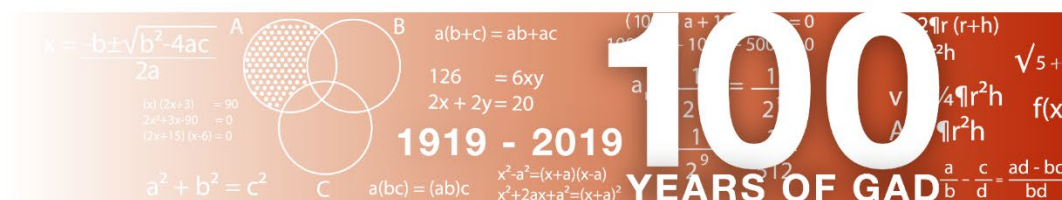




Government  
Actuary's  
Department



## New Judicial Pension Scheme 2015

Effective pension age options for members

Factors and guidance

Date: 1 August 2019





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## 1 Introduction

- 1.1 This report is addressed to the Lord Chancellor in his capacity as the Scheme Manager of the New Judicial Pension Scheme 2015 (NJPS 2015), which came into force on 1<sup>st</sup> April 2015 under the Judicial Pension Regulations 2015 ("the Regulations").
- 1.2 The amount of the periodic payment for an Effective Pension Age (EPA) option is to be determined by the scheme manager with reference to published actuarial tables under paragraph 30 of Schedule 1 to the Regulations. This guidance is issued by the Government Actuary's Department (GAD), acting in its capacity as actuarial adviser, in order to provide tables suitable to be used for this purpose.
- 1.3 The purpose of this report is to provide the Lord Chancellor with specific factors and accompanying guidance to demonstrate how EPA option costs should be calculated in the NJPS 2015. This report also provides factors and guidance for assessing the value of the EPA options against the overall limit of extra pension (the 'headroom test') and provides the guidance in relation to this under paragraph 6 of Schedule 1 to the Regulations.
- 1.4 This report is applicable to benefits accruing in the NJPS 2015 only and provides advice on EPA option cost factors for eligible members opting to reduce their normal pension age (NPA) by one, two or three years for any pension accrued from the date the option is purchased, without actuarial reduction.
- 1.5 We have not considered the implications of purchasing an EPA option in the context of a member's annual allowance.
- 1.6 The accompanying guidance and examples are intended to demonstrate how these factors are to be applied to determine the EPA costs payable if the option is selected by members.
- 1.7 The factors and guidance provided in this note have been prepared in light of our advice to MoJ dated 30 October 2018 and its instructions following that advice.
- 1.8 This guidance is intended to supersede any previously issued by GAD for the purposes of EPA calculations, carried out from 1 April 2019. No advice or factors issued in the past should be used for EPA cases after this date. In particular, this guidance supersedes:  
  
"New Judicial Pension Scheme: Effective pension age options for members" dated 22 March 2016.
- 1.9 The factors in this note have been updated but the calculation methodology remains unchanged.
- 1.10 The assumptions underlying the factors provided in this guidance note can be found in Appendix E.
- 1.11 The regulations state that the published actuarial tables should have regards to the member's age and gender. We have prepared separate tables for males and females to meet the above requirement.



- 1.12 State Pension Age for the purpose of calculating early payment of pension should be as defined in legislation in force at the time of the calculation. Factors are provided to accommodate the range of pension ages members will have in relation to service on and after 1 April 2015.

### **Implementation and Review**

- 1.13 The factors contained in this guidance will apply from 1 April 2019. This implementation date has been determined by MoJ. This guidance will apply with immediate effect upon receipt of the respective guidance.
- 1.14 This guidance has been written for pension administrators and assumes some knowledge of general pension terminology, and some familiarity with retirement calculations for the New Judicial Pension Scheme. Any questions concerning the application of the guidance should, in the first instance, be referred to MoJ.
- 1.15 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.
- 1.16 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.

### **Third party reliance**

- 1.17 This guidance has been prepared for the use of MoJ 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 MoJ 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 MoJ 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 EPA contribution rates

- 2.1 Members can purchase an effective pension age of one, two or three years below their normal pension age. This is limited by a requirement that the effective pension age is not below age 65. For example, where a member has a NPA of 66 years and 6 months they will be able to buy a reduction of 1 year or 1 year and 6 months. Non-integer reduction is only applicable where a member wishes to purchase a reduction to age 65.
- 2.2 The tables in Appendix A set out the following factors:
- EPA1 - Contribution rate in respect of the 1 year early EPA option, payable in addition to standard member and employer contribution rates.
  - EPA2 - Contribution rate in respect of the 2 year early EPA option, payable in addition to standard member and employer contribution rates.
  - EPA3 - Contribution rate in respect of the 3 year early EPA option, payable in addition to standard member and employer contribution rates.
- 2.3 Only the tranche of pension accrued while the member is paying the additional contribution rate is to be paid at the effective pension age. Any pension accrued in the scheme before the member purchases an EPA option, or after a member stops paying the additional contribution due is to be paid at NPA.
- 2.4 EPA contributions are payable by members only, in addition to their standard member contributions. Their employer's contribution rate is unaffected by the EPA option. This report sets out how this additional contribution rate is determined from the tables set out in Appendix A. The contribution rate should be applied to the member's pensionable earnings over the scheme year. Therefore any pensionable pay fluctuations will impact on the amount of the contributions paid for the EPA option.
- 2.5 At the start of each scheme year in which the EPA option is in force (or operation), the member's age (complete years, ignoring part years) is determined and the contribution rate(s) corresponding to their NPA (in complete years and months, rounded up to the next month) is taken from the relevant EPA option table(s) (1 year, 2 years or 3 years earlier).
- 2.6 Where the minimum age of 65 years applies, the reduction being purchased may not be an integer year reduction and it is necessary to interpolate between the rates from two EPA option tables to derive the correct contribution rate.
- 2.7 The scheme manager is obliged to review the amount of the periodic payments before the start of each scheme year. This means EPA option contribution rates are effectively determined at each 1st April, but are applied to pensionable earnings over the scheme year, in the same manner as standard member and employer contributions. In general, EPA option contribution rates will increase annually with age, all else equal, such that the contributions will increase each year as a member ages and moves closer to their EPA.



### **EPA for an integer number of years early**

- 2.8 The additional member contribution in respect of the EPA option is determined as follows:

***Additional member contribution in respect of the EPA option =***

$$\text{Pensionable Earnings} \times \text{EPAn contribution rate (age at 1<sup>st</sup> April)}$$

Where:

**Pensionable Earnings** are as defined in the Regulations<sup>1</sup>.

**Age at 1<sup>st</sup> April** is the member's age in complete years (ignoring part years) on 1st April

**EPAn contribution rate** is taken from table EPAn appropriate for the member's age and NPA (in years and months, rounded up to the next month) and the number of years (n) earlier that the member wished to retire before NPA.

### **EPA for a non-integer number of years early (to achieve an effective pension age of 65)**

- 2.9 In order to derive the appropriate contribution rate where a non-integer year reduction is being purchased, it is necessary to interpolate between two contribution rates taken from separate EPAn tables.
- 2.10 The EPA contribution rate is derived as:

***Non-integer reduction EPA contribution rate (EPAd) =***

$$[\text{Reduction (rounded up)} - \text{Reduction (exact)}] \times \text{EPAn (rounded down) contribution rate}$$

+

$$[\text{Reduction (exact)} - \text{Reduction (rounded down)}] \times \text{EPAn (rounded up) contribution rate}$$

Where:

**Reduction (Exact)** is the number of years and months (ignoring part months) reduction to pension age that is being purchased.

**Reduction (Rounded up)** is the **Reduction (Exact)** rounded up to the nearest number of complete years.

<sup>1</sup> Regulation 23 of the Judicial Pensions Regulations 2015.



**Reduction (Rounded down)** is the **Reduction (Exact)** rounded down to the nearest number of complete years.

**EPAn (Rounded up) contribution rate** is taken from table EPAn appropriate for the member's age and NPA (in years and months, rounded up to the next month) and number of years **Reduction (Rounded up)**.

**EPAn (Rounded down) contribution rate** is taken from table EPAn appropriate for the member's age and NPA (in years and months, rounded up to the next month) and number of years **Reduction (Rounded down)**.

- 2.11 Where an EPA reduction of between 0 and 1 years is being purchased, it will be necessary to interpolate between the EPA1 (contribution rates for a 1 year reduction) table and a notional EPA0 (contribution rates for no reduction) table where all entries are set to zero.
- 2.12 The additional member contribution in respect of the EPA option are determined as follows:

***Additional member contribution in respect of the EPA option =***

***Pensionable Earnings x EPAd contribution rate (age at 1<sup>st</sup> April)***

Where:

**Pensionable Earnings** are as defined in the Regulations.

**Age at 1<sup>st</sup> April** is the member's age in complete years (ignoring part years) on 1st April

**EPAd contribution rate** is derived as set out in 2.10 and 2.11 above.

- 2.13 Example calculations are shown in Appendix B.



### 3 'Headroom' Calculations

- 3.1 The value of any EPA option is to be taken into account when assessing whether a member can purchase (additional) added pension under the NJPS 2015.
- 3.2 A member is only able to purchase (additional) added pension if there is available 'headroom'. This is assessed by comparing the value of any 'extra pension' (EPA options plus any accrued added pension) against the 'overall limit of extra pension' ('headroom limit') as set out in Schedule 1 Part 1 of the Regulations. MoJ have confirmed that a member buying out the actuarial reduction on an early retirement pension is not subject to the headroom limit.
- 3.3 A member is only allowed to purchase an EPA option if, at the commencement of the contract (i.e. when the initial application for an EPA is submitted), the existing total extra pension is less than the overall limit on extra pension (i.e. there is headroom available). In other words, a member can purchase an EPA option if prior to purchase there is headroom, even if the purchase of the option would mean that they subsequently exceed the limit on extra pension.
- 3.4 A member is only allowed to purchase (additional) added pension if the total extra pension (including the added pension the member intends to purchase) is less than the limit on extra pension at the commencement of the contract (i.e. there is headroom available to cover the expected additional added pension).
- 3.5 A 'prospective' EPA option will be valued (by converting it into an equivalent added pension) at the start of the contract. When valuing the option it is assumed that the member continues to contribute to this option until their respective earlier pension age is reached (the purchase of the EPA option is automatically renewed at the start of each scheme year). The value of the option will not be recalculated for:
- any change to a member's actual NPA through new legislation;
  - in response to future changes in headroom methodology or early retirement factors;
  - or for the actual salary growth experienced by a member.
- 3.6 Should a member cease contributing to the option before their earlier pension age is reached, the value of that option is no longer the prospective value determined at the start of the contract. The 'accrued' value of this EPA option should be based on the period during which EPA contributions were actually paid in respect of the option and not the full period to earlier pension age assumed when determining the prospective value of the option.
- 3.7 Calculations are required for:
- (i) determining the value of an EPA option at the outset of the contract, and
  - (ii) determining the value of an accrued EPA option.





- 3.8 The headroom calculations effectively assume that part-time or fee-paid members will continue to work the same proportion of full-time hours for the remainder of their careers (full-time equivalent pensionable earnings are not used in the calculation).
- 3.9 Paragraph 27 (4) of Schedule 1 to the Regulations sets out that where a member ceases to be in pensionable service under the Scheme and then re-enters after a gap in pension service of less than 5 years, the EPA contributions can resume (subject to certain restrictions) without re-assessing their value against the headroom limit.
- 3.10 The tables in Appendix C set out the following factors:
- HR1 – prospective accrual accumulation factor
  - HR2 – revaluation factors

### **Determining the value of an EPA option at the outset of the contract**

- 3.11 The main data required is:
- (i) EPA option commencement date (i.e. the date the initial application for an EPA is effective from)
  - (ii) Member's NPA (normal pension age) in years and months, rounded up to the next month
  - (iii) Member's EPA in years and complete months (i.e. relating to option being purchased)
  - (iv) Member's pensionable earnings at EPA option commencement date
  - (v) Member's gender
- 3.12 The prospective value assessed assumes that the member continues to contribute to the EPA option until the respective earlier pension age is reached. The calculation to determine the value of the prospective EPA option is set out in a three stage process:

#### **Stage 1: Estimate the prospective pension arising from future accrual at EPA**

**Prospective pension = Pensionable Earnings × HR1 factor**

Where:

**Pensionable Earnings** is as defined in the Regulations.

**HR1 factor** is taken from table HR1 (in Appendix C) appropriate for the period (in years and complete months, ignoring part months) between EPA option commencement date and EPA.



## Stage 2: Converting the prospective pension into equivalent added pension at EPA

**Equivalent added pension at EPA =**

$$\text{Prospective pension} \times [(1 / ER \text{ factor}_{NPA}) - 1]$$

Where:

**ER factor<sub>NPA</sub>** is the early payment reduction factor at the member's age at EPA (in years and complete months) relevant to the member's NPA.

If a member has a non-integer NPA then more than one factor is required and these factors are interpolated to obtain the actual factor to use.

## Stage 3: Expressing the equivalent added pension at EPA as an equivalent added pension at EPA option commencement date (i.e. the value of EPA option at outset)

**Value of EPA option at outset =**

$$\text{Equivalent added pension at EPA} / HR2 \text{ factor}$$

Where:

**HR2 factor** is the factor appropriate for the number of years (ignoring part years) between the EPA option commencement date and EPA, from Appendix C. As outlined in paragraph 3.12 it is assumed that a member will continue to contribute to the EPA option until the respective earlier pension age is reached.

The prospective value of an EPA can be expressed as a percentage of the headroom limit in place at the outset of the contract. The formula is set out below:

**Value of EPA option at outset as % of headroom limit at outset =**

$$\text{Value of EPA option at outset} / \text{headroom limit at outset}$$

Where:

**Value of EPA option at outset** is calculated from the three stage process detailed above.

**Headroom limit at outset** is the overall limit of extra pension at EPA option commencement date. Please see paragraph 3.2 for more information.



### Determining the value of an accrued EPA option

- 3.13 When an EPA option lapses (i.e. contributions stop before selected EPA), then the prospective value of the EPA option should no longer be used. Any subsequent test against the headroom limit should use the accrued value of the EPA option. The accrued value is determined as a simple pro-rata calculation of the original prospective value of the EPA option based on the number of monthly EPA contributions that had been paid divided by the number of monthly contributions that would have been paid between the EPA option commencement date and date of original EPA.
- 3.14 This calculation is applied to the percentage of headroom limit that was determined for the original prospective EPA option.

The formula is set out below:

**Value of accrued EPA option (as a % of headroom limit) =**

$$\begin{aligned} &\text{Value of EPA option at outset as \% of headroom limit at outset} \\ &\times [ M / N ] \end{aligned}$$

Where:

**Value of EPA option at outset as % of headroom limit at outset** as calculated in stage 3 of paragraph 3.12

**M** is the number of monthly EPA contributions paid

**N** is the number of monthly contributions that would have been paid between the EPA option commencement date and member's original EPA.

- 3.15 Should the value of accrued EPA options be required at a later date, then the proportion of the headroom limit calculated in paragraph 3.14 can simply be applied to the level of headroom limit in force at the later date.
- 3.16 Example calculations are shown in Appendix D.



## 4 Limitations

- 4.1 This guidance should not be used for any purpose other than those set out in this guidance.
- 4.2 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.
- 4.3 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.
- 4.4 This guidance only covers the actuarial principles around the calculation and application of EPA and headroom factors. Any legal advice in this area should be sought from an appropriately qualified person or source.
- 4.5 Scheme managers and administrators should satisfy themselves that EPA and headroom calculations and benefit awards comply with all legislative requirements including, but not limited to, tax and contracting-out requirements.
- 4.6 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 MoJ and GAD. Under no circumstances should this guidance take precedence over the Regulations. Administrators should ensure that they comply with all relevant Regulations.



## Appendix A: Contribution rates for EPA options

**Table AM1: Male EPA1 – 1 year reduction in NPA**  
(Table 722 in consolidated factors spreadsheet)

Age (complete years, ignoring part)	EPA1											
	Normal pension age (years and complete months)											
	Years	65										
	Months	1	2	3	4	5	6	7	8	9	10	11
20		0.81%	0.81%	0.81%	0.80%	0.80%	0.80%	0.80%	0.80%	0.80%	0.79%	0.79%
21		0.83%	0.83%	0.83%	0.82%	0.82%	0.82%	0.82%	0.82%	0.81%	0.81%	0.81%
22		0.85%	0.85%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.83%	0.83%	0.83%
23		0.87%	0.87%	0.86%	0.86%	0.86%	0.86%	0.86%	0.86%	0.85%	0.85%	0.85%
24		0.89%	0.89%	0.89%	0.88%	0.88%	0.88%	0.88%	0.88%	0.87%	0.87%	0.87%
25		0.91%	0.91%	0.91%	0.90%	0.90%	0.90%	0.90%	0.90%	0.89%	0.89%	0.89%
26		0.93%	0.93%	0.93%	0.93%	0.92%	0.92%	0.92%	0.92%	0.92%	0.91%	0.91%
27		0.95%	0.95%	0.95%	0.95%	0.95%	0.94%	0.94%	0.94%	0.94%	0.94%	0.93%
28		0.98%	0.97%	0.97%	0.97%	0.97%	0.97%	0.96%	0.96%	0.96%	0.96%	0.96%
29		1.00%	1.00%	1.00%	0.99%	0.99%	0.99%	0.99%	0.98%	0.98%	0.98%	0.98%
30		1.02%	1.02%	1.02%	1.02%	1.02%	1.01%	1.01%	1.01%	1.01%	1.00%	1.00%
31		1.05%	1.05%	1.04%	1.04%	1.04%	1.04%	1.03%	1.03%	1.03%	1.03%	1.03%
32		1.07%	1.07%	1.07%	1.07%	1.06%	1.06%	1.06%	1.06%	1.05%	1.05%	1.05%
33		1.10%	1.10%	1.09%	1.09%	1.09%	1.09%	1.08%	1.08%	1.08%	1.08%	1.08%
34		1.13%	1.12%	1.12%	1.12%	1.12%	1.11%	1.11%	1.11%	1.11%	1.10%	1.10%
35		1.15%	1.15%	1.15%	1.14%	1.14%	1.14%	1.14%	1.13%	1.13%	1.13%	1.13%
36		1.18%	1.18%	1.17%	1.17%	1.17%	1.17%	1.16%	1.16%	1.16%	1.16%	1.15%
37		1.21%	1.21%	1.20%	1.20%	1.20%	1.20%	1.19%	1.19%	1.19%	1.18%	1.18%
38		1.24%	1.23%	1.23%	1.23%	1.23%	1.22%	1.22%	1.22%	1.22%	1.21%	1.21%
39		1.27%	1.26%	1.26%	1.26%	1.26%	1.25%	1.25%	1.25%	1.25%	1.24%	1.24%
40		1.30%	1.30%	1.29%	1.29%	1.29%	1.28%	1.28%	1.28%	1.28%	1.27%	1.27%
41		1.33%	1.33%	1.32%	1.32%	1.32%	1.31%	1.31%	1.31%	1.31%	1.30%	1.30%
42		1.36%	1.36%	1.36%	1.35%	1.35%	1.35%	1.34%	1.34%	1.34%	1.33%	1.33%
43		1.39%	1.39%	1.39%	1.39%	1.38%	1.38%	1.38%	1.37%	1.37%	1.37%	1.36%
44		1.43%	1.43%	1.42%	1.42%	1.42%	1.41%	1.41%	1.41%	1.40%	1.40%	1.40%
45		1.46%	1.46%	1.46%	1.45%	1.45%	1.45%	1.44%	1.44%	1.44%	1.43%	1.43%
46		1.50%	1.50%	1.49%	1.49%	1.49%	1.48%	1.48%	1.48%	1.47%	1.47%	1.47%
47		1.54%	1.53%	1.53%	1.53%	1.52%	1.52%	1.52%	1.51%	1.51%	1.51%	1.50%
48		1.57%	1.57%	1.57%	1.56%	1.56%	1.56%	1.55%	1.55%	1.55%	1.54%	1.54%
49		1.61%	1.61%	1.61%	1.60%	1.60%	1.59%	1.59%	1.59%	1.58%	1.58%	1.58%
50		1.65%	1.65%	1.65%	1.64%	1.64%	1.63%	1.63%	1.63%	1.62%	1.62%	1.62%
51		1.69%	1.69%	1.69%	1.68%	1.68%	1.67%	1.67%	1.67%	1.66%	1.66%	1.66%
52		1.74%	1.73%	1.73%	1.72%	1.72%	1.72%	1.71%	1.71%	1.70%	1.70%	1.70%
53		1.78%	1.77%	1.77%	1.77%	1.76%	1.76%	1.75%	1.75%	1.75%	1.74%	1.74%
54		1.82%	1.82%	1.82%	1.81%	1.81%	1.80%	1.80%	1.79%	1.79%	1.79%	1.78%
55		1.87%	1.87%	1.86%	1.86%	1.85%	1.85%	1.84%	1.84%	1.84%	1.83%	1.83%
56		1.92%	1.91%	1.91%	1.90%	1.90%	1.90%	1.89%	1.89%	1.88%	1.88%	1.87%
57		1.97%	1.96%	1.96%	1.95%	1.95%	1.94%	1.94%	1.94%	1.93%	1.93%	1.92%
58		2.02%	2.01%	2.01%	2.00%	2.00%	1.99%	1.99%	1.99%	1.98%	1.98%	1.97%
59		2.07%	2.07%	2.06%	2.06%	2.05%	2.05%	2.04%	2.04%	2.03%	2.03%	2.02%
60		2.13%	2.12%	2.12%	2.11%	2.11%	2.10%	2.10%	2.09%	2.09%	2.08%	2.08%
61		2.18%	2.18%	2.17%	2.17%	2.16%	2.16%	2.15%	2.15%	2.14%	2.14%	2.13%
62		2.24%	2.24%	2.23%	2.23%	2.22%	2.22%	2.21%	2.21%	2.20%	2.20%	2.19%
63		2.30%	2.30%	2.29%	2.29%	2.28%	2.28%	2.27%	2.27%	2.26%	2.26%	2.25%
64		2.37%	2.36%	2.36%	2.35%	2.35%	2.34%	2.33%	2.33%	2.32%	2.32%	2.31%
65												
66												



**Table AM1: Male EPA1 – 1 year reduction in NPA (continued)**  
**(Table 722 in consolidated factors spreadsheet)**

Age (complete years, ignoring part)	EPA1												
	Normal pension age (years and complete months)												
	Years	66											
	Months	0	1	2	3	4	5	6	7	8	9	10	11
20		0.79%	0.79%	0.79%	0.79%	0.78%	0.78%	0.78%	0.78%	0.78%	0.77%	0.77%	0.77%
21		0.81%	0.81%	0.81%	0.80%	0.80%	0.80%	0.80%	0.80%	0.79%	0.79%	0.79%	0.79%
22		0.83%	0.83%	0.82%	0.82%	0.82%	0.82%	0.82%	0.82%	0.81%	0.81%	0.81%	0.81%
23		0.85%	0.85%	0.84%	0.84%	0.84%	0.84%	0.84%	0.83%	0.83%	0.83%	0.83%	0.83%
24		0.87%	0.87%	0.86%	0.86%	0.86%	0.86%	0.86%	0.85%	0.85%	0.85%	0.85%	0.85%
25		0.89%	0.89%	0.88%	0.88%	0.88%	0.88%	0.88%	0.88%	0.87%	0.87%	0.87%	0.87%
26		0.91%	0.91%	0.91%	0.90%	0.90%	0.90%	0.90%	0.90%	0.89%	0.89%	0.89%	0.89%
27		0.93%	0.93%	0.93%	0.93%	0.92%	0.92%	0.92%	0.92%	0.92%	0.91%	0.91%	0.91%
28		0.95%	0.95%	0.95%	0.95%	0.95%	0.94%	0.94%	0.94%	0.94%	0.93%	0.93%	0.93%
29		0.98%	0.97%	0.97%	0.97%	0.97%	0.96%	0.96%	0.96%	0.96%	0.96%	0.95%	0.95%
30		1.00%	1.00%	1.00%	0.99%	0.99%	0.99%	0.99%	0.98%	0.98%	0.98%	0.98%	0.98%
31		1.02%	1.02%	1.02%	1.02%	1.01%	1.01%	1.01%	1.01%	1.01%	1.00%	1.00%	1.00%
32		1.05%	1.05%	1.04%	1.04%	1.04%	1.04%	1.03%	1.03%	1.03%	1.03%	1.02%	1.02%
33		1.07%	1.07%	1.07%	1.07%	1.06%	1.06%	1.06%	1.06%	1.05%	1.05%	1.05%	1.05%
34		1.10%	1.10%	1.09%	1.09%	1.09%	1.09%	1.08%	1.08%	1.08%	1.08%	1.07%	1.07%
35		1.12%	1.12%	1.12%	1.12%	1.11%	1.11%	1.11%	1.11%	1.10%	1.10%	1.10%	1.10%
36		1.15%	1.15%	1.15%	1.14%	1.14%	1.14%	1.14%	1.13%	1.13%	1.13%	1.13%	1.12%
37		1.18%	1.18%	1.17%	1.17%	1.17%	1.17%	1.16%	1.16%	1.16%	1.16%	1.15%	1.15%
38		1.21%	1.20%	1.20%	1.20%	1.20%	1.19%	1.19%	1.19%	1.19%	1.18%	1.18%	1.18%
39		1.24%	1.23%	1.23%	1.23%	1.23%	1.22%	1.22%	1.22%	1.21%	1.21%	1.21%	1.21%
40		1.27%	1.26%	1.26%	1.26%	1.26%	1.25%	1.25%	1.25%	1.24%	1.24%	1.24%	1.24%
41		1.30%	1.29%	1.29%	1.29%	1.29%	1.28%	1.28%	1.28%	1.27%	1.27%	1.27%	1.27%
42		1.33%	1.33%	1.32%	1.32%	1.32%	1.31%	1.31%	1.31%	1.30%	1.30%	1.30%	1.30%
43		1.36%	1.36%	1.35%	1.35%	1.35%	1.35%	1.34%	1.34%	1.34%	1.33%	1.33%	1.33%
44		1.39%	1.39%	1.39%	1.38%	1.38%	1.38%	1.38%	1.37%	1.37%	1.37%	1.36%	1.36%
45		1.43%	1.42%	1.42%	1.42%	1.41%	1.41%	1.41%	1.41%	1.40%	1.40%	1.40%	1.39%
46		1.46%	1.46%	1.46%	1.45%	1.45%	1.45%	1.44%	1.44%	1.44%	1.43%	1.43%	1.43%
47		1.50%	1.50%	1.49%	1.49%	1.48%	1.48%	1.48%	1.47%	1.47%	1.47%	1.46%	1.46%
48		1.54%	1.53%	1.53%	1.52%	1.52%	1.52%	1.51%	1.51%	1.51%	1.50%	1.50%	1.50%
49		1.57%	1.57%	1.57%	1.56%	1.56%	1.56%	1.55%	1.55%	1.54%	1.54%	1.54%	1.53%
50		1.61%	1.61%	1.60%	1.60%	1.60%	1.59%	1.59%	1.59%	1.58%	1.58%	1.57%	1.57%
51		1.65%	1.65%	1.64%	1.64%	1.64%	1.63%	1.63%	1.63%	1.62%	1.62%	1.61%	1.61%
52		1.69%	1.69%	1.68%	1.68%	1.68%	1.67%	1.67%	1.67%	1.66%	1.66%	1.65%	1.65%
53		1.73%	1.73%	1.73%	1.72%	1.72%	1.71%	1.71%	1.71%	1.70%	1.70%	1.69%	1.69%
54		1.78%	1.77%	1.77%	1.77%	1.76%	1.76%	1.75%	1.75%	1.75%	1.74%	1.74%	1.73%
55		1.82%	1.82%	1.81%	1.81%	1.81%	1.80%	1.80%	1.79%	1.79%	1.79%	1.78%	1.78%
56		1.87%	1.86%	1.86%	1.86%	1.85%	1.85%	1.84%	1.84%	1.83%	1.83%	1.83%	1.82%
57		1.92%	1.91%	1.91%	1.90%	1.90%	1.89%	1.89%	1.89%	1.88%	1.88%	1.87%	1.87%
58		1.97%	1.96%	1.96%	1.95%	1.95%	1.94%	1.94%	1.93%	1.93%	1.93%	1.92%	1.92%
59		2.02%	2.01%	2.01%	2.00%	2.00%	1.99%	1.99%	1.99%	1.98%	1.98%	1.97%	1.97%
60		2.07%	2.07%	2.06%	2.06%	2.05%	2.05%	2.04%	2.04%	2.03%	2.03%	2.02%	2.02%
61		2.13%	2.12%	2.12%	2.11%	2.11%	2.10%	2.10%	2.09%	2.09%	2.08%	2.08%	2.07%
62		2.18%	2.18%	2.17%	2.17%	2.16%	2.16%	2.15%	2.15%	2.14%	2.14%	2.13%	2.13%
63		2.24%	2.24%	2.23%	2.23%	2.22%	2.22%	2.21%	2.21%	2.20%	2.20%	2.19%	2.19%
64		2.31%	2.30%	2.30%	2.29%	2.29%	2.28%	2.27%	2.27%	2.26%	2.26%	2.25%	2.25%
65													
66													



**Table AM1: Male EPA1 – 1 year reduction in NPA (continued)**  
**(Table 722 in consolidated factors spreadsheet)**

Age (complete years, ignoring part)	EPA1													
	Normal pension age (years and complete months)													
	Years Months	67												68
		0	1	2	3	4	5	6	7	8	9	10	11	0
20		0.77%	0.77%	0.77%	0.76%	0.76%	0.76%	0.76%	0.76%	0.76%	0.75%	0.75%	0.75%	0.75%
21		0.79%	0.79%	0.78%	0.78%	0.78%	0.78%	0.78%	0.78%	0.77%	0.77%	0.77%	0.77%	0.77%
22		0.81%	0.80%	0.80%	0.80%	0.80%	0.80%	0.80%	0.79%	0.79%	0.79%	0.79%	0.79%	0.79%
23		0.83%	0.82%	0.82%	0.82%	0.82%	0.82%	0.81%	0.81%	0.81%	0.81%	0.81%	0.81%	0.80%
24		0.85%	0.84%	0.84%	0.84%	0.84%	0.84%	0.83%	0.83%	0.83%	0.83%	0.83%	0.82%	0.82%
25		0.87%	0.86%	0.86%	0.86%	0.86%	0.86%	0.85%	0.85%	0.85%	0.85%	0.85%	0.84%	0.84%
26		0.89%	0.88%	0.88%	0.88%	0.88%	0.88%	0.87%	0.87%	0.87%	0.87%	0.87%	0.86%	0.86%
27		0.91%	0.90%	0.90%	0.90%	0.90%	0.90%	0.89%	0.89%	0.89%	0.89%	0.89%	0.88%	0.88%
28		0.93%	0.93%	0.92%	0.92%	0.92%	0.92%	0.92%	0.91%	0.91%	0.91%	0.91%	0.91%	0.90%
29		0.95%	0.95%	0.95%	0.94%	0.94%	0.94%	0.94%	0.94%	0.93%	0.93%	0.93%	0.93%	0.93%
30		0.97%	0.97%	0.97%	0.97%	0.96%	0.96%	0.96%	0.96%	0.96%	0.95%	0.95%	0.95%	0.95%
31		1.00%	0.99%	0.99%	0.99%	0.99%	0.99%	0.98%	0.98%	0.98%	0.98%	0.97%	0.97%	0.97%
32		1.02%	1.02%	1.02%	1.01%	1.01%	1.01%	1.01%	1.00%	1.00%	1.00%	1.00%	0.99%	0.99%
33		1.04%	1.04%	1.04%	1.04%	1.03%	1.03%	1.03%	1.03%	1.03%	1.02%	1.02%	1.02%	1.02%
34		1.07%	1.07%	1.06%	1.06%	1.06%	1.06%	1.05%	1.05%	1.05%	1.05%	1.05%	1.04%	1.04%
35		1.09%	1.09%	1.09%	1.09%	1.08%	1.08%	1.08%	1.08%	1.07%	1.07%	1.07%	1.07%	1.07%
36		1.12%	1.12%	1.12%	1.11%	1.11%	1.11%	1.11%	1.10%	1.10%	1.10%	1.10%	1.09%	1.09%
37		1.15%	1.15%	1.14%	1.14%	1.14%	1.13%	1.13%	1.13%	1.13%	1.12%	1.12%	1.12%	1.12%
38		1.18%	1.17%	1.17%	1.17%	1.16%	1.16%	1.16%	1.16%	1.15%	1.15%	1.15%	1.15%	1.14%
39		1.20%	1.20%	1.20%	1.20%	1.19%	1.19%	1.19%	1.18%	1.18%	1.18%	1.18%	1.17%	1.17%
40		1.23%	1.23%	1.23%	1.22%	1.22%	1.22%	1.22%	1.21%	1.21%	1.21%	1.20%	1.20%	1.20%
41		1.26%	1.26%	1.26%	1.25%	1.25%	1.25%	1.25%	1.24%	1.24%	1.24%	1.23%	1.23%	1.23%
42		1.29%	1.29%	1.29%	1.28%	1.28%	1.28%	1.28%	1.27%	1.27%	1.27%	1.26%	1.26%	1.26%
43		1.32%	1.32%	1.32%	1.32%	1.31%	1.31%	1.31%	1.30%	1.30%	1.30%	1.29%	1.29%	1.29%
44		1.36%	1.35%	1.35%	1.35%	1.34%	1.34%	1.34%	1.33%	1.33%	1.33%	1.33%	1.32%	1.32%
45		1.39%	1.39%	1.38%	1.38%	1.38%	1.37%	1.37%	1.37%	1.36%	1.36%	1.36%	1.35%	1.35%
46		1.42%	1.42%	1.42%	1.41%	1.41%	1.41%	1.40%	1.40%	1.40%	1.39%	1.39%	1.39%	1.38%
47		1.46%	1.45%	1.45%	1.45%	1.44%	1.44%	1.44%	1.43%	1.43%	1.43%	1.42%	1.42%	1.42%
48		1.49%	1.49%	1.49%	1.48%	1.48%	1.48%	1.47%	1.47%	1.47%	1.46%	1.46%	1.46%	1.45%
49		1.53%	1.53%	1.52%	1.52%	1.52%	1.51%	1.51%	1.51%	1.50%	1.50%	1.49%	1.49%	1.49%
50		1.57%	1.56%	1.56%	1.56%	1.55%	1.55%	1.55%	1.54%	1.54%	1.54%	1.53%	1.53%	1.52%
51		1.61%	1.60%	1.60%	1.60%	1.59%	1.59%	1.58%	1.58%	1.58%	1.57%	1.57%	1.57%	1.56%
52		1.65%	1.64%	1.64%	1.63%	1.63%	1.63%	1.62%	1.62%	1.62%	1.61%	1.61%	1.60%	1.60%
53		1.69%	1.68%	1.68%	1.68%	1.67%	1.67%	1.66%	1.66%	1.66%	1.65%	1.65%	1.64%	1.64%
54		1.73%	1.73%	1.72%	1.72%	1.71%	1.71%	1.70%	1.70%	1.70%	1.69%	1.69%	1.68%	1.68%
55		1.77%	1.77%	1.76%	1.76%	1.76%	1.75%	1.75%	1.74%	1.74%	1.74%	1.73%	1.73%	1.72%
56		1.82%	1.81%	1.81%	1.80%	1.80%	1.80%	1.79%	1.79%	1.78%	1.78%	1.77%	1.77%	1.77%
57		1.86%	1.86%	1.86%	1.85%	1.85%	1.84%	1.84%	1.83%	1.83%	1.82%	1.82%	1.82%	1.81%
58		1.91%	1.91%	1.90%	1.90%	1.89%	1.89%	1.89%	1.88%	1.88%	1.87%	1.87%	1.86%	1.86%
59		1.96%	1.96%	1.95%	1.95%	1.94%	1.94%	1.93%	1.93%	1.93%	1.92%	1.92%	1.91%	1.91%
60		2.01%	2.01%	2.00%	2.00%	1.99%	1.99%	1.99%	1.98%	1.98%	1.97%	1.97%	1.96%	1.96%
61		2.07%	2.06%	2.06%	2.05%	2.05%	2.04%	2.04%	2.03%	2.03%	2.02%	2.02%	2.01%	2.01%
62		2.12%	2.12%	2.11%	2.11%	2.10%	2.10%	2.09%	2.09%	2.08%	2.08%	2.07%	2.07%	2.06%
63		2.18%	2.18%	2.17%	2.17%	2.16%	2.16%	2.15%	2.15%	2.14%	2.14%	2.13%	2.12%	2.12%
64		2.24%	2.24%	2.23%	2.23%	2.22%	2.22%	2.21%	2.21%	2.20%	2.19%	2.19%	2.18%	2.18%
65		2.31%	2.30%	2.29%	2.29%	2.28%	2.28%	2.27%	2.27%	2.26%	2.26%	2.25%	2.25%	2.24%
66														2.30%



**Table AF1: Female EPA1 – 1 year reduction in NPA**  
(Table 723 in consolidated factors spreadsheet)

Age (complete years, ignoring part)	EPA1											
	Normal pension age (years and complete months)											
	Years Months	65										
		1	2	3	4	5	6	7	8	9	10	11
20		0.81%	0.81%	0.80%	0.80%	0.80%	0.80%	0.80%	0.80%	0.79%	0.79%	0.79%
21		0.83%	0.83%	0.82%	0.82%	0.82%	0.82%	0.82%	0.81%	0.81%	0.81%	0.81%
22		0.85%	0.85%	0.84%	0.84%	0.84%	0.84%	0.84%	0.83%	0.83%	0.83%	0.83%
23		0.87%	0.87%	0.86%	0.86%	0.86%	0.86%	0.86%	0.85%	0.85%	0.85%	0.85%
24		0.89%	0.89%	0.88%	0.88%	0.88%	0.88%	0.88%	0.87%	0.87%	0.87%	0.87%
25		0.91%	0.91%	0.90%	0.90%	0.90%	0.90%	0.90%	0.90%	0.89%	0.89%	0.89%
26		0.93%	0.93%	0.93%	0.92%	0.92%	0.92%	0.92%	0.92%	0.91%	0.91%	0.91%
27		0.95%	0.95%	0.95%	0.95%	0.94%	0.94%	0.94%	0.94%	0.94%	0.93%	0.93%
28		0.98%	0.97%	0.97%	0.97%	0.97%	0.96%	0.96%	0.96%	0.96%	0.96%	0.95%
29		1.00%	1.00%	0.99%	0.99%	0.99%	0.99%	0.99%	0.98%	0.98%	0.98%	0.98%
30		1.02%	1.02%	1.02%	1.02%	1.01%	1.01%	1.01%	1.01%	1.00%	1.00%	1.00%
31		1.05%	1.04%	1.04%	1.04%	1.04%	1.04%	1.03%	1.03%	1.03%	1.03%	1.02%
32		1.07%	1.07%	1.07%	1.06%	1.06%	1.06%	1.06%	1.06%	1.05%	1.05%	1.05%
33		1.10%	1.09%	1.09%	1.09%	1.09%	1.09%	1.08%	1.08%	1.08%	1.08%	1.07%
34		1.12%	1.12%	1.12%	1.12%	1.11%	1.11%	1.11%	1.11%	1.10%	1.10%	1.10%
35		1.15%	1.15%	1.15%	1.14%	1.14%	1.14%	1.14%	1.13%	1.13%	1.13%	1.13%
36		1.18%	1.18%	1.17%	1.17%	1.17%	1.16%	1.16%	1.16%	1.16%	1.15%	1.15%
37		1.21%	1.20%	1.20%	1.20%	1.20%	1.19%	1.19%	1.19%	1.18%	1.18%	1.18%
38		1.24%	1.23%	1.23%	1.23%	1.22%	1.22%	1.22%	1.22%	1.21%	1.21%	1.21%
39		1.26%	1.26%	1.26%	1.26%	1.25%	1.25%	1.25%	1.25%	1.24%	1.24%	1.24%
40		1.30%	1.29%	1.29%	1.29%	1.28%	1.28%	1.28%	1.28%	1.27%	1.27%	1.27%
41		1.33%	1.32%	1.32%	1.32%	1.32%	1.31%	1.31%	1.31%	1.30%	1.30%	1.30%
42		1.36%	1.36%	1.35%	1.35%	1.35%	1.34%	1.34%	1.34%	1.34%	1.33%	1.33%
43		1.39%	1.39%	1.39%	1.38%	1.38%	1.38%	1.37%	1.37%	1.37%	1.36%	1.36%
44		1.43%	1.42%	1.42%	1.42%	1.41%	1.41%	1.41%	1.40%	1.40%	1.40%	1.39%
45		1.46%	1.46%	1.45%	1.45%	1.45%	1.44%	1.44%	1.44%	1.44%	1.43%	1.43%
46		1.50%	1.49%	1.49%	1.49%	1.48%	1.48%	1.48%	1.47%	1.47%	1.47%	1.46%
47		1.53%	1.53%	1.53%	1.52%	1.52%	1.52%	1.51%	1.51%	1.51%	1.50%	1.50%
48		1.57%	1.57%	1.56%	1.56%	1.56%	1.55%	1.55%	1.55%	1.54%	1.54%	1.54%
49		1.61%	1.61%	1.60%	1.60%	1.60%	1.59%	1.59%	1.59%	1.58%	1.58%	1.57%
50		1.65%	1.65%	1.64%	1.64%	1.64%	1.63%	1.63%	1.62%	1.62%	1.62%	1.61%
51		1.69%	1.69%	1.68%	1.68%	1.68%	1.67%	1.67%	1.67%	1.66%	1.66%	1.65%
52		1.73%	1.73%	1.73%	1.72%	1.72%	1.72%	1.71%	1.71%	1.70%	1.70%	1.70%
53		1.78%	1.77%	1.77%	1.77%	1.76%	1.76%	1.75%	1.75%	1.75%	1.74%	1.74%
54		1.82%	1.82%	1.82%	1.81%	1.81%	1.80%	1.80%	1.80%	1.79%	1.79%	1.78%
55		1.87%	1.87%	1.86%	1.86%	1.85%	1.85%	1.85%	1.84%	1.84%	1.83%	1.83%
56		1.92%	1.91%	1.91%	1.91%	1.90%	1.90%	1.89%	1.89%	1.88%	1.88%	1.88%
57		1.97%	1.96%	1.96%	1.96%	1.95%	1.95%	1.94%	1.94%	1.93%	1.93%	1.92%
58		2.02%	2.02%	2.01%	2.01%	2.00%	2.00%	1.99%	1.99%	1.98%	1.98%	1.97%
59		2.07%	2.07%	2.06%	2.06%	2.05%	2.05%	2.05%	2.04%	2.04%	2.03%	2.03%
60		2.13%	2.12%	2.12%	2.11%	2.11%	2.10%	2.10%	2.09%	2.09%	2.09%	2.08%
61		2.19%	2.18%	2.18%	2.17%	2.17%	2.16%	2.16%	2.15%	2.15%	2.14%	2.14%
62		2.24%	2.24%	2.23%	2.23%	2.22%	2.22%	2.21%	2.21%	2.20%	2.20%	2.19%
63		2.31%	2.30%	2.29%	2.29%	2.28%	2.28%	2.27%	2.27%	2.26%	2.26%	2.25%
64		2.37%	2.36%	2.36%	2.35%	2.35%	2.34%	2.34%	2.33%	2.33%	2.32%	2.31%
65												
66												





**Table AF1: Female EPA1 – 1 year reduction in NPA (continued)**  
(Table 723 in consolidated factors spreadsheet)

Age (complete years, ignoring part)	EPA1												
	Normal pension age (years and complete months)												
	Years	66											
	Months	0	1	2	3	4	5	6	7	8	9	10	11
20		0.79%	0.79%	0.79%	0.78%	0.78%	0.78%	0.78%	0.78%	0.78%	0.77%	0.77%	0.77%
21		0.81%	0.81%	0.80%	0.80%	0.80%	0.80%	0.80%	0.80%	0.79%	0.79%	0.79%	0.79%
22		0.83%	0.83%	0.82%	0.82%	0.82%	0.82%	0.82%	0.81%	0.81%	0.81%	0.81%	0.81%
23		0.85%	0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.83%	0.83%	0.83%	0.83%	0.83%
24		0.87%	0.86%	0.86%	0.86%	0.86%	0.86%	0.86%	0.85%	0.85%	0.85%	0.85%	0.85%
25		0.89%	0.89%	0.88%	0.88%	0.88%	0.88%	0.88%	0.87%	0.87%	0.87%	0.87%	0.87%
26		0.91%	0.91%	0.90%	0.90%	0.90%	0.90%	0.90%	0.89%	0.89%	0.89%	0.89%	0.89%
27		0.93%	0.93%	0.93%	0.92%	0.92%	0.92%	0.92%	0.92%	0.91%	0.91%	0.91%	0.91%
28		0.95%	0.95%	0.95%	0.95%	0.94%	0.94%	0.94%	0.94%	0.94%	0.93%	0.93%	0.93%
29		0.97%	0.97%	0.97%	0.97%	0.97%	0.96%	0.96%	0.96%	0.96%	0.96%	0.95%	0.95%
30		1.00%	1.00%	0.99%	0.99%	0.99%	0.99%	0.98%	0.98%	0.98%	0.98%	0.98%	0.97%
31		1.02%	1.02%	1.02%	1.01%	1.01%	1.01%	1.01%	1.01%	1.00%	1.00%	1.00%	1.00%
32		1.05%	1.04%	1.04%	1.04%	1.04%	1.03%	1.03%	1.03%	1.03%	1.03%	1.02%	1.02%
33		1.07%	1.07%	1.07%	1.06%	1.06%	1.06%	1.06%	1.05%	1.05%	1.05%	1.05%	1.05%
34		1.10%	1.09%	1.09%	1.09%	1.09%	1.08%	1.08%	1.08%	1.08%	1.07%	1.07%	1.07%
35		1.12%	1.12%	1.12%	1.12%	1.11%	1.11%	1.11%	1.11%	1.10%	1.10%	1.10%	1.10%
36		1.15%	1.15%	1.14%	1.14%	1.14%	1.14%	1.13%	1.13%	1.13%	1.13%	1.12%	1.12%
37		1.18%	1.17%	1.17%	1.17%	1.17%	1.16%	1.16%	1.16%	1.16%	1.15%	1.15%	1.15%
38		1.21%	1.20%	1.20%	1.20%	1.19%	1.19%	1.19%	1.19%	1.18%	1.18%	1.18%	1.18%
39		1.23%	1.23%	1.23%	1.23%	1.22%	1.22%	1.22%	1.22%	1.21%	1.21%	1.21%	1.20%
40		1.26%	1.26%	1.26%	1.26%	1.25%	1.25%	1.25%	1.24%	1.24%	1.24%	1.24%	1.23%
41		1.29%	1.29%	1.29%	1.29%	1.28%	1.28%	1.28%	1.27%	1.27%	1.27%	1.27%	1.26%
42		1.33%	1.32%	1.32%	1.32%	1.31%	1.31%	1.31%	1.31%	1.30%	1.30%	1.30%	1.29%
43		1.36%	1.36%	1.35%	1.35%	1.35%	1.34%	1.34%	1.34%	1.33%	1.33%	1.33%	1.33%
44		1.39%	1.39%	1.39%	1.38%	1.38%	1.38%	1.37%	1.37%	1.37%	1.36%	1.36%	1.36%
45		1.43%	1.42%	1.42%	1.42%	1.41%	1.41%	1.41%	1.40%	1.40%	1.40%	1.39%	1.39%
46		1.46%	1.46%	1.45%	1.45%	1.45%	1.44%	1.44%	1.44%	1.43%	1.43%	1.43%	1.42%
47		1.50%	1.49%	1.49%	1.49%	1.48%	1.48%	1.48%	1.47%	1.47%	1.47%	1.46%	1.46%
48		1.53%	1.53%	1.53%	1.52%	1.52%	1.52%	1.51%	1.51%	1.51%	1.50%	1.50%	1.50%
49		1.57%	1.57%	1.56%	1.56%	1.56%	1.55%	1.55%	1.55%	1.54%	1.54%	1.54%	1.53%
50		1.61%	1.61%	1.60%	1.60%	1.60%	1.59%	1.59%	1.58%	1.58%	1.58%	1.57%	1.57%
51		1.65%	1.65%	1.64%	1.64%	1.64%	1.63%	1.63%	1.62%	1.62%	1.62%	1.61%	1.61%
52		1.69%	1.69%	1.68%	1.68%	1.68%	1.67%	1.67%	1.67%	1.66%	1.66%	1.65%	1.65%
53		1.73%	1.73%	1.73%	1.72%	1.72%	1.72%	1.71%	1.71%	1.70%	1.70%	1.70%	1.69%
54		1.78%	1.77%	1.77%	1.77%	1.76%	1.76%	1.75%	1.75%	1.75%	1.74%	1.74%	1.73%
55		1.82%	1.82%	1.82%	1.81%	1.81%	1.80%	1.80%	1.80%	1.79%	1.79%	1.78%	1.78%
56		1.87%	1.87%	1.86%	1.86%	1.85%	1.85%	1.85%	1.84%	1.84%	1.83%	1.83%	1.82%
57		1.92%	1.92%	1.91%	1.91%	1.90%	1.90%	1.89%	1.89%	1.89%	1.88%	1.88%	1.87%
58		1.97%	1.97%	1.96%	1.96%	1.95%	1.95%	1.94%	1.94%	1.93%	1.93%	1.93%	1.92%
59		2.02%	2.02%	2.01%	2.01%	2.00%	2.00%	1.99%	1.99%	1.99%	1.98%	1.98%	1.97%
60		2.08%	2.07%	2.07%	2.06%	2.06%	2.05%	2.05%	2.04%	2.04%	2.03%	2.03%	2.02%
61		2.13%	2.13%	2.12%	2.12%	2.11%	2.11%	2.10%	2.10%	2.09%	2.09%	2.08%	2.08%
62		2.19%	2.18%	2.18%	2.17%	2.17%	2.16%	2.16%	2.15%	2.15%	2.14%	2.14%	2.13%
63		2.25%	2.24%	2.24%	2.23%	2.23%	2.22%	2.22%	2.21%	2.21%	2.20%	2.20%	2.19%
64		2.31%	2.30%	2.30%	2.29%	2.29%	2.28%	2.28%	2.27%	2.27%	2.26%	2.26%	2.25%
65													
66													



**Table AF1: Female EPA1 – 1 year reduction in NPA (continued)**  
**(Table 723 in consolidated factors spreadsheet)**

Age (complete years, ignoring part)	EPA1													
	Normal pension age (years and complete months)													
	Years Months	67												68
		0	1	2	3	4	5	6	7	8	9	10	11	0
20		0.77%	0.77%	0.77%	0.76%	0.76%	0.76%	0.76%	0.76%	0.76%	0.75%	0.75%	0.75%	0.75%
21		0.79%	0.79%	0.78%	0.78%	0.78%	0.78%	0.78%	0.78%	0.77%	0.77%	0.77%	0.77%	0.77%
22		0.81%	0.80%	0.80%	0.80%	0.80%	0.80%	0.80%	0.79%	0.79%	0.79%	0.79%	0.79%	0.78%
23		0.82%	0.82%	0.82%	0.82%	0.82%	0.82%	0.81%	0.81%	0.81%	0.81%	0.81%	0.80%	0.80%
24		0.84%	0.84%	0.84%	0.84%	0.84%	0.84%	0.83%	0.83%	0.83%	0.83%	0.83%	0.82%	0.82%
25		0.86%	0.86%	0.86%	0.86%	0.86%	0.85%	0.85%	0.85%	0.85%	0.85%	0.85%	0.84%	0.84%
26		0.88%	0.88%	0.88%	0.88%	0.88%	0.88%	0.87%	0.87%	0.87%	0.87%	0.87%	0.86%	0.86%
27		0.91%	0.90%	0.90%	0.90%	0.90%	0.90%	0.89%	0.89%	0.89%	0.89%	0.89%	0.88%	0.88%
28		0.93%	0.93%	0.92%	0.92%	0.92%	0.92%	0.91%	0.91%	0.91%	0.91%	0.91%	0.90%	0.90%
29		0.95%	0.95%	0.94%	0.94%	0.94%	0.94%	0.94%	0.93%	0.93%	0.93%	0.93%	0.93%	0.92%
30		0.97%	0.97%	0.97%	0.97%	0.96%	0.96%	0.96%	0.96%	0.95%	0.95%	0.95%	0.95%	0.95%
31		0.99%	0.99%	0.99%	0.99%	0.99%	0.98%	0.98%	0.98%	0.98%	0.98%	0.97%	0.97%	0.97%
32		1.02%	1.02%	1.01%	1.01%	1.01%	1.01%	1.00%	1.00%	1.00%	1.00%	1.00%	0.99%	0.99%
33		1.04%	1.04%	1.04%	1.04%	1.03%	1.03%	1.03%	1.03%	1.02%	1.02%	1.02%	1.02%	1.02%
34		1.07%	1.07%	1.06%	1.06%	1.06%	1.06%	1.05%	1.05%	1.05%	1.05%	1.04%	1.04%	1.04%
35		1.09%	1.09%	1.09%	1.09%	1.08%	1.08%	1.08%	1.08%	1.07%	1.07%	1.07%	1.07%	1.06%
36		1.12%	1.12%	1.11%	1.11%	1.11%	1.11%	1.10%	1.10%	1.10%	1.10%	1.09%	1.09%	1.09%
37		1.15%	1.14%	1.14%	1.14%	1.14%	1.13%	1.13%	1.13%	1.13%	1.12%	1.12%	1.12%	1.12%
38		1.17%	1.17%	1.17%	1.17%	1.16%	1.16%	1.16%	1.16%	1.15%	1.15%	1.15%	1.14%	1.14%
39		1.20%	1.20%	1.20%	1.19%	1.19%	1.19%	1.19%	1.18%	1.18%	1.18%	1.18%	1.17%	1.17%
40		1.23%	1.23%	1.23%	1.22%	1.22%	1.22%	1.21%	1.21%	1.21%	1.21%	1.20%	1.20%	1.20%
41		1.26%	1.26%	1.25%	1.25%	1.25%	1.25%	1.24%	1.24%	1.24%	1.24%	1.23%	1.23%	1.23%
42		1.29%	1.29%	1.29%	1.28%	1.28%	1.28%	1.27%	1.27%	1.27%	1.27%	1.26%	1.26%	1.26%
43		1.32%	1.32%	1.32%	1.31%	1.31%	1.31%	1.30%	1.30%	1.30%	1.30%	1.29%	1.29%	1.29%
44		1.35%	1.35%	1.35%	1.35%	1.34%	1.34%	1.34%	1.33%	1.33%	1.33%	1.32%	1.32%	1.32%
45		1.39%	1.38%	1.38%	1.38%	1.38%	1.37%	1.37%	1.37%	1.36%	1.36%	1.36%	1.35%	1.35%
46		1.42%	1.42%	1.42%	1.41%	1.41%	1.41%	1.40%	1.40%	1.40%	1.39%	1.39%	1.39%	1.38%
47		1.46%	1.45%	1.45%	1.45%	1.44%	1.44%	1.44%	1.43%	1.43%	1.43%	1.42%	1.42%	1.42%
48		1.49%	1.49%	1.49%	1.48%	1.48%	1.48%	1.47%	1.47%	1.47%	1.46%	1.46%	1.46%	1.45%
49		1.53%	1.53%	1.52%	1.52%	1.52%	1.51%	1.51%	1.50%	1.50%	1.50%	1.49%	1.49%	1.49%
50		1.57%	1.56%	1.56%	1.56%	1.55%	1.55%	1.55%	1.54%	1.54%	1.54%	1.53%	1.53%	1.52%
51		1.61%	1.60%	1.60%	1.60%	1.59%	1.59%	1.58%	1.58%	1.58%	1.57%	1.57%	1.57%	1.56%
52		1.65%	1.64%	1.64%	1.64%	1.63%	1.63%	1.62%	1.62%	1.62%	1.61%	1.61%	1.61%	1.60%
53		1.69%	1.68%	1.68%	1.68%	1.67%	1.67%	1.66%	1.66%	1.66%	1.65%	1.65%	1.65%	1.64%
54		1.73%	1.73%	1.72%	1.72%	1.71%	1.71%	1.71%	1.70%	1.70%	1.70%	1.69%	1.69%	1.68%
55		1.77%	1.77%	1.77%	1.76%	1.76%	1.75%	1.75%	1.75%	1.74%	1.74%	1.73%	1.73%	1.73%
56		1.82%	1.82%	1.81%	1.81%	1.80%	1.80%	1.80%	1.79%	1.79%	1.78%	1.78%	1.77%	1.77%
57		1.87%	1.86%	1.86%	1.85%	1.85%	1.85%	1.84%	1.84%	1.83%	1.83%	1.82%	1.82%	1.82%
58		1.92%	1.91%	1.91%	1.90%	1.90%	1.89%	1.89%	1.89%	1.88%	1.88%	1.87%	1.87%	1.86%
59		1.97%	1.96%	1.96%	1.95%	1.95%	1.94%	1.94%	1.94%	1.93%	1.93%	1.92%	1.92%	1.91%
60		2.02%	2.01%	2.01%	2.00%	2.00%	2.00%	1.99%	1.99%	1.98%	1.98%	1.97%	1.97%	1.96%
61		2.07%	2.07%	2.06%	2.06%	2.05%	2.05%	2.04%	2.04%	2.03%	2.03%	2.02%	2.02%	2.02%
62		2.13%	2.12%	2.12%	2.11%	2.11%	2.10%	2.10%	2.09%	2.09%	2.08%	2.08%	2.07%	2.07%
63		2.19%	2.18%	2.18%	2.17%	2.17%	2.16%	2.16%	2.15%	2.15%	2.14%	2.14%	2.13%	2.13%
64		2.25%	2.24%	2.24%	2.23%	2.23%	2.22%	2.21%	2.21%	2.20%	2.20%	2.19%	2.19%	2.18%
65		2.31%	2.30%	2.30%	2.29%	2.29%	2.28%	2.28%	2.27%	2.27%	2.26%	2.25%	2.25%	2.24%
66														2.31%



**Table AM2: Male EPA2 – 2 year reduction in NPA  
(Table 724 in consolidated factors spreadsheet)**

Age (complete years, ignoring part)	EPA2												
	Normal pension age (years and complete months)												
	Years	66											
	Months	0	1	2	3	4	5	6	7	8	9	10	11
20		1.60%	1.60%	1.59%	1.59%	1.59%	1.58%	1.58%	1.58%	1.57%	1.57%	1.57%	1.56%
21		1.64%	1.64%	1.63%	1.63%	1.63%	1.62%	1.62%	1.61%	1.61%	1.61%	1.60%	1.60%
22		1.68%	1.67%	1.67%	1.67%	1.66%	1.66%	1.66%	1.65%	1.65%	1.65%	1.64%	1.64%
23		1.72%	1.71%	1.71%	1.71%	1.70%	1.70%	1.70%	1.69%	1.69%	1.68%	1.68%	1.68%
24		1.76%	1.76%	1.75%	1.75%	1.74%	1.74%	1.74%	1.73%	1.73%	1.72%	1.72%	1.72%
25		1.80%	1.80%	1.79%	1.79%	1.79%	1.78%	1.78%	1.77%	1.77%	1.77%	1.76%	1.76%
26		1.84%	1.84%	1.84%	1.83%	1.83%	1.82%	1.82%	1.82%	1.81%	1.81%	1.80%	1.80%
27		1.89%	1.88%	1.88%	1.88%	1.87%	1.87%	1.86%	1.86%	1.85%	1.85%	1.85%	1.84%
28		1.93%	1.93%	1.92%	1.92%	1.92%	1.91%	1.91%	1.90%	1.90%	1.89%	1.89%	1.89%
29		1.98%	1.97%	1.97%	1.97%	1.96%	1.96%	1.95%	1.95%	1.94%	1.94%	1.94%	1.93%
30		2.03%	2.02%	2.02%	2.01%	2.01%	2.00%	2.00%	1.99%	1.99%	1.99%	1.98%	1.98%
31		2.07%	2.07%	2.06%	2.06%	2.06%	2.05%	2.05%	2.04%	2.04%	2.03%	2.03%	2.02%
32		2.12%	2.12%	2.11%	2.11%	2.10%	2.10%	2.10%	2.09%	2.09%	2.08%	2.08%	2.07%
33		2.17%	2.17%	2.16%	2.16%	2.16%	2.15%	2.15%	2.14%	2.14%	2.13%	2.13%	2.12%
34		2.23%	2.22%	2.22%	2.21%	2.21%	2.20%	2.20%	2.19%	2.19%	2.18%	2.18%	2.17%
35		2.28%	2.27%	2.27%	2.26%	2.26%	2.25%	2.25%	2.24%	2.24%	2.23%	2.23%	2.22%
36		2.33%	2.33%	2.32%	2.32%	2.31%	2.31%	2.30%	2.30%	2.29%	2.29%	2.28%	2.28%
37		2.39%	2.39%	2.38%	2.37%	2.37%	2.36%	2.36%	2.35%	2.35%	2.34%	2.34%	2.33%
38		2.45%	2.44%	2.44%	2.43%	2.43%	2.42%	2.42%	2.41%	2.40%	2.40%	2.39%	2.39%
39		2.51%	2.50%	2.50%	2.49%	2.48%	2.48%	2.47%	2.47%	2.46%	2.46%	2.45%	2.45%
40		2.57%	2.56%	2.56%	2.55%	2.54%	2.54%	2.53%	2.53%	2.52%	2.52%	2.51%	2.50%
41		2.63%	2.62%	2.62%	2.61%	2.61%	2.60%	2.59%	2.59%	2.58%	2.58%	2.57%	2.57%
42		2.69%	2.69%	2.68%	2.68%	2.67%	2.66%	2.66%	2.65%	2.65%	2.64%	2.63%	2.63%
43		2.76%	2.75%	2.75%	2.74%	2.73%	2.73%	2.72%	2.72%	2.71%	2.70%	2.70%	2.69%
44		2.83%	2.82%	2.81%	2.81%	2.80%	2.79%	2.79%	2.78%	2.78%	2.77%	2.76%	2.76%
45		2.89%	2.89%	2.88%	2.88%	2.87%	2.86%	2.86%	2.85%	2.84%	2.84%	2.83%	2.82%
46		2.97%	2.96%	2.95%	2.95%	2.94%	2.93%	2.93%	2.92%	2.91%	2.91%	2.90%	2.89%
47		3.04%	3.03%	3.02%	3.02%	3.01%	3.00%	3.00%	2.99%	2.98%	2.98%	2.97%	2.96%
48		3.11%	3.11%	3.10%	3.09%	3.08%	3.08%	3.07%	3.06%	3.06%	3.05%	3.04%	3.04%
49		3.19%	3.18%	3.17%	3.17%	3.16%	3.15%	3.15%	3.14%	3.13%	3.12%	3.12%	3.11%
50		3.27%	3.26%	3.25%	3.25%	3.24%	3.23%	3.22%	3.22%	3.21%	3.20%	3.19%	3.19%
51		3.35%	3.34%	3.33%	3.33%	3.32%	3.31%	3.30%	3.30%	3.29%	3.28%	3.27%	3.27%
52		3.43%	3.42%	3.42%	3.41%	3.40%	3.39%	3.39%	3.38%	3.37%	3.36%	3.35%	3.35%
53		3.52%	3.51%	3.50%	3.49%	3.49%	3.48%	3.47%	3.46%	3.45%	3.45%	3.44%	3.43%
54		3.61%	3.60%	3.59%	3.58%	3.57%	3.56%	3.56%	3.55%	3.54%	3.53%	3.52%	3.52%
55		3.70%	3.69%	3.68%	3.67%	3.66%	3.65%	3.65%	3.64%	3.63%	3.62%	3.61%	3.60%
56		3.79%	3.78%	3.77%	3.76%	3.76%	3.75%	3.74%	3.73%	3.72%	3.71%	3.70%	3.70%
57		3.89%	3.88%	3.87%	3.86%	3.85%	3.84%	3.83%	3.83%	3.82%	3.81%	3.80%	3.79%
58		3.99%	3.98%	3.97%	3.96%	3.95%	3.94%	3.93%	3.92%	3.92%	3.91%	3.90%	3.89%
59		4.09%	4.08%	4.07%	4.07%	4.06%	4.05%	4.04%	4.03%	4.02%	4.01%	4.00%	3.99%
60		4.20%	4.19%	4.18%	4.17%	4.16%	4.15%	4.14%	4.13%	4.12%	4.11%	4.10%	4.10%
61		4.31%	4.30%	4.29%	4.28%	4.27%	4.26%	4.25%	4.24%	4.23%	4.22%	4.21%	4.20%
62		4.43%	4.42%	4.41%	4.40%	4.39%	4.38%	4.37%	4.36%	4.35%	4.34%	4.33%	4.32%
63		4.55%	4.54%	4.53%	4.52%	4.51%	4.50%	4.49%	4.48%	4.47%	4.46%	4.45%	4.44%
64		4.68%	4.67%	4.66%	4.65%	4.64%	4.63%	4.61%	4.60%	4.59%	4.58%	4.57%	4.56%
65													



**Table AM2: Male EPA2 – 2 year reduction in NPA (continued)**  
**(Table 724 in consolidated factors spreadsheet)**

Age (complete years, ignoring part)	EPA2													
	Normal pension age (years and complete months)													
	Years	67												68
	Months	0	1	2	3	4	5	6	7	8	9	10	11	0
20		1.56%	1.56%	1.55%	1.55%	1.55%	1.54%	1.54%	1.54%	1.53%	1.53%	1.53%	1.52%	1.52%
21		1.60%	1.59%	1.59%	1.59%	1.58%	1.58%	1.58%	1.57%	1.57%	1.57%	1.56%	1.56%	1.55%
22		1.63%	1.63%	1.63%	1.62%	1.62%	1.62%	1.61%	1.61%	1.61%	1.60%	1.60%	1.60%	1.59%
23		1.67%	1.67%	1.67%	1.66%	1.66%	1.66%	1.65%	1.65%	1.64%	1.64%	1.64%	1.63%	1.63%
24		1.71%	1.71%	1.71%	1.70%	1.70%	1.69%	1.69%	1.69%	1.68%	1.68%	1.68%	1.67%	1.67%
25		1.75%	1.75%	1.75%	1.74%	1.74%	1.73%	1.73%	1.73%	1.72%	1.72%	1.72%	1.71%	1.71%
26		1.80%	1.79%	1.79%	1.78%	1.78%	1.78%	1.77%	1.77%	1.76%	1.76%	1.76%	1.75%	1.75%
27		1.84%	1.83%	1.83%	1.83%	1.82%	1.82%	1.81%	1.81%	1.81%	1.80%	1.80%	1.79%	1.79%
28		1.88%	1.88%	1.87%	1.87%	1.87%	1.86%	1.86%	1.85%	1.85%	1.84%	1.84%	1.84%	1.83%
29		1.93%	1.92%	1.92%	1.91%	1.91%	1.91%	1.90%	1.90%	1.89%	1.89%	1.88%	1.88%	1.88%
30		1.97%	1.97%	1.96%	1.96%	1.95%	1.95%	1.95%	1.94%	1.94%	1.93%	1.93%	1.92%	1.92%
31		2.02%	2.01%	2.01%	2.01%	2.00%	2.00%	1.99%	1.99%	1.98%	1.98%	1.97%	1.97%	1.97%
32		2.07%	2.06%	2.06%	2.05%	2.05%	2.04%	2.04%	2.04%	2.03%	2.03%	2.02%	2.02%	2.01%
33		2.12%	2.11%	2.11%	2.10%	2.10%	2.09%	2.09%	2.08%	2.08%	2.07%	2.07%	2.06%	2.06%
34		2.17%	2.16%	2.16%	2.15%	2.15%	2.14%	2.14%	2.13%	2.13%	2.12%	2.12%	2.11%	2.11%
35		2.22%	2.21%	2.21%	2.20%	2.20%	2.19%	2.19%	2.18%	2.18%	2.17%	2.17%	2.16%	2.16%
36		2.27%	2.27%	2.26%	2.26%	2.25%	2.25%	2.24%	2.24%	2.23%	2.23%	2.22%	2.22%	2.21%
37		2.33%	2.32%	2.32%	2.31%	2.31%	2.30%	2.30%	2.29%	2.29%	2.28%	2.27%	2.27%	2.26%
38		2.38%	2.38%	2.37%	2.37%	2.36%	2.36%	2.35%	2.35%	2.34%	2.33%	2.33%	2.32%	2.32%
39		2.44%	2.43%	2.43%	2.42%	2.42%	2.41%	2.41%	2.40%	2.40%	2.39%	2.39%	2.38%	2.37%
40		2.50%	2.49%	2.49%	2.48%	2.48%	2.47%	2.47%	2.46%	2.45%	2.45%	2.44%	2.44%	2.43%
41		2.56%	2.55%	2.55%	2.54%	2.54%	2.53%	2.52%	2.52%	2.51%	2.51%	2.50%	2.50%	2.49%
42		2.62%	2.62%	2.61%	2.60%	2.60%	2.59%	2.59%	2.58%	2.57%	2.57%	2.56%	2.56%	2.55%
43		2.68%	2.68%	2.67%	2.67%	2.66%	2.65%	2.65%	2.64%	2.64%	2.63%	2.62%	2.62%	2.61%
44		2.75%	2.74%	2.74%	2.73%	2.73%	2.72%	2.71%	2.71%	2.70%	2.69%	2.69%	2.68%	2.68%
45		2.82%	2.81%	2.80%	2.80%	2.79%	2.79%	2.78%	2.77%	2.77%	2.76%	2.75%	2.75%	2.74%
46		2.89%	2.88%	2.87%	2.87%	2.86%	2.85%	2.85%	2.84%	2.83%	2.83%	2.82%	2.81%	2.81%
47		2.96%	2.95%	2.94%	2.94%	2.93%	2.92%	2.92%	2.91%	2.90%	2.90%	2.89%	2.88%	2.88%
48		3.03%	3.02%	3.01%	3.01%	3.00%	2.99%	2.99%	2.98%	2.97%	2.97%	2.96%	2.95%	2.95%
49		3.10%	3.10%	3.09%	3.08%	3.07%	3.07%	3.06%	3.05%	3.05%	3.04%	3.03%	3.02%	3.02%
50		3.18%	3.17%	3.16%	3.16%	3.15%	3.14%	3.14%	3.13%	3.12%	3.11%	3.11%	3.10%	3.09%
51		3.26%	3.25%	3.24%	3.24%	3.23%	3.22%	3.21%	3.21%	3.20%	3.19%	3.18%	3.18%	3.17%
52		3.34%	3.33%	3.32%	3.32%	3.31%	3.30%	3.29%	3.28%	3.28%	3.27%	3.26%	3.25%	3.25%
53		3.42%	3.41%	3.41%	3.40%	3.39%	3.38%	3.37%	3.37%	3.36%	3.35%	3.34%	3.33%	3.33%
54		3.51%	3.50%	3.49%	3.48%	3.47%	3.47%	3.46%	3.45%	3.44%	3.43%	3.43%	3.42%	3.41%
55		3.60%	3.59%	3.58%	3.57%	3.56%	3.55%	3.55%	3.54%	3.53%	3.52%	3.51%	3.50%	3.50%
56		3.69%	3.68%	3.67%	3.66%	3.65%	3.64%	3.64%	3.63%	3.62%	3.61%	3.60%	3.59%	3.58%
57		3.78%	3.77%	3.76%	3.75%	3.75%	3.74%	3.73%	3.72%	3.71%	3.70%	3.69%	3.68%	3.68%
58		3.88%	3.87%	3.86%	3.85%	3.84%	3.83%	3.82%	3.82%	3.81%	3.80%	3.79%	3.78%	3.77%
59		3.98%	3.97%	3.96%	3.95%	3.94%	3.93%	3.92%	3.92%	3.91%	3.90%	3.89%	3.88%	3.87%
60		4.09%	4.08%	4.07%	4.06%	4.05%	4.04%	4.03%	4.02%	4.01%	4.00%	3.99%	3.98%	3.97%
61		4.19%	4.18%	4.18%	4.17%	4.16%	4.15%	4.14%	4.13%	4.12%	4.11%	4.10%	4.09%	4.08%
62		4.31%	4.30%	4.29%	4.28%	4.27%	4.26%	4.25%	4.24%	4.23%	4.22%	4.21%	4.20%	4.19%
63		4.43%	4.42%	4.41%	4.40%	4.38%	4.37%	4.36%	4.35%	4.34%	4.33%	4.32%	4.31%	4.30%
64		4.55%	4.54%	4.53%	4.52%	4.51%	4.50%	4.49%	4.47%	4.46%	4.45%	4.44%	4.43%	4.42%
65														4.55%



**Table AF2: Female EPA2 – 2 year reduction in NPA**  
(Table 725 in consolidated factors spreadsheet)

Age (complete years, ignoring part)	EPA2												
	Normal pension age (years and complete months)												
	Years	66											
	Months	0	1	2	3	4	5	6	7	8	9	10	11
20		1.60%	1.60%	1.59%	1.59%	1.59%	1.58%	1.58%	1.58%	1.57%	1.57%	1.56%	1.56%
21		1.64%	1.63%	1.63%	1.63%	1.62%	1.62%	1.62%	1.61%	1.61%	1.61%	1.60%	1.60%
22		1.68%	1.67%	1.67%	1.67%	1.66%	1.66%	1.65%	1.65%	1.65%	1.64%	1.64%	1.64%
23		1.72%	1.71%	1.71%	1.70%	1.70%	1.70%	1.69%	1.69%	1.69%	1.68%	1.68%	1.67%
24		1.76%	1.75%	1.75%	1.74%	1.74%	1.74%	1.73%	1.73%	1.73%	1.72%	1.72%	1.71%
25		1.80%	1.79%	1.79%	1.79%	1.78%	1.78%	1.77%	1.77%	1.77%	1.76%	1.76%	1.76%
26		1.84%	1.84%	1.83%	1.83%	1.82%	1.82%	1.82%	1.81%	1.81%	1.80%	1.80%	1.80%
27		1.88%	1.88%	1.88%	1.87%	1.87%	1.86%	1.86%	1.86%	1.85%	1.85%	1.84%	1.84%
28		1.93%	1.92%	1.92%	1.92%	1.91%	1.91%	1.90%	1.90%	1.90%	1.89%	1.89%	1.88%
29		1.97%	1.97%	1.97%	1.96%	1.96%	1.95%	1.95%	1.94%	1.94%	1.94%	1.93%	1.93%
30		2.02%	2.02%	2.01%	2.01%	2.00%	2.00%	2.00%	1.99%	1.99%	1.98%	1.98%	1.97%
31		2.07%	2.07%	2.06%	2.06%	2.05%	2.05%	2.04%	2.04%	2.03%	2.03%	2.03%	2.02%
32		2.12%	2.11%	2.11%	2.11%	2.10%	2.10%	2.09%	2.09%	2.08%	2.08%	2.07%	2.07%
33		2.17%	2.17%	2.16%	2.16%	2.15%	2.15%	2.14%	2.14%	2.13%	2.13%	2.12%	2.12%
34		2.22%	2.22%	2.21%	2.21%	2.20%	2.20%	2.19%	2.19%	2.18%	2.18%	2.17%	2.17%
35		2.28%	2.27%	2.27%	2.26%	2.26%	2.25%	2.25%	2.24%	2.24%	2.23%	2.23%	2.22%
36		2.33%	2.32%	2.32%	2.31%	2.31%	2.30%	2.30%	2.29%	2.29%	2.28%	2.28%	2.27%
37		2.39%	2.38%	2.38%	2.37%	2.36%	2.36%	2.35%	2.35%	2.34%	2.34%	2.33%	2.33%
38		2.44%	2.44%	2.43%	2.43%	2.42%	2.42%	2.41%	2.41%	2.40%	2.39%	2.39%	2.38%
39		2.50%	2.50%	2.49%	2.49%	2.48%	2.47%	2.47%	2.46%	2.46%	2.45%	2.45%	2.44%
40		2.56%	2.56%	2.55%	2.55%	2.54%	2.53%	2.53%	2.52%	2.52%	2.51%	2.51%	2.50%
41		2.62%	2.62%	2.61%	2.61%	2.60%	2.60%	2.59%	2.58%	2.58%	2.57%	2.57%	2.56%
42		2.69%	2.68%	2.68%	2.67%	2.66%	2.66%	2.65%	2.65%	2.64%	2.63%	2.63%	2.62%
43		2.75%	2.75%	2.74%	2.74%	2.73%	2.72%	2.72%	2.71%	2.70%	2.70%	2.69%	2.69%
44		2.82%	2.81%	2.81%	2.80%	2.80%	2.79%	2.78%	2.78%	2.77%	2.76%	2.76%	2.75%
45		2.89%	2.88%	2.88%	2.87%	2.86%	2.86%	2.85%	2.84%	2.84%	2.83%	2.83%	2.82%
46		2.96%	2.95%	2.95%	2.94%	2.93%	2.93%	2.92%	2.91%	2.91%	2.90%	2.89%	2.89%
47		3.03%	3.03%	3.02%	3.01%	3.01%	3.00%	2.99%	2.99%	2.98%	2.97%	2.97%	2.96%
48		3.11%	3.10%	3.09%	3.09%	3.08%	3.07%	3.07%	3.06%	3.05%	3.05%	3.04%	3.03%
49		3.19%	3.18%	3.17%	3.16%	3.16%	3.15%	3.14%	3.14%	3.13%	3.12%	3.11%	3.11%
50		3.26%	3.26%	3.25%	3.24%	3.24%	3.23%	3.22%	3.21%	3.21%	3.20%	3.19%	3.18%
51		3.35%	3.34%	3.33%	3.32%	3.32%	3.31%	3.30%	3.29%	3.29%	3.28%	3.27%	3.26%
52		3.43%	3.42%	3.41%	3.41%	3.40%	3.39%	3.38%	3.38%	3.37%	3.36%	3.35%	3.35%
53		3.52%	3.51%	3.50%	3.49%	3.49%	3.48%	3.47%	3.46%	3.45%	3.45%	3.44%	3.43%
54		3.61%	3.60%	3.59%	3.58%	3.57%	3.57%	3.56%	3.55%	3.54%	3.53%	3.53%	3.52%
55		3.70%	3.69%	3.68%	3.67%	3.67%	3.66%	3.65%	3.64%	3.63%	3.62%	3.62%	3.61%
56		3.79%	3.79%	3.78%	3.77%	3.76%	3.75%	3.74%	3.73%	3.73%	3.72%	3.71%	3.70%
57		3.89%	3.88%	3.88%	3.87%	3.86%	3.85%	3.84%	3.83%	3.82%	3.81%	3.80%	3.80%
58		3.99%	3.99%	3.98%	3.97%	3.96%	3.95%	3.94%	3.93%	3.92%	3.91%	3.90%	3.90%
59		4.10%	4.09%	4.08%	4.07%	4.06%	4.05%	4.04%	4.03%	4.03%	4.02%	4.01%	4.00%
60		4.21%	4.20%	4.19%	4.18%	4.17%	4.16%	4.15%	4.14%	4.13%	4.12%	4.11%	4.10%
61		4.32%	4.31%	4.30%	4.29%	4.28%	4.27%	4.26%	4.25%	4.24%	4.23%	4.22%	4.21%
62		4.44%	4.43%	4.42%	4.41%	4.40%	4.39%	4.38%	4.37%	4.36%	4.35%	4.34%	4.33%
63		4.56%	4.55%	4.54%	4.53%	4.52%	4.51%	4.50%	4.49%	4.48%	4.46%	4.45%	4.44%
64		4.68%	4.67%	4.66%	4.65%	4.64%	4.63%	4.62%	4.61%	4.60%	4.59%	4.58%	4.57%
65													



**Table AM2: Female EPA2 – 2 year reduction in NPA (continued)**  
(Table 725 in consolidated factors spreadsheet)

Age (complete years, ignoring part)	EPA2													
	Normal pension age (years and complete months)													
	Years	67												68
	Months	0	1	2	3	4	5	6	7	8	9	10	11	0
20		1.56%	1.55%	1.55%	1.55%	1.54%	1.54%	1.54%	1.53%	1.53%	1.53%	1.52%	1.52%	1.52%
21		1.59%	1.59%	1.59%	1.58%	1.58%	1.58%	1.57%	1.57%	1.57%	1.56%	1.56%	1.56%	1.55%
22		1.63%	1.63%	1.63%	1.62%	1.62%	1.61%	1.61%	1.61%	1.60%	1.60%	1.60%	1.59%	1.59%
23		1.67%	1.67%	1.66%	1.66%	1.66%	1.65%	1.65%	1.65%	1.64%	1.64%	1.64%	1.63%	1.63%
24		1.71%	1.71%	1.70%	1.70%	1.70%	1.69%	1.69%	1.68%	1.68%	1.68%	1.67%	1.67%	1.67%
25		1.75%	1.75%	1.74%	1.74%	1.74%	1.73%	1.73%	1.72%	1.72%	1.72%	1.71%	1.71%	1.71%
26		1.79%	1.79%	1.79%	1.78%	1.78%	1.77%	1.77%	1.77%	1.76%	1.76%	1.75%	1.75%	1.75%
27		1.84%	1.83%	1.83%	1.82%	1.82%	1.82%	1.81%	1.81%	1.80%	1.80%	1.80%	1.79%	1.79%
28		1.88%	1.87%	1.87%	1.87%	1.86%	1.86%	1.85%	1.85%	1.85%	1.84%	1.84%	1.83%	1.83%
29		1.92%	1.92%	1.92%	1.91%	1.91%	1.90%	1.90%	1.89%	1.89%	1.89%	1.88%	1.88%	1.87%
30		1.97%	1.96%	1.96%	1.96%	1.95%	1.95%	1.94%	1.94%	1.93%	1.93%	1.93%	1.92%	1.92%
31		2.02%	2.01%	2.01%	2.00%	2.00%	1.99%	1.99%	1.99%	1.98%	1.98%	1.97%	1.97%	1.96%
32		2.06%	2.06%	2.06%	2.05%	2.05%	2.04%	2.04%	2.03%	2.03%	2.02%	2.02%	2.01%	2.01%
33		2.11%	2.11%	2.10%	2.10%	2.09%	2.09%	2.09%	2.08%	2.08%	2.07%	2.07%	2.06%	2.06%
34		2.16%	2.16%	2.15%	2.15%	2.14%	2.14%	2.14%	2.13%	2.13%	2.12%	2.12%	2.11%	2.11%
35		2.22%	2.21%	2.21%	2.20%	2.20%	2.19%	2.19%	2.18%	2.18%	2.17%	2.17%	2.16%	2.16%
36		2.27%	2.26%	2.26%	2.25%	2.25%	2.24%	2.24%	2.23%	2.23%	2.22%	2.22%	2.21%	2.21%
37		2.32%	2.32%	2.31%	2.31%	2.30%	2.30%	2.29%	2.29%	2.28%	2.28%	2.27%	2.27%	2.26%
38		2.38%	2.37%	2.37%	2.36%	2.36%	2.35%	2.35%	2.34%	2.34%	2.33%	2.33%	2.32%	2.32%
39		2.44%	2.43%	2.43%	2.42%	2.41%	2.41%	2.40%	2.40%	2.39%	2.39%	2.38%	2.38%	2.37%
40		2.49%	2.49%	2.48%	2.48%	2.47%	2.47%	2.46%	2.46%	2.45%	2.45%	2.44%	2.43%	2.43%
41		2.56%	2.55%	2.54%	2.54%	2.53%	2.53%	2.52%	2.52%	2.51%	2.50%	2.50%	2.49%	2.49%
42		2.62%	2.61%	2.61%	2.60%	2.59%	2.59%	2.58%	2.58%	2.57%	2.56%	2.56%	2.55%	2.55%
43		2.68%	2.67%	2.67%	2.66%	2.66%	2.65%	2.64%	2.64%	2.63%	2.63%	2.62%	2.62%	2.61%
44		2.75%	2.74%	2.73%	2.73%	2.72%	2.72%	2.71%	2.70%	2.70%	2.69%	2.68%	2.68%	2.67%
45		2.81%	2.81%	2.80%	2.79%	2.79%	2.78%	2.78%	2.77%	2.76%	2.76%	2.75%	2.74%	2.74%
46		2.88%	2.88%	2.87%	2.86%	2.86%	2.85%	2.84%	2.84%	2.83%	2.82%	2.82%	2.81%	2.80%
47		2.95%	2.95%	2.94%	2.93%	2.93%	2.92%	2.91%	2.91%	2.90%	2.89%	2.89%	2.88%	2.87%
48		3.03%	3.02%	3.01%	3.00%	3.00%	2.99%	2.98%	2.98%	2.97%	2.96%	2.96%	2.95%	2.94%
49		3.10%	3.09%	3.09%	3.08%	3.07%	3.07%	3.06%	3.05%	3.04%	3.04%	3.03%	3.02%	3.02%
50		3.18%	3.17%	3.16%	3.16%	3.15%	3.14%	3.13%	3.13%	3.12%	3.11%	3.11%	3.10%	3.09%
51		3.26%	3.25%	3.24%	3.23%	3.23%	3.22%	3.21%	3.21%	3.20%	3.19%	3.18%	3.18%	3.17%
52		3.34%	3.33%	3.32%	3.32%	3.31%	3.30%	3.29%	3.29%	3.28%	3.27%	3.26%	3.26%	3.25%
53		3.42%	3.41%	3.41%	3.40%	3.39%	3.38%	3.38%	3.37%	3.36%	3.35%	3.35%	3.34%	3.33%
54		3.51%	3.50%	3.49%	3.49%	3.48%	3.47%	3.46%	3.45%	3.45%	3.44%	3.43%	3.42%	3.41%
55		3.60%	3.59%	3.58%	3.57%	3.57%	3.56%	3.55%	3.54%	3.53%	3.53%	3.52%	3.51%	3.50%
56		3.69%	3.68%	3.67%	3.67%	3.66%	3.65%	3.64%	3.63%	3.62%	3.62%	3.61%	3.60%	3.59%
57		3.79%	3.78%	3.77%	3.76%	3.75%	3.74%	3.74%	3.73%	3.72%	3.71%	3.70%	3.69%	3.68%
58		3.89%	3.88%	3.87%	3.86%	3.85%	3.84%	3.83%	3.82%	3.82%	3.81%	3.80%	3.79%	3.78%
59		3.99%	3.98%	3.97%	3.96%	3.95%	3.94%	3.93%	3.92%	3.92%	3.91%	3.90%	3.89%	3.88%
60		4.09%	4.08%	4.08%	4.07%	4.06%	4.05%	4.04%	4.03%	4.02%	4.01%	4.00%	3.99%	3.98%
61		4.20%	4.19%	4.18%	4.17%	4.16%	4.16%	4.15%	4.14%	4.13%	4.12%	4.11%	4.10%	4.09%
62		4.32%	4.31%	4.30%	4.29%	4.28%	4.27%	4.26%	4.25%	4.24%	4.23%	4.22%	4.21%	4.20%
63		4.43%	4.42%	4.41%	4.40%	4.39%	4.38%	4.37%	4.36%	4.35%	4.34%	4.33%	4.32%	4.31%
64		4.56%	4.54%	4.53%	4.52%	4.51%	4.50%	4.49%	4.48%	4.47%	4.46%	4.45%	4.44%	4.43%
65														4.55%



**Table AM3: Male EPA3 – 3 year reduction in NPA**  
**(Table 726 in consolidated factors spreadsheet)**

Age (complete years, ignoring part years)	EPA3													
	Normal pension age (years and complete months)													
	Years	67												68
	Months	0	1	2	3	4	5	6	7	8	9	10	11	0
20		2.37%	2.37%	2.36%	2.36%	2.35%	2.35%	2.34%	2.34%	2.33%	2.32%	2.32%	2.31%	2.31%
21		2.43%	2.42%	2.42%	2.41%	2.41%	2.40%	2.40%	2.39%	2.39%	2.38%	2.37%	2.37%	2.36%
22		2.49%	2.48%	2.47%	2.47%	2.46%	2.46%	2.45%	2.45%	2.44%	2.44%	2.43%	2.43%	2.42%
23		2.54%	2.54%	2.53%	2.53%	2.52%	2.52%	2.51%	2.51%	2.50%	2.49%	2.49%	2.48%	2.48%
24		2.60%	2.60%	2.59%	2.59%	2.58%	2.58%	2.57%	2.56%	2.56%	2.55%	2.55%	2.54%	2.54%
25		2.67%	2.66%	2.65%	2.65%	2.64%	2.64%	2.63%	2.63%	2.62%	2.61%	2.61%	2.60%	2.60%
26		2.73%	2.72%	2.72%	2.71%	2.71%	2.70%	2.69%	2.69%	2.68%	2.68%	2.67%	2.66%	2.66%
27		2.79%	2.79%	2.78%	2.78%	2.77%	2.76%	2.76%	2.75%	2.75%	2.74%	2.73%	2.73%	2.72%
28		2.86%	2.85%	2.85%	2.84%	2.84%	2.83%	2.82%	2.82%	2.81%	2.80%	2.80%	2.79%	2.79%
29		2.93%	2.92%	2.92%	2.91%	2.90%	2.90%	2.89%	2.88%	2.88%	2.87%	2.86%	2.86%	2.85%
30		3.00%	2.99%	2.99%	2.98%	2.97%	2.97%	2.96%	2.95%	2.95%	2.94%	2.93%	2.93%	2.92%
31		3.07%	3.06%	3.06%	3.05%	3.04%	3.04%	3.03%	3.02%	3.02%	3.01%	3.00%	3.00%	2.99%
32		3.14%	3.14%	3.13%	3.12%	3.12%	3.11%	3.10%	3.09%	3.09%	3.08%	3.07%	3.07%	3.06%
33		3.22%	3.21%	3.20%	3.20%	3.19%	3.18%	3.18%	3.17%	3.16%	3.15%	3.15%	3.14%	3.13%
34		3.30%	3.29%	3.28%	3.27%	3.27%	3.26%	3.25%	3.24%	3.24%	3.23%	3.22%	3.21%	3.21%
35		3.37%	3.37%	3.36%	3.35%	3.34%	3.34%	3.33%	3.32%	3.31%	3.31%	3.30%	3.29%	3.28%
36		3.46%	3.45%	3.44%	3.43%	3.42%	3.42%	3.41%	3.40%	3.39%	3.39%	3.38%	3.37%	3.36%
37		3.54%	3.53%	3.52%	3.51%	3.51%	3.50%	3.49%	3.48%	3.47%	3.47%	3.46%	3.45%	3.44%
38		3.62%	3.61%	3.61%	3.60%	3.59%	3.58%	3.57%	3.57%	3.56%	3.55%	3.54%	3.53%	3.53%
39		3.71%	3.70%	3.69%	3.69%	3.68%	3.67%	3.66%	3.65%	3.64%	3.64%	3.63%	3.62%	3.61%
40		3.80%	3.79%	3.78%	3.77%	3.77%	3.76%	3.75%	3.74%	3.73%	3.72%	3.71%	3.71%	3.70%
41		3.89%	3.88%	3.87%	3.87%	3.86%	3.85%	3.84%	3.83%	3.82%	3.81%	3.80%	3.80%	3.79%
42		3.99%	3.98%	3.97%	3.96%	3.95%	3.94%	3.93%	3.92%	3.91%	3.91%	3.90%	3.89%	3.88%
43		4.08%	4.07%	4.06%	4.06%	4.05%	4.04%	4.03%	4.02%	4.01%	4.00%	3.99%	3.98%	3.97%
44		4.18%	4.17%	4.16%	4.15%	4.14%	4.14%	4.13%	4.12%	4.11%	4.10%	4.09%	4.08%	4.07%
45		4.28%	4.27%	4.26%	4.26%	4.25%	4.24%	4.23%	4.22%	4.21%	4.20%	4.19%	4.18%	4.17%
46		4.39%	4.38%	4.37%	4.36%	4.35%	4.34%	4.33%	4.32%	4.31%	4.30%	4.29%	4.28%	4.27%
47		4.50%	4.49%	4.48%	4.47%	4.46%	4.45%	4.43%	4.42%	4.41%	4.40%	4.39%	4.38%	4.37%
48		4.61%	4.60%	4.59%	4.57%	4.56%	4.55%	4.54%	4.53%	4.52%	4.51%	4.50%	4.49%	4.48%
49		4.72%	4.71%	4.70%	4.69%	4.68%	4.67%	4.65%	4.64%	4.63%	4.62%	4.61%	4.60%	4.59%
50		4.84%	4.82%	4.81%	4.80%	4.79%	4.78%	4.77%	4.76%	4.75%	4.74%	4.73%	4.71%	4.70%
51		4.95%	4.94%	4.93%	4.92%	4.91%	4.90%	4.89%	4.88%	4.86%	4.85%	4.84%	4.83%	4.82%
52		5.08%	5.07%	5.05%	5.04%	5.03%	5.02%	5.01%	5.00%	4.99%	4.97%	4.96%	4.95%	4.94%
53		5.20%	5.19%	5.18%	5.17%	5.16%	5.14%	5.13%	5.12%	5.11%	5.10%	5.09%	5.07%	5.06%
54		5.33%	5.32%	5.31%	5.30%	5.29%	5.27%	5.26%	5.25%	5.24%	5.22%	5.21%	5.20%	5.19%
55		5.47%	5.46%	5.44%	5.43%	5.42%	5.41%	5.39%	5.38%	5.37%	5.36%	5.34%	5.33%	5.32%
56		5.61%	5.60%	5.58%	5.57%	5.56%	5.54%	5.53%	5.52%	5.50%	5.49%	5.48%	5.47%	5.45%
57		5.75%	5.74%	5.73%	5.71%	5.70%	5.69%	5.67%	5.66%	5.65%	5.63%	5.62%	5.61%	5.59%
58		5.90%	5.89%	5.87%	5.86%	5.85%	5.83%	5.82%	5.81%	5.79%	5.78%	5.76%	5.75%	5.74%
59		6.06%	6.04%	6.03%	6.01%	6.00%	5.99%	5.97%	5.96%	5.94%	5.93%	5.91%	5.90%	5.89%
60		6.22%	6.20%	6.19%	6.17%	6.16%	6.14%	6.13%	6.11%	6.10%	6.09%	6.07%	6.06%	6.04%
61		6.38%	6.37%	6.35%	6.34%	6.32%	6.31%	6.29%	6.28%	6.26%	6.25%	6.23%	6.22%	6.20%
62		6.56%	6.54%	6.52%	6.51%	6.49%	6.48%	6.46%	6.45%	6.43%	6.42%	6.40%	6.39%	6.37%
63		6.74%	6.72%	6.70%	6.69%	6.67%	6.66%	6.64%	6.63%	6.61%	6.59%	6.58%	6.56%	6.55%
64		6.92%	6.91%	6.89%	6.87%	6.86%	6.84%	6.82%	6.81%	6.79%	6.78%	6.76%	6.74%	6.73%





**Table AF3: Female EPA3 – 3 year reduction in NPA**  
**(Table 727 in consolidated factors spreadsheet)**

Age (complete years, ignoring part years)	EPA3													
	Normal pension age (years and complete months)													
	Years	67												68
	Months	0	1	2	3	4	5	6	7	8	9	10	11	0
20		2.37%	2.36%	2.36%	2.35%	2.35%	2.34%	2.34%	2.33%	2.33%	2.32%	2.32%	2.31%	2.31%
21		2.42%	2.42%	2.41%	2.41%	2.40%	2.40%	2.39%	2.39%	2.38%	2.38%	2.37%	2.37%	2.36%
22		2.48%	2.48%	2.47%	2.47%	2.46%	2.45%	2.45%	2.44%	2.44%	2.43%	2.43%	2.42%	2.42%
23		2.54%	2.53%	2.53%	2.52%	2.52%	2.51%	2.51%	2.50%	2.50%	2.49%	2.49%	2.48%	2.47%
24		2.60%	2.59%	2.59%	2.58%	2.58%	2.57%	2.57%	2.56%	2.56%	2.55%	2.54%	2.54%	2.53%
25		2.66%	2.66%	2.65%	2.64%	2.64%	2.63%	2.63%	2.62%	2.62%	2.61%	2.60%	2.60%	2.59%
26		2.73%	2.72%	2.71%	2.71%	2.70%	2.70%	2.69%	2.68%	2.68%	2.67%	2.67%	2.66%	2.65%
27		2.79%	2.78%	2.78%	2.77%	2.77%	2.76%	2.75%	2.75%	2.74%	2.74%	2.73%	2.72%	2.72%
28		2.86%	2.85%	2.84%	2.84%	2.83%	2.83%	2.82%	2.81%	2.81%	2.80%	2.79%	2.79%	2.78%
29		2.92%	2.92%	2.91%	2.90%	2.90%	2.89%	2.89%	2.88%	2.87%	2.87%	2.86%	2.85%	2.85%
30		2.99%	2.99%	2.98%	2.97%	2.97%	2.96%	2.95%	2.95%	2.94%	2.93%	2.93%	2.92%	2.92%
31		3.06%	3.06%	3.05%	3.04%	3.04%	3.03%	3.02%	3.02%	3.01%	3.00%	3.00%	2.99%	2.98%
32		3.14%	3.13%	3.12%	3.12%	3.11%	3.10%	3.10%	3.09%	3.08%	3.08%	3.07%	3.06%	3.06%
33		3.21%	3.21%	3.20%	3.19%	3.18%	3.18%	3.17%	3.16%	3.16%	3.15%	3.14%	3.14%	3.13%
34		3.29%	3.28%	3.28%	3.27%	3.26%	3.25%	3.25%	3.24%	3.23%	3.22%	3.22%	3.21%	3.20%
35		3.37%	3.36%	3.35%	3.35%	3.34%	3.33%	3.32%	3.32%	3.31%	3.30%	3.29%	3.29%	3.28%
36		3.45%	3.44%	3.43%	3.43%	3.42%	3.41%	3.40%	3.40%	3.39%	3.38%	3.37%	3.37%	3.36%
37		3.53%	3.52%	3.52%	3.51%	3.50%	3.49%	3.49%	3.48%	3.47%	3.46%	3.45%	3.45%	3.44%
38		3.62%	3.61%	3.60%	3.59%	3.58%	3.58%	3.57%	3.56%	3.55%	3.54%	3.54%	3.53%	3.52%
39		3.70%	3.70%	3.69%	3.68%	3.67%	3.66%	3.65%	3.65%	3.64%	3.63%	3.62%	3.61%	3.61%
40		3.79%	3.78%	3.78%	3.77%	3.76%	3.75%	3.74%	3.73%	3.73%	3.72%	3.71%	3.70%	3.69%
41		3.88%	3.88%	3.87%	3.86%	3.85%	3.84%	3.83%	3.82%	3.82%	3.81%	3.80%	3.79%	3.78%
42		3.98%	3.97%	3.96%	3.95%	3.94%	3.93%	3.93%	3.92%	3.91%	3.90%	3.89%	3.88%	3.87%
43		4.08%	4.07%	4.06%	4.05%	4.04%	4.03%	4.02%	4.01%	4.00%	3.99%	3.99%	3.98%	3.97%
44		4.17%	4.17%	4.16%	4.15%	4.14%	4.13%	4.12%	4.11%	4.10%	4.09%	4.08%	4.07%	4.06%
45		4.28%	4.27%	4.26%	4.25%	4.24%	4.23%	4.22%	4.21%	4.20%	4.19%	4.18%	4.17%	4.16%
46		4.38%	4.37%	4.36%	4.35%	4.34%	4.33%	4.32%	4.31%	4.30%	4.29%	4.28%	4.27%	4.26%
47		4.49%	4.48%	4.47%	4.46%	4.45%	4.44%	4.43%	4.42%	4.41%	4.40%	4.39%	4.38%	4.37%
48		4.60%	4.59%	4.58%	4.57%	4.56%	4.55%	4.54%	4.53%	4.52%	4.51%	4.50%	4.49%	4.48%
49		4.71%	4.70%	4.69%	4.68%	4.67%	4.66%	4.65%	4.64%	4.63%	4.62%	4.61%	4.60%	4.59%
50		4.83%	4.82%	4.81%	4.80%	4.79%	4.78%	4.77%	4.76%	4.74%	4.73%	4.72%	4.71%	4.70%
51		4.95%	4.94%	4.93%	4.92%	4.91%	4.90%	4.89%	4.87%	4.86%	4.85%	4.84%	4.83%	4.82%
52		5.08%	5.06%	5.05%	5.04%	5.03%	5.02%	5.01%	5.00%	4.99%	4.97%	4.96%	4.95%	4.94%
53		5.20%	5.19%	5.18%	5.17%	5.16%	5.15%	5.13%	5.12%	5.11%	5.10%	5.09%	5.08%	5.06%
54		5.34%	5.32%	5.31%	5.30%	5.29%	5.28%	5.26%	5.25%	5.24%	5.23%	5.22%	5.20%	5.19%
55		5.47%	5.46%	5.45%	5.44%	5.42%	5.41%	5.40%	5.39%	5.37%	5.36%	5.35%	5.34%	5.33%
56		5.61%	5.60%	5.59%	5.58%	5.56%	5.55%	5.54%	5.53%	5.51%	5.50%	5.49%	5.47%	5.46%
57		5.76%	5.75%	5.73%	5.72%	5.71%	5.70%	5.68%	5.67%	5.66%	5.64%	5.63%	5.62%	5.60%
58		5.91%	5.90%	5.88%	5.87%	5.86%	5.84%	5.83%	5.82%	5.80%	5.79%	5.78%	5.76%	5.75%
59		6.07%	6.05%	6.04%	6.03%	6.01%	6.00%	5.98%	5.97%	5.96%	5.94%	5.93%	5.91%	5.90%
60		6.23%	6.21%	6.20%	6.18%	6.17%	6.16%	6.14%	6.13%	6.11%	6.10%	6.09%	6.07%	6.06%
61		6.39%	6.38%	6.36%	6.35%	6.34%	6.32%	6.31%	6.29%	6.28%	6.26%	6.25%	6.23%	6.22%
62		6.57%	6.55%	6.54%	6.52%	6.51%	6.49%	6.48%	6.46%	6.45%	6.43%	6.42%	6.40%	6.39%
63		6.74%	6.73%	6.71%	6.70%	6.68%	6.67%	6.65%	6.64%	6.62%	6.61%	6.59%	6.57%	6.56%
64		6.93%	6.91%	6.90%	6.88%	6.86%	6.85%	6.83%	6.82%	6.80%	6.79%	6.77%	6.75%	6.74%





## Appendix B: Worked examples (EPA)

### Example B1

B.1 Consider a member with details as follows:

Date of Birth:	15/10/1960
Age:	58 years and 5 months on 01/04/2019
Gender:	Male
NPA:	66 years and 7 months (rounded up to the next month)
Pensionable Earnings:	£120,000 per annum (equivalent to £10,000 per month) as at 01/04/2019 and 01/04/2020

B.2 Should the member wish to purchase an EPA option on 1<sup>st</sup> April 2019 for any future pension to be paid 1 year earlier than NPA, the contribution rates to be used are those in respect of the member's age at that date in complete years (i.e. 58 years).

### EPA Option

B.3 The Male EPA1 contribution rate for a 58 year old with NPA 66 years and 7 months is 1.93%

B.4 The additional member contribution in respect of the EPA option for the year beginning 1<sup>st</sup> April 2019 is determined as follows:

***Additional member contribution in respect of the EPA option =***

$$\text{£10,000.00} \times 1.93\% = \text{£193.00 per month}$$

B.5 The following year the additional member contribution should be recalculated. It is assumed that it is determined by the Scheme Manager that no changes are made to the table.

B.6 The member will be aged 59 years and 5 months on 1<sup>st</sup> April 2020. The Male EPA1 contribution rate for a 59 year old with NPA 66 years and 7 months is 1.99%.

B.7 Assuming that there is no change in Pensionable Earnings then the additional member contribution in respect of the EPA option for the scheme year beginning 1<sup>st</sup> April 2020 is determined as follows:

***Additional member contribution in respect of the EPA option =***

$$\text{£10,000.00} \times 1.99\% = \text{£199.00 per month}$$

B.8 The applicable contribution rates should continue to be re-assessed each 1<sup>st</sup> April with respect to the published actuarial tables in force at that time.



### Example B2

- B.9 The member is unable to purchase an EPA option for future pension to be paid 2 years early because they are limited by a requirement that the reduced effective pension age is at least 65 years. The member is able to buy a reduction of 1 year (as above) or 1 year and 7 months.
- B.10 Should the member wish to purchase an EPA option on 01/04/2019 for any future pension to be paid 1 year and 7 months earlier than NPA, the appropriate EPA contribution rate is derived by interpolating between the EPA reduction of 1 year contribution rate (EPA1) and the EPA reduction of 2 years contribution rate (EPA2). These contribution rates are appropriate to the member's gender (Male), age (58 years) and NPA (66 years and 7 months).
- B.11 The Male EPA1 contribution rate for a 58 year old with NPA 66 years and 7 months is 1.93%. The Male EPA2 contribution rate for a 58 year old with NPA 66 years and 7 months is 3.92%.
- B.12 The EPA contribution rate is derived as:
- Reduction (exact) = 1 year 7 months
  - Reduction (rounded down) = 1 year
  - Reduction (rounded up) = 2 years

***Non-integer reduction EPA (EPAd) contribution rate =***

$$\left[2 - 1\frac{7}{12}\right] \times 1.93\% + \left[1\frac{7}{12} - 1\right] \times 3.92\% = 3.0325\%$$

- B.13 The additional member contribution in respect of the EPA option is then determined as follows:

***Additional member contribution in respect of the EPA option =***

$$\pounds 10,000.00 \times 3.0325\% = \pounds 303.25 \text{ per month}$$

- B.14 The applicable contribution rates should be re-assessed each 1<sup>st</sup> April with respect to the published actuarial tables in force at that time.



## Appendix C: 'Headroom' Factors

**Table C1: HR1 – Prospective accrual accumulation factors**  
(Table 728 in consolidated factors spreadsheet)

Period between Option purchase date and EPA (in years ignoring part months)												
Months												
Years	0	1	2	3	4	5	6	7	8	9	10	11
0	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02
1	0.02	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.05
2	0.05	0.05	0.05	0.06	0.06	0.06	0.06	0.06	0.07	0.07	0.07	0.07
3	0.08	0.08	0.08	0.08	0.08	0.09	0.09	0.09	0.09	0.10	0.10	0.10
4	0.10	0.11	0.11	0.11	0.11	0.12	0.12	0.12	0.12	0.13	0.13	0.13
5	0.13	0.14	0.14	0.14	0.14	0.15	0.15	0.15	0.15	0.16	0.16	0.16
6	0.17	0.17	0.17	0.17	0.18	0.18	0.18	0.19	0.19	0.19	0.19	0.20
7	0.20	0.20	0.21	0.21	0.21	0.21	0.22	0.22	0.22	0.23	0.23	0.23
8	0.23	0.24	0.24	0.24	0.25	0.25	0.25	0.26	0.26	0.26	0.27	0.27
9	0.27	0.28	0.28	0.28	0.29	0.29	0.29	0.30	0.30	0.30	0.31	0.31
10	0.31	0.32	0.32	0.32	0.33	0.33	0.33	0.34	0.34	0.34	0.35	0.35
11	0.35	0.36	0.36	0.37	0.37	0.37	0.38	0.38	0.38	0.39	0.39	0.39
12	0.40	0.40	0.41	0.41	0.41	0.42	0.42	0.43	0.43	0.43	0.44	0.44
13	0.45	0.45	0.45	0.46	0.46	0.47	0.47	0.47	0.48	0.48	0.49	0.49
14	0.49	0.50	0.50	0.51	0.51	0.52	0.52	0.52	0.53	0.53	0.54	0.54
15	0.55	0.55	0.56	0.56	0.56	0.57	0.57	0.58	0.58	0.59	0.59	0.60
16	0.60	0.61	0.61	0.62	0.62	0.63	0.63	0.64	0.64	0.64	0.65	0.65
17	0.66	0.66	0.67	0.67	0.68	0.68	0.69	0.69	0.70	0.70	0.71	0.71
18	0.72	0.73	0.73	0.74	0.74	0.75	0.75	0.76	0.76	0.77	0.77	0.78
19	0.78	0.79	0.80	0.80	0.81	0.81	0.82	0.82	0.83	0.83	0.84	0.85
20	0.85	0.86	0.86	0.87	0.88	0.88	0.89	0.89	0.90	0.90	0.91	0.92
21	0.92	0.93	0.93	0.94	0.95	0.95	0.96	0.97	0.97	0.98	0.98	0.99
22	1.00	1.00	1.01	1.02	1.02	1.03	1.04	1.04	1.05	1.06	1.06	1.07
23	1.08	1.08	1.09	1.10	1.10	1.11	1.12	1.12	1.13	1.14	1.14	1.15
24	1.16	1.17	1.17	1.18	1.19	1.19	1.20	1.21	1.22	1.22	1.23	1.24
25	1.24	1.25	1.26	1.27	1.28	1.28	1.29	1.30	1.31	1.31	1.32	1.33
26	1.34	1.34	1.35	1.36	1.37	1.38	1.38	1.39	1.40	1.41	1.42	1.42
27	1.43	1.44	1.45	1.46	1.47	1.47	1.48	1.49	1.50	1.51	1.52	1.52
28	1.53	1.54	1.55	1.56	1.57	1.58	1.59	1.59	1.60	1.61	1.62	1.63
29	1.64	1.65	1.66	1.67	1.67	1.68	1.69	1.70	1.71	1.72	1.73	1.74
30	1.75	1.76	1.77	1.78	1.79	1.80	1.81	1.82	1.83	1.84	1.85	1.86
31	1.87	1.88	1.89	1.90	1.91	1.92	1.93	1.94	1.95	1.96	1.97	1.98
32	1.99	2.00	2.01	2.02	2.03	2.04	2.05	2.06	2.07	2.08	2.09	2.10
33	2.12	2.13	2.14	2.15	2.16	2.17	2.18	2.19	2.20	2.22	2.23	2.24
34	2.25	2.26	2.27	2.28	2.30	2.31	2.32	2.33	2.34	2.36	2.37	2.38
35	2.39	2.40	2.42	2.43	2.44	2.45	2.46	2.48	2.49	2.50	2.51	2.53
36	2.54	2.55	2.56	2.58	2.59	2.60	2.62	2.63	2.64	2.65	2.67	2.68
37	2.69	2.71	2.72	2.73	2.75	2.76	2.77	2.79	2.80	2.81	2.83	2.84
38	2.86	2.87	2.88	2.90	2.91	2.93	2.94	2.95	2.97	2.98	3.00	3.01
39	3.03	3.04	3.06	3.07	3.09	3.10	3.11	3.13	3.14	3.16	3.17	3.19



**Table C2: HR2 – Revaluation factors**  
**(Table 729 in consolidated factors spreadsheet)**

Number of years (ignoring part years) between Option purchase date and EPA	Factor
0	1.00
1	1.02
2	1.04
3	1.06
4	1.08
5	1.10
6	1.13
7	1.15
8	1.17
9	1.20
10	1.22
11	1.24
12	1.27
13	1.29
14	1.32
15	1.35
16	1.37
17	1.40
18	1.43
19	1.46
20	1.49
21	1.52
22	1.55
23	1.58
24	1.61
25	1.64
26	1.67
27	1.71
28	1.74
29	1.78
30	1.81
31	1.85
32	1.88
33	1.92
34	1.96
35	2.00
36	2.04
37	2.08
38	2.12
39	2.16



## Appendix D: Worked examples ('Headroom' Calculations)

The examples are illustrative only.

### Example D1 – headroom limit used for EPA option

D.1 Consider a member with details as follows (i.e. Example B2):

EPA option commencement date: 01/04/2019  
EPA: 65 years  
Date of birth: 15/10/1960  
Monthly EPA payments between EPA option commencement date and EPA: 79  
NPA: 66 years and 7 months (rounded up to the next month)  
Period between EPA option commencement date and EPA: 6 years and 6 months  
Pensionable earnings at 01/04/2019: £120,000 per annum (equivalent to £10,000 per month)  
Headroom limit for 2019/20 is £7,000 a year

### D.2 Stage 1: estimate the prospective pension arising from future accrual at EPA

$$\begin{aligned}\text{Prospective pension} &= \text{Pensionable Earnings} \times \text{HR1 factor} \\ &= £120,000.00 \times 0.18 = £21,600.00 \text{ a year}\end{aligned}$$

Where the HR1 factor is based on the period between EPA option commencement date and EPA – i.e., 6 years and 6 months (ignoring part months).

### D.3 Stage 2: Converting the prospective pension into equivalent added pension at EPA

Equivalent added pension at EPA =

$$\begin{aligned}&\text{Prospective pension} \times [ ( 1 / ER \text{ factor}_{NPA} ) - 1 ] \\ &= £21,600.00 \times [ ( 1 / 0.917 ) - 1 ] = £1,955.07 \text{ a year}^2\end{aligned}$$

*ER factor<sub>NPA</sub>* is x based on early retirement age of EPA 65 years and NPA of 66 years 7 months (interpolated). A summary is given in the footnote below.

<sup>2</sup> The member is retiring 1 year and 7 months early. The factor 0.917 above is derived by interpolating between the factor for age 64 years 5 months from table A2: NPA/EPA 66 (i.e. 0.919 for NPA 66) and the factor for age 65 years and 5 months from table A3: NPA/EPA 67 (i.e. 0.916 for NPA 67). The NPA is 66 years 7 months so using the weights 5/12 and 7/12 respectively, the factor is  $[(5/12) \times 0.919] + [(7/12) \times 0.916] = 0.917$ . Please refer to the early retirement factor guidance note for further details.



**D.4 Stage 3: Expressing the equivalent added pension at EPA as an equivalent added pension as at EPA option commencement date - i.e., the value of EPA option at outset**

Value of EPA option at outset = Equivalent added pension at EPA / *HR2 factor*

$$= £1,955.07 / 1.13 = £1,730.00 \text{ (rounded to nearest £)}$$

Where the *HR2* factor is based on the period between EPA option commencement date and EPA – i.e., 6 years (ignoring part years).

**D.5 Express value of EPA option at outset as % of headroom limit at outset**

= Value of EPA option at outset / headroom limit at outset

$$= £1,730.00 / £7,000.00 = 25\% \text{ (nearest \%)}$$

**Example D2 – lapsed EEPA option**

D.6 Consider a member as in Example D1 who lapsed their EPA contract after making 26 monthly EPA payments. Headroom limit in 2019/20 is £7,000.

D.7 At outset the value of the EPA option was 25% of the headroom limit (from before). Once the EPA contract has lapsed, then the value of EPA option is reassessed as:  $25\% \times 26 / 79 = 8\%$  (nearest %). That is, the EPA option has used up 8% of the headroom limit.



## Appendix E: Assumptions underlying factors

### Financial assumptions

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

### Mortality assumptions

Base mortality tables and adjustments	Males: 92% of S2NMA_L Females: 80% of S2NFA
Future mortality improvements	Based on ONS principal UK population projections 2016
Year of Use	2020

### Other assumptions

Proportion of male members for unisex factors	70%
Allowance for commutation	Nil