Government Actuary's Department

Teachers' Pension Scheme (England and Wales)

2024 Actuarial Valuation

Assumptions

1 July 2026

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Navigating risk | Cutting through complexity

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Contents

Introduction

This Assumptions report sets out the assumptions to be adopted for the actuarial valuation of the Teachers' Pension Scheme (England and Wales) (TPS) (the Scheme) as at 31 March 2024. It was prepared by Fiona Dunsire FIA C.Act, Government Actuary and Neil Crombie FIA C.Act, and published on 1 July 2026.

The Secretary of State for Education is responsible for setting 'scheme-set' assumptions. The contents of this report were used to help the Secretary of State for Education:

- understand the key assumptions about the future that need to be made in order to carry out the valuation
- understand the impact those assumptions can have on the valuation results
- decide on the 'scheme-set' assumptions to be adopted, following consideration of our advice

It was also made available to the TPS Scheme Advisory Board as part of the consultation on assumptions required by the Directions.

The remainder of this report contains the final advice we gave to the Secretary of State for Education. The Secretary of State for Education has decided to adopt all the recommended assumptions set out in this report.

Our recommended assumptions are long term and are not suitable for predicting short term future experience.

Additional background on the assumptions can be found in the Approach report.

Important

This report is a subset of the valuation reporting provided for the Scheme. The other reports are Overview, Approach, Data, Results and Climate risk. The full set of valuation reporting information can be found in the Summary report.

Overview

The table below provides an overview of ‘scheme-set’ assumptions, our recommendations, and the direction of impact on the valuation results of adopting our recommendations. It is intended to highlight areas of potential focus and support the process of deciding on the scheme-set assumptions to be adopted. Further information regarding interpretation is set out after the table.

> **Note**
>
> The assessments shown in the table below are indicative and not precise. More information on the assessments shown and how they have been chosen can be found in the valuation assumptions section of the Approach report.

	Assumption information		Our recommendations	
Scheme-set assumptions	**Importance relative to scheme-set assumptions**	**Volatility of experience and unreliability of data**	**Expected size of impact on scheme costs**	**Expected direction of impact on scheme costs**
Mortality after retirement	Most	Low	Small	↓ Lower costs
Proportion commuted	Average	Medium	None	— No / negligible impact
Retirement ages	Average	Low	Small	↓ Lower costs
Rates of leaving service	Average	Low	None	— No / negligible impact
Promotional pay increases	Least	High	None	— No / negligible impact
Rates of ill-health retirement	Least	Low	Small	↓ Lower costs
Mortality before retirement	Least	Low	None	— No / negligible impact
Family statistics	Least	Medium	Small	↓ Lower costs

Important

Several of the most important valuation assumptions do not appear in this section as they are directed by HM Treasury. The impact of these 'directed' assumptions could be greater than that of the scheme-set assumptions.

An indication of the relative importance of directed and scheme-set assumptions can be found in the valuation assumptions section of the Approach report.

Directed assumptions are listed in the Directed assumptions section of this report.

There is also a scheme-set assumption in relation to new entrant profiles. This is implicitly set within the ongoing assumption that the overall active membership profile remains broadly stable (see Active membership projections in the Minor assumptions section of this report) and the total projected pensionable payroll projection in the Directed assumptions section of this report.

There are no further aspects of demographic experience that we consider to be appropriate and relevant to analyse for this valuation.

Interpretation of recommendations summary

	Assumption information		Our recommendations	
	Importance relative to scheme-set assumptions	**Volatility of experience and unreliability of data**	**Expected size of impact on scheme costs**	**Expected direction of impact on scheme costs**
What does it show?	The importance of this assumption on employer contribution rates (ECR) and the core cost cap cost (CCCC) of the scheme, relative to other scheme-set assumptions, based on equal proportional changes in each assumption.	The variability of experience and unreliability of data observed in the past. This can impact the weight we place on current experience.	The size of the impact on employer contribution rates (ECR) and the core cost cap cost of the scheme (CCCC) of adopting the recommended assumption instead of the assumption adopted at the 2020 valuation.	The likelihood of our recommendations leading to higher or lower employer contribution rates (ECR) and core cost cap cost (CCCC) of the scheme.
What is it based on?	Our actuarial judgement and the sensitivity analysis carried out at the last valuation.	Public service pension scheme experience at previous valuations.	Our actuarial judgement and sensitivity analysis carried out at the last valuation.	Our actuarial judgement and sensitivity analysis carried out at the last valuation.
Possible rating	🔴 **Most:** Assumption has greater impact on the ECR and CCCC.	🔴 **High:** A current or previous lack of credible data, or large changes in member behaviour.	🔴 **Large:** Assumption change might impact the results by more than 1% p.a.	↑ **Higher:** ECR and CCCC likely to be higher.
	🟠 **Average:** An assumption with an impact between most and least.	🟠 **Medium:** Volatility of experience or unreliability of data classified in between high and low.	🟠 **Medium:** Assumption change might impact the results by between 0.25% and 1% p.a.	↓ **Lower:** ECR and CCCC likely to be lower.
	🟢 **Least:** Assumption has a lower impact on the ECR and CCCC.	🟢 **Low:** A large pool of credible data that doesn't tend to change much.	🟢 **Small or None:** Assumption change might impact the results by less than 0.25% p.a.	↔ **Mixed:** Likely impact on ECR and CCCC is still uncertain. For example, if assumptions for different categories move in different directions.
				— **No / negligible impact:** ECR and CCCC likely to be unaffected.

Recommendations

This section covers the scheme-set assumptions. For each assumption we set out:

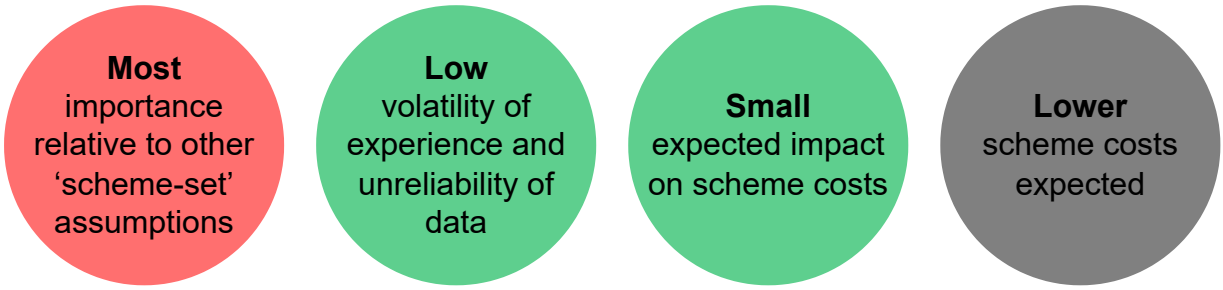
- our recommendations
- the practical implications of our recommendations
- a summary of our analysis of scheme experience
- any other factors that we consider relevant when deciding on the assumptions to adopt

Note

The standard methodology we use to analyse scheme experience and recommend assumptions is set out in full in the valuation assumptions section of the Approach report. Any material deviations from our standard approach for this valuation are set out in this report.

Mortality after retirement

The mortality after retirement assumption is a series of probabilities which represent the likelihood of a member dying at any given age after retirement. This section covers baseline mortality rates, which are a scheme-set assumption. Future mortality improvements also impact overall mortality after retirement rates, but are a directed assumption, and are therefore covered in the Directed assumptions section of this report.



Recommendation

We recommend updating the baseline mortality rates for pensioners who retired in normal health and dependants, using an equal allowance for recent experience and the 2020 assumption to help smooth out volatility. This is consistent with the approach used for the 2020 valuation.

We recommend adopting a single baseline mortality assumption for both current and future ill-health pensioners using an equal allowance for recent experience and the 2020 assumption for current ill-health pensioners. This is consistent with the approach used for the 2020 valuation.

The table below summarises our recommendations. It also shows the assumptions adopted for the 2020 valuation.

	2020 Assumptions			2024 Recommendations		
	Standard table	Adjustment	Based on	Standard table	Adjustment	Based on
Retirements in normal health						
Male	S3NMA	93%	Scheme experience	S4NMA_L	110%	Scheme experience
Female	S3NFA	93%	Scheme experience	S4NFA_VL	100%	Scheme experience
Current ill-health pensioners						
Male	S3IMA	86%	Scheme experience	S4IMA	82%	Scheme experience
Female	S3IFA	102%	Scheme experience	S4IFA	95%	Scheme experience
Future ill-health pensioners						
Male	S3IMA	86%	Scheme experience	S4IMA	82%	Scheme experience
Female	S3IFA	102%	Scheme experience	S4IFA	95%	Scheme experience
Dependants						
Male	S3DMA	87%	Scheme experience	S4DMA	82%	Scheme experience
Female	S3DFA	90%	Scheme experience	S4DFA_VL	104%	Scheme experience

Practical implications

The table below shows the impact of our recommended assumptions on the life expectancy of normal health pensioners. Higher life expectancies mean a higher cost of providing benefits, as benefits must be paid for longer periods of time (and vice versa).

Cohort life expectancies

	2020 assumptions, as at 2020	2020 assumptions, updated to 2024	2024 recommendations
Male			
Current pensioners, age 65	87.7	87.9	87.8
Future pensioners, age 45	89.3	89.3	89.1
Female			
Current pensioners, age 65	89.8	90.3	90.1
Future pensioners, age 45	91.3	91.6	91.5

Cohort life expectancies include assumed future improvements in mortality. For each category shown in the table above:

- The first column is the impact of the assumption adopted for the 2020 valuation.
- The middle column is the impact of the 2020 assumption but updated to use a valuation date of 2024 and ONS-2022 improvements.
- The last column is the impact of the assumption we recommend for the 2024 valuation.

The changes between the first and middle columns show the impact of directed changes to future mortality improvements and the normal passage of time. The changes between the middle and last columns show the impact of our recommended changes to baseline mortality assumptions.

Scheme experience

The tables and charts in this section summarise the outcomes of our analysis of scheme experience. Note that analysis can give volatile outcomes for groups with small amounts of available data.

		2020		2024	
	Experience[1]	2020 assumptions[2]	Experience ÷ assumptions	2024 recommen-dations[3]	Experience ÷ recommen-dations
Normal health pensioners					
Male	£481.1m	£468.1m	103%	£477.6m	101%
Female	£468.0m	£452.2m	103%	£460.3m	102%
Ill health pensioners					
Male	£75.9m	£73.1m	104%	£74.5m	102%
Female	£97.7m	£90.1m	108%	£93.9m	104%
Dependants					
Male	£22.3m	£25.9m	86%	£24.2m	92%
Female	£85.0m	£81.8m	104%	£83.5m	102%

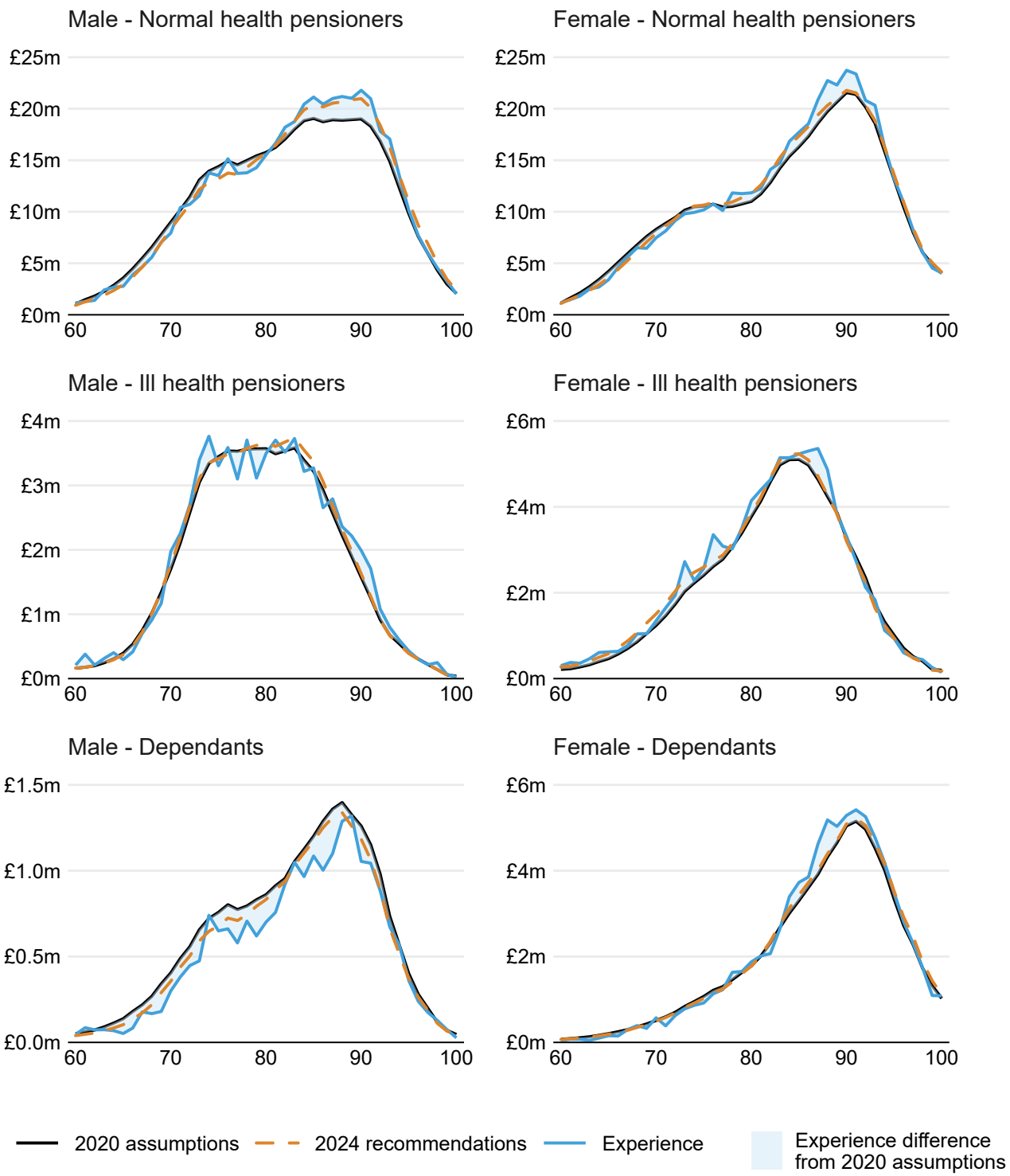
[1] Actual pension ceasing due to death over 2020-2024

[2] Pension expected to cease under 2020 assumptions

[3] Pension expected to cease under 2024 recommendations

The table above shows that more pension ceased than expected under the 2020 assumptions for most categories. The 2024 recommendations are a better match to the experience than the 2020 assumptions.

Pension ceasing as a result of death by age, split by category



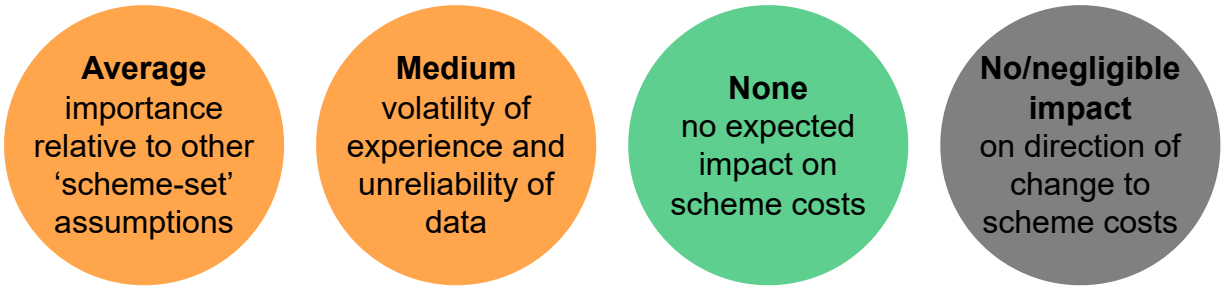
The charts above show that the 2024 recommendations are close to the 2020 assumptions and largely in line with the baseline mortality experience.

Wider considerations

Since the last valuation the UK has been impacted by the global COVID-19 pandemic. This led to more deaths than otherwise expected, particularly in the years 2020 and 2021. The valuation assumptions section of the Approach report sets out how the impact of the COVID-19 pandemic has been included in our recommended assumptions.

Proportion commuted

The proportion commuted assumption represents the fraction of pension that members are assumed to give up at retirement, in return for a single tax-free lump sum payment (subject to HM Revenue & Customs tax limits).



Recommendation

We recommend that the assumptions adopted for the 2020 valuation are retained. These assumptions are set in the table below, which detail for each category of member the fraction of pension that members would be assumed to give up at retirement in return for a single tax-free lump sum.

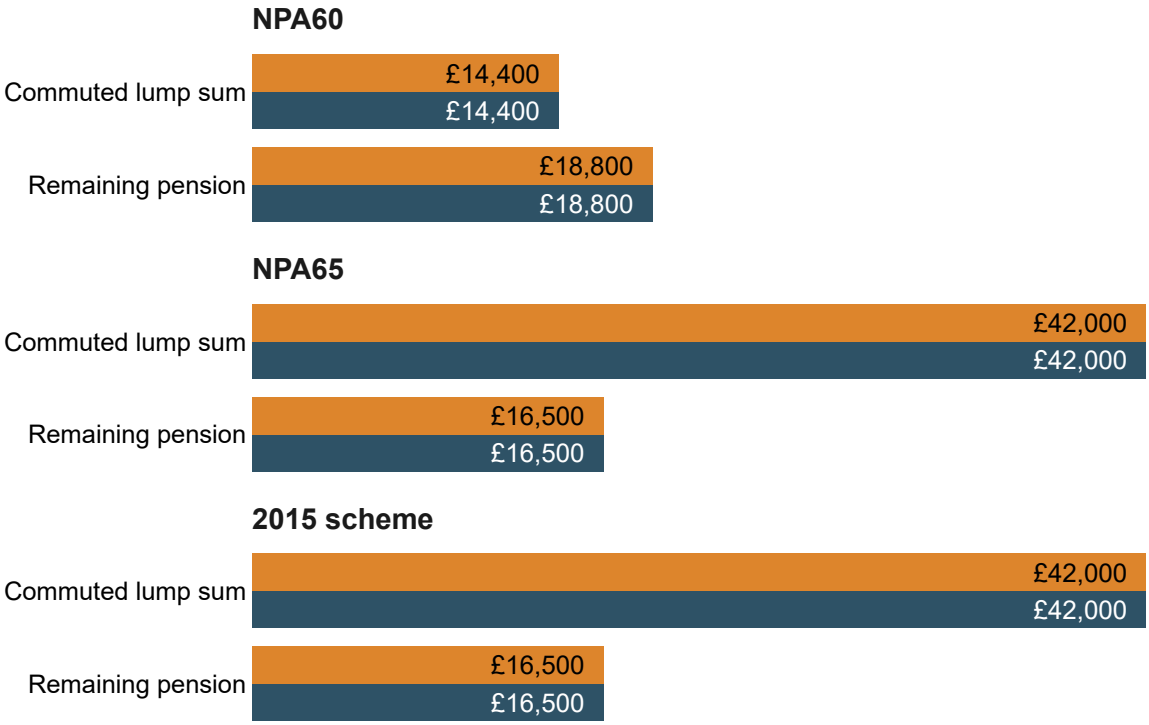
	NPA 60 service	NPA 65 service	2015 scheme service
Males and females	6.0%	17.5%	17.5%

Practical implications

The chart below shows the impact on assumed benefits of our recommended assumptions. For each category shown:

- The top line shows the impact of the assumptions we recommend for the 2024 valuation.
- The bottom line shows the impact of the assumptions adopted for the 2020 valuation.

Lump sum for a member starting with a £20,000 pension



Scheme experience

Experience versus expectations show how accurate the assumptions have been in the past and can help inform setting future assumptions.

The table below sets out how experience in the NPA 60, NPA 65 and 2015 schemes compares with the assumption adopted for the 2020 valuation.

	Total pension before commutation[1]	Total pension commuted[1]	Experience[2]	2020 expectations[3]	2024 expectations[4]
NPA60	£1,009.1m	£56.5m	5.6%	6.0%	6.0%
NPA65	£42.5m	£6.2m	14.5%	17.5%	17.5%
2015 scheme	£2.5m	£0.4m	16.5%	17.5%	17.5%
Other large public service schemes[5]	£182.1m	£36.8m	20.2%	20.0%	20.0%

[1] Pension coming into payment over 2020-2024

[2] Proportion of pension commuted over 2020-2024 (weighted by pension amount)

[3] Proportion of pension expected to be commuted under the 2020 assumptions

[4] Proportion of pension expected to be commuted under the 2024 assumptions

[5] Other large public service schemes data includes data from the National Health Service Pension Scheme (England and Wales) - 2008 secition, Civil Service Pension Scheme (GB) - Non-Classic schemes and Local Government Pension Scheme (England and Wales) - Post 2008 section.

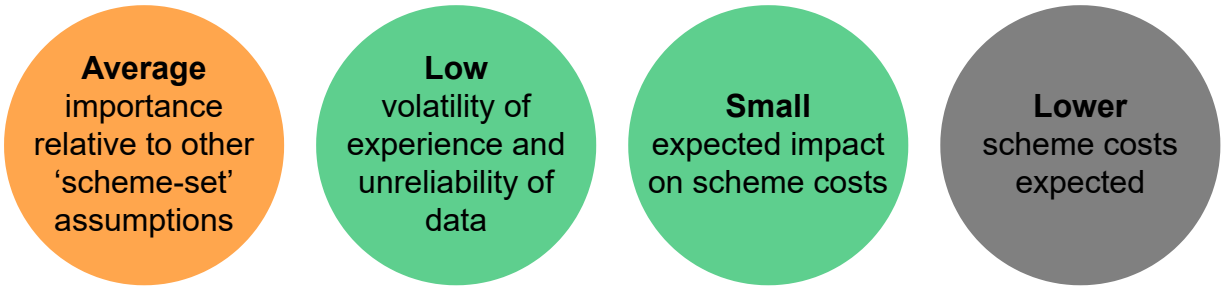
Experience in the NPA 60 scheme is close to the 2020 assumption and a change to bring the assumption into line with experience would have no material impact on the results.

There is limited experience of retirements in the NPA 65 and 2015 schemes.

The average proportion of pension commuted for cash in the relevant sections of the other large public service schemes is around 20%. This is somewhat higher than both the proposed assumptions for the TPS NPA 65 and 2015 schemes (17.5%) and recent experience within the TPS NPA 65 section (14.5%). In light of this analysis, we are content to retain the recommendation of a 17.5% assumption for TPS NPA 65 and 2015 schemes. Increasing the proportion to align with the other schemes would move the assumption further away from recent scheme experience within the TPS.

Retirement ages

Retirement age assumptions are a series of probabilities which represent the likelihood of a member retiring and claiming their pension at any given age. Our recommendations and supporting information are set out below.



Note

Please refer to Valuation assumptions section in the Approach report for more information on our approach.

Recommendation

We recommend no change to the current assumption tables. For some members we recommend a change in the table used to reflect the outcome of the McCloud remedy, as described below.

The tables below set out for each category of member the proportion of members at each age who are assumed to retire over the following year.

New entrants to the 2015 scheme								
	SPA65		SPA66		SPA67		SPA68	
Age	Male	Female	Male	Female	Male	Female	Male	Female
60	0.09	0.08	0.09	0.08	0.09	0.08	0.09	0.08
61	0.08	0.07	0.08	0.07	0.08	0.07	0.08	0.07
62	0.11	0.09	0.11	0.09	0.11	0.09	0.11	0.09
63	0.14	0.11	0.14	0.11	0.14	0.11	0.14	0.11
64	0.15	0.13	0.15	0.13	0.15	0.13	0.15	0.13
65	1.00	1.00	0.50	0.50	0.33	0.33	0.25	0.25
66	1.00	1.00	1.00	1.00	0.50	0.50	0.33	0.33
67	1.00	1.00	1.00	1.00	1.00	1.00	0.50	0.50
68	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
69	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
70	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Members with service in NPA 60 and 2015 scheme				
	SPA67		SPA68	
Age	Male	Female	Male	Female
55	0.07	0.06	0.02	0.02
56	0.06	0.05	0.02	0.02
57	0.08	0.07	0.03	0.02
58	0.11	0.09	0.04	0.03
59	0.12	0.10	0.04	0.03
60	0.31	0.34	0.16	0.16
61	0.26	0.31	0.14	0.15
62	0.21	0.24	0.14	0.14
63	0.22	0.24	0.16	0.16
64	0.22	0.24	0.17	0.17
65	0.46	0.40	0.32	0.30
66	0.46	0.41	0.38	0.36
67	0.40	0.37	0.47	0.46
68	0.51	0.47	0.84	0.83
69	0.53	0.38	0.85	0.80
70	1.00	1.00	1.00	1.00

Members with service in NPA 65 and 2015 scheme								
	SPA65		SPA66		SPA67		SPA68	
Age	Male	Female	Male	Female	Male	Female	Male	Female
60	0.09	0.08	0.09	0.08	0.09	0.08	0.09	0.08
61	0.08	0.07	0.08	0.07	0.08	0.07	0.08	0.07
62	0.11	0.09	0.11	0.09	0.11	0.09	0.11	0.09
63	0.14	0.11	0.14	0.11	0.14	0.11	0.14	0.11
64	0.15	0.13	0.15	0.13	0.15	0.13	0.15	0.13
65	1.00	1.00	1.00	1.00	0.76	0.76	0.41	0.41
66	1.00	1.00	1.00	1.00	0.78	0.78	0.48	0.48
67	1.00	1.00	1.00	1.00	1.00	1.00	0.61	0.61
68	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
69	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
70	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

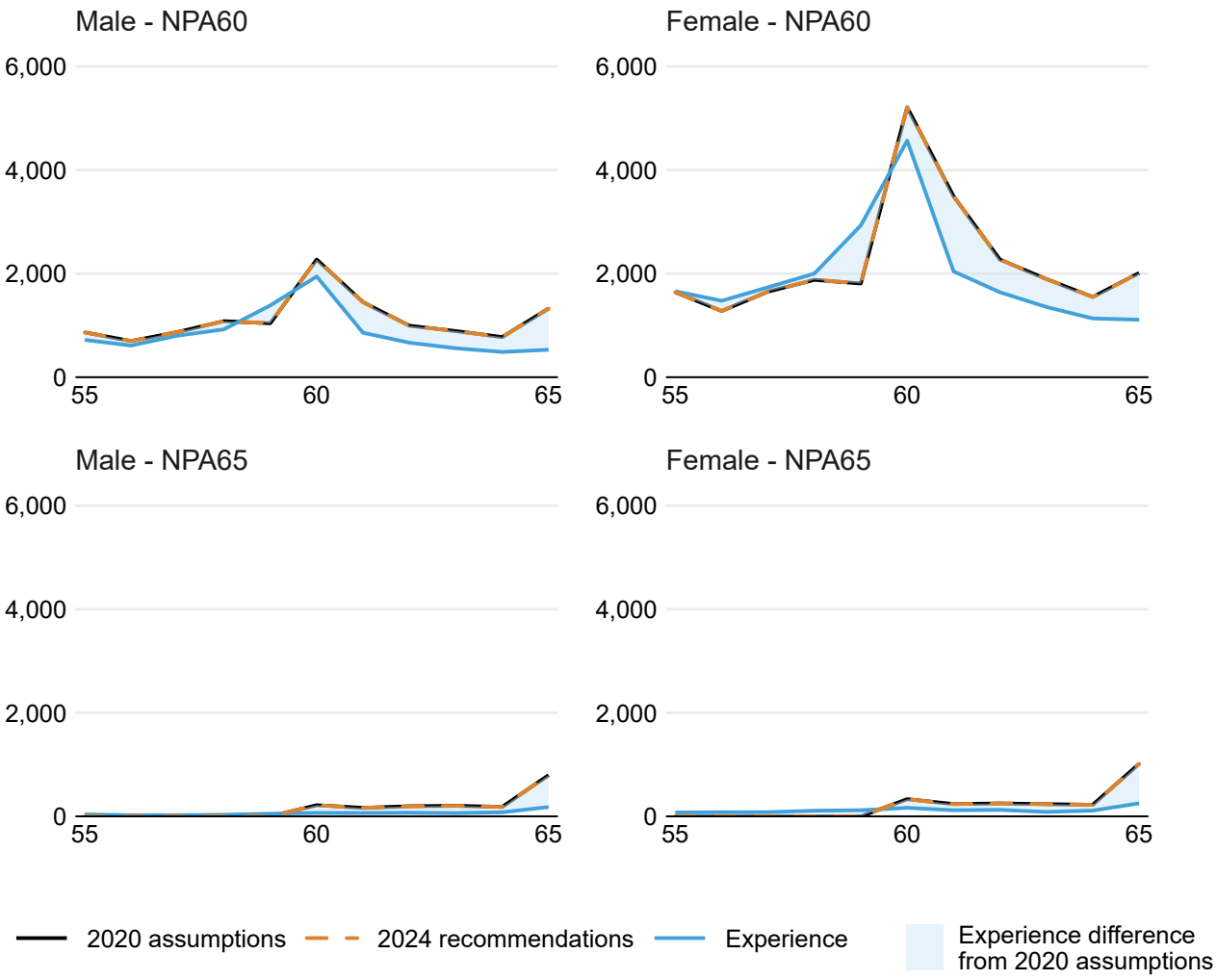
Scheme experience

Experience versus expectations show how accurate the assumptions have been in the past and can help inform setting future assumptions.

This analysis is based on active members of the scheme. Deferred members are not analysed and assumed to retire at their Normal Pension Age.

Actual retirement experience for the NPA 60 and NPA 65 sections of the scheme between 2020-2024 was reasonably close to the expected position. We therefore recommend no change to the current assumption tables.

Number of retirements by age, split by category and gender



There is insufficient data for the 2015 scheme to undertake a robust analysis of experience. Therefore, we propose retaining the existing assumptions.

It should be noted that experience can be a very volatile measure for groups with small amounts of data, which then impacts the reliance we place on it.

Wider considerations

The McCloud judgment could result in many members exchanging up to 7 years' service from the SPa-linked 2015 scheme to earlier NPA legacy arrangements, or vice versa.

The additional service in the legacy schemes may lead to earlier retirements than previously assumed. However, the magnitude of any change is by no means clear, if it occurs at all. There are many other factors that might be working in the other direction which may influence member behaviour, such as changes in the State Pension age.

Following consultation with the Department for Education, we do not see sufficient evidence to recommend any change to retirement ages following the McCloud judgment at this time.

As part of the 2020 valuation, separate retirement tables were set for members who had a ‘protected’ transitional protection status. Following the implementation of the McCloud judgment, this status no longer applies and there are in any case very few active members of this type in the 2024 data. We recommend removing these protected tables as part of the 2024 valuation, with affected members being assumed to retire in line with members who would previously have had an ‘unprotected’ transitional protection status. We anticipate that this will have no material impact on the results.

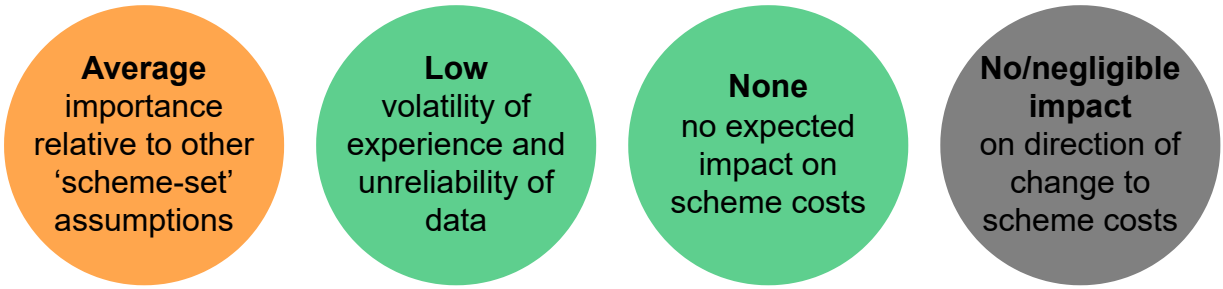
It is our understanding that changes to the Normal Minimum Pension Age described in the Approach report will have no impact on members of the NPA 60 and NPA 65 schemes. Certain members whose benefits fall wholly within the 2015 scheme will be affected by this change. However, we make no allowance for such members to retire before age 60 in any case.

Active members above the maximum age shown in the relevant table and deferred members over NPA are assumed to retire immediately.

Scheme data includes a number of deferred members who are already older than their NPA but have not yet claimed benefits. Previous exercises conducted by the scheme administrator suggested that many such members were no longer in contact with the scheme and were unlikely to claim their benefit. As such, we have made a broad allowance for 50% of such members to claim no benefit in the Scheme. This is consistent with the 2020 valuation of the Scheme.

Rates of leaving service

Rates of leaving service assumptions are a series of probabilities which represent the likelihood of a member voluntarily leaving service (without retiring) at any given age. Our recommendations and supporting information are set out below.



Note

Please refer to Valuation assumptions section in the Approach report for more information on our approach.

Recommendation

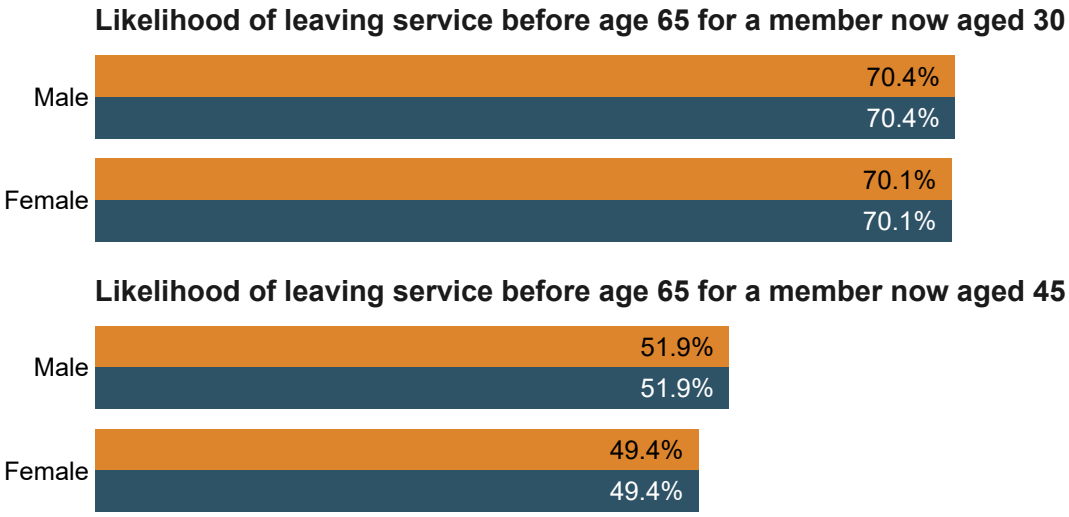
We recommend that the assumptions adopted for the 2020 valuation are retained. These assumptions are set out in the tables below which detail for each category of member the proportion of members at each age who are assumed to leave service without retiring over the following year.

Age	Males	Females
20	0.094	0.064
25	0.076	0.057
30	0.058	0.051
35	0.034	0.030
40	0.034	0.027
45	0.034	0.027
50	0.036	0.031
55	0.036	0.035
60	0.036	0.037
65	0.036	0.038

Practical implications

The chart below shows the impact on assumed benefits of our recommended assumptions. For each category shown:

- The top line shows the impact of the assumptions we recommend for the 2024 valuation.
- The bottom line shows the impact of the assumptions adopted for the 2020 valuation.

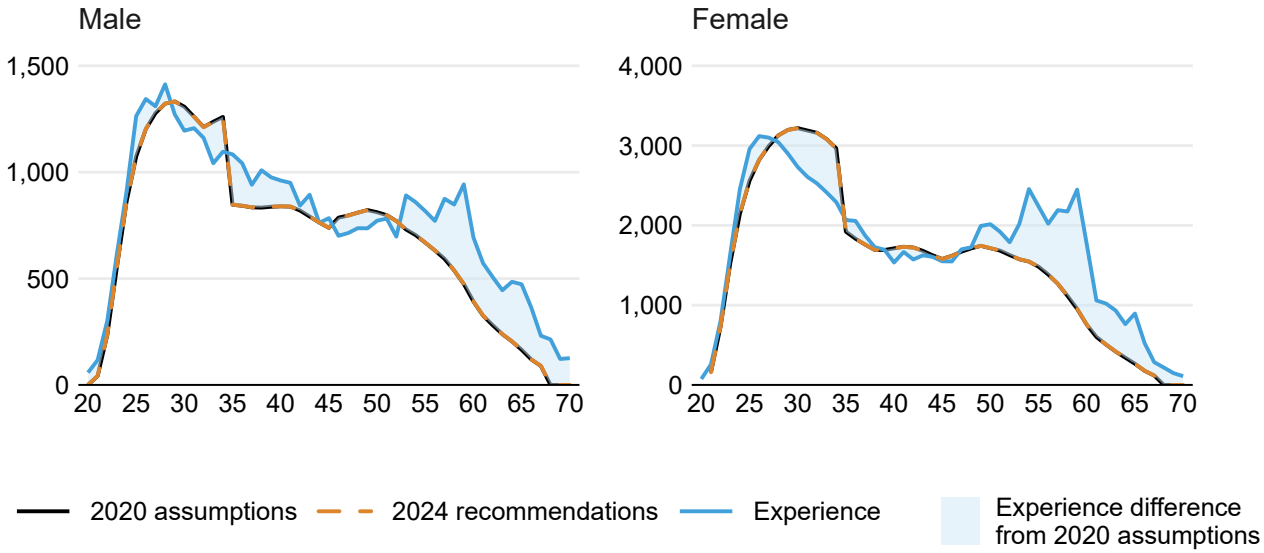


Scheme experience

Experience versus expectations show how accurate the assumptions have been in the past and can help inform setting future assumptions.

The information below compares the actual number of leavers over the period 2020 to 2024 with the expected number of leavers based on the assumption from the 2020 valuation and the updated 2024 valuation assumption.

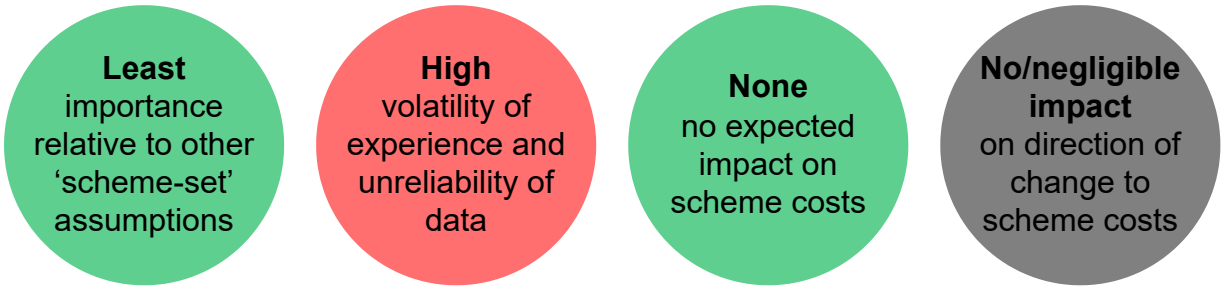
Number of leavers by age, split by gender



Withdrawal experience has been broadly in line with experience at younger ages. At older ages, withdrawal has been much higher than expected. However, this withdrawal experience at older ages is less significant in terms of the valuation results since our analysis indicates that the rise in withdrawals at older ages is driven by members with lower benefits than is typical.

Promotional pay increases

Promotional pay assumptions are a series of pay increases that members are assumed to receive in addition to normal annual salary increases. Our recommendations and supporting information for this assumption are set out below.



Note

Promotional pay increases are a scheme-set assumption. Salary increases are a directed assumption and are not covered in this section.

Recommendation

We recommend that the assumptions adopted for the 2020 valuation are retained. These assumptions are set out in the tables below, which detail for each category of member an assumed pay scale at a selection of ages. Members in service are assumed to receive promotional pay increases in line with the increase in this pay scale each year.

Age	Males	Females
20	86	85
25	100	100
30	125	124
35	151	143
40	168	152
45	179	158
50	186	164
55	190	168
60	192	170
65	194	172

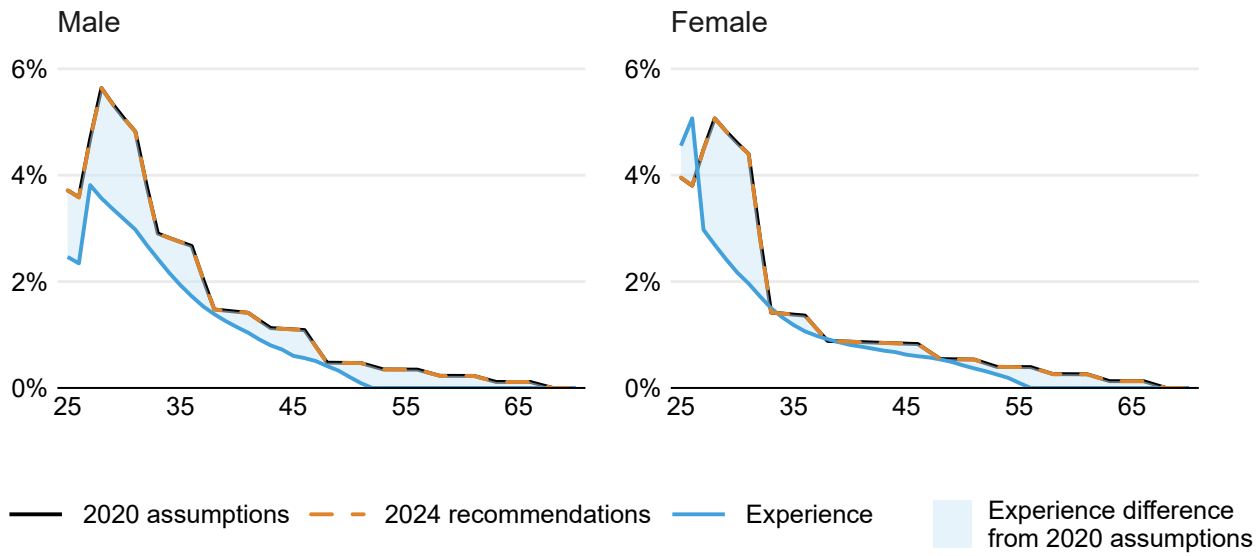
Scheme experience

Experience versus expectations show how accurate the assumptions have been in the past and can help inform setting future assumptions.

In the charts below we have compared recent implied levels of promotional increases against the 2020 valuation assumptions.

We have stripped out an approximate allowance for known general pay increases in order to isolate the promotional elements of pay changes.

Annual promotional pay increases by age, split by gender



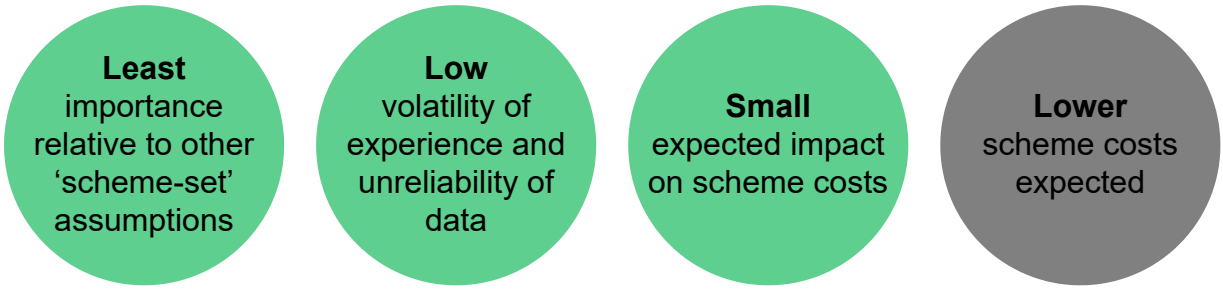
At younger ages, experience appears to have been higher than assumed for the 2020 valuation. However, these members would not be expected to accrue final salary benefits and therefore promotional increases are less relevant to their benefit accrual. At the oldest ages experience appears to have been somewhat below the assumptions adopted at the 2020 valuation. However, these members have relatively few years to retirement and assumed promotional increases are low at these ages in any case. As such the promotional pay assumption at older ages has little impact on results.

This assumption has most impact at intermediate ages and here experience is close to the assumptions adopted at the 2020 valuation. As such, we recommend that the assumptions adopted at the 2020 valuation are retained.

Rates of ill-health retirement

Rates of ill-health retirement are a series of probabilities which represent the likelihood of a member retiring in ill-health at any given age.

Members are eligible for either upper tier or lower tier ill-health benefits, depending on the severity of their illness.



Recommendation

We recommend updating the assumptions for rates of ill-health retirement to be half way between recent experience and the assumptions adopted for the 2020 valuation. We recommend updating the assumptions for the ratio of upper tier and lower tier benefits to be fully aligned with recent experience.

These assumptions are set out in the tables below, which detail for each category of member the proportion of members who retire from service in ill-health each year.

Age	Males	Females
20	0.0000	0.0000
25	0.0000	0.0000
30	0.0000	0.0001
35	0.0001	0.0001
40	0.0002	0.0002
45	0.0005	0.0005
50	0.0014	0.0012
55	0.0024	0.0023
60	0.0035	0.0035
65	0.0042	0.0047

Rates are zero if above the NPA of the relevant section

Scheme experience

In the table below we have compared the number of members retiring in ill health to the level expected based on the 2020 valuation assumption and the updated 2024 valuation assumption.

	Experience (number)[1]	Experience (proportion)[2]	2020 expectations[3]	2024 expectations[4]
Male				
Upper tier benefits	172	36%	50%	40%
Lower tier benefits	307	64%	50%	60%
Female				
Upper tier benefits	446	37%	50%	40%
Lower tier benefits	758	63%	50%	60%

[1] Number of ill-health retirements over 2020–2024

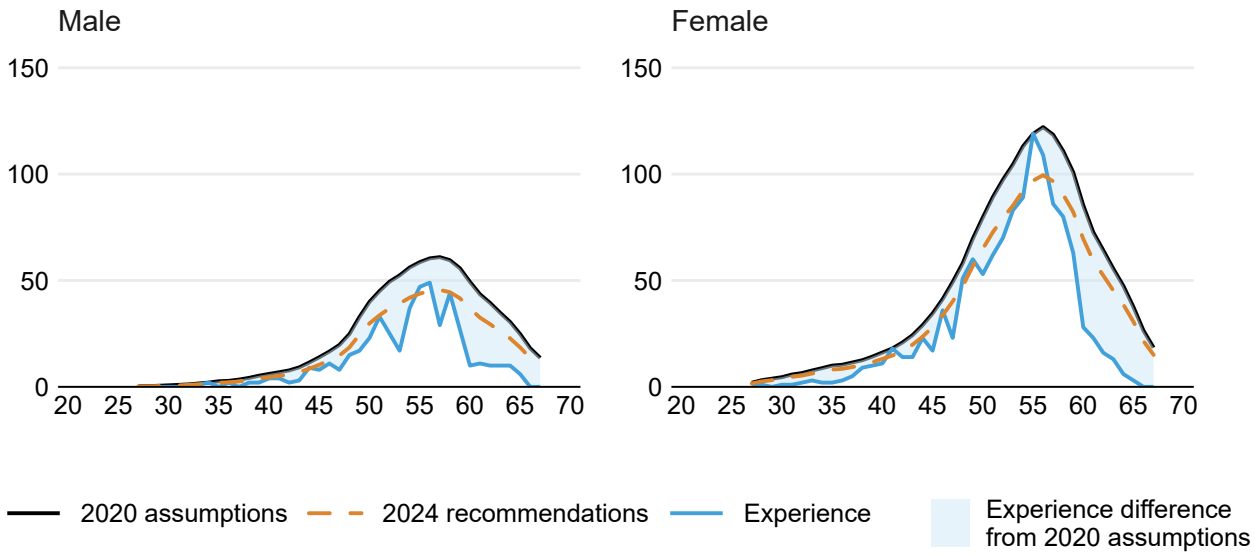
[2] Proportion of ill-health retirements over 2020–2024

[3] Expected proportion under the 2020 assumptions

[4] Expected proportion under the 2024 assumptions

There has been a higher proportion of lower tier retirements than previously assumed. We recommend assuming that 60% of ill-health retirements are lower tier and 40% are upper tier which brings our assumption into line with recent experience.

Number of ill-health retirements by age, split by gender

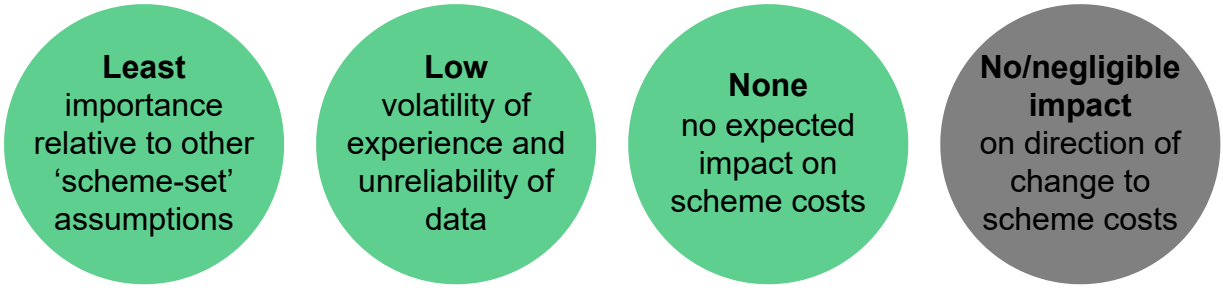


Ill-health retirements have been lower than previously assumed, but the ages of those retirements were close to our assumptions.

The experience runs to 31 March 2024 and so reflects the impact of COVID-19, which might have driven some volatility in patterns of ill-health retirement. However, experience in the four years to 31 March 2020 was also somewhat below the assumption, and so we believe that this pattern reflects a long-term trend rather than a one-off effect driven by COVID-19.

Mortality before retirement

Mortality before retirement assumptions are a series of probabilities which represent the likelihood of a member dying at any given age before retirement age.



Recommendation

We recommend that the assumptions adopted for the 2020 valuation are retained. These assumptions are set out in the tables below, which detail for each category of member the proportion of members who are expected to die in service each year at each age.

Age	Males	Females
20	0.0001	0.0000
25	0.0001	0.0001
30	0.0002	0.0001
35	0.0003	0.0002
40	0.0004	0.0003
45	0.0006	0.0004
50	0.0008	0.0006
55	0.0014	0.0008
60	0.0023	0.0012
65	0.0036	0.0017

Scheme experience

In the table below we have compared the number of member deaths to the level expected based on the 2020 valuation assumption and the updated 2024 valuation assumption.

	Experience[1]	2020 expectations[2]	2024 expectations[3]
Male	599	597	597
Female	768	845	845

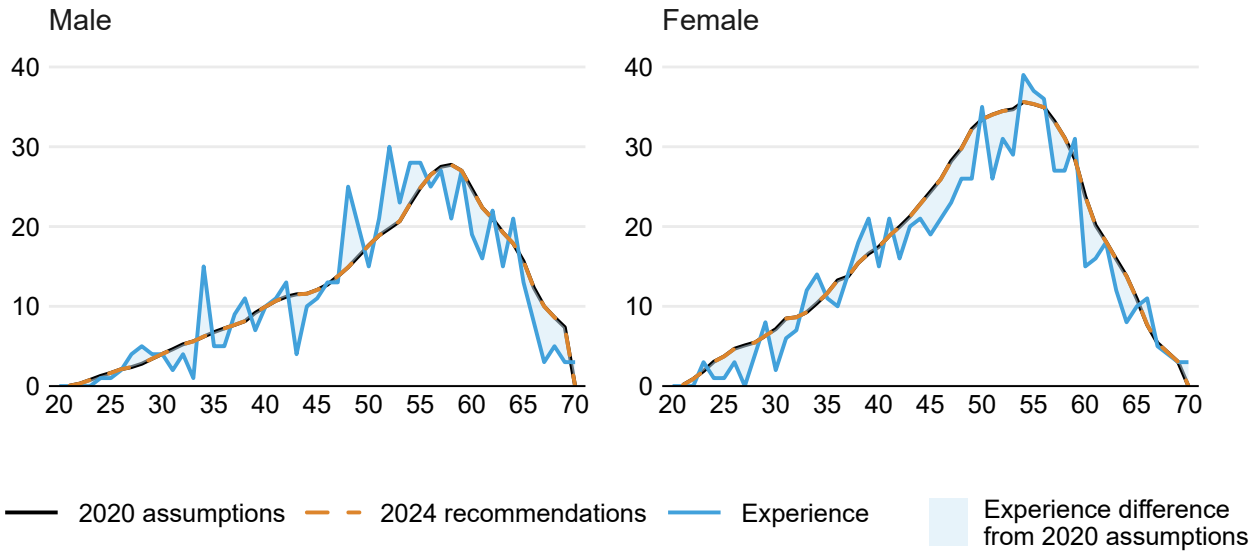
[1] Number of deaths in service over 2020-2024

[2] Expected number of deaths in service under the 2020 assumptions

[3] Expected number of deaths in service under the 2024 assumptions

Actual death before retirement experience was not materially different to that expected at most ages.

Deaths before retirement by age, split by gender

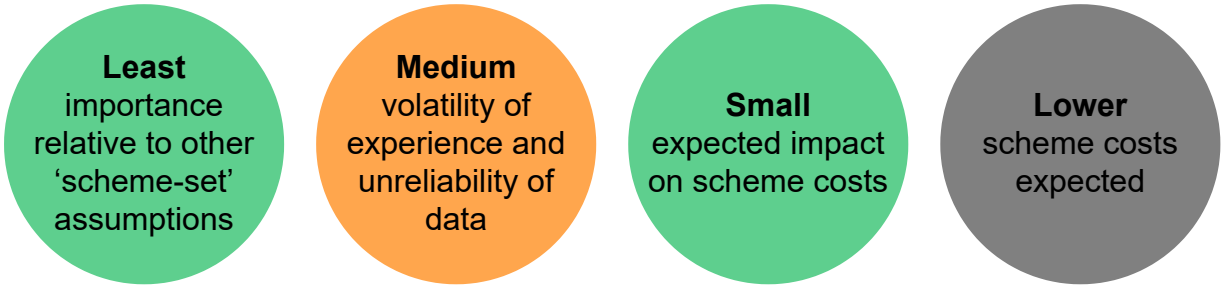


The analysed experience runs from 1 April 2020 to 31 March 2024 and so would be expected to capture the majority of deaths due to COVID-19. However, since experience was broadly in line with our assumption and the materiality of this assumption is very low, we see no compelling reason to perform further analysis.

Family statistics

The term ‘family statistics’ covers several assumptions, including:

- the probability that an eligible partner exists
- the average age of that partner, compared to the member.



Note

For existing pensioners, we consider the likelihood of members having an eligible partner on 31 March 2024. For future pensioners, we consider the likelihood of members having an eligible partner at retirement, or earlier death.

For current pensioners, the proportion married or partnered at the valuation date for ages up to age 70 is derived from scheme experience - see scheme experience below. For ages above age 70, this assumption falls in line the latest available ONS proportion married/partnered data released in October 2025.

Recommendation

We recommend that the assumptions for the probability that an eligible partner exists on the death of a member be updated to fully align with recent experience and that no distinction be made between members whose benefits were accrued wholly prior to 1 January 2007 and other members. We recommend that other family statistics assumptions adopted for the 2020 valuation are retained. These assumptions are set out in the table below, which details for each category of member the proportion of members who have an eligible partner at death.

Age	Males	Females
<70	65%	54%
70-74	65%	53%
75-79	63%	42%
80-84	58%	34%
85+	51%	14%

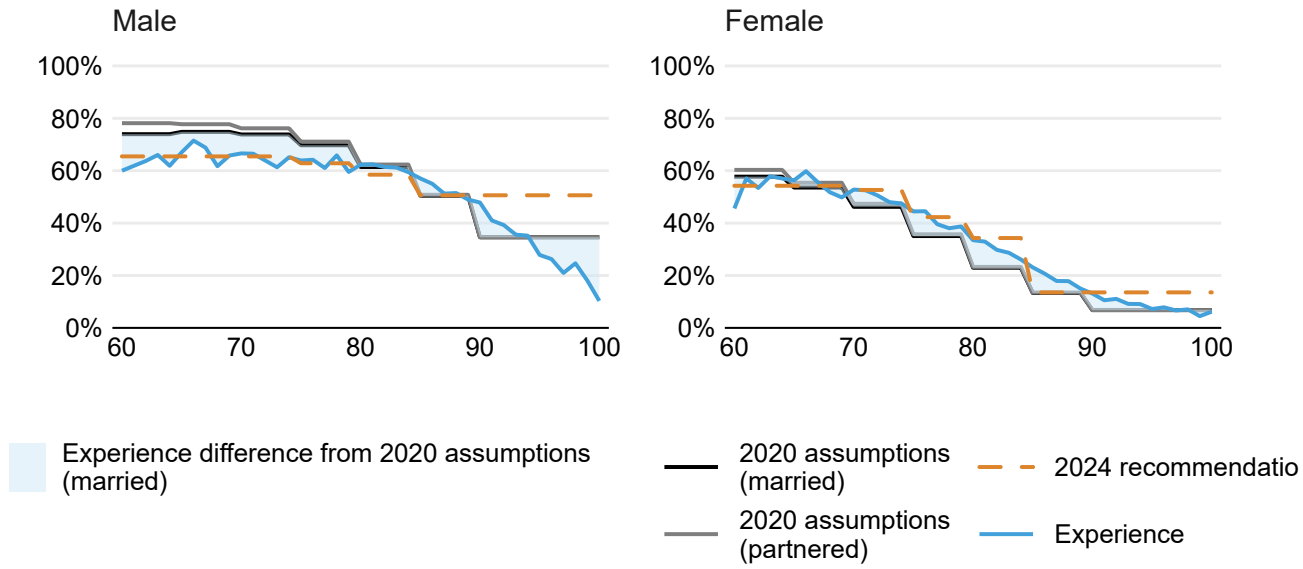
Male members are assumed to be three years older than their partners and female members are assumed to be two years younger than their partners.

Scheme experience

Probability that an eligible partner exists

In the chart below we have considered the proportion of members with a dependant at death, based on recent member deaths data. This is compared to the proportions expected based on the 2020 valuation assumption and the updated 2024 valuation assumption.

Proportion married or partnered by age, split by gender

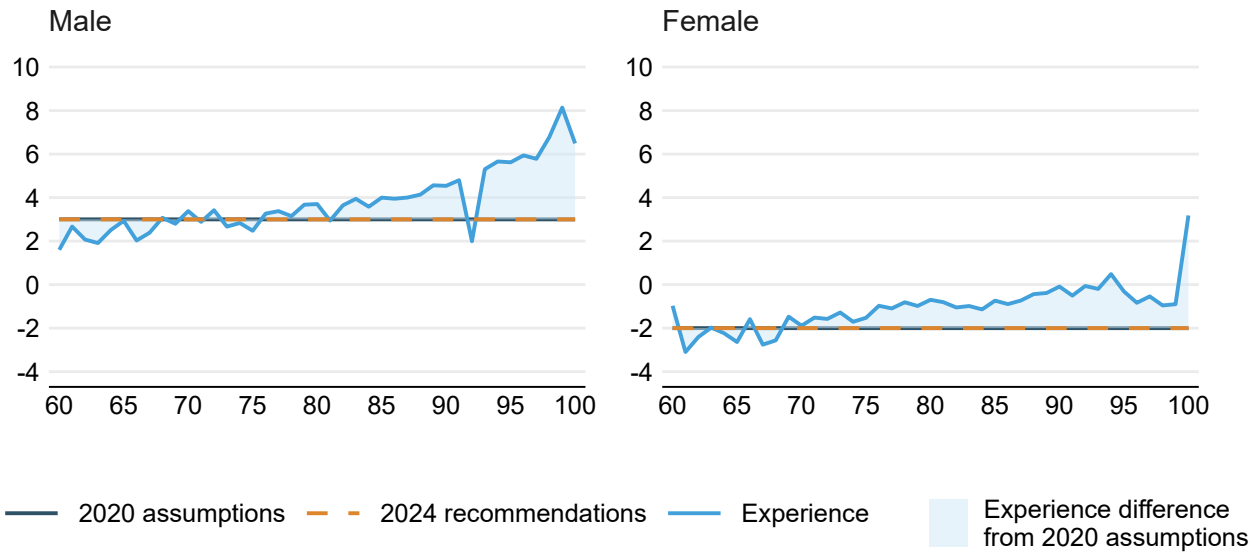


The charts above show that recent experience of proportion married or partnered for younger members is materially less than the 2020 assumptions. We recommend that the assumption is updated to fully align with recent experience.

Age difference

In the charts below we have considered the average age differences between members and eligible spouses based on recent data and also the 2020 valuation assumptions and 2024 recommendations.

Age difference between member and spouse or partner by age



The charts above show that recent experience of age differences is close to the 2020 assumptions. We therefore recommend retaining the assumptions adopted for the 2020 valuation.

Wider considerations

The Goodwin legal challenge was brought against the Department for Education in respect of survivor benefits provided in the Teachers' Pension Scheme. The Goodwin challenge follows on from the Walker case which ruled in 2017 that to treat same-sex spouses/civil partners less favourably than their opposite-sex equivalents constituted unlawful discrimination. The Government announced in July 2020 that it had concluded that changes are required to the Teachers' Pension Scheme to address this discrimination. The Government also noted that this difference in treatment will also need to be remedied in other UK public service pension schemes with similar provisions.

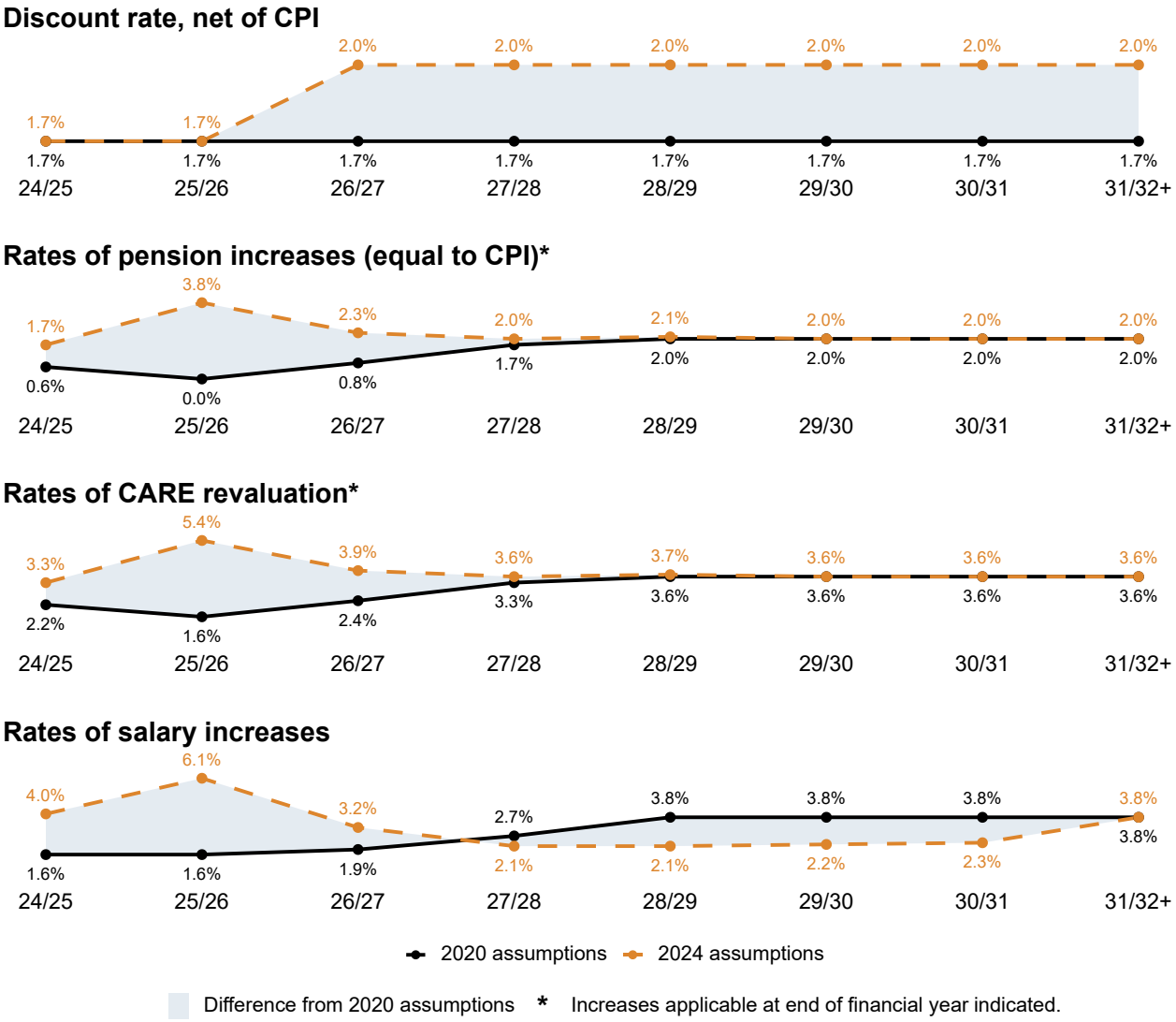
We understand that this remedy has been implemented and is reflected in the scheme experience provided to us. No further assumptions are therefore required in respect of this remedy.

At the 2020 valuation we distinguished between members who accrued benefits wholly before 1 January 2007 and those who had some accrual after that data. Unmarried partners of 'Pre-07' members are not entitled to a benefit from the scheme and this was reflected in the assumptions. However, the number of such members has fallen over time such that making a distinction between these two groups in the proportion married would not be expected to have a material impact on the results. We therefore recommend adopting a

single table for each category and making no distinction between proportion married and proportion married or partnered.

Directed assumptions

Financial assumptions



Demographic assumptions

Item	2020 assumption	2024 assumption
Deficit spreading periods	15 years	
Future mortality improvements	In line with 2020-based ONS projections	In line with 2022-based ONS projections
State Pension age	As legislated for in the Pensions Act 1995, Pensions Act 2007, Pensions Act 2011 and Pensions Act 2014	
Pensionable payroll growth	Not directed	In line with public service earnings growth

Minor assumptions

Active membership projections

Direction 12 requires the actuary to use the 'projected unit methodology' to calculate the valuation results. The valuation results require the calculation of the cost of benefit accrual over periods after the effective date. This implicitly requires the actuary to estimate the membership to future dates to determine the valuation results. Members of the legacy sections ceased to accrue benefits in these sections at 31 March 2022 and future accrual for all members is in the reformed section from 1 April 2022.

The expected cost of accruing benefits over periods after the effective date have been determined by assuming an overall stable population (age and pay profile) to the end of the implementation period.

The approach incorporates the following assumptions:

- Members with past service in the legacy sections are assumed to retire in line with recent experience. This provides for some legacy section members to remain in active service in the reformed scheme beyond 2022 due to late retirement.
- The overall active membership will be in receipt of pensionable pay for each relevant year equal to that assumed for forecasting purposes.
- In the projected populations, the State Pension age is assumed to be determined by reference to date of birth and so the State Pension age mix changes over time despite the assumed stable population. This allows for the membership accruing benefits to change over the implementation period.
- Mortality is assumed to be projected forward to the relevant year of use in all cases.

Grouping of individual active member records

Individual active members have been grouped together for the purposes of calculating liabilities. This grouping is necessary to accommodate the volume of data within our valuation system. The approach taken to grouping the data has been tested to ensure it does not result in any distortion of the valuation results. The groupings are made for each section/scheme (i.e. NPA 60, NPA 65 or 2015), salary band and based on the following criteria:

- Age: Age nearest, which is the whole number age which a member is closest to at their actual age
- Gender

- Length of service

McCloud calculation approach

The outcome of the remedy required to address the McCloud judgment was twofold. When benefits become payable, eligible members can select to receive them from either the reformed or legacy sections for the period 1 April 2015 to 31 March 2022. All active members still in the legacy scheme were transferred to the reformed scheme from 1 April 2022.

To allow for the McCloud remedy in our calculation methodology we have valued the ‘better’ benefits for members when comparing benefits from the reformed and legacy sections. Benefits are valued in each section for each possible outcome (for example, retirement or death), at each future date and for each eligible individual, using the same demographic assumptions (for example retirement ages) for both the reformed and legacy section calculations. This approach is consistent the approach adopted for the 2020 valuation.

Summary tables

We have set out a summary of the scheme-set assumptions to be adopted for the actuarial valuation of the Teachers' Pension Scheme (England and Wales) as at 31 March 2024, including sample rates and values. The assumptions adopted at the previous valuation as at 31 March 2020 are set out in our Advice on assumptions report for that valuation, located at the following location: 2020 Valuations Assumptions Report

Mortality after retirement

	Baseline mortality	Standard table	Adjustment
Male			
2024	Retirements in normal health	S4NMA_L	110%
2024	Current ill-health pensioners	S4IMA	82%
2024	Future ill-health pensioners	S4IMA	82%
2024	Dependants	S4DMA	82%
Female			
2024	Retirements in normal health	S4NFA_VL	100%
2024	Current ill-health pensioners	S4IFA	95%
2024	Future ill-health pensioners	S4IFA	95%
2024	Dependants	S4DFA_VL	104%

Proportion commuted

	NPA 60 service	NPA 65 service	2015 scheme service
Males and females	6.0%	17.5%	17.5%

Retirement ages

New entrants to the 2015 scheme								
	SPA65		SPA66		SPA67		SPA68	
Age	Male	Female	Male	Female	Male	Female	Male	Female
60	0.09	0.08	0.09	0.08	0.09	0.08	0.09	0.08
61	0.08	0.07	0.08	0.07	0.08	0.07	0.08	0.07
62	0.11	0.09	0.11	0.09	0.11	0.09	0.11	0.09
63	0.14	0.11	0.14	0.11	0.14	0.11	0.14	0.11
64	0.15	0.13	0.15	0.13	0.15	0.13	0.15	0.13
65	1.00	1.00	0.50	0.50	0.33	0.33	0.25	0.25
66	1.00	1.00	1.00	1.00	0.50	0.50	0.33	0.33
67	1.00	1.00	1.00	1.00	1.00	1.00	0.50	0.50
68	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
69	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
70	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Members with service in NPA 60 and 2015 scheme				
	SPA67		SPA68	
Age	Male	Female	Male	Female
55	0.07	0.06	0.02	0.02
56	0.06	0.05	0.02	0.02
57	0.08	0.07	0.03	0.02
58	0.11	0.09	0.04	0.03
59	0.12	0.10	0.04	0.03
60	0.31	0.34	0.16	0.16
61	0.26	0.31	0.14	0.15
62	0.21	0.24	0.14	0.14
63	0.22	0.24	0.16	0.16
64	0.22	0.24	0.17	0.17
65	0.46	0.40	0.32	0.30
66	0.46	0.41	0.38	0.36

Members with service in NPA 60 and 2015 scheme				
	SPA67		SPA68	
Age	Male	Female	Male	Female
67	0.40	0.37	0.47	0.46
68	0.51	0.47	0.84	0.83
69	0.53	0.38	0.85	0.80
70	1.00	1.00	1.00	1.00

Members with service in NPA 65 and 2015 scheme								
	SPA65		SPA66		SPA67		SPA68	
Age	Male	Female	Male	Female	Male	Female	Male	Female
60	0.09	0.08	0.09	0.08	0.09	0.08	0.09	0.08
61	0.08	0.07	0.08	0.07	0.08	0.07	0.08	0.07
62	0.11	0.09	0.11	0.09	0.11	0.09	0.11	0.09
63	0.14	0.11	0.14	0.11	0.14	0.11	0.14	0.11
64	0.15	0.13	0.15	0.13	0.15	0.13	0.15	0.13
65	1.00	1.00	1.00	1.00	0.76	0.76	0.41	0.41
66	1.00	1.00	1.00	1.00	0.78	0.78	0.48	0.48
67	1.00	1.00	1.00	1.00	1.00	1.00	0.61	0.61
68	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
69	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
70	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Rates of leaving service

Age	Males	Females
20	0.094	0.064
25	0.076	0.057
30	0.058	0.051
35	0.034	0.030
40	0.034	0.027
45	0.034	0.027
50	0.036	0.031
55	0.036	0.035
60	0.036	0.037
65	0.036	0.038

Promotional pay increase

Age	Males	Females
20	86	85
25	100	100
30	125	124
35	151	143
40	168	152
45	179	158
50	186	164
55	190	168
60	192	170
65	194	172

Rates of ill-health retirement

Age	Males	Females
20	0.0000	0.0000
25	0.0000	0.0000
30	0.0000	0.0001
35	0.0001	0.0001
40	0.0002	0.0002
45	0.0005	0.0005
50	0.0014	0.0012
55	0.0024	0.0023
60	0.0035	0.0035
65	0.0042	0.0047

Rates are zero if above the NPA of the relevant section

Mortality before retirement

Age	Males	Females
20	0.0001	0.0000
25	0.0001	0.0001
30	0.0002	0.0001
35	0.0003	0.0002
40	0.0004	0.0003
45	0.0006	0.0004
50	0.0008	0.0006
55	0.0014	0.0008
60	0.0023	0.0012
65	0.0036	0.0017

Family statistics

Proportion married or entitled to a partner's/dependant's pension at death

Age	Males	Females
<70	65%	54%
70-74	65%	53%
75-79	63%	42%
80-84	58%	34%
85+	51%	14%

Male members are assumed to be three years older than their partners and female members are assumed to be two years younger than their partners.

Compliance and limitations

The Overview report should be referred to and contains compliance and limitations information covering this and other component parts of the valuation reports.

Directions

This report has been prepared with a view to meeting the following reporting requirements of the Directions:

Reporting Direction	Description	Relevant Directions (where applicable)
22(1),(3),(4)	Summary of demographic analysis	
22(2)	Statement where scheme membership data not sufficient to carry out analysis	
23(1)(h)	An analysis of the demographic experience	22
23(1)(i)	A statement of the assumptions used by the scheme actuary in preparing the report	