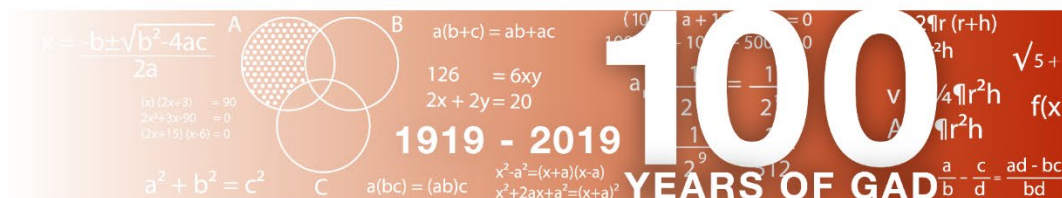




Government
Actuary's
Department



New Judicial Pension Scheme 2015

Age addition factors

Factors and guidance

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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). NJPS 2015 came into force on 1st April 2015 and was established under the Judicial Pension Regulations 2015 ("the Regulations").
- 1.2 The purpose of this report is to provide the Lord Chancellor with specific factors and accompanying guidance to demonstrate how the age addition percentages should be calculated in the NJPS 2015.
- 1.3 This note provides advice on age addition factors.
- 1.4 The amount of the age addition percentage (if any) under the Regulation 30 is to be determined by the scheme manager after consultation with the scheme actuary or taking into account tables prepared by the scheme actuary, in accordance with the interpretation of 'age addition' under 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.
- 1.5 The factors provided in this note have been prepared in light of our advice to the Ministry of Justice (MoJ) dated 30 October 2018 and its instructions following that advice.

Implementation and Review

- 1.6 The guidance demonstrates how these factors are to be applied in the determination of age addition.
- 1.7 The factors contained in this guidance will apply from 1 April 2019. This implementation date has been determined by MoJ. This guidance will apply from the date issued on the cover.
- 1.8 This guidance replaces the previous guidance dated 18 June 2015. Factors have been updated but the calculation methodology remains unchanged.
- 1.9 This report is applicable only to benefits accrued in the NJPS 2015.
- 1.10 Appendix A contains the factors required to determine age additions, as follows:

Factor table	Description
Table AA65 (Consolidated spreadsheet table number 406)	Age addition factors for NPA65 Unisex factors
Table AA66 (Consolidated spreadsheet table number 407)	Age addition factors for NPA66 Unisex factors



Table AA67 (Consolidated spreadsheet table number 408)	Age addition factors for NPA67 Unisex factors
Table AA68 (Consolidated spreadsheet table number 409)	Age addition factors for NPA68 Unisex factors

- 1.11 Appendix B provides details of the principal assumptions underlying the factor tables in this guidance.
- 1.12 Section 4 sets out the limitations of the factors and this guidance.
- 1.13 This guidance has been written for pension administrators and assumes some knowledge of general pension terminology, and some familiarity with retirement calculations for the NJPS 2015. Any questions concerning the application of the guidance should, in the first instance, be referred to MoJ.
- 1.14 In line with best practice and in order to make sure that factors are being used as intended and the instructions are fit for purpose, we suggest that some example calculations are sent to GAD for review.
- 1.15 The factors contained in this guidance will be subject to review periodically. This will depend on external circumstances, for example whenever there is a change in the SCAPE basis; when changes in the actuarial assumptions adopted for other scheme factors take place; or following each future actuarial valuation where mortality and other relevant experience is reviewed or if other credible and material information comes to light.

Third party reliance

- 1.16 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.
- 1.17 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 Age additions for active members retiring after NPA/EPA

- 2.1 Members that continue to work after their NPA/EPA will have their benefits increased for late payment. This is done by an 'age addition' that is added to the member's account on each scheme anniversary (1 April) after the member reaches NPA/EPA and is still in service, apart from in the scheme year when the account is established and the scheme year immediately following that. An 'assumed age addition' is added to the member's account on the date that they retire or leave service, if the date they retired or left service was after NPA/EPA.
- 2.2 Age addition factors only apply to members who remain in active service after NPA/EPA. Members who retire after NPA/EPA from deferred status should receive a late payment supplement, not an age addition, in respect of the period of deferment after NPA/EPA. Members who leave active service after NPA/EPA and then further delay retirement will receive an age addition and a late payment supplement. Member calculations that should receive a late payment supplement should be referred to GAD.
- 2.3 In order to calculate the appropriate age addition for a scheme year, a percentage is applied to the 'opening balance' of the relevant description of accrued pension for the previous scheme year. Regulation 26 sets out each description of accrued pension.
- 2.4 For example, to calculate an age addition to be applied on 01/04/2017 a percentage is applied to the 'opening balance' of pension for the year 2016-17, not the opening balance for the year 2017-18. The opening balance for 2016-17 can be thought of as the balance at 31 March 2016.
- 2.5 The 'opening balance' in relation to a description of pension is as defined in Regulation 40(3). We understand that the opening balance on a given scheme anniversary includes the opening balance at the previous scheme anniversary, indexation on the opening balance (at the previous scheme anniversary), earned pension applicable over the previous scheme year and any age addition awarded at the start of the previous scheme year.
- 2.6 The age addition is added to the member's account on the scheme anniversary but after the indexation has been determined on the opening balance for that year. So at 01/04/2017 the indexation on the opening balance at that date is determined first and added to the account and then the age addition amount (based on the opening balance for the previous scheme year) is added.
- 2.7 The age addition percentage applicable to the member's relevant opening balance is derived from unisex factors. Factors are taken from tables AA65 to AA68 (in Appendix A).
- 2.8 For the member's first age addition after passing NPA/EPA the appropriate factors are based on the member's age at the first scheme anniversary after NPA/EPA and the member's NPA/EPA.



2.9 The percentage used to calculate the first age addition is derived:

Age addition percentage =

$$[(\text{Factor at age at first scheme anniversary after NPA/EPA}) \div (\text{Factor at age at NPA/EPA})] - 1$$

Where:

- **Age addition percentage** is applied to the opening balance (of the relevant accrued pension) for the previous scheme year.
- **Factors** are taken from Tables AA65 to AA68 and the member's age is that at the relevant date in complete years and months with part months ignored.

2.10 For subsequent age additions the appropriate factors are based on the member's age at current scheme anniversary and the member's age at previous scheme anniversary.

2.11 The percentage used to calculate subsequent age additions is derived:

Age addition percentage =

$$[(\text{Factor at age at current scheme anniversary}) \div (\text{Factor at age at previous scheme anniversary})] - 1$$

Where:

- **Age addition percentage** is applied to the opening balance (of the relevant accrued pension) for the previous scheme year.
- **Factors** are taken from Tables AA65 to AA68 and the member's age is that at the relevant date in complete years and months with part months ignored.

2.12 Where a member who is over their NPA/EPA leaves active service part way through a scheme year (either to become a deferred member or to retire) then an *assumed* age addition is added to the member's account at retirement/leaving date to reflect the period between the previous scheme anniversary and date of leaving/retirement. There will also be an assumed age addition if a member passes NPA/EPA and at a later date within the same scheme year leaves or retires.

2.13 The assumed age addition is calculated similarly to the age addition described above, except that the appropriate factors are based on the member's age at deferment or retirement and the greater of member's NPA/EPA or age at previous scheme anniversary.



2.14 The percentage used to calculate the assumed age addition is derived:

Assumed age addition percentage =

$$\frac{[(\text{Factor at age at date of leaving/retirement}) \div (\text{Factor at age at previous scheme anniversary or NPA/EPA if later})] - 1}{1}$$

Where:

- **Assumed age addition percentage** is applied to the opening balance (of the relevant accrued pension) for the current scheme year (i.e. this is the same opening balance as would have been used had the member remained in service until the next 1 April).
- **Factors** are taken from Tables AA65 to AA68 and the member's age is that at the relevant date in complete years and months with part months ignored.

2.15 Our understanding is that a member who leaves active service after NPA/EPA but does not retire immediately can receive age addition in respect of service up to leaving active service and also a late payment supplement in respect of the period from their leaving date to their eventual retirement date.

2.16 The following points should be noted:

- a. Age additions and assumed age additions are calculated before the commutation option is exercised.
- b. The age additions and assumed age additions applied to the member's pension should also apply to the contingent partner's pension (where one is payable).

Pension credits (as a result of Pension Sharing on Divorce)

2.17 Our understanding is that Pension Credit pensions should not receive any increase on late retirement.

Pension debits (as a result of Pension Sharing on Divorce)

2.18 Pension Debit pensions should be treated in the same way as a deferred member's pension. Therefore on late retirement they should be increased by a late payment supplement, not an age addition. Please refer these calculations to GAD.

Scheme pays debits

2.19 This note does not cover the adjustments to apply to scheme pays debits on late retirement. Please refer to our separate draft guidance on scheme pays debits.

Added Pension

2.20 Added pension should receive age additions as described in paragraphs 2.6 to 2.11.



3 Examples

Example 1: Age addition – standard earned pension only

Consider a member retiring from active service after NPA with details as follows:

Date of birth: 01/09/1955

NPA: reached at 01/09/2021 (i.e. when member is age 66 years)

Retirement date: 15/08/2024 (i.e. when member is aged 68 years 11 complete months)

Age addition for standard earned pension is calculated using table AA66.

The **first age addition** will occur on the first scheme anniversary after the NPA, i.e. 01/04/2022, when the member will be 66 years 7 months.

The percentage increase will be given by:

$[(\text{Factor for 66 years 7 months}) \div (\text{Factor for 66 years 0 months}) - 1]$,

i.e. $[(1.031 \div 1) - 1] = 0.031$

The age addition is 3.1% of the member's opening balance for the previous scheme year (i.e. the balance at 31 March 2021). The age addition is added to the member's account on 01/04/2022, after the indexation of the opening balance at that date.

The **second age addition** will occur on the next scheme anniversary, i.e. 01/04/2023, when the member will be 67 years 7 months.

The percentage increase will be given by:

$[(\text{Factor for 67 years 7 months}) \div (\text{Factor for 66 years 7 months}) - 1]$,

i.e. $[(1.086 \div 1.031) - 1] = 0.053$.

The age addition is 5.3% of the member's opening balance for the previous scheme year (i.e. the balance at 31 March 2022). The age addition is added to the member's account on 01/04/2023, after the indexation of the opening balance at that date.

The **third age addition** will occur on the next scheme anniversary, i.e. 01/04/2024, when the member will be 68 years 7 months.

The percentage increase will be given by:

$[(\text{Factor for 68 years 7 months}) \div (\text{Factor for 67 years 7 months}) - 1]$,

i.e. $[(1.147 \div 1.086) - 1] = 0.056$.



The age addition is 5.6% of the member's opening balance for the previous scheme year (i.e. the balance at 31 March 2023). The age addition is added to the member's account on 01/04/2024, after the indexation of the opening balance at that date.

The final **assumed age addition** comes into payment on the member's retirement, i.e. 15/08/2024, and is calculated based on the member's age at retirement. At this time the member will be 68 years 11 (complete) months.

The percentage increase will be given by:

$[(\text{Factor for 68 years 11 months}) \div (\text{Factor for 68 years 7 months}) - 1],$

i.e. $[(1.168 \div 1.147) - 1] = 0.018.$

The assumed age addition is the addition in respect of the part-year of active service which would have been awarded at the next 1 April if the member had not retired. Therefore, it is 1.8% of the member's opening balance at 31 March 2024 (which would have been the opening balance for the previous scheme year had the addition been awarded at the next 1 April). The assumed age addition is added to the member's account at retirement.

The contingent partner's pension will be 37.5% of the member's pension (including any age additions awarded to the member).



Example 2: Age addition – with EPA option on part of their pension

Consider a member retiring from active service after NPA and EPA with details as follows:

Date of birth: 01/09/1955

NPA: reached at 01/09/2021 (i.e. when member is age 66 years)

EPA reached at 01/09/2020 (i.e. when member is age 65 years)

Retirement date: 15/03/2022 (i.e. when member is aged 66 years 6 complete months)

Member has standard earned pension (i.e. payable from NPA) and pension attributable to an EPA option. Age addition for standard earned pension and pension attributable to an EPA option are both calculated using Table AA65.

The **first age addition for the pension attributable to EPA** will occur on the first scheme anniversary after the EPA, i.e. 01/04/2021, when the member will be 65 years 7 months.

The percentage increase will be given by:

$[(\text{Factor for 65 years 7 months}) \div (\text{Factor for 65 years 0 months}) - 1],$

i.e. $[(1.030 \div 1) - 1] = 0.030.$

The age addition is 3.0% of the member's opening balance attributable to an EPA option for the previous scheme year (i.e. the balance at 31 March 2020). The age addition is added to the member's account on 01/04/2021, after the indexation of the opening balance at that date.

No age addition for standard earned pension will occur on 01/04/2021 as the member is still below NPA.

The **assumed age addition for the pension attributable to EPA** will occur on the date of the member's retirement. It is calculated based on the member's age at retirement. At retirement the member will be 66 years 6 (complete) months.

The percentage increase will be given by;

$[(\text{Factor for 66 years 6 months}) \div (\text{Factor for 65 years 7 months}) - 1],$

i.e. $[(1.079 \div 1.030) - 1] = 0.048.$

The assumed age addition is 4.8% of the member's opening balance attributable to an EPA option at 31 March 2021. The assumed age addition is added to the member's account at retirement.

The **assumed age addition for the standard earned pension** will also occur on the date of the member's retirement.

The contingent partner's pension will be 37.5% of the member's pension (including any age additions awarded to the member).



Example 3: Age addition – Numerical example

Consider the following member:

Date of birth: 01/09/1955

NPA: reached at 01/09/2021 (i.e. when member is age 66 years)

Retirement date: 15/08/2023 (i.e. when member is aged 67 years 11 complete months)

Opening balance for 2021-22	£8,000.00	A	i.e. balance as at 31/3/2021
Relevant CPI figure	2.50%	B	
Indexation amount	£200.00	C	(= A x B) added to member's account on 1/4/2017.
Age addition	£0	D	member is still below NPA at 1/4/2021.
Pension accrued in 2021-22	£500.00	E	
Opening balance for 2022-23	£8,700.00	F	i.e. balance as at 31/3/2022. (= A + C + D + E)
Relevant CPI figure	2.00%	G	
Indexation amount	£174.00	H	(= F x G) added to member's account on 1/4/2022.
Age addition factor at age at 1/4/2022	1.031	J	Age 66 years, 7 months factor from AA66
Age addition factor at NPA	1	K	Age 66 years, 0 months factor from AA66
Age addition percentage increase	0.0310	L	= J / K - 1, rounded to 4 decimal places
Age addition	£248.00	M	(= A x L) added to member's account on 1/4/2022.
Pension accrued in 2022-23	£500.00	N	
Opening balance for 2023-24	£9,622.00	P	i.e. balance as at 31/3/2023 (= F + H + M + N)
Relevant CPI figure	1.50%	Q	
Indexation amount	£144.33	R	(= P x Q) added to member's account on 1/4/2023.
Age addition factor at age at 1/4/2023	1.086	S	Age 67 years, 7 months factor from AA66
Age addition percentage increase	0.0533	T	= S / J - 1, rounded to 4 decimal places
Age addition	£463.71	U	(= F x T) added to member's account on 1/4/2023.
Pension accrued in 2023-24	£200.00	V	
Age addition factor at age at retirement	1.105	W	Age 67 years, 11 months factor from AA66
Assumed age addition percentage increase	0.0175	X	= W / S - 1, rounded to 4 decimal places
Assumed age addition	£168.39	Y	(= P x X) added to member's account on retirement
			(= P + R + U + V + Y) the pension will be increased at the next scheme anniversary to allow for the retirement index adjustment when the relevant CPI figure is known.
Pension at retirement in August 2023	£10,598.43	Z	



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 age addition 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 age addition 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: Factors

Table AA65 (Table 406 in consolidated factors spreadsheet)
Age addition factors for NPA65

	Time after NPA (Months)											
Time after NPA (Years)	0	1	2	3	4	5	6	7	8	9	10	11
0	1.000	1.004	1.009	1.013	1.017	1.021	1.026	1.030	1.034	1.039	1.043	1.047
1	1.052	1.056	1.061	1.065	1.070	1.075	1.079	1.084	1.089	1.093	1.098	1.103
2	1.107	1.112	1.117	1.123	1.128	1.133	1.138	1.143	1.148	1.153	1.158	1.163
3	1.168	1.173	1.179	1.184	1.190	1.195	1.201	1.206	1.212	1.217	1.223	1.228
4	1.234	1.240	1.246	1.252	1.258	1.264	1.270	1.276	1.282	1.289	1.295	1.301
5	1.307	1.313	1.320	1.327	1.333	1.340	1.346	1.353	1.359	1.366	1.373	1.379
6	1.386	1.393	1.400	1.407	1.415	1.422	1.429	1.436	1.443	1.451	1.458	1.465
7	1.472	1.480	1.488	1.496	1.504	1.512	1.519	1.527	1.535	1.543	1.551	1.559
8	1.567	1.575	1.584	1.593	1.601	1.610	1.619	1.627	1.636	1.645	1.653	1.662
9	1.670	1.680	1.690	1.700	1.710	1.720	1.730	1.740	1.750	1.760	1.770	1.780
10	1.790											

Table AA66 (Table 407 in consolidated factors spreadsheet)
Age addition factors for NPA66

	Time after NPA (Months)											
Time after NPA (Years)	0	1	2	3	4	5	6	7	8	9	10	11
0	1.000	1.004	1.009	1.013	1.018	1.022	1.026	1.031	1.035	1.040	1.044	1.048
1	1.053	1.058	1.062	1.067	1.072	1.077	1.082	1.086	1.091	1.096	1.101	1.105
2	1.110	1.115	1.121	1.126	1.131	1.136	1.141	1.147	1.152	1.157	1.162	1.168
3	1.173	1.178	1.184	1.190	1.196	1.201	1.207	1.213	1.219	1.224	1.230	1.236
4	1.241	1.248	1.254	1.260	1.266	1.273	1.279	1.285	1.291	1.298	1.304	1.310
5	1.316	1.323	1.330	1.337	1.344	1.351	1.358	1.364	1.371	1.378	1.385	1.392
6	1.399	1.406	1.414	1.421	1.429	1.436	1.444	1.451	1.459	1.466	1.474	1.481
7	1.489	1.497	1.505	1.513	1.522	1.530	1.538	1.546	1.554	1.563	1.571	1.579
8	1.587	1.597	1.606	1.616	1.625	1.635	1.644	1.654	1.663	1.672	1.682	1.691
9	1.701											



Table AA67 (Table 408 in consolidated factors spreadsheet)
Age addition factors for NPA67

	Time after NPA (Months)											
Time after NPA (Years)	0	1	2	3	4	5	6	7	8	9	10	11
0	1.000	1.005	1.009	1.014	1.018	1.023	1.027	1.032	1.036	1.041	1.045	1.050
1	1.054	1.059	1.064	1.069	1.074	1.079	1.084	1.089	1.094	1.099	1.103	1.108
2	1.113	1.119	1.124	1.130	1.135	1.140	1.146	1.151	1.157	1.162	1.167	1.173
3	1.178	1.184	1.190	1.196	1.202	1.208	1.214	1.219	1.225	1.231	1.237	1.243
4	1.249	1.255	1.262	1.268	1.275	1.281	1.288	1.294	1.301	1.307	1.314	1.320
5	1.327	1.334	1.341	1.348	1.355	1.362	1.370	1.377	1.384	1.391	1.398	1.405
6	1.412	1.420	1.428	1.436	1.444	1.451	1.459	1.467	1.475	1.483	1.491	1.498
7	1.506	1.515	1.524	1.533	1.542	1.551	1.560	1.569	1.578	1.587	1.596	1.605
8	1.614											

Table AA68 (Table 409 in consolidated factors spreadsheet)
Age addition factors for NPA68

	Time after NPA (Months)											
Time after NPA (Years)	0	1	2	3	4	5	6	7	8	9	10	11
0	1.000	1.005	1.009	1.014	1.019	1.023	1.028	1.033	1.037	1.042	1.046	1.051
1	1.056	1.061	1.066	1.071	1.076	1.081	1.086	1.091	1.096	1.102	1.107	1.112
2	1.117	1.122	1.128	1.134	1.139	1.145	1.150	1.156	1.161	1.167	1.172	1.178
3	1.184	1.190	1.196	1.202	1.208	1.214	1.220	1.226	1.232	1.239	1.245	1.251
4	1.257	1.264	1.270	1.277	1.284	1.291	1.297	1.304	1.311	1.318	1.324	1.331
5	1.338	1.345	1.353	1.360	1.368	1.375	1.382	1.390	1.397	1.405	1.412	1.420
6	1.427	1.435	1.444	1.452	1.461	1.469	1.478	1.486	1.495	1.503	1.512	1.520
7	1.529											



Appendix B: Principal assumptions underlying factors

Financial assumptions

Nominal discount rate	4.448% pa
CPI	2.00% pa
Long term earnings growth	4.20% 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	Member: 92% of S2NMA_L (M) and 80% of S2NFA (\bar{F}) (as per 2016 valuation)
Future mortality improvement	Based on ONS principal UK population projections 2016
Year of use	2020

Other assumptions

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