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.
- C.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.
- C.4 This guidance only covers the actuarial principles around the calculation and application of age addition and assumed age addition factors. Any legal advice in this area should be sought from an appropriately qualified person or source.
- C.5 Scheme managers and administrators should satisfy themselves that age addition and assumed age addition calculations and benefit awards comply with all legislative requirements including, but not limited to, tax and contracting-out requirements.
- C.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 HO and GAD. Under no circumstances should this guidance take precedence over the Regulations. Administrators should ensure that they comply with all relevant Regulations.