



Government
Actuary's
Department

Local Government Pension Scheme (Scotland)

Purchase of Additional Survivor Benefits

Factors and guidance

Date: 14 April 2020





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1 Introduction

- 1.1 Scottish Ministers are required under the Local Government Pension Scheme (Scotland) Regulations 2018 ('the 2018 Regulations') (SSI 2018/141) and associated transitional and protected legislation¹ to issue actuarial guidance on the Purchase of Additional Survivor benefits (ASB).
- 1.2 As LGPS members can no longer enter into new contracts to purchase additional survivor benefits, this guidance note only considers the calculation of new contribution rates and the amount of benefits purchased on cessation for existing contracts.
- 1.3 The remainder of this introduction contains:
- details of the implementation and future review of this guidance,
 - the relevant legislative references, and
 - statements about third-party reliance and liability
- 1.4 In the remainder of this note:
- the second section describes the benefits purchased by a member who has taken up this option
 - the third section describes contributions which must be paid for this option
 - the fourth section describes some further considerations
 - the fifth section contains examples
 - Appendix A sets out the factors
 - Appendix B sets out the assumptions underlying the factors contained in this guidance note
 - Appendix C sets out some important limitations

Implementation and Review

- 1.5 Scottish Ministers are required to consult the Scheme Actuary before issuing actuarial guidance under the 2018 Regulations [Regulation 2(3) of the 2018 Regulations].

¹ The Local Government (Transitional Provisions and Savings) (Scotland) Regulations 2014 ("the Transitional Regulations") SSI 2014/233
The Local Government Pension Scheme (Administration) (Scotland) Regulations 2008 ("the Administration Regulations") SSI 2008/228 as amended by SSI 2011/349
The Local Government Pension Scheme (Benefits, Membership and Contributions) (Scotland) Regulations 2008 ("the Benefits Regulations") SSI 2008/230 as amended by SSI 2011/349 and SSI 2012/347



- 1.6 As part of this consultation the Scottish Public Pensions Agency (SPPA) has asked GAD, as Scheme Actuary, to recommend actuarial guidance in respect of the regulations detailed above. This document forms GAD's recommendation for the actuarial guidance required by these regulations.
- 1.7 This note has effect only when this guidance is issued by Scottish Ministers in accordance with Regulation 2(3) of the 2018 Regulations and is subject to the implementation instructions provided at that time. SPPA has informed GAD that this guidance will come into force with effect from 25 February 2020.
- 1.8 The factors provided in this note have been prepared in light of the advice on assumptions to the SPPA in our letter dated 30 October 2018.
- 1.9 This guidance is intended to supersede any factors or advice previously issued, for the purposes of the calculation of additional survivor benefits. In particular, this guidance supersedes:
- “Local Government Pension Scheme (Scotland): Purchase of additional survivor benefits” dated 16 August 2016
- A new example (example 4) has been provided to set out the steps required in calculating the revised rate for an existing contract.
- 1.10 Factors contained in this note have been updated but the calculation methodology remains unchanged. As determined by SPPA the factors apply from 25 February 2020. The effect is that new rates for contributions from 1 April 2020 should reflect the rates in this note but based on the member's age and payment period for the original contract (rather than their age at the date factors have been updated and the remaining payment period).
- 1.11 This guidance has been written for pension administrators and assumes some knowledge of general pension terminology, and some familiarity with retirement calculations for the Local Government Pension Scheme (Scotland). Any questions concerning the application of the guidance should, in the first instance, be referred to SPPA.
- 1.12 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.
- 1.13 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.



Regulatory References

- 1.14 Under regulation 14A of the Benefits Regulations, a member may elect to make additional contributions to the LGPS in respect of the whole or part of any period of membership occurring prior to 6th April 1988 to be credited with additional benefits in respect of a surviving nominated cohabiting partner (within the meaning of regulation 25 of the Benefits Regulations). The election must be made within 12 months of the date of a nomination under regulation 25 of the Benefits Regulations. Regulations 21A and 21B of the Administration Regulations provides further conditions relating to the purchase of additional survivor benefits ("ASBs") by members.
- 1.15 Regulation 21A of the Administration Regulations provides that the amount of the additional survivor benefits contributions ("ASBCs") paid by a member purchasing ASBs must be the amount for the time being determined by the Scheme Actuary.
- 1.16 Regulation 21B of the Administration Regulations provides that the amount of ASBs credited to a member who ceases contributions before the end of the payment period for a reason other than retirement on ill-health under regulations 20(2) or 20(3) of the Benefits Regulations or death must be determined by the Scheme Actuary.
- 1.17 The election period for purchasing additional survivor benefits under Benefit Regulation 14A(2) was amended by the Local Government Pension Scheme (Miscellaneous Amendments) (Scotland) Regulations 2012 (SSI 2012/347). Elections from 1 February 2013 must be made by the later of:
- (i) 12 months from the date a nomination is made in respect of a surviving cohabiting partner under Benefit Regulation 25(2); and
 - (ii) 31 March 2014.
- 1.18 The Benefits and Administration Regulations were revoked with effect 1 April 2015. However, Regulation 15(1) of the Transitional Regulations allows that elections made prior to 1 April 2015 will continue in force.
- 1.19 Regulation 3(10) of the Transitional Regulations provides that guidance issued by the Scheme Actuary under the Earlier Regulations should be treated as actuarial guidance issued by Scottish Ministers.

Third party reliance

- 1.20 This guidance has been prepared for the use of SPPA for the purposes of demonstrating the application of the factors covered by this guidance only. This guidance may be published on SPPA'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.
- 1.21 Other than SPPA, 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 Benefits purchased

- 2.1 A member may have chosen to pay ASBCs in respect of the whole or part of any period of membership occurring prior to 6th April 1988 in order to be credited with ASBs in respect of a surviving nominated cohabiting partner.
- 2.2 Payments of ASBCs are made only in respect of complete years of membership unless the member chooses to pay ASBCs in respect of all of their period of membership occurring prior to 6th April 1988.
- 2.3 If a member chooses to purchase ASBs, the partner's benefits will be based on the period of membership occurring from 6th April 1988 plus the period of membership occurring before that date in respect of which the member chooses to pay ASBCs.
- 2.4 If a member stops contributing before the end of the payment period for a reason other than retirement on ill-health under regulations 20(2) or 20(3) of the Benefits Regulations or death, the ASBs which the member had applied for will be reduced pro-rata.
- 2.5 The ASBs awarded are the ASBs originally applied for multiplied by the number of monthly contributions actually made divided by the number of monthly contributions that would have been paid had the contributions continued to the end of the payment period (see Example 3).
- 2.6 If a member retires on ill-health under regulations 20(2) or 20(3) of the Benefits Regulations or dies before the end of the contract, ASBs which the member had applied for will be granted to the surviving nominated cohabiting partner.
- 2.7 If a member chooses to pay ASBCs and subsequently separates from their partner, then the ASB can transfer to any new partner, but ASBCs cannot be refunded in the event that the member does not enter a new relationship. The ASB transferred to the new partner will not be adjusted for the age and/or gender of the new partner.
- 2.8 If a member chooses to pay ASBCs and subsequently marries their partner, then the ASBCs are not refunded and no adjustment is made to the benefits that would be paid.



3 Contributions

- 3.1 The ASBCs may be paid for over a number of years but not exceeding the period to the member's normal retirement age under the Benefits Regulations. For any part years, ASBC rates will need to be interpolated.
- 3.2 Contracts may have commenced at any time in the year.
- 3.3 Tables are included in this Guidance Note that should be used in order to determine the ASBCs, expressed as a percentage of full-time equivalent salary, for an increase in respect of partner's benefits of one year for contracts with contributions still outstanding at the 1 April following the effective date of the factors set out in 1.10.
- 3.4 The factor depends on the member's age at their last birthday at the original calculation date, their sex and the sex of their partner, and on the payment period selected at the start of the contract.
- 3.5 ASBC rates in this note are subject to change in the future. Any revision to rates would apply to any contracts that still had contributions outstanding at the time of the revision. The revised ASBC rates would take effect for existing contracts on the 1 April following the revision.
- 3.6 A member who leaves service must stop contributing for ASBs. An active member may stop contributing for ASBs if he or she notifies the administering authority in writing.



4 Other considerations

- 4.1 The administering authority had the option to request a medical report from members wishing to purchase ASBs and if the report did not satisfy the Administering Authority that the member is in reasonably good health, it may have refused the request. There may be a strain on the fund if a member is awarded an ill-health pension from an early age or dies leaving a young nominated cohabiting partner.



5 Examples

- 5.1 Examples 1 and 2 in the former guidance are now irrelevant as no new contracts can be entered into. Therefore, only example 3 from the old guidance is included here. A further example 4 setting out the calculation of the revised contribution rate for an existing contract has been added.

Example 3 – resignation before contract completed

Original Contract Calculation date	1 October 2013
Member's age last birthday at calculation date	50
Date member joined scheme	5 June 1984
Period to purchase	3 years
Payment period	10 years
Member leaves active service	30 September 2019
ASBs purchased (see para.2.4)	657 days [3.000 x (72 months / 120 months) x 365 = 657 days]



Example 4 – revised rate for existing contract

Original calculation date	1 April 2013
Sex of member	Male
Sex of partner	Male
Member's date of birth	1 July 1962
Date member joined scheme	1 March 1987
Member's age last birthday at original calculation date	50
Period being purchased	1 year 36 days (all membership before 6/4/88) = 1.099 years [1+ 36/365]
Payment period	10 years (i.e. until 31 March 2023)
Original Factor from Table C	0.21% (in guidance dated 16 July 2012)
ASBC rate from 01/4/2013 until 31/03/2017	0.231% of FTE salary [0.21 x 1.099]
Revised Factor from Table C	0.23% (in guidance dated 16 August 2016 but based on the member's age and payment period for the original contract i.e. age 50 and a payment period of 10 years)
ASBC rate from 01/04/2017 to 01/04/2020	0.253% of FTE salary [0.23 x 1.099]
Revised Factor from Table C	0.22% (in this guidance but based on the member's age and payment period for the original contract i.e. age 50 and a payment period of 10 years)
ASBC rate from 01/04/2020	0.242% of FTE salary [0.22 x 1.099]

Appendix A: Factors

Table A – Cost of one year's additional survivor benefits – Male Member with Female Partner (1)
Additional survivor benefit contribution rate - cost expressed as a percentage of full time equivalent salary

Age at first contribution	Payment period (years)														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
37	3.33%	1.66%	1.11%	0.83%	0.66%	0.55%	0.47%	0.42%	0.37%	0.33%	0.30%	0.28%	0.26%	0.24%	0.22%
38	3.32%	1.66%	1.11%	0.83%	0.66%	0.55%	0.47%	0.41%	0.37%	0.33%	0.30%	0.28%	0.26%	0.24%	0.22%
39	3.31%	1.65%	1.10%	0.83%	0.66%	0.55%	0.47%	0.41%	0.37%	0.33%	0.30%	0.28%	0.26%	0.24%	0.22%
40	3.30%	1.65%	1.10%	0.82%	0.66%	0.55%	0.47%	0.41%	0.37%	0.33%	0.30%	0.28%	0.26%	0.24%	0.22%
41	3.29%	1.65%	1.10%	0.82%	0.66%	0.55%	0.47%	0.41%	0.37%	0.33%	0.30%	0.28%	0.26%	0.24%	0.22%
42	3.28%	1.64%	1.09%	0.82%	0.66%	0.55%	0.47%	0.41%	0.37%	0.33%	0.30%	0.28%	0.26%	0.24%	0.22%
43	3.26%	1.63%	1.09%	0.82%	0.65%	0.55%	0.47%	0.41%	0.37%	0.33%	0.30%	0.28%	0.26%	0.24%	0.22%
44	3.25%	1.63%	1.09%	0.82%	0.65%	0.55%	0.47%	0.41%	0.37%	0.33%	0.30%	0.28%	0.26%	0.24%	0.22%
45	3.24%	1.62%	1.08%	0.81%	0.65%	0.54%	0.47%	0.41%	0.37%	0.33%	0.30%	0.28%	0.26%	0.24%	0.23%
46	3.23%	1.61%	1.08%	0.81%	0.65%	0.54%	0.47%	0.41%	0.37%	0.33%	0.30%	0.28%	0.26%	0.24%	0.23%
47	3.21%	1.61%	1.07%	0.81%	0.65%	0.54%	0.47%	0.41%	0.37%	0.33%	0.30%	0.28%	0.26%	0.24%	0.23%
48	3.20%	1.60%	1.07%	0.81%	0.65%	0.54%	0.47%	0.41%	0.37%	0.33%	0.30%	0.28%	0.26%	0.24%	0.23%
49	3.18%	1.60%	1.07%	0.80%	0.65%	0.54%	0.47%	0.41%	0.37%	0.33%	0.30%	0.28%	0.26%	0.24%	0.23%
50	3.17%	1.59%	1.07%	0.80%	0.64%	0.54%	0.47%	0.41%	0.37%	0.33%	0.30%	0.28%	0.26%	0.24%	0.23%
51	3.16%	1.58%	1.06%	0.80%	0.64%	0.54%	0.46%	0.41%	0.37%	0.33%	0.30%	0.28%	0.26%	0.24%	
52	3.14%	1.58%	1.06%	0.80%	0.64%	0.54%	0.46%	0.41%	0.37%	0.33%	0.30%	0.28%	0.26%		
53	3.13%	1.57%	1.05%	0.79%	0.64%	0.54%	0.46%	0.41%	0.37%	0.33%	0.30%	0.28%			
54	3.11%	1.56%	1.05%	0.79%	0.64%	0.53%	0.46%	0.41%	0.37%	0.33%	0.30%				
55	3.09%	1.56%	1.04%	0.79%	0.63%	0.53%	0.46%	0.41%	0.37%	0.33%					
56	3.07%	1.55%	1.04%	0.78%	0.63%	0.53%	0.46%	0.41%	0.36%						
57	3.05%	1.54%	1.03%	0.78%	0.63%	0.53%	0.46%	0.40%							
58	3.02%	1.52%	1.03%	0.78%	0.63%	0.53%	0.46%								
59	2.99%	1.51%	1.02%	0.77%	0.62%	0.52%									
60	2.95%	1.49%	1.00%	0.76%	0.61%										
61	2.90%	1.47%	0.99%	0.75%											
62	2.85%	1.44%	0.97%												
63	2.80%	1.41%													
64	2.74%														

Table A – Cost of one year's additional survivor benefits – Male Member with Female Partner (2)

Additional survivor benefit contribution rate - cost expressed as a percentage of full time equivalent salary

Age at first contribution	Payment period (years)												
	16	17	18	19	20	21	22	23	24	25	26	27	28
37	0.21%	0.20%	0.19%	0.18%	0.17%	0.16%	0.15%	0.15%	0.14%	0.14%	0.13%	0.13%	0.12%
38	0.21%	0.20%	0.19%	0.18%	0.17%	0.16%	0.16%	0.15%	0.14%	0.14%	0.13%	0.13%	
39	0.21%	0.20%	0.19%	0.18%	0.17%	0.16%	0.16%	0.15%	0.14%	0.14%	0.13%		
40	0.21%	0.20%	0.19%	0.18%	0.17%	0.16%	0.16%	0.15%	0.15%	0.14%			
41	0.21%	0.20%	0.19%	0.18%	0.17%	0.16%	0.16%	0.15%	0.15%				
42	0.21%	0.20%	0.19%	0.18%	0.17%	0.16%	0.16%	0.15%					
43	0.21%	0.20%	0.19%	0.18%	0.17%	0.17%	0.16%						
44	0.21%	0.20%	0.19%	0.18%	0.17%	0.17%							
45	0.21%	0.20%	0.19%	0.18%	0.17%								
46	0.21%	0.20%	0.19%	0.18%									
47	0.21%	0.20%	0.19%										
48	0.21%	0.20%											
49	0.21%												

Table B – Cost of one year's additional survivor benefits – Female Member with Male Partner (1)

Additional survivor benefit contribution rate - cost expressed as a percentage of full time equivalent salary

Age at first contribution	Payment period (years)														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
37	1.50%	0.75%	0.50%	0.37%	0.30%	0.25%	0.21%	0.19%	0.17%	0.15%	0.14%	0.12%	0.12%	0.11%	0.10%
38	1.49%	0.74%	0.50%	0.37%	0.30%	0.25%	0.21%	0.19%	0.17%	0.15%	0.14%	0.12%	0.11%	0.11%	0.10%
39	1.48%	0.74%	0.49%	0.37%	0.30%	0.25%	0.21%	0.18%	0.16%	0.15%	0.13%	0.12%	0.11%	0.11%	0.10%
40	1.47%	0.73%	0.49%	0.37%	0.29%	0.25%	0.21%	0.18%	0.16%	0.15%	0.13%	0.12%	0.11%	0.11%	0.10%
41	1.46%	0.73%	0.49%	0.37%	0.29%	0.24%	0.21%	0.18%	0.16%	0.15%	0.13%	0.12%	0.11%	0.11%	0.10%
42	1.45%	0.72%	0.48%	0.36%	0.29%	0.24%	0.21%	0.18%	0.16%	0.15%	0.13%	0.12%	0.11%	0.11%	0.10%
43	1.44%	0.72%	0.48%	0.36%	0.29%	0.24%	0.21%	0.18%	0.16%	0.15%	0.13%	0.12%	0.11%	0.10%	0.10%
44	1.42%	0.71%	0.48%	0.36%	0.29%	0.24%	0.20%	0.18%	0.16%	0.14%	0.13%	0.12%	0.11%	0.10%	0.10%
45	1.41%	0.71%	0.47%	0.35%	0.28%	0.24%	0.20%	0.18%	0.16%	0.14%	0.13%	0.12%	0.11%	0.10%	0.10%
46	1.40%	0.70%	0.47%	0.35%	0.28%	0.24%	0.20%	0.18%	0.16%	0.14%	0.13%	0.12%	0.11%	0.10%	0.10%
47	1.39%	0.70%	0.47%	0.35%	0.28%	0.23%	0.20%	0.18%	0.16%	0.14%	0.13%	0.12%	0.11%	0.10%	0.10%
48	1.38%	0.69%	0.46%	0.35%	0.28%	0.23%	0.20%	0.18%	0.16%	0.14%	0.13%	0.12%	0.11%	0.10%	0.10%
49	1.37%	0.68%	0.46%	0.34%	0.28%	0.23%	0.20%	0.17%	0.16%	0.14%	0.13%	0.12%	0.11%	0.10%	0.10%
50	1.36%	0.68%	0.45%	0.34%	0.27%	0.23%	0.20%	0.17%	0.16%	0.14%	0.13%	0.12%	0.11%	0.10%	0.10%
51	1.34%	0.67%	0.45%	0.34%	0.27%	0.23%	0.20%	0.17%	0.15%	0.14%	0.13%	0.12%	0.11%	0.10%	
52	1.33%	0.67%	0.45%	0.34%	0.27%	0.23%	0.20%	0.17%	0.15%	0.14%	0.13%	0.12%	0.11%		
53	1.32%	0.67%	0.45%	0.34%	0.27%	0.23%	0.20%	0.17%	0.15%	0.14%	0.13%	0.12%			
54	1.31%	0.66%	0.44%	0.33%	0.27%	0.22%	0.19%	0.17%	0.15%	0.14%	0.13%				
55	1.29%	0.65%	0.43%	0.33%	0.26%	0.22%	0.19%	0.17%	0.15%	0.14%					
56	1.28%	0.64%	0.43%	0.33%	0.26%	0.22%	0.19%	0.17%	0.15%						
57	1.26%	0.63%	0.43%	0.32%	0.26%	0.22%	0.19%	0.17%							
58	1.24%	0.62%	0.42%	0.32%	0.26%	0.21%	0.19%								
59	1.21%	0.61%	0.41%	0.31%	0.25%	0.21%									
60	1.18%	0.60%	0.40%	0.30%	0.25%										
61	1.15%	0.58%	0.39%	0.30%											
62	1.12%	0.56%	0.38%												
63	1.08%	0.55%													
64	1.04%														

Table B – Cost of one year's additional survivor benefits – Female Member with Male Partner (2)

Additional survivor benefit contribution rate - cost expressed as a percentage of full time equivalent salary

Age at first contribution	Payment period (years)												
	16	17	18	19	20	21	22	23	24	25	26	27	28
37	0.09%	0.09%	0.08%	0.08%	0.08%	0.07%	0.07%	0.07%	0.06%	0.06%	0.06%	0.06%	0.06%
38	0.09%	0.09%	0.08%	0.08%	0.08%	0.07%	0.07%	0.07%	0.06%	0.06%	0.06%	0.06%	
39	0.09%	0.09%	0.08%	0.08%	0.08%	0.07%	0.07%	0.07%	0.06%	0.06%	0.06%		
40	0.09%	0.09%	0.08%	0.08%	0.08%	0.07%	0.07%	0.07%	0.06%	0.06%			
41	0.09%	0.09%	0.08%	0.08%	0.08%	0.07%	0.07%	0.07%	0.06%				
42	0.09%	0.09%	0.08%	0.08%	0.08%	0.07%	0.07%	0.07%					
43	0.09%	0.09%	0.08%	0.08%	0.08%	0.07%	0.07%						
44	0.09%	0.09%	0.08%	0.08%	0.08%	0.07%							
45	0.09%	0.09%	0.08%	0.08%	0.07%								
46	0.09%	0.09%	0.08%	0.08%									
47	0.09%	0.09%	0.08%										
48	0.09%	0.09%											
49	0.09%												

Table C – Cost of one year's additional survivor benefits – Male Member with Male Partner (1)

Additional survivor benefit contribution rate - cost expressed as a percentage of full time equivalent salary

Age at first contribution	Payment period (years)														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
37	2.29%	1.14%	0.76%	0.57%	0.46%	0.38%	0.33%	0.29%	0.25%	0.23%	0.21%	0.19%	0.18%	0.16%	0.15%
38	2.28%	1.14%	0.76%	0.57%	0.46%	0.38%	0.33%	0.28%	0.25%	0.23%	0.21%	0.19%	0.18%	0.16%	0.15%
39	2.27%	1.13%	0.76%	0.57%	0.45%	0.38%	0.32%	0.28%	0.25%	0.23%	0.21%	0.19%	0.18%	0.16%	0.15%
40	2.26%	1.13%	0.75%	0.56%	0.45%	0.38%	0.32%	0.28%	0.25%	0.23%	0.21%	0.19%	0.18%	0.16%	0.15%
41	2.24%	1.12%	0.75%	0.56%	0.45%	0.37%	0.32%	0.28%	0.25%	0.23%	0.21%	0.19%	0.17%	0.16%	0.15%
42	2.23%	1.12%	0.74%	0.56%	0.45%	0.37%	0.32%	0.28%	0.25%	0.22%	0.21%	0.19%	0.17%	0.16%	0.15%
43	2.22%	1.11%	0.74%	0.56%	0.44%	0.37%	0.32%	0.28%	0.25%	0.22%	0.20%	0.19%	0.17%	0.16%	0.15%
44	2.20%	1.10%	0.74%	0.55%	0.44%	0.37%	0.32%	0.28%	0.25%	0.22%	0.20%	0.19%	0.17%	0.16%	0.15%
45	2.19%	1.09%	0.73%	0.55%	0.44%	0.37%	0.32%	0.28%	0.25%	0.22%	0.20%	0.19%	0.17%	0.16%	0.15%
46	2.17%	1.09%	0.73%	0.55%	0.44%	0.37%	0.31%	0.28%	0.25%	0.22%	0.20%	0.19%	0.17%	0.16%	0.15%
47	2.16%	1.08%	0.72%	0.54%	0.44%	0.36%	0.31%	0.28%	0.25%	0.22%	0.20%	0.19%	0.17%	0.16%	0.15%
48	2.14%	1.07%	0.72%	0.54%	0.43%	0.36%	0.31%	0.27%	0.25%	0.22%	0.20%	0.19%	0.17%	0.16%	0.15%
49	2.13%	1.07%	0.71%	0.54%	0.43%	0.36%	0.31%	0.27%	0.24%	0.22%	0.20%	0.19%	0.17%	0.16%	0.15%
50	2.11%	1.06%	0.71%	0.53%	0.43%	0.36%	0.31%	0.27%	0.24%	0.22%	0.20%	0.19%	0.17%	0.16%	0.15%
51	2.09%	1.05%	0.70%	0.53%	0.43%	0.36%	0.31%	0.27%	0.24%	0.22%	0.20%	0.19%	0.17%	0.16%	
52	2.07%	1.04%	0.70%	0.53%	0.42%	0.35%	0.31%	0.27%	0.24%	0.22%	0.20%	0.19%	0.17%		
53	2.06%	1.03%	0.69%	0.52%	0.42%	0.35%	0.30%	0.27%	0.24%	0.22%	0.20%	0.18%			
54	2.04%	1.03%	0.69%	0.52%	0.42%	0.35%	0.30%	0.27%	0.24%	0.22%	0.20%				
55	2.01%	1.01%	0.68%	0.51%	0.41%	0.35%	0.30%	0.27%	0.24%	0.22%					
56	1.99%	1.00%	0.67%	0.51%	0.41%	0.34%	0.30%	0.26%	0.24%						
57	1.96%	0.99%	0.66%	0.50%	0.41%	0.34%	0.30%	0.26%							
58	1.93%	0.97%	0.66%	0.50%	0.40%	0.34%	0.29%								
59	1.90%	0.96%	0.64%	0.49%	0.39%	0.33%									
60	1.85%	0.94%	0.63%	0.48%	0.39%										
61	1.81%	0.91%	0.62%	0.47%											
62	1.75%	0.89%	0.60%												
63	1.70%	0.86%													
64	1.65%														

Table C – Cost of one year's additional survivor benefits – Male Member with Male Partner (2)

Additional survivor benefit contribution rate - cost expressed as a percentage of full time equivalent salary

Age at first contribution	Payment period (years)												
	16	17	18	19	20	21	22	23	24	25	26	27	28
37	0.14%	0.14%	0.13%	0.12%	0.12%	0.11%	0.11%	0.10%	0.10%	0.09%	0.09%	0.09%	0.09%
38	0.14%	0.14%	0.13%	0.12%	0.12%	0.11%	0.11%	0.10%	0.10%	0.10%	0.09%	0.09%	
39	0.14%	0.14%	0.13%	0.12%	0.12%	0.11%	0.11%	0.10%	0.10%	0.10%	0.09%		
40	0.14%	0.14%	0.13%	0.12%	0.12%	0.11%	0.11%	0.10%	0.10%	0.10%			
41	0.14%	0.14%	0.13%	0.12%	0.12%	0.11%	0.11%	0.10%	0.10%				
42	0.14%	0.14%	0.13%	0.12%	0.12%	0.11%	0.11%	0.10%					
43	0.14%	0.14%	0.13%	0.12%	0.12%	0.11%	0.11%						
44	0.14%	0.14%	0.13%	0.12%	0.12%	0.11%							
45	0.14%	0.14%	0.13%	0.12%	0.12%								
46	0.14%	0.14%	0.13%	0.12%									
47	0.14%	0.14%	0.13%										
48	0.14%	0.14%											
49	0.14%												

Table D – Cost of one year's additional survivor benefits – Female Member with Female Partner (1)

Additional survivor benefit contribution rate - cost expressed as a percentage of full time equivalent salary

Age at first contribution	Payment period (years)														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
37	2.17%	1.08%	0.72%	0.54%	0.43%	0.36%	0.31%	0.27%	0.24%	0.22%	0.20%	0.18%	0.17%	0.16%	0.15%
38	2.16%	1.08%	0.72%	0.54%	0.43%	0.36%	0.31%	0.27%	0.24%	0.22%	0.20%	0.18%	0.17%	0.16%	0.14%
39	2.15%	1.08%	0.72%	0.54%	0.43%	0.36%	0.31%	0.27%	0.24%	0.22%	0.20%	0.18%	0.17%	0.15%	0.14%
40	2.14%	1.07%	0.71%	0.54%	0.43%	0.36%	0.31%	0.27%	0.24%	0.21%	0.20%	0.18%	0.17%	0.15%	0.14%
41	2.13%	1.06%	0.71%	0.53%	0.43%	0.36%	0.30%	0.27%	0.24%	0.21%	0.19%	0.18%	0.17%	0.15%	0.14%
42	2.12%	1.06%	0.71%	0.53%	0.43%	0.35%	0.30%	0.27%	0.24%	0.21%	0.19%	0.18%	0.17%	0.15%	0.14%
43	2.11%	1.06%	0.70%	0.53%	0.42%	0.35%	0.30%	0.27%	0.24%	0.21%	0.19%	0.18%	0.17%	0.15%	0.14%
44	2.10%	1.05%	0.70%	0.53%	0.42%	0.35%	0.30%	0.26%	0.24%	0.21%	0.19%	0.18%	0.16%	0.15%	0.14%
45	2.09%	1.05%	0.70%	0.52%	0.42%	0.35%	0.30%	0.26%	0.24%	0.21%	0.19%	0.18%	0.17%	0.15%	0.14%
46	2.08%	1.04%	0.69%	0.52%	0.42%	0.35%	0.30%	0.26%	0.23%	0.21%	0.19%	0.18%	0.16%	0.15%	0.14%
47	2.07%	1.03%	0.69%	0.52%	0.42%	0.35%	0.30%	0.26%	0.23%	0.21%	0.19%	0.18%	0.16%	0.15%	0.14%
48	2.05%	1.03%	0.69%	0.52%	0.41%	0.35%	0.30%	0.26%	0.23%	0.21%	0.19%	0.18%	0.16%	0.15%	0.14%
49	2.04%	1.02%	0.68%	0.51%	0.41%	0.35%	0.30%	0.26%	0.23%	0.21%	0.19%	0.18%	0.17%	0.15%	0.15%
50	2.03%	1.02%	0.68%	0.51%	0.41%	0.34%	0.30%	0.26%	0.23%	0.21%	0.19%	0.18%	0.17%	0.15%	0.14%
51	2.02%	1.01%	0.68%	0.51%	0.41%	0.34%	0.30%	0.26%	0.23%	0.21%	0.19%	0.18%	0.17%	0.15%	
52	2.01%	1.01%	0.68%	0.51%	0.41%	0.34%	0.30%	0.26%	0.23%	0.21%	0.19%	0.18%	0.17%		
53	2.00%	1.01%	0.67%	0.51%	0.41%	0.34%	0.30%	0.26%	0.23%	0.21%	0.19%	0.18%			
54	1.99%	1.00%	0.67%	0.51%	0.41%	0.34%	0.29%	0.26%	0.23%	0.21%	0.19%				
55	1.98%	1.00%	0.67%	0.50%	0.41%	0.34%	0.29%	0.26%	0.23%	0.21%					
56	1.96%	0.99%	0.66%	0.50%	0.40%	0.34%	0.29%	0.26%	0.23%						
57	1.95%	0.98%	0.66%	0.50%	0.40%	0.34%	0.29%	0.26%							
58	1.92%	0.97%	0.65%	0.49%	0.40%	0.33%	0.29%								
59	1.90%	0.96%	0.65%	0.49%	0.39%	0.33%									
60	1.88%	0.95%	0.64%	0.48%	0.39%										
61	1.85%	0.93%	0.63%	0.47%											
62	1.81%	0.91%	0.61%												
63	1.77%	0.89%													
64	1.73%														

Table D – Cost of one year's additional survivor benefits – Female Member with Female Partner (2)

Additional survivor benefit contribution rate - cost expressed as a percentage of full time equivalent salary

Age at first contribution	Payment period (years)												
	16	17	18	19	20	21	22	23	24	25	26	27	28
37	0.14%	0.13%	0.12%	0.12%	0.11%	0.11%	0.10%	0.10%	0.09%	0.09%	0.09%	0.08%	0.08%
38	0.14%	0.13%	0.12%	0.12%	0.11%	0.11%	0.10%	0.10%	0.09%	0.09%	0.09%	0.08%	
39	0.14%	0.13%	0.12%	0.12%	0.11%	0.11%	0.10%	0.10%	0.09%	0.09%	0.09%		
40	0.14%	0.13%	0.12%	0.12%	0.11%	0.11%	0.10%	0.10%	0.09%	0.09%			
41	0.14%	0.13%	0.12%	0.12%	0.11%	0.11%	0.10%	0.10%	0.09%				
42	0.14%	0.13%	0.12%	0.12%	0.11%	0.11%	0.10%	0.10%					
43	0.14%	0.13%	0.12%	0.12%	0.11%	0.11%	0.10%						
44	0.14%	0.13%	0.12%	0.12%	0.11%	0.11%							
45	0.14%	0.13%	0.12%	0.12%	0.11%								
46	0.14%	0.13%	0.12%	0.12%									
47	0.14%	0.13%	0.12%										
48	0.14%	0.13%											
49	0.14%												



Appendix B: Assumptions underlying factors

Financial assumptions

Nominal discount rate	4.448% pa
Real discount rate (in excess of CPI)	2.40% pa

Mortality assumptions

	Males	Females
Retirements in normal health	122% of S2NMA	117% of S2NFA
Retirements in ill-health	In line with 2017 valuation	In line with 2017 valuation
Dependants	159% of S2NMA	131% of S2DFA

Future mortality improvement	Based on ONS principal UK population projections 2016
Year of Use	2020

In-service decrement rates

Withdrawal	Nil
Age retirement	Nil before NPA, 100% at NPA
Ill health retirement	In line with 2017 valuation

Other assumptions

Proportion partnered	100% for Additional Pension with attaching dependants' pension
Age difference between member and partner	Males assumed 3 years older than their partners and female members assumed 2 years younger than their partners
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 additional survivor benefits 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 the purchase of additional survivor benefits 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 SPPA and GAD. Under no circumstances should this guidance take precedence over the Regulations. Administrators should ensure that they comply with all relevant Regulations.