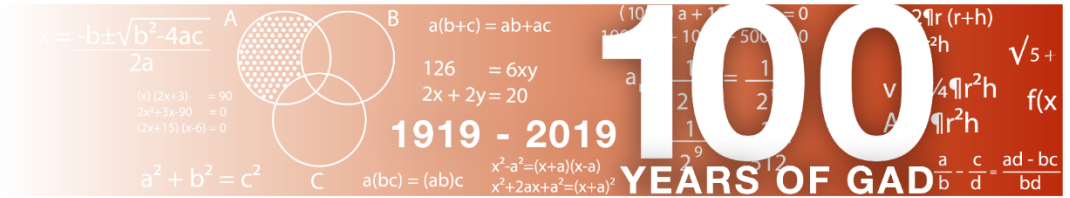




Government
Actuary's
Department



NHS Pension Scheme (Scotland) 2015

Voluntary early and late retirements in normal health

Factors and guidance

Date: 7 August 2019





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1 Introduction

- 1.1 This Note is provided for the use of the Scottish Public Pensions Agency ('SPPA') as administrator of the NHS Pension Scheme (Scotland) 2015 ('NHSPSS 2015') and sets out how to determine the appropriate reduction or uplift to be applied to a member's benefits when retiring voluntarily in normal health either prior to or later than Normal Pension Age (NPA).
- 1.2 For this purpose, NPA is as specified by the Public Service Pensions Act (PSPA) 2013 10(1) at the date of retirement, i.e. is equal to a member's State Pension Age (SPA), minimum age 65, as specified in legislation at the date of the member's retirement.
- This principle also applies for Additional Pension (AP) contracts (with AP pro-rated in respect of any unpaid contributions) even where a different NPA (PNPA¹) has been assumed for the purposes of setting the cost of the contract (which is linked to expected NPA at the time contributions are paid as set out in stated Government policy).
- 1.3 In some cases a modified NPA (RRA²) should be used to determine the factor applicable to some or all benefits:
- For a member with an Early Retirement Reduction Buy-Out (ERRBO) agreement, the factor(s) applied to benefits accrued during the term of the agreement should be determined based on the member's Reduced Retirement Age(s) (RRA) as determined at the date of retirement. For the purposes of this document RRA is determined based on NPA as specified the PSPA 2013 10(1) i.e. a member's SPA, minimum age 65, as specified in legislation at the date of the member's retirement less the period of reduction secured by the agreement. Note this may be different to RRA as determined for the purposes of setting the cost of the agreement (which is linked to PNPA, minimum age 65, as set out in stated Government policy).
- More details are given later in the guidance.
- 1.4 The factors provided in this Note have been prepared in light of our advice to the SPPA dated 30 October 2018 and its instructions following that advice.

¹ PNPA = prospective normal pension age, subject to a minimum of age 65, as defined in Schedule 13 of the National Health Service Pension Scheme (Scotland) Regulations 2015 (SSI 2015/94)

² See 'NHS Pension Scheme (Scotland) 2015: Early Retirement Reduction Buy-Out' guidance



Implementation and review

- 1.5 The factors contained in this guidance will apply from 29 October 2018. This implementation date has been determined by SPPA.
- 1.6 This guidance is intended to supersede any factors or advice previously issued, for the purposes of early and late retirement calculations. In particular, this guidance supercedes:
- “National Health Service Pension Scheme 2015 (Scotland): Voluntary Early and Late retirements in normal health – Factors and guidance” dated 27 March 2015.
- 1.7 Factors have been updated (although factor table LRF1 remains the same as in the previous guidance). The calculation methodology remains unchanged.
- 1.8 This guidance is not relevant for benefits payable from the National Health Service Superannuation Scheme for Scotland ('NHSSS'). If members have accrued pension in both the NHSPSS 2015 and NHSSS, then these benefits should be treated separately, in accordance with the relevant guidance. The relevant guidance for NHSSS is contained within the document 'NHSSS – Voluntary Early and Late retirements in normal health, Factors and Guidance'.
- 1.9 The Regulations to which this document relates, and the corresponding factors provided (see Appendix B and C), are as follows:

Factor Table Number	Statutory Reference ³	Appendix
ERF1 (Factor spreadsheet table number 416) Early retirement reduction factors for scheme pension and Additional Pension (including for use with members with ERRBO agreements)	78 Schedule 11 Part 3 (6)	B
LRF1 (Factor spreadsheet table number 421) Late retirement uplift factors for scheme pension for members retiring from active service (including for use with members with ERRBO agreements)	74 Schedule 11 Part 1 (2)	C
LRF2 (Factor spreadsheet table number 422) Late retirement uplift factors for Additional Pension		

- 1.10 The remainder of this note provides guidance about how the factors should be used. Section 4 sets out a number of worked examples.

³ See SSI 2015/94



- 1.11 Appendix A provides details of the principal assumptions underlying the factor tables in this guidance.
- 1.12 Appendix D provides details of the limitations relating to the factors and guidance.
- 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 National Health Service Pension Scheme for Scotland. Any questions concerning the application of the guidance should, in the first instance, be referred to SPPA.
- 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.

Exceptions and scope

- 1.16 This Note only covers voluntary early or late retirements in normal health. In particular, this Note does not cover reductions or uplifts to be applied in the cases of early retirement in ill health or the application of factors for premature retirements in the interests of efficiency or on grounds of redundancy. Separate guidance is provided in the latter case (see guidance 'NHS Pension Scheme (Scotland) 2015: Compulsory early retirement'). Further factors and guidance as required for use in abatement cases is given in a different Note (see guidance 'NHS Pension Scheme (Scotland) 2015: Abatement of member's pension on return to work').
- 1.17 Early retirement reductions and late retirement uplifts only apply to members' pensions. No adjustment is applied to dependant benefits payable following death after retirement.
- 1.18 Early retirement reductions and late retirement uplifts as specified in this document should be applied before any commutation options are determined. Retirement lump sums are available by commutation of reduced/increased entitlement at the rate of £12 per £1 per annum of adjusted pension given up. The maximum amount of commutation should be determined based on the adjusted pension.



Third party reliance

- 1.19 This guidance has been prepared for the use of SPPA 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 SPPA 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.
- 1.20 Other than SPPA 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 Early retirement with actuarial reduction

General information

- 2.1 This section refers only to benefits payable in accordance with Regulations SSI 2015/94 Regulation 78 and Schedule 11 Part 3(6).
- 2.2 Factors for all cases are shown in Appendix B and should be used to reduce the benefits of members who wish to retire before their Normal Pension Age (NPA) (see paragraph 1.2). For all calculation purposes NPA should be replaced by Reduced Retirement Age (RRA) (see paragraph 1.3) where applicable to all or part of a member's entitlement. RRA will apply for some or all benefits where a member has or had an ERRBO agreement (see 2.7 below) during their scheme membership.
- 2.3 Reduction factors are provided for periods of years and months. The appropriate factor should be selected based on the period between date of retirement and NPA (or RRA as applicable) in years and months, rounded up to the next higher month.
- 2.4 The benefits payable on early retirement are determined by applying the appropriate reduction factor to the accrued benefit entitlement(s) at the date of retirement (including revaluation and/or PI for deferred members) using the formula below and the appropriate factor(s) from the table in Appendix B. For a member with one or more RRA(s) for some or all periods of service, different factors will apply to each NPA/RRA based on the period between date of retirement and NPA/RRA.

Early retirement of active or preserved members

- 2.5 Early retirement pension =
- $$\begin{aligned} & (\text{Scheme pension (no ERRBO agreement) + AP (pro-rata}^4)) \times \text{ERF1 (based on NPA)} \\ & + (\text{Main scheme pension (RRA(1))} \times \text{ERF1 (based on RRA(1))}) \\ & + (\text{Main scheme pension (RRA(2))} \times \text{ERF1 (based on RRA(2))}) \\ & + (\text{Main scheme pension (RRA(3))} \times \text{ERF1 (based on RRA(3))}) \\ & - \text{Pension debit (due to Scheme Pays election or divorce)} \times \text{ERF1 (based on NPA)} \end{aligned}$$

⁴ Pro-rated for any unpaid contributions as per Regulation 70 of the National Health Service Pension Scheme (Scotland) 2015 Regulations (SSI 2015/94)



2.6 Points to note in using factors:

- All pensions should include revaluation/pension increases to date of retirement. Revaluation for retirements from active service is in accordance with Schedule 7(28). For retirements from deferred status revaluation to date of leaving is in accordance with Schedule 7(30). Increases from date of leaving to date of retirement is in line with PI Act provisions.
- Scheme pension (no ERRBO agreement) should include any transferred-in benefit (revalued/increased to date of retirement⁵) and should allow for (i.e. should be reduced for) any pension debit resulting from a divorce order (increased to date of retirement).
- Similarly any pension debit resulting from a Scheme Pays election should be deducted from the amounts as shown (including increases to date of retirement).

Allowance for ERRBO

- 2.7 Members may have chosen to contribute to an ERRBO agreement. The period during which the member contributed is known as the Buy-Out period. If so, the calculations should be carried out by reference to the member's "Reduced Retirement Age" (RRA) as applicable to each Buy-Out period (if the agreement has been varied), with there being at most three such periods. All benefits earned during any Buy-Out period will be subject to an effective RRA. For the purposes of this document RRA is determined based on SPA as specified in legislation at the date of the member's retirement less the period(s) of reduction secured by the agreement. Note this may be different to RRA as determined for the purposes of setting the cost of the agreement (which is linked to SPA as set out in stated Government policy) see paragraph 1.3.
- 2.8 For the purpose of determining the applicable ERF1 factor from the table in Appendix B, the member's RRA for each Buy-Out period should be used separately in place of the member's NPA. For example, for a member retiring at age 58 with an NPA of 68, having paid ERRBO contributions to secure a RRA of NPA - 2, ERF1 will be 0.603 for benefits earned prior to the Buy-Out period and 0.660 for benefits earned during the Buy-Out period.
- 2.9 Worked examples are given in Section 4.

⁵ Revaluation for retirements from active service is in accordance with Schedule 7(28). For retirements from deferred status revaluation is in accordance with Schedule 7(30) and increases from date of leaving to date of retirement in line with PI Act provisions.



Allowance for pension debits (divorce)

- 2.10 On early retirement, pension debits should be reduced to reflect that the debit will be in effect for a longer period. Pension debits should be treated as (negative) main scheme pension for the purposes of determining which reduction factors should be applied and should include increases to date of retirement (in line with PI Act provisions).

Reduction in benefits due to Scheme Pays elections

- 2.11 Subject to meeting certain conditions, members liable for an Annual Allowance charge can make an election requiring the Scheme to pay an amount of the charge on their behalf out of their pension benefits (referred to as 'Scheme Pays'). Some members may have previously elected for tax charges to be met by Scheme Pays. In this case a reduction (debit) to the pension benefits should be made when the member takes their benefits.
- 2.12 The benefit reduction is in the form of a deferred pension debit, subject to annual increases in line with the Pension (Increase) Act 1971. Dependants' benefits are unaffected by Scheme Pays, i.e. reductions do not apply to dependants' benefits payable on death in retirement.
- 2.13 On early retirement, the pension debit (increased to date of retirement) due to Scheme Pays should be deducted from main scheme benefits before they are reduced to allow for early retirement. The debits should be applied to benefits before any other member options are exercised, e.g. commutation.

GMP tests

- 2.14 No specific test is required on retirement in cases where a member has a GMP in the NHSPSS 2015 as a result of a transfer into the scheme.



3 Late retirement with actuarial uplift

- 3.1 An uplift is applied to a member's pension when retiring from active status after NPA (i.e. member's State Pension Age as specified in legislation at the date of the member's retirement) in accordance with SSI 2015/94 Regulation 74 and Schedule 11 Part 1(2).
- 3.2 If an uplift is required for members retiring late from preserved status (i.e. where benefits are not instead backdated) please refer these cases to GAD⁶.
- 3.3 The benefits payable on late retirement are determined by applying the appropriate uplift factor from Appendix C to the benefit entitlement at the date of retirement (including revaluation in line with Schedule 7(28)) as follows.
- 3.4 Uplift factors are provided for periods of years and months. The appropriate factor should be selected based on the period between date of retirement and NPA (or RRA as applicable) in complete years and months. For all calculation purposes NPA should be replaced by Reduced Retirement Age (RRA) (see paragraphs 1.3 and 3.8) where applicable to all or part of a member's entitlement. RRA will apply for some or all benefits where a member has or had an ERRBO agreement during their scheme membership.
- 3.5 A member with an ERRBO agreement, working beyond RRA may continue to pay contributions after RRA, but no later than NPA. Where contributions continue after the 31 March preceding RRA, benefits earned after that date will be subject to uplift based on the period by which final retirement date exceeds RRA. Where contributions cease on 31 March preceding retirement, benefits earned after that date have no RRA.

Late retirement of active members

- 3.6 Late retirement pension =
- (Scheme pension (no ERRBO agreement)) x LRF1 (based on NPA)
- + (AP – pension debit due to divorce)⁷ x LRF2 (based on NPA)
- + Main scheme pension (RRA(1) x LRF1 (based on RRA(1))
- + Main scheme pension (RRA(2) x LRF1 (based on RRA(2))
- + Main scheme pension (RRA(3) x LRF1 (based on RRA(3))
- Pension debit due to Scheme Pays election x LRF2 (based on NPA)

⁶ Different LRFs apply on retirement from deferred status. Factors and guidance will be provided in future versions of this note as circumstances indicate they are required.

⁷ Including increases to date of retirement in accordance with Schedule 7(28).



3.7 Points to note in using factors:

- All pensions should include revaluation/pension increases (for AP) to date of retirement. Revaluation/increase is in accordance with Schedule 7(28).
- Scheme pension (no ERRBO agreement) should include any transferred-in benefit (revalued to date of retirement) but should not allow for any pension debit resulting from a divorce order (as this is allowed for separately – see above).
- Any pension debit resulting from a Scheme Pays election should be allowed for as shown.

Allowance for ERRBO

- 3.8 Members may have chosen to contribute to an ERRBO agreement. The period during which the member contributed is known as the Buy-Out period. If so, the calculations should be carried out by reference to the member's "Reduced Retirement Age" (RRA) as applicable to each Buy-Out period (if the agreement has been varied). All benefits earned during any Buy-Out period will be subject to an effective RRA. For the purposes of this document RRA is determined based on SPA as specified in legislation at the date of the member's retirement less the period(s) of reduction secured by the agreement. Note this may be different to RRA as determined for the purposes of setting the cost of the agreement (which is linked to SPA as set out in stated Government policy). See paragraph 1.3.
- 3.9 For the purpose of determining the applicable LRF1 or LRF2 factor from the table in Appendix C, the member's RRA for each Buy-Out period should be used separately in place of the member's NPA. For example for a member retiring at age 68 with NPA 67, and having paid ERRBO contributions to secure a RRA of NPA - 3 for some service, LRF1 will be 1.038 for benefits earned prior to the Buy-Out period and 1.159 for benefits earned during the Buy-Out period.
- 3.10 Worked examples are given in Section 4.

Allowance for pension debits

- 3.11 On late retirement, pension debits should be increased to reflect that the debit will be in effect for a shorter period. Pension debits should be treated as (negative) Additional Pension for the purposes of determining which uplift factors should be applied (as both are subject to PI increases in the period before retirement).

Reduction in benefits due to Scheme Pays elections

- 3.12 Subject to meeting certain conditions, members liable to an Annual Allowance charge can make an election requiring the Scheme to pay an amount of the charge on their behalf out of their pension benefits (referred to as 'Scheme Pays'). Some members may have previously elected for tax charges to be met by Scheme Pays. In this case a reduction (debit) to the pension benefits should be made when the member takes their benefits. This debit should be treated in the same way as a divorce debit on late retirement and factor LRF2 applied as shown above.



- 3.13 The benefit reduction is in the form of a deferred pension debit. The pension debit is subject to annual increases in line with the Pension (Increase) Act 1971. Dependants' benefits are unaffected by Scheme Pays, i.e. reductions do not apply to dependants' benefits payable on death.
- 3.14 On late retirement, the pension debit due to Scheme Pays should be applied to main scheme benefits after they have been increased to allow for late retirement. The debits should be applied to benefits before any other member options are exercised, e.g. commutation.

GMP tests

- 3.15 No specific test is required on retirement in cases where a member has a GMP in the NHSPSS 2015 as a result of a transfer in to the scheme.



4 Examples

4.1 This Section sets out a number of worked examples to help illustrate how the factors should be applied. The examples covered are as follows:

- A. Early retirement of member with Additional Pension
- B. Early retirement of member with Additional Pension
- C. Early retirement of member with ERRBO (one Buy-Out period)
- D. Early retirement of member with ERRBO (several Buy-Out periods)
- E. Early retirement of member with pension debit
- F. Late retirement of member with Additional Pension
- G. Late retirement of member with ERRBO (several Buy-Out periods)
- H. Late retirement of member with pension debit
- I. Retirement of member with ERRBO (several Buy-Out periods) and Additional Pension



A. Early retirement of a member with Additional Pension

Individual Data

NPA	67
Date of birth	6 December 1961
Date of early retirement	6 December 2024
Pension at retirement	£3,000 pa
Additional Pension (at retirement)*	£500 pa
Time before NPA at retirement (years and months, rounded up)	4 years and 0 months
Early Retirement Factor (ERF1)	0.803

* all AP is ordinarily payable from NPA in the 2015 Scheme

Actuarially-reduced pension = Pension at retirement x ERF1
= (£3,000 + £500) x 0.803
= **£2,810.50 pa.**



B. Early retirement of member with Additional Pension

Individual Data

NPA	67
Date of birth	6 December 1961
Date of early retirement	10 March 2025
Pension at retirement	£3,000 pa
Additional Pension (at retirement) pro-rated*	£500 pa
Time before NPA at retirement (years and months, rounded up)	3 years and 9 months
Early Retirement Factor (ERF1)	0.814
Actuarially-reduced pension	= Pension at retirement x ERF1 = (£3,000 + £500) x 0.814 = £2,849.00 pa.



C. Early retirement of member with ERRBO (one Buy-Out period)

Individual Data

NPA	67
Buy-Out reduction in NPA secured	1
RRA	66
Date of birth	30 June 1964
Date of early retirement	6 July 2020
Total pension at retirement	£2,000 pa
Time before RRA at retirement (years and months, rounded up)	10 years 0 months
ERF1	0.603

Actuarially-reduced pension = Pension at retirement x ERF1 (RRA 65)
= £2,000 x 0.603
= **£1,206.00 pa.**



D. Early retirement of member with ERRBO (several Buy-Out periods)

Individual Data

NPA	68
Date of birth	6 December 1978
Date of early retirement	4 August 2040
Time before NPA at retirement (years and months, rounded up)	6 years and 5 months
Number of Buy-Out periods due to ERRBO	3

No ERRBO

Pension at retirement (over period)	£1,000 pa
Time before NPA at retirement	6 years and 5 months
ERF for period	0.712

Actuarially-reduced pension for period = Pension at retirement x ERF1 (NPA 68)
= £1,000 x 0.712
= £712.00 pa

1st Buy-Out Period

Buy-Out reduction in NPA secured	1
RRA	67
Pension at retirement (over period)	£1,100 pa
Time before RRA at retirement	5 years and 5 months
ERF for period	0.748

Actuarially-reduced pension for period 1 = Pension at retirement x ERF1 (RRA 67)
= £1,100 x 0.748
= £822.80 pa.

2nd Buy-Out Period

Buy-Out reduction in NPA secured	2
RRA	66
Pension at retirement (over period)	£1,500 pa
Time before RRA at retirement	4 years and 5 months
ERF for period	0.786

Actuarially-reduced pension for period 2 = Pension at retirement x ERF1 (RRA 66)
= £1,500 x 0.786
= £1,179.00 pa.

3rd Buy-Out Period

Buy-Out reduction in NPA secured	3
RRA	65
Pension at retirement (over period)	£1,850 pa
Time before RRA at retirement	3 years and 5 months
ERF for period	0.828



Actuarially-reduced pension for period = Pension at retirement x ERF1 (RRA 65)
= £1,850 x 0.828
= £1,531.80 pa.

Total pension at date of early retirement

Total pension = £712.00 + £822.80 + £1,179.00 + £1,531.80
= £4,245.60 pa.



E. Early retirement of member with pension debit

Individual Data

NPA	67
Date of birth	25 April 1970
Date of early retirement	25 April 2031
Pension at retirement	£3,000 pa
Pension Debit at retirement	£500 pa
Time before NPA at retirement (years and months, rounded up)	6 years and 0 months
Early Retirement Factor (ERF)	0.726
Actuarially-reduced pension	= Pension at retirement x ERF1 = £3,000 x 0.726 = £2,178.00 pa.
Actuarially-reduced pension debit	= Pension debit x ERF1 = £500 x 0.726 = £363.00 pa.
Total pension at date of early retirement	= Reduced pension – Reduced pension debit = £2,178.00 - £363.00 = £1,815.00 pa



F. Late retirement of member with Additional Pension

Individual Data

NPA	66
Date of birth	17 December 1956
Date of late retirement	3 May 2028
Pension at retirement	£5,000 pa
Additional Pension (including increases to NPA)	£800 pa
Time after NPA at retirement (Complete years and months)	5 years and 4 months
Late Retirement Factor (LRF1)	1.217
LRF for added pension (LRF2)	1.396
Actuarially-increased pension	= Pension at retirement x LRF1 = £5,000 x 1.217 = £6,085.00 pa.
Actuarially-increased added pension	= Additional pension x LRF2 = £800 x 1.396 = £1,116.80 pa.
Total pension at date of late retirement	= £6,085.00 + £1,116.80 = £7,201.80 pa



G. Late retirement of member with ERRBO (several Buy-Out periods)

Individual Data

NPA	68
Date of birth	5 September 1981
Date of late retirement	25 December 2055
Number of Buy-Out periods due to ERRBO	3

Period 1 (No ERRBO)

Pension at retirement (earned over period)	£1,000 pa
Time after NPA at retirement (Complete years and months)	6 years and 3 months
LRF for period (LRF1)	1.259

Actuarially-increased pension for period 1 = Pension at retirement x LRF1 (NPA 68)
= £1,000 x 1.259
= £1,259.00 pa.

Period 2 (1st Buy-Out Period)

Buy-Out reduction in NPA secured	1
RRA	67
Pension at retirement (earned over period)	£5,000 pa
Time after RRA at retirement	7 years and 3 months
LRF for period (LRF1)	1.306

Actuarially-increased pension for period 2 = Pension at retirement x LRF1 (RRA 67)
= £5,000 x 1.306
= £6,530.00 pa.

Period 3 (2nd Buy-Out Period)

Buy-Out reduction in NPA secured	2
RRA	66
Pension at retirement (earned over period)	£3,000 pa
Time after RRA at retirement	8 years and 3 months
LRF for period (LRF1)	1.355

Actuarially-increased pension for period 3 = Pension at retirement x LRF1 (RRA 66)
= £3,000 x 1.355
= £4,065.00 pa.



Period 4 (3rd Buy-Out Period)

Buy-Out reduction in NPA secured	3
RRA	65
Pension at retirement (earned over period)	£2,500 pa
Time after RRA at retirement	9 years and 3 months
LRF for period (LRF1)	1.406
Actuarially-increased pension for period 4	= Pension at retirement x LRF1 (RRA 65) = £2,500 x 1.406 = £3,515.00 pa.

Total pension at date of late retirement

Total pension	=	actuarially-increased pension for period 1
	+	actuarially-increased pension for period 2
	+	actuarially-increased pension for period 3
	+	actuarially-increased pension for period 4
		= £1,259.00 + £6,530.00 + £4,065.00 + £3,515.00
		= £15,369.00 pa.



H. Late retirement of member with pension debit

Individual Data

NPA	67
Date of birth	6 June 1966
Date of late retirement	6 June 2036
Pension at retirement	£4,000 pa
Pension debit (at retirement)	£500 pa
Time after NPA at retirement (Complete years and months)	3 years and 0 months
Late Retirement Factor (LRF1)	1.117
Late Retirement Factor (LRF2)	1.197
Actuarially-increased pension	= Pension at retirement x LRF1 - debit at retirement x LRF2 = £4,000 x 1.117 - £500 x 1.197 = £3,869.50 pa



I. Retirement of member with ERRBO (several Buy-Out periods) and Additional Pension

Individual Data

NPA	67
Date of birth	29 January 1976
Date of retirement	29 January 2042
Time before NPA at retirement (years and months, rounded up)	1 year and 0 months
ERF1	0.944
Number of Buy-Out periods due to ERRBO	2
Additional Pension at retirement	£600 pa

Period 1 (No ERRBO)

Buy-Out reduction in NPA secured	0
RRA	N/A
Pension at retirement (earned over period)	£1,100 pa
AP from NPA	£600 pa
Time before NPA at retirement	1 year
ERF1 for period	0.944
Actuarially-reduced pension for period 1	= Pension at retirement x ERF1 = (£1,100 + £600) x 0.944 = £1,604.80 pa.

Period 2 (1st Buy-Out Period)

Buy-Out reduction in NPA secured	1
RRA	66
Pension at retirement (earned over period)	£1,000 pa
Time before RRA at retirement	0 years
Pension at retirement is not adjusted for period 2	= £1,000.00 pa

Period 3 (2nd Buy-Out Period)

Buy-Out reduction in NPA secured	2
RRA	65
Pension at retirement (earned over period)	£900 pa
Time after RRA at retirement	1 year 0 months
LRF1 for period	1.038
Actuarially-increased pension for period 3	= Pension at retirement x LRF1 = £900 x 1.038 = £934.20 pa.



Total pension at date of retirement

$$\begin{aligned} \text{Total pension} &= && \text{actuarially-reduced pension for period 1 (incl AP)} \\ &+ && \text{pension for period 2} \\ &+ && \text{actuarially-increased pension for period 3} \\ &= && \text{£1,604.80 + £1,000 + £934.20} \\ &= && \text{£3,539.00 pa.} \end{aligned}$$



Appendix A: 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	95.5% of S2NMA (M) and 97.5% of S2NFA (F) (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	33.3%
Allowance for commutation	Nil



Appendix B: Early retirement factors

TABLE ERF1_NHSPSS_2015

**NHS PENSION SCHEME (SCOTLAND) 2015: ACTUARIAL FACTORS
BENEFITS PAYABLE TO THE MEMBER ON VOLUNTARY EARLY RETIREMENT (WITH ACTUARIAL REDUCTION)
FACTORS APPLICABLE TO MAIN SCHEME PENSION AND ADDITIONAL PENSION**

Time to NPA: Months	0	1	2	3	4	5	6	7	8	9	10	11
PENSION FACTORS												
Years												
0	1.000	0.995	0.991	0.986	0.981	0.977	0.972	0.967	0.963	0.958	0.953	0.949
1	0.944	0.940	0.936	0.931	0.927	0.923	0.918	0.914	0.910	0.906	0.901	0.897
2	0.893	0.889	0.885	0.881	0.877	0.873	0.869	0.866	0.862	0.858	0.854	0.850
3	0.846	0.842	0.839	0.835	0.832	0.828	0.824	0.821	0.817	0.814	0.810	0.806
4	0.803	0.799	0.796	0.793	0.790	0.786	0.783	0.780	0.776	0.773	0.770	0.766
5	0.763	0.760	0.757	0.754	0.751	0.748	0.745	0.742	0.738	0.735	0.732	0.729
6	0.726	0.723	0.721	0.718	0.715	0.712	0.709	0.706	0.703	0.701	0.698	0.695
7	0.692	0.689	0.687	0.684	0.682	0.679	0.676	0.674	0.671	0.668	0.666	0.663
8	0.660	0.658	0.656	0.653	0.651	0.648	0.646	0.643	0.641	0.638	0.636	0.633
9	0.631	0.629	0.626	0.624	0.622	0.620	0.617	0.615	0.613	0.610	0.608	0.606
10	0.603	0.601	0.599	0.597	0.595	0.593	0.591	0.589	0.586	0.584	0.582	0.580
11	0.578	0.576	0.574	0.572	0.570	0.568	0.566	0.564	0.562	0.560	0.558	0.556
12	0.554	0.552	0.550	0.548	0.546	0.544	0.542	0.541	0.539	0.537	0.535	0.533
13	0.531											

Notes:

(1) NPA should be substituted for RRA where appropriate

(2) AP should be pro-rated to take account of unpaid contributions at date of retirement. Any paid up AP entitlement should include PI to DOR

(3) The appropriate factor is based on the period between DOR and NPA (or RRA) in years and months, rounded up to the next higher month.



Appendix C: Late retirement factors

TABLE LRF1_NHSPSS_2015

**NHS PENSION SCHEME (SCOTLAND) 2015: ACTUARIAL FACTORS
BENEFITS PAYABLE TO THE MEMBER ON LATE RETIREMENT (WITH ACTUARIAL UPLIFT)**

FACTORS APPLICABLE TO MAIN SCHEME PENSION FOR MEMBERS RETIRING FROM ACTIVE SERVICE

Time after NPA: Months	0	1	2	3	4	5	6	7	8	9	10	11
PENSION FACTORS												
Years:												
0	1.000	1.003	1.006	1.009	1.013	1.016	1.019	1.022	1.025	1.028	1.031	1.034
1	1.038	1.041	1.044	1.047	1.050	1.054	1.057	1.060	1.063	1.067	1.070	1.073
2	1.076	1.080	1.083	1.086	1.090	1.093	1.097	1.100	1.103	1.107	1.110	1.113
3	1.117	1.120	1.124	1.127	1.131	1.134	1.138	1.141	1.145	1.148	1.152	1.155
4	1.159	1.162	1.166	1.170	1.173	1.177	1.180	1.184	1.188	1.191	1.195	1.198
5	1.202	1.206	1.210	1.213	1.217	1.221	1.225	1.228	1.232	1.236	1.240	1.243
6	1.247	1.251	1.255	1.259	1.263	1.267	1.271	1.274	1.278	1.282	1.286	1.290
7	1.294	1.298	1.302	1.306	1.310	1.314	1.318	1.322	1.326	1.330	1.334	1.338
8	1.342	1.347	1.351	1.355	1.359	1.363	1.368	1.372	1.376	1.380	1.384	1.389
9	1.393	1.397	1.402	1.406	1.410	1.415	1.419	1.423	1.428	1.432	1.436	1.441
10	1.445											

- Notes:
- (1) NPA should be substituted for RRA where appropriate
 - (2) The appropriate factor is based on the period between DOR and NPA (or RRA) in years and complete months.



TABLE LRF2_NHSPSS_2015

**NHS PENSION SCHEME (SCOTLAND) 2015: ACTUARIAL FACTORS
BENEFITS PAYABLE TO THE MEMBER ON LATE RETIREMENT (WITH ACTUARIAL UPLIFT)**

FACTORS APPLICABLE FOR ADDITIONAL PENSION AND PENSION DEBITS FOR MEMBERS RETIRING FROM ACTIVE SERVICE

Time after NPA: Months	0	1	2	3	4	5	6	7	8	9	10	11
PENSION FACTORS												
Years:												
0	1.000	1.005	1.010	1.015	1.020	1.025	1.030	1.035	1.040	1.045	1.050	1.055
1	1.060	1.065	1.070	1.076	1.081	1.087	1.092	1.098	1.103	1.109	1.114	1.119
2	1.125	1.131	1.137	1.143	1.149	1.155	1.161	1.167	1.173	1.179	1.185	1.191
3	1.197	1.203	1.210	1.216	1.223	1.230	1.236	1.243	1.249	1.256	1.263	1.269
4	1.276	1.283	1.290	1.298	1.305	1.312	1.320	1.327	1.334	1.342	1.349	1.356
5	1.364	1.372	1.380	1.388	1.396	1.404	1.412	1.420	1.428	1.436	1.445	1.453
6	1.461	1.470	1.479	1.488	1.497	1.505	1.514	1.523	1.532	1.541	1.550	1.559
7	1.568	1.578	1.588	1.598	1.608	1.618	1.627	1.637	1.647	1.657	1.667	1.677
8	1.687	1.698	1.709	1.720	1.731	1.742	1.753	1.764	1.775	1.786	1.797	1.808
9	1.819	1.831	1.843	1.855	1.867	1.879	1.892	1.904	1.916	1.928	1.940	1.952
10	1.965											

- Notes:
- (1) NPA should be substituted for RRA where appropriate
 - (2) AP entitlement should include PI to DOR
 - (3) The appropriate factor is based on the period between DOR and NPA (or RRA) in years and complete months.



Appendix D: Limitations

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