Government Actuary's Department

NHS Pension Scheme

2024 Actuarial Valuation

Assumptions

3 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 NHS Pension Scheme (NHSPS) (the Scheme) as at 31 March 2024. It was prepared by Fiona Dunsire, Government Actuary, FIA C.Act and Garry Swann FIA C.Act, and published on 3 July 2026.

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

- 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 NHSPS 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 Health and Social Care. The Secretary of State for Health and Social Care 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	Medium	↓ Lower costs
Proportion commuted	Average	Low	None	— No / negligible impact
Retirement ages	Average	Low	Small	↑ Higher costs
Rates of leaving service	Average	Low	Small	↓ Lower costs
Promotional pay increases	Least	High	None	— No / negligible impact
Rates of ill-health retirement	Least	Low	None	— No / negligible impact
Mortality before retirement	Least	Low	None	— No / negligible impact
Family statistics	Least	Medium	Small	— No / negligible impact

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:

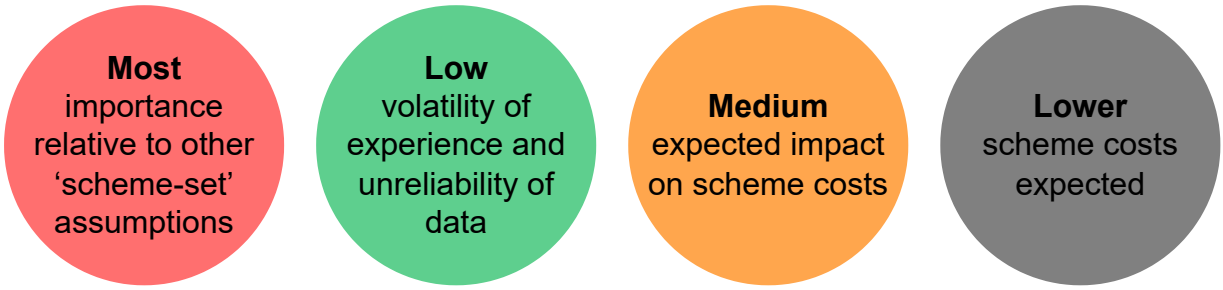
- our recommendations
- the practical implications of our recommendations
- a summary of our analysis of scheme experience
- any other factors that we consider relevant when deciding on the assumptions to adopt

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 normal health pensioners, ill-health pensioners and dependants using an equal allowance for recent experience and the 2020 assumption to help smooth out volatility. The 2020 valuation assumption was set only using experience between 2016 and 2020 as our analysis at the previous valuation identified an inconsistency in the experience data supplied for the 2012 and 2016 valuations.

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
Normal health pensioners						
Male	S3NMA	91%	Scheme experience	S4NMA	96%	Scheme experience
Female	S3NFA	103%	Scheme experience	S4NFA_M	101%	Scheme experience
Ill health pensioners						
Male	S3IMA	134%	Scheme experience	S4IMA	116%	Scheme experience
Female	S3IFA	134%	Scheme experience	S4IFA	122%	Scheme experience
Dependants						
Male	S3DMA	82%	Scheme experience	S4DMA	78%	Scheme experience
Female	S3DFA	89%	Scheme experience	S4DFA_L	94%	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	87.8	88.0	87.7
Future pensioners, age 45	89.5	89.4	89.1
Female			
Current pensioners, age 65	89.0	89.6	89.4
Future pensioners, age 45	90.5	90.9	90.8

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.

Experience figures include 3,718 suspected deaths over the 2020 to 2024 period that were not recorded in the core movement data provided. The scheme administrator provided supplementary information on these members where a death is suspected or has been reported but a death certificate has not yet been provided. This allowed us to include these suspected deaths in the experience analysis.

		2020		2024	
	Experience[1]	2020 assumptions[2]	Experience ÷ assumptions	2024 recommen-dations[3]	Experience ÷ recommen-dations
Normal health pensioners					
Male	£463.0m	£428.8m	108%	£449.5m	103%
Female	£382.4m	£356.5m	107%	£371.0m	103%
Ill health pensioners					
Male	£76.4m	£90.6m	84%	£83.5m	91%
Female	£100.7m	£92.6m	109%	£96.6m	104%
Dependants					
Male	£20.0m	£23.0m	87%	£21.4m	94%
Female	£111.6m	£118.8m	94%	£114.7m	97%

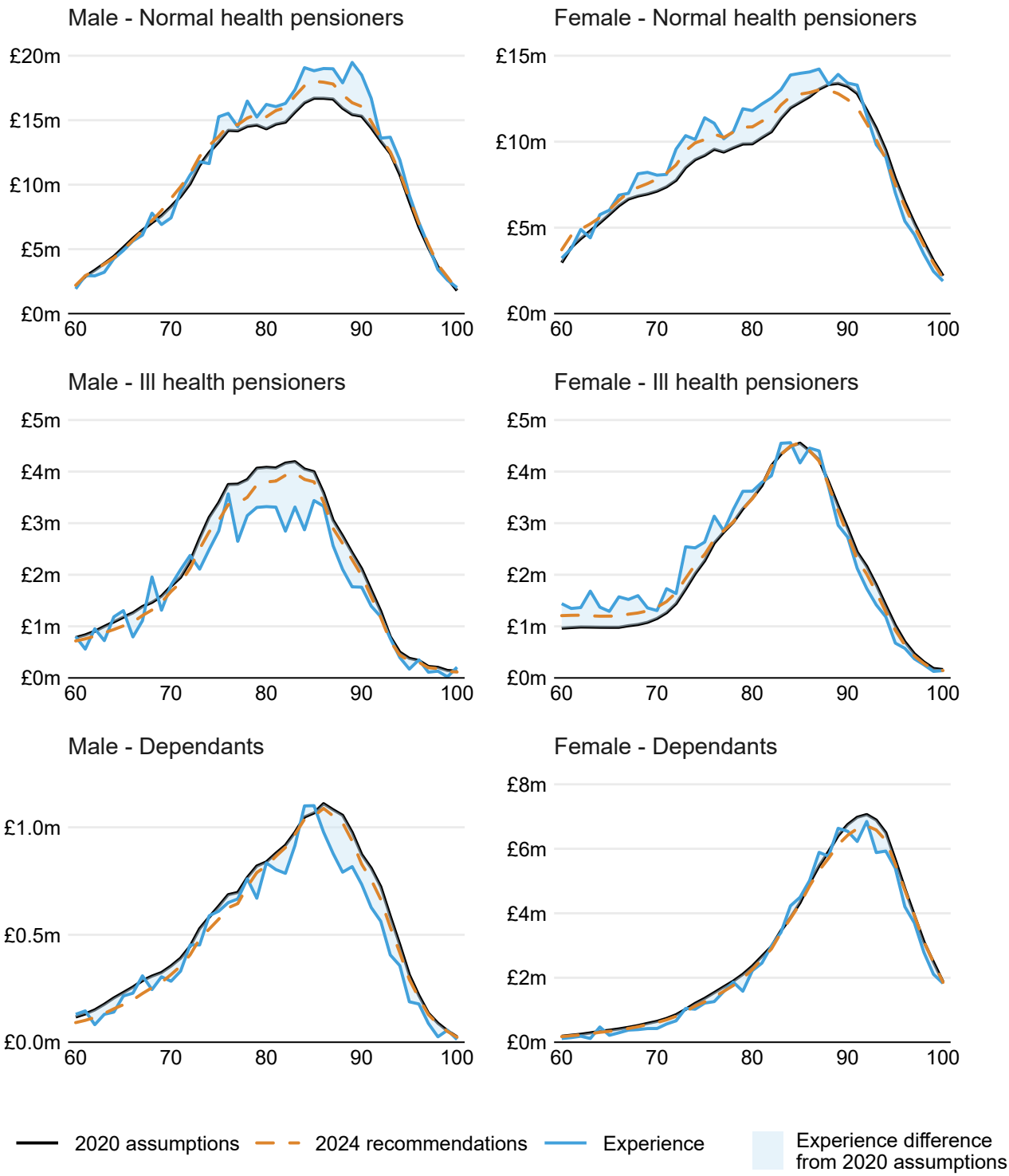
[1] Actual pension ceasing due to death over 2020-2024

[2] Pension expected to cease under 2020 assumptions

[3] Pension expected to cease under 2024 recommendations

The table shows more pensions ceasing over the valuation period relative to that assumed at the last valuation for all members retiring in normal health and female members retiring in ill-health. Experience for male members retiring in ill-health and all dependant members was lower than assumed.

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

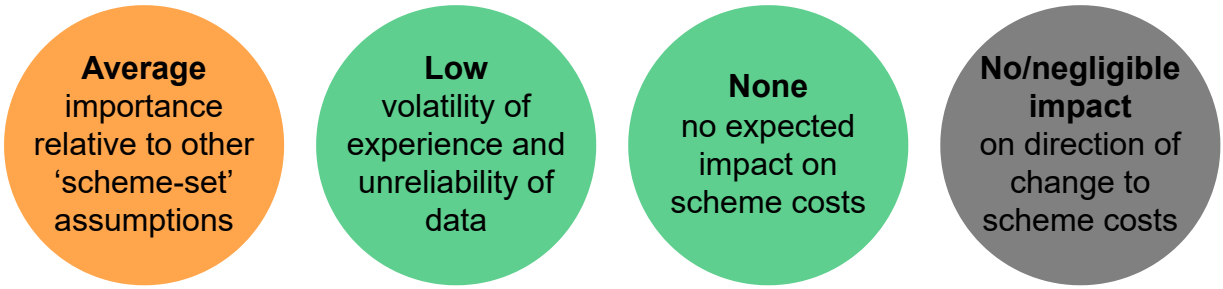


Wider considerations

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

The table below indicates the recommended commutation assumptions for male and female members of the 1995 Section, 2008 Section and 2015 Scheme.

	1995 section	2008 section	2015 scheme
Male	10.0%	20.0%	20.0%
Female	12.0%	20.0%	20.0%

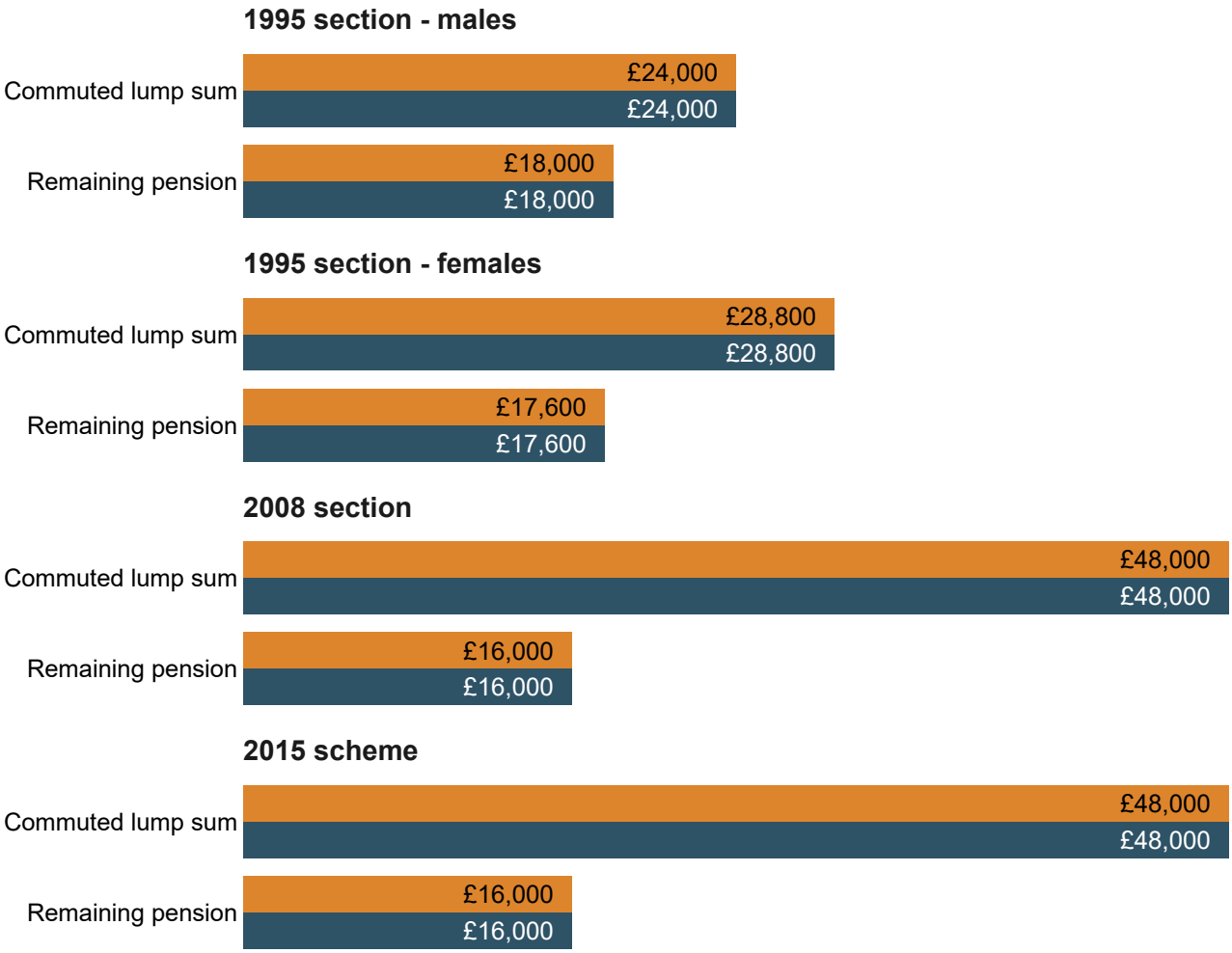
The recommended assumptions are unchanged from those used for the 2020 actuarial valuation.

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.

	Total pension before commutation[1]	Total pension commuted[1]	Experience[2]	2020 expectations[3]	2024 expectations[4]
1995 section - males	£411.1m	£43.4m	10.6%	10.0%	10.0%
1995 section - females	£1,040.6m	£130.1m	12.5%	12.0%	12.0%
2008 section	£82.5m	£20.1m	24.4%	20.0%	20.0%
2015 scheme	£31.5m	£4.1m	12.9%	20.0%	20.0%
Other large public service schemes[5]	£142.2m	£22.9m	16.1%	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 included data from Civil Service Pension Scheme (GB) – Non-Classic schemes, Teachers' Pension Scheme (England and Wales) – NPA 65 section and Local Government Pension Scheme (England and Wales) – Post 2008 section

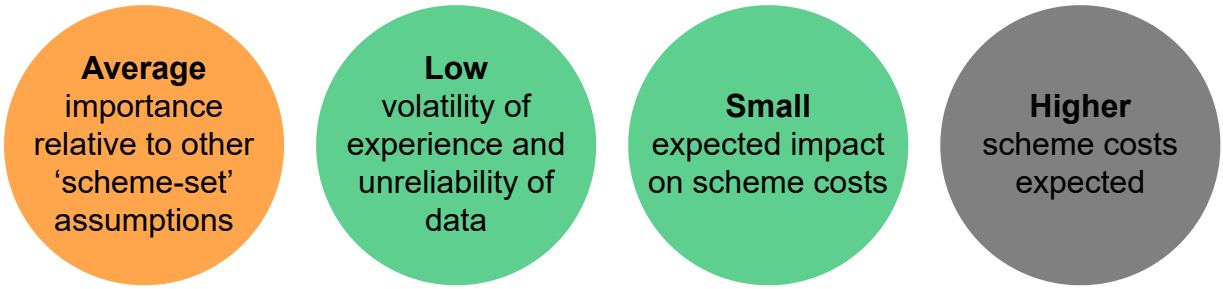
The 1995 Section, for both males and females, has seen commutation proportions in recent years which are reasonably in line with the 2020 valuation assumptions.

The 2008 Section has seen a higher proportion of commutation and the 2015 Scheme has seen a lower proportion of commutation in recent years. However, there is a relatively low amount of retirement experience underpinning this analysis. It is also expected that members retiring from the 2015 Scheme will also have legacy benefits.

When considered together the current assumption of 20% commutation for both the 2008 Section and 2015 Scheme remains reasonable.

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

For the 1995 Section, we recommend a change to the assumptions for female manual members between ages 61 and 64, using an equal allowance for recent experience and the 2020 assumption, with no changes to the other assumptions for the 1995 Section.

For the 2008 Section, we recommend a change to the assumptions for all members at age 65 only, using an equal allowance for recent experience and the 2020 assumption, with no change to other ages.

For the 2015 Scheme we recommend a change to the retirement assumptions at all ages, using an equal allowance for recent experience and the 2020 assumption. We also recommend allowing for the new Normal Minimum Pension Age of 57, being introduced from 2028.

The tables below set out the retirement assumptions where a change to the assumptions has been recommended. The full set of retirement age assumptions are set out in the Summary tables below.

Age retirement rates for 1995 section (Manual - Female)	
	Manual
Age	Female
50	0.01
51	0.01
52	0.01
53	0.01
54	0.01
55	0.03
56	0.02
57	0.04
58	0.04
59	0.07
60	0.19
61	0.18
62	0.21
63	0.18
64	0.19
65	0.35
66	0.25
67	0.19
68	1.00

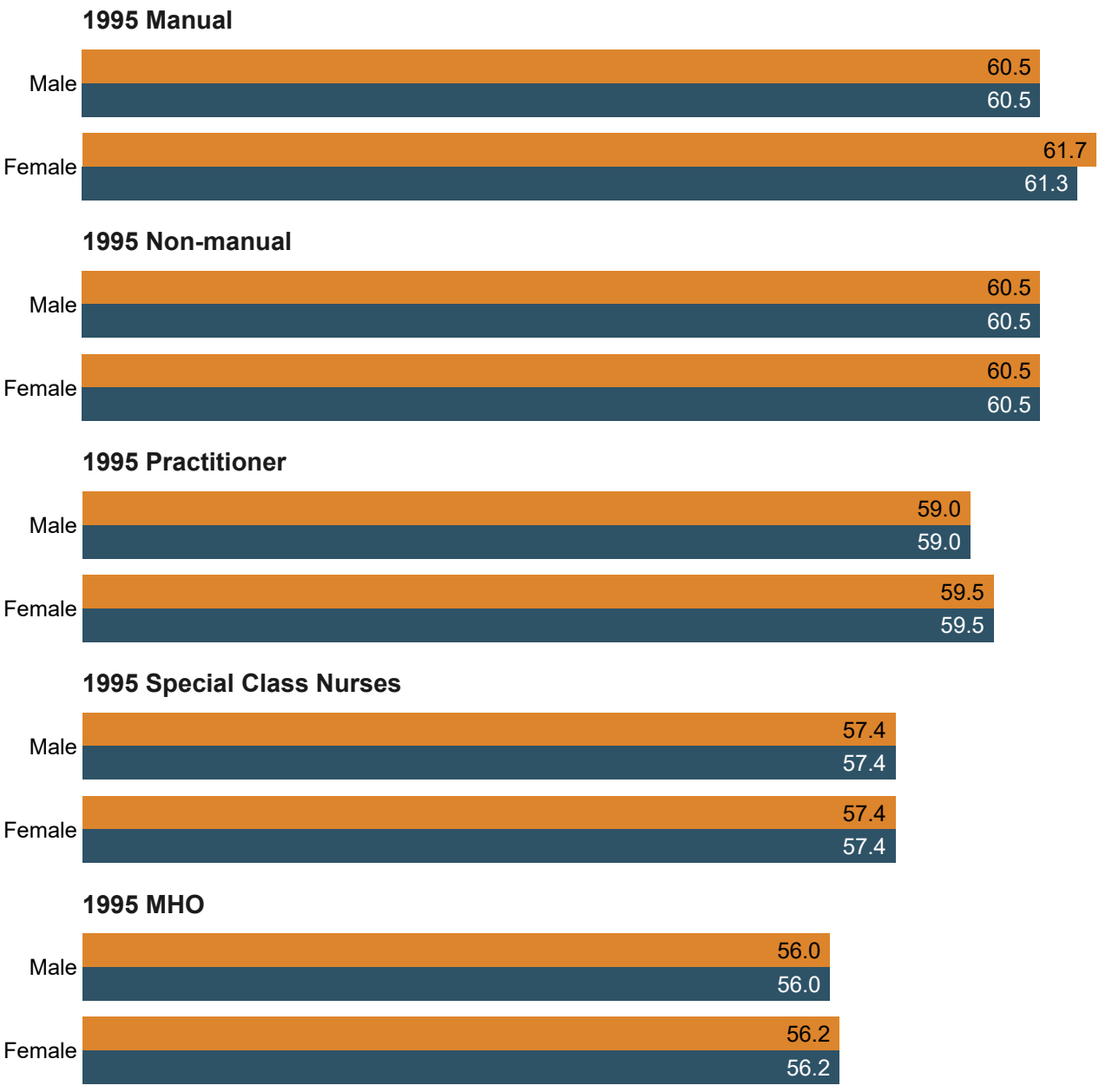
Age retirement rates for 2008 section						
	Manual		Non-manual		Practitioner	
Age	Male	Female	Male	Female	Male	Female
55	0.02	0.02	0.02	0.02	0.02	0.02
56	0.02	0.02	0.02	0.02	0.02	0.02
57	0.02	0.02	0.02	0.02	0.02	0.02
58	0.02	0.02	0.02	0.02	0.02	0.02
59	0.03	0.03	0.03	0.03	0.03	0.03
60	0.04	0.04	0.04	0.04	0.04	0.04
61	0.05	0.05	0.05	0.05	0.05	0.05
62	0.06	0.06	0.06	0.06	0.06	0.06
63	0.07	0.07	0.07	0.07	0.07	0.07
64	0.08	0.08	0.08	0.08	0.08	0.08
65	0.62	0.64	0.63	0.64	0.58	0.70
66	0.70	0.50	0.55	0.45	0.32	0.40
67	0.55	0.50	0.50	0.40	0.32	0.40
68	0.50	0.50	0.50	0.35	0.32	0.40
69	0.40	0.50	0.55	0.35	0.32	0.40
70	1.00	1.00	1.00	1.00	1.00	1.00

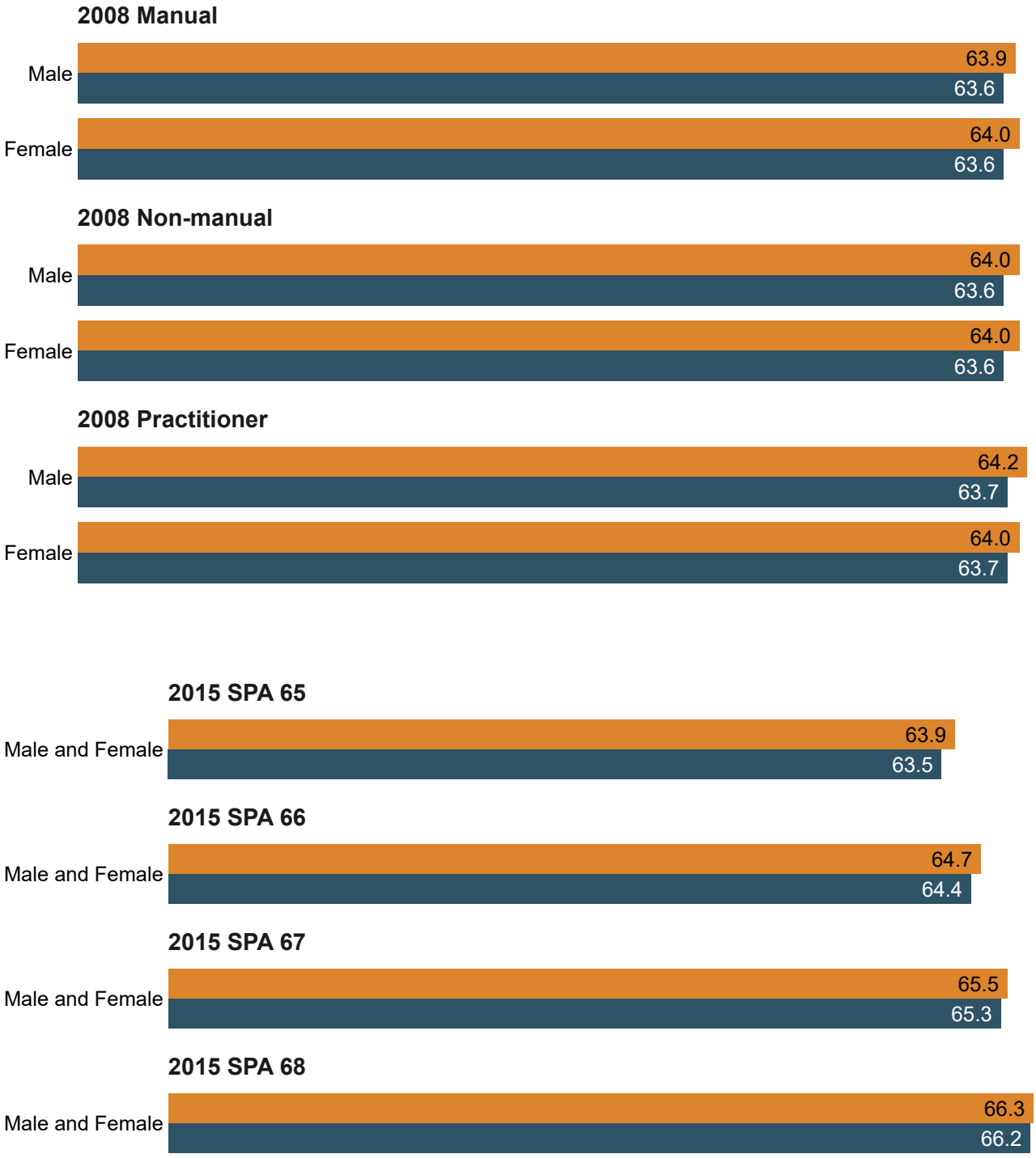
Age retirement rates for 2015 Scheme				
	Male and Female			
Age	**SPA 65**	**SPA 66**	**SPA 67**	**SPA 68**
55	-	-	-	-
56	-	-	-	-
57	0.02	0.02	0.02	0.02
58	0.03	0.02	0.02	0.02
59	0.04	0.03	0.02	0.02
60	0.03	0.04	0.03	0.02
61	0.04	0.03	0.04	0.03
62	0.04	0.04	0.03	0.04
63	0.05	0.04	0.04	0.03
64	0.12	0.05	0.04	0.04
65	1.00	0.12	0.05	0.04
66	1.00	1.00	0.12	0.05
67	1.00	1.00	1.00	0.12
68	1.00	1.00	1.00	1.00

Practical implications

- 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.

Expected retirement age





The numbers shown in this chart assume that members retire from active service. No allowance is made for the possibility of ill-health retirement, leaving service before retirement, or death in service. These assumptions are covered in other sections.

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 are assumed to retire at their Normal Pension Age.

	Experience (number)[1]	Experience (age)[2]	2020 expectations[3]	2024 expectations[4]
1995 Manual				
Male	3,025	61.4	62.1	62.1
Female	3,314	62.3	63.3	63.4
1995 Non-manual				
Male	11,734	60.4	61.1	61.1
Female	62,808	60.2	61.2	61.2
1995 Mental Health Officer (MHO)				
Male	1,069	56.0	56.7	56.7
Female	2,441	56.0	56.5	56.5
1995 Practitioner				
Male	1,476	59.8	59.5	59.5
Female	1,237	59.5	59.2	59.2
1995 Special Class Status (SPC)				
Male	701	56.9	57.6	57.6
Female	14,185	56.8	57.5	57.5
2008 Manual				
Male	1,440	65.0	65.8	65.9
Female	1,289	64.4	65.0	65.0
2008 Non-manual				
Male	3,202	64.4	65.5	65.6
Female	14,293	63.7	64.6	64.5
2008 Practitioner				
Male	48	65.2	65.1	65.2
Female	35	62.0	61.8	61.6
2015 All				
Male and Female	11,476	61.9	65.2	65.7

	Experience (number)[1]	Experience (age)[2]	2020 expectations[3]	2024 expectations[4]

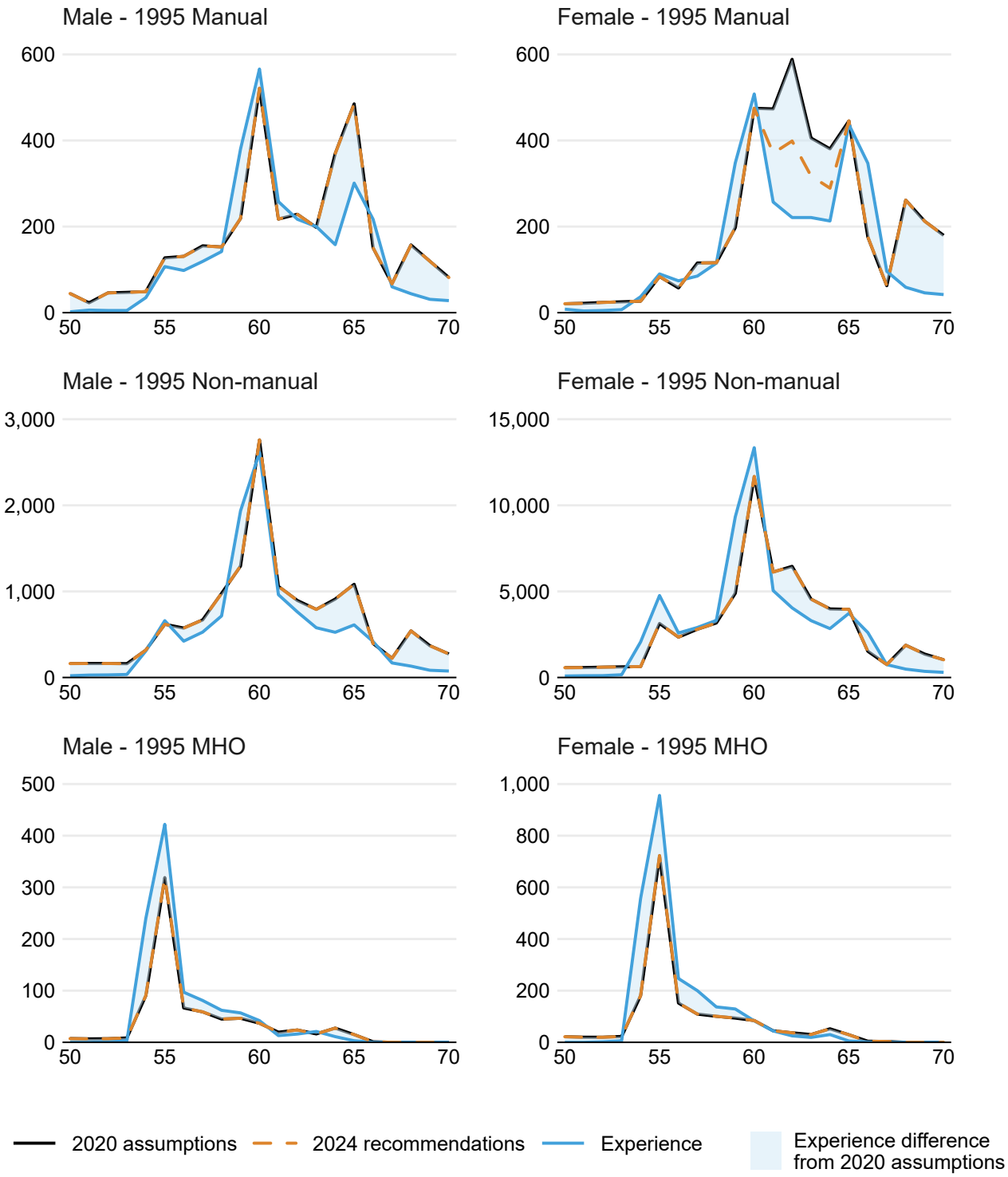
[1] Number of retirements over 2020-2024

[2] Average age at retirement of retirements over 2020-2024

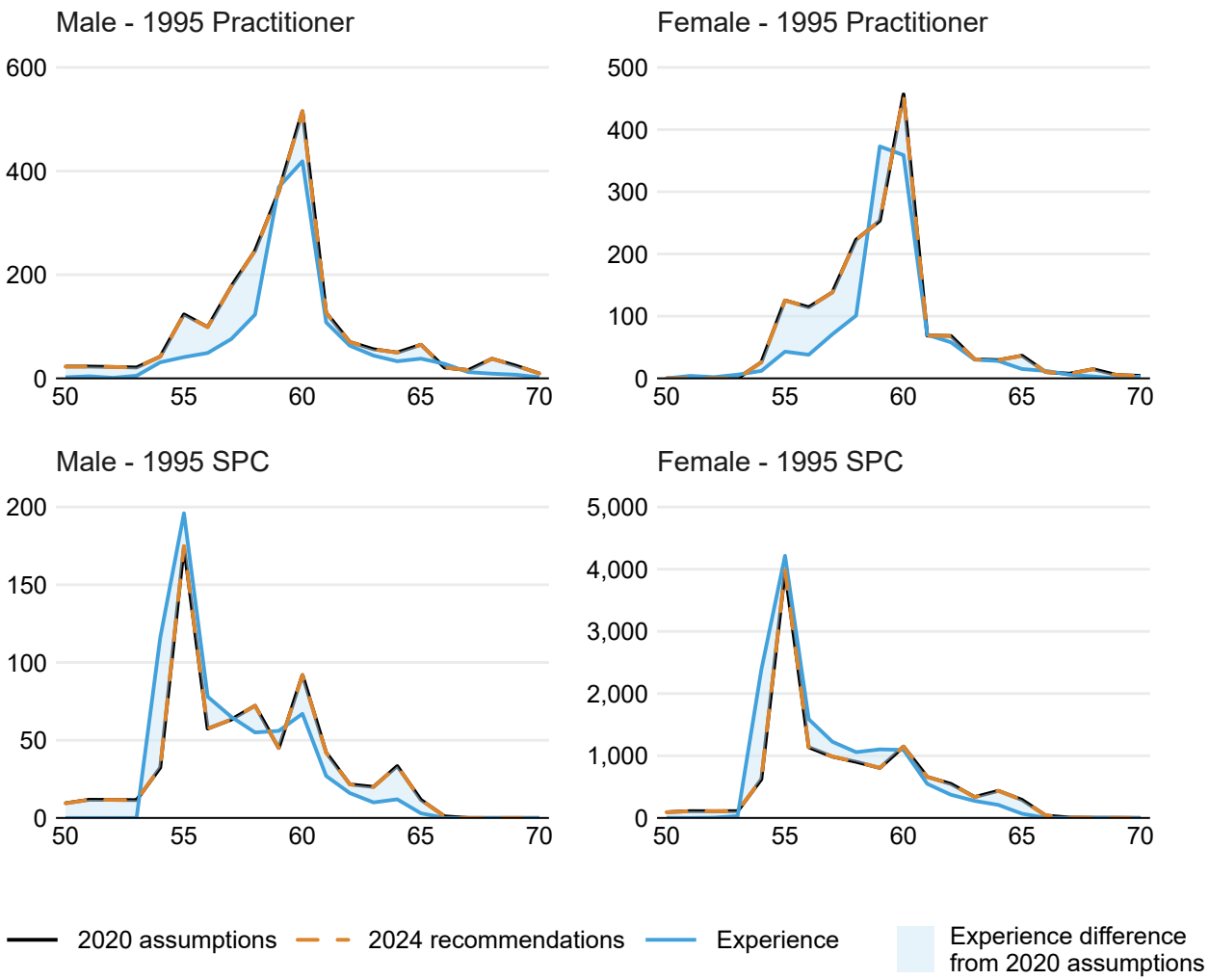
[3] Expected average age at retirement under the 2020 assumptions

[4] Expected average age at retirement under the 2024 assumptions

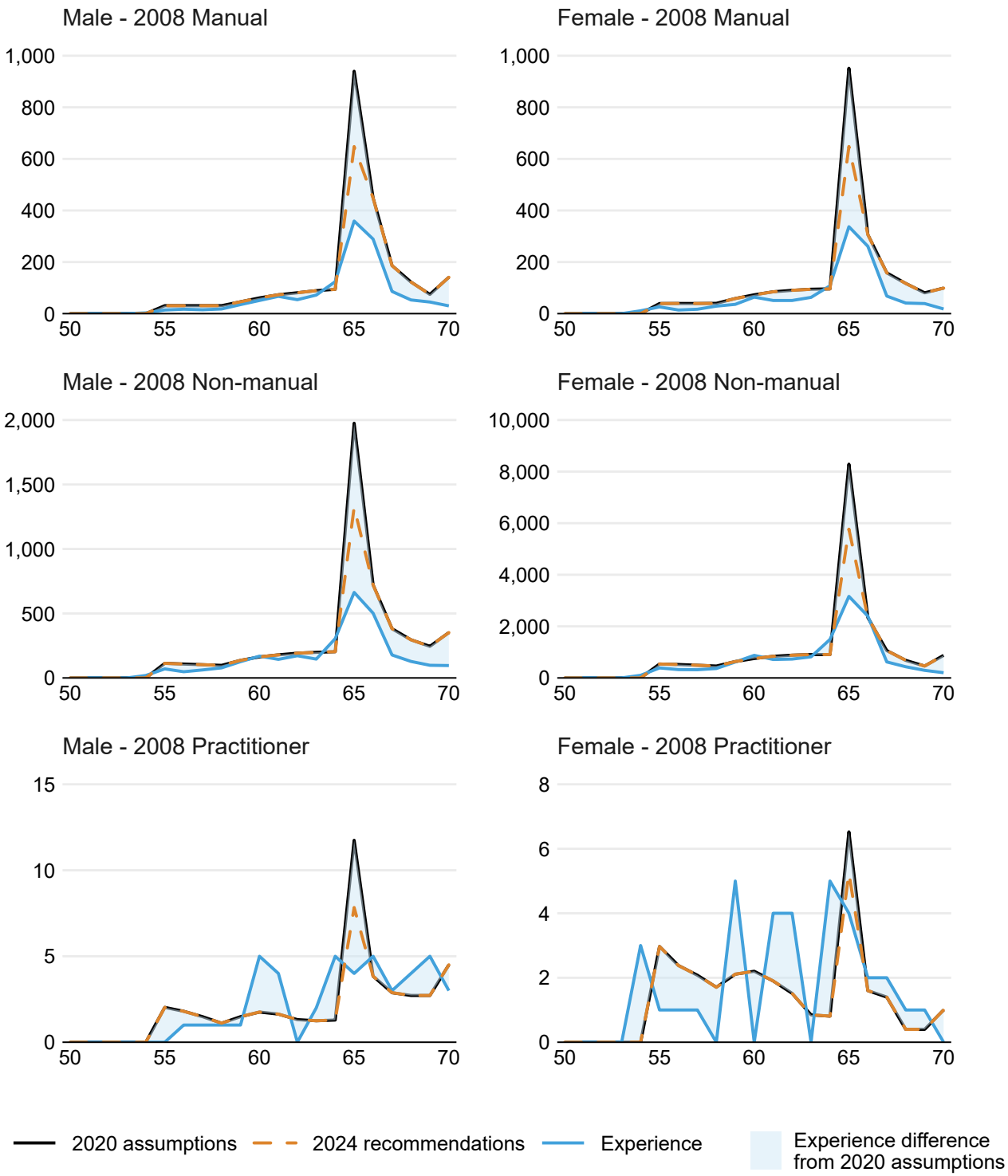
Number of retirements by age, split by category and gender



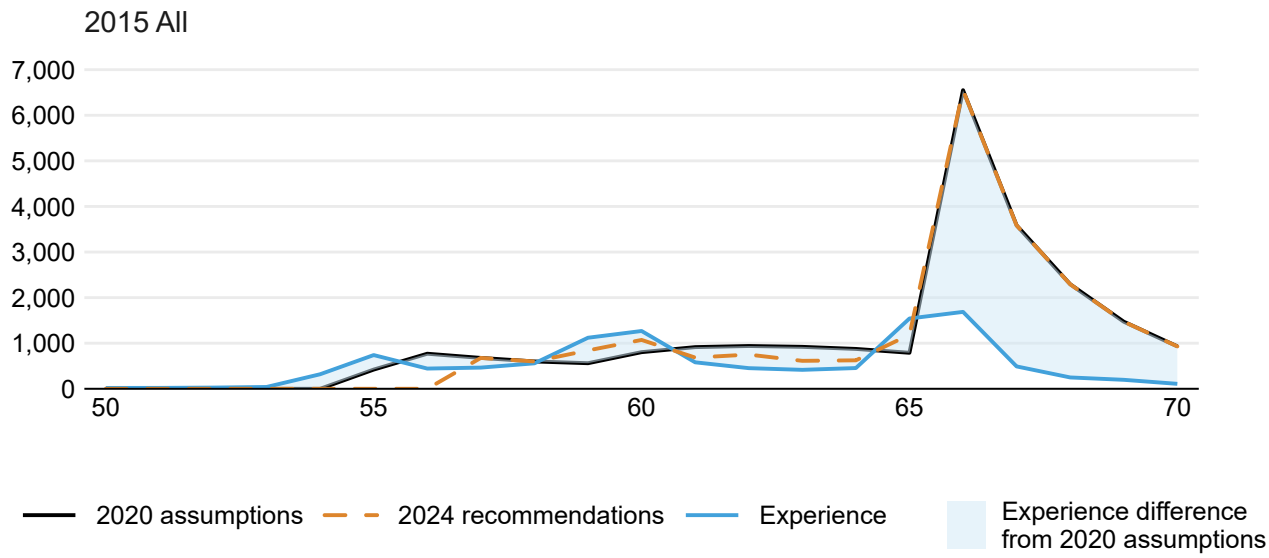
Number of retirements by age, split by category and gender



Number of retirements by age, split by category and gender



Number of retirements by age



The charts above show that the recommended assumptions are broadly in line with scheme experience.

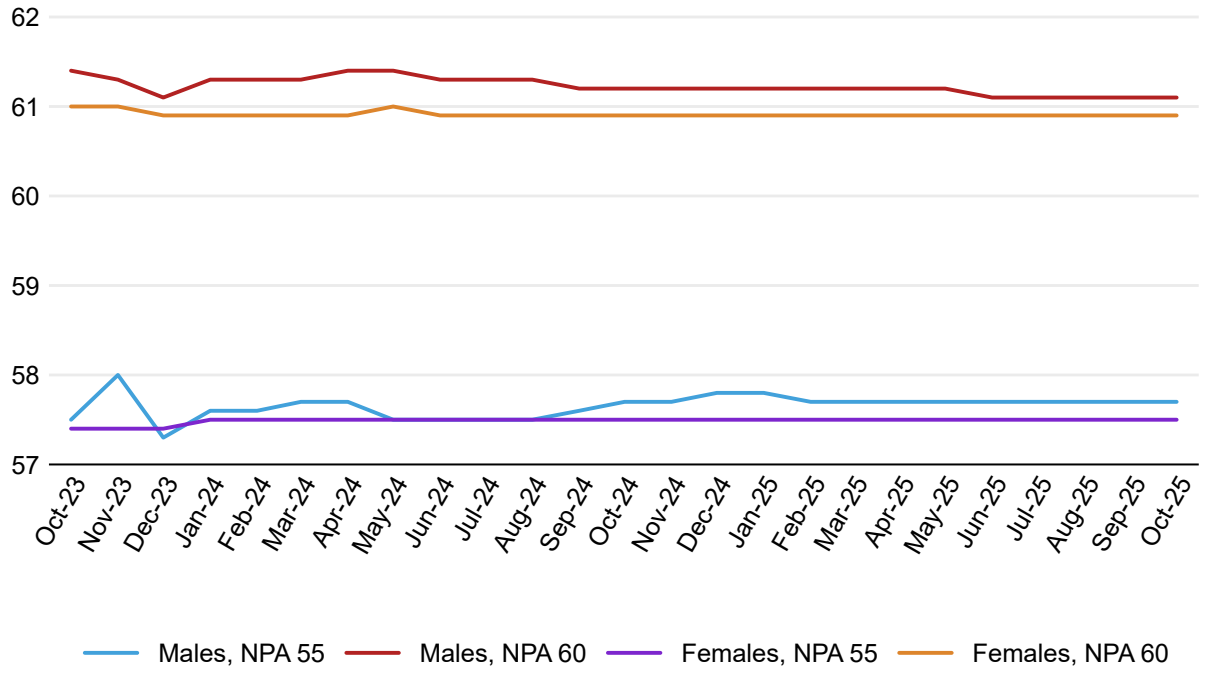
It should be noted that experience can be a very volatile measure for groups with small amounts of data, which then impacts the reliance we place on it.

Wider considerations

The Scheme introduced partial retirement in the 1995 Section from October 2023. This change could alter retirement patterns in future. The Scheme experience between 1 April 2020 and 31 March 2024 captures the initial retirement experience from this policy change. Further, we have analysed the retirement experience for 1995 Section members from the introduction of the policy to 31 October 2025. This is shown in the chart below.

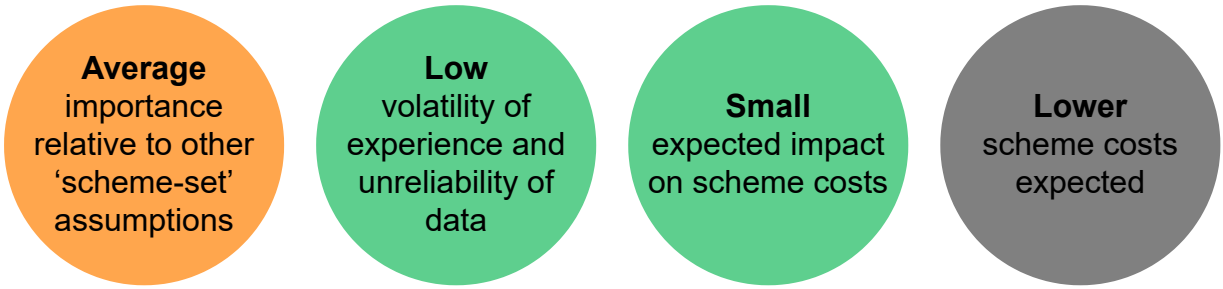
The chart shows that the average age of members taking partial retirement has remained broadly unchanged over the period to October 2025. Therefore, we recommend making no further change to the retirement age assumptions to allow for the introduction of the partial retirement policy for the 1995 Section.

1995 Section / 2015 Scheme rolling average age partial retirement taken



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 used for the 2020 valuation are retained with the exception of the assumptions for members at older ages with more than three years of service, where we recommend increasing the allowance for leaving service. The recommended assumptions for this member group are shown in the table below. The assumptions for members with shorter periods of service are set out in the Summary tables section below.

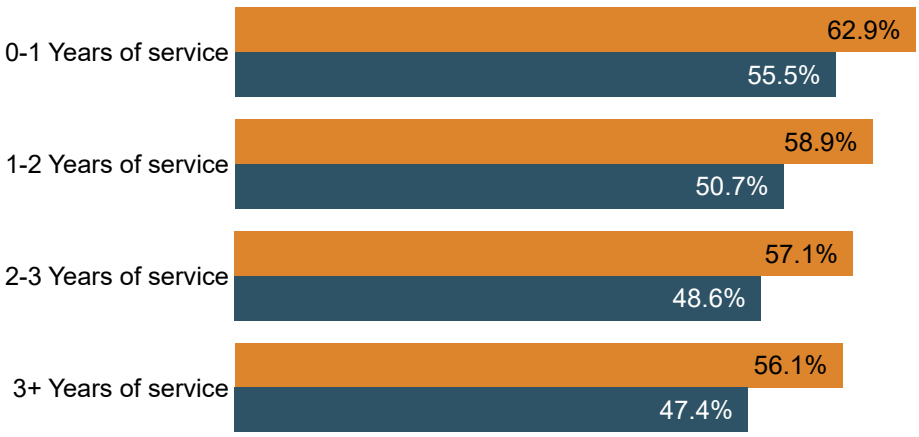
Age	3+ years of service
<20	0.2104
25	0.0631
30	0.0421
35	0.0421
40	0.0316
45	0.0316
50	0.0316
55	0.0366
60	0.0538
65	0.0538
70	0.0000

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.

Likelihood of leaving service before age 65 for a member now aged 45



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.

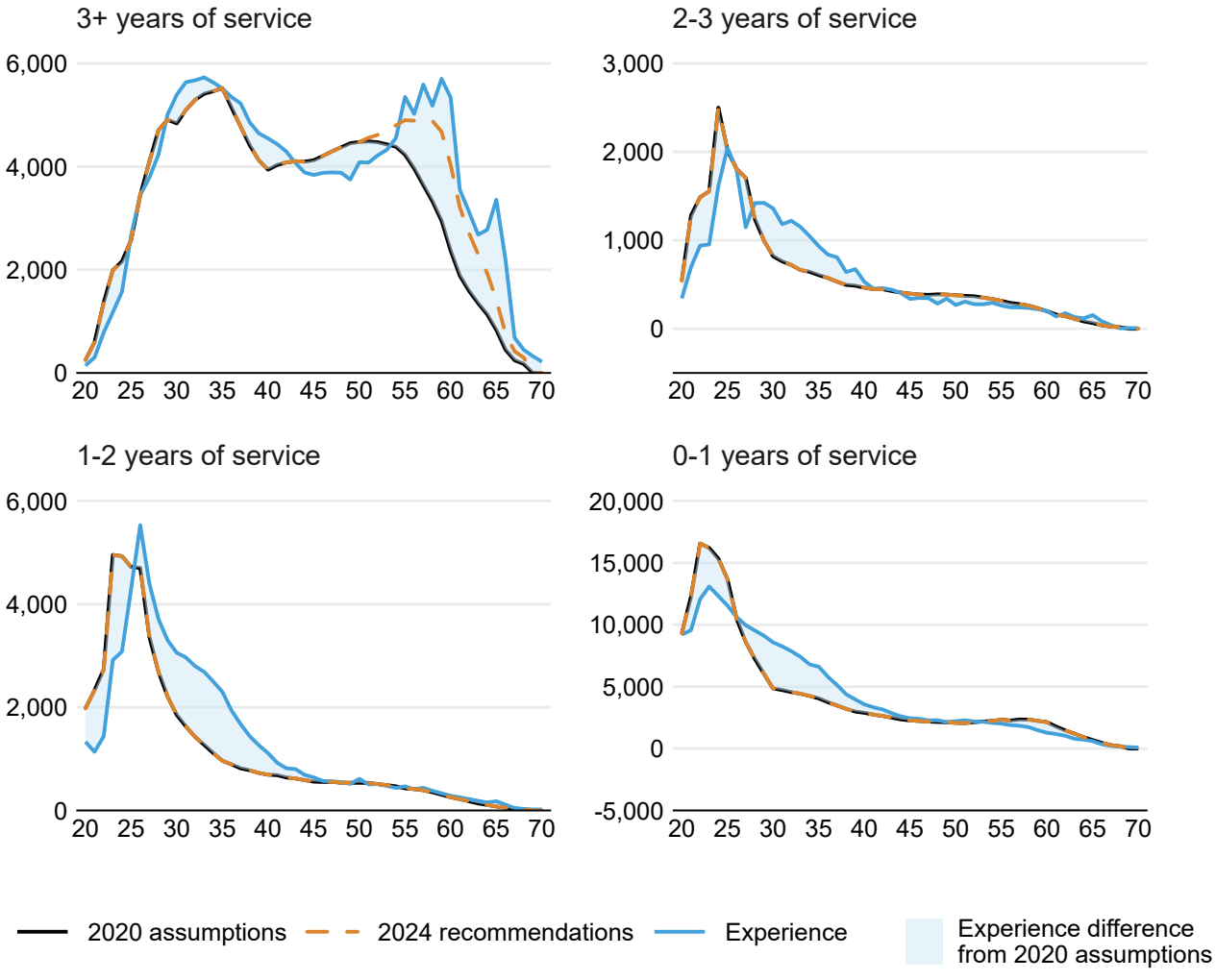
	Experience[1]	2020 expectations[2]	2024 expectations[3]
0-1 years of service	238,440	224,245	224,245
1-2 years of service	67,981	58,713	58,713
2-3 years of service	30,072	29,888	29,888
3+ years of service	190,865	168,299	182,424

[1] Number of leavers over 2020-2024

[2] Expected number of leavers under the 2020 assumptions

[3] Expected number of leavers under the 2024 assumptions

Number of leavers by age, split by years of service

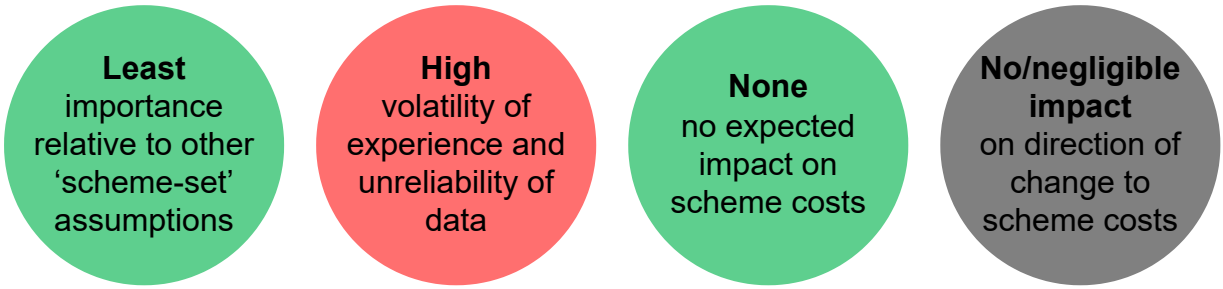


The charts show that withdrawal experience for members with more than three years of service has been broadly in line with experience for younger members. However, experience has differed from the 2020 valuation assumptions for members aged over 55. We recommend updating the assumption for this group with a 50:50 weighting between experience and the 2020 assumption.

The experience for members with less than three years of service has been broadly in line with the 2020 valuation assumptions. Withdrawal experience for members with short periods of service is less significant on the valuation results and we therefore recommend that no changes are made to the assumptions for these groups.

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.

Age	Manual Officers - Male	Manual Officers - Female	Non-manual Officers and Practitioners - Male	Non-manual Officers and Practitioners - Female
20	83	83	73	77
25	100	100	100	100
30	120	120	132	125
35	136	132	165	140
40	146	140	195	151
45	155	144	215	157
50	161	147	229	162
55	165	148	236	166
60	165	148	242	169
65	165	148	242	169

Scheme experience

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

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

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

	2024 payroll[1]	Experience[2]	2020 expectations[3]	2024 expectations[4]
Manual				
Male	£1,039m	1.5%	0.3%	0.3%
Female	£1,036m	1.5%	0.1%	0.1%
Non-manual				
Male	£12,374m	0.3%	0.6%	0.6%
Female	£35,117m	0.7%	0.4%	0.4%

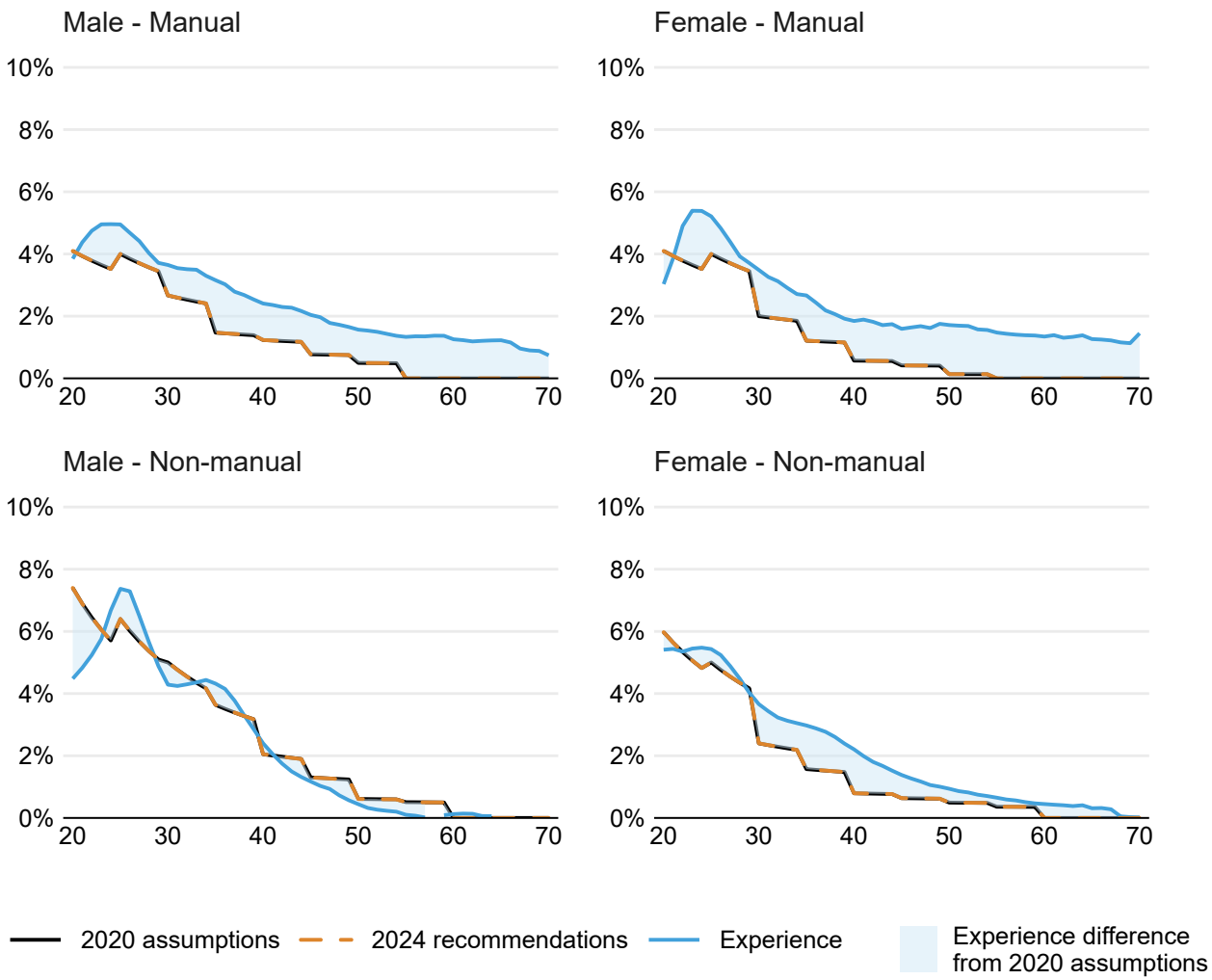
[1] Payroll of analysed members

[2] Implied annual promotional pay increase, after removal of general salary increases

[3] Expected annual promotional pay increase under the 2020 assumptions

[4] Expected annual promotional pay increase under the 2024 assumptions

Annual promotional pay increases by age, split by category and gender



The charts above show that experience has been higher than assumed for manual members and female non-manual members. Experience has been lower than assumed for male non-manual members.

Adjusting the assumptions for recent experience would not have a material effect on the valuation results. We recommend that the promotional pay increase assumptions adopted for the 2020 valuation are retained for the 2024 valuation.

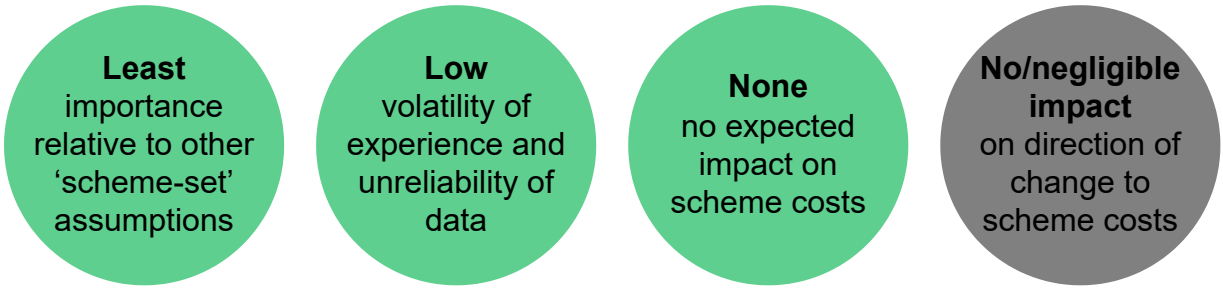
Wider considerations

Promotional pay increase assumptions help determine the value of ‘final salary’ benefits which make up a high proportion of scheme costs. The final salary proportion will reduce over time as more CARE benefits are built up in the reformed scheme, which are less dependent on promotional pay increases.

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 that the assumptions adopted for the 2020 valuation are retained.

Age	Male	Female
20	0.0001	0.0001
25	0.0001	0.0001
30	0.0002	0.0002
35	0.0004	0.0003
40	0.0006	0.0005
45	0.0013	0.0008
50	0.0020	0.0010
55	0.0040	0.0030
60	0.0050	0.0060
62	0.0060	0.0070
64	0.0060	0.0080
66	0.0070	0.0090
68	0.0000	0.0000

i. Rates are zero if above the NPA of the relevant section.
ii. In all scheme sections, 75% of ill-health retirements are assumed to qualify for upper tier awards.

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]	2020 expectations[2]	2024 expectations[3]
Male			
Any	1,696	2,502	2,502
Upper	893	1,876	1,876
Lower	803	625	625
Female			
Any	5,857	7,519	7,519
Upper	3,322	5,639	5,639
Lower	2,535	1,880	1,880

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

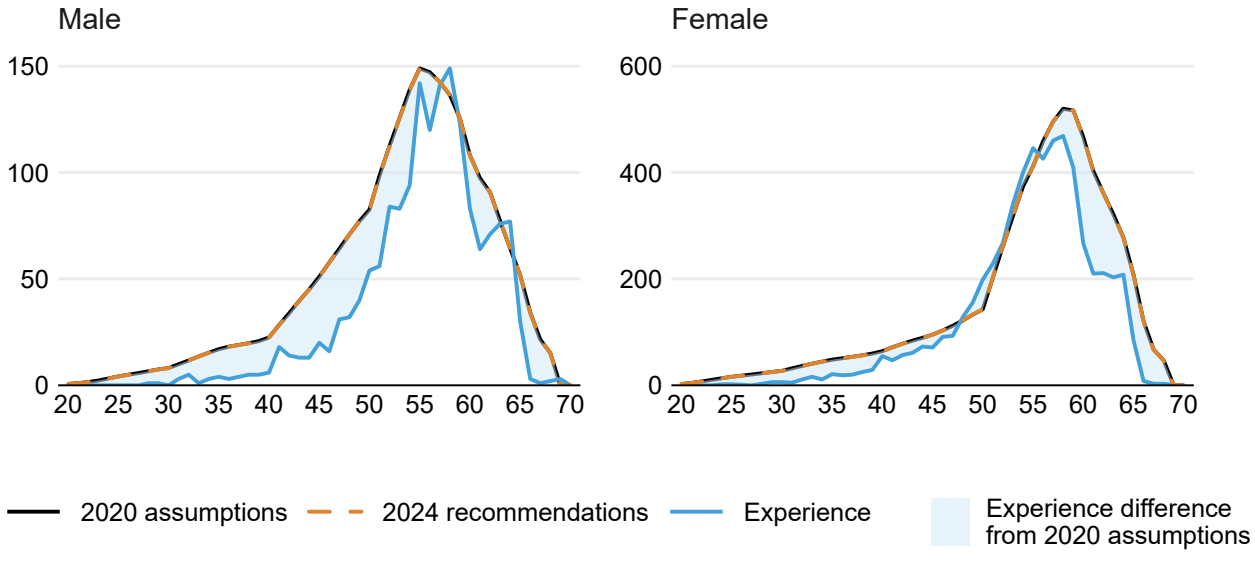
[2] Expected number under the 2020 assumptions

[3] Expected number under the 2024 assumptions

There have been fewer ill-health retirements than expected overall.

We assume 75% of ill-health retirements are at the upper tier. Over the period from 1 April 2020 to 31 March 2024 ill-health retirement experience has been 53% for males and 57% for females at the upper tier. We recommend not making a change to the assumed proportion of upper tier ill-health retirements as it is not material to the valuation results.

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

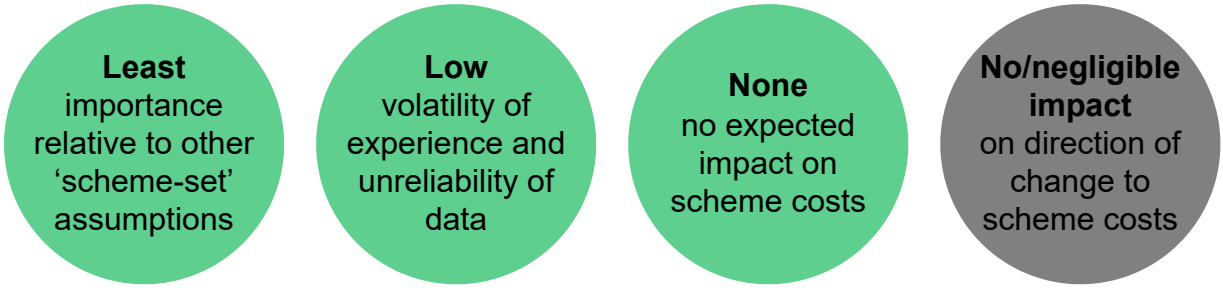


Ill-health retirements have been lower than previously assumed, but the ages that the retirements occurred were close to our assumptions.

The experience analysis covers the period from 1 April 2020 to 31 March 2024 and so reflects the impact of 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.



The mortality before retirement analysis discussed in this section refers only to death in service of active members, based on the data provided. The assumption for mortality before retirement applies to both death in service of active members and death of deferred members before retirement.

Recommendation

We recommend that the assumptions adopted for the 2020 valuation are retained.

Age	Male	Female
20	0.0002	0.0002
25	0.0002	0.0002
30	0.0003	0.0002
35	0.0005	0.0003
40	0.0006	0.0003
45	0.0009	0.0005
50	0.0012	0.0008
55	0.0019	0.0011
60	0.0030	0.0017
65	0.0048	0.0025

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	1,763	1,598	1,598
Female	3,450	3,226	3,226

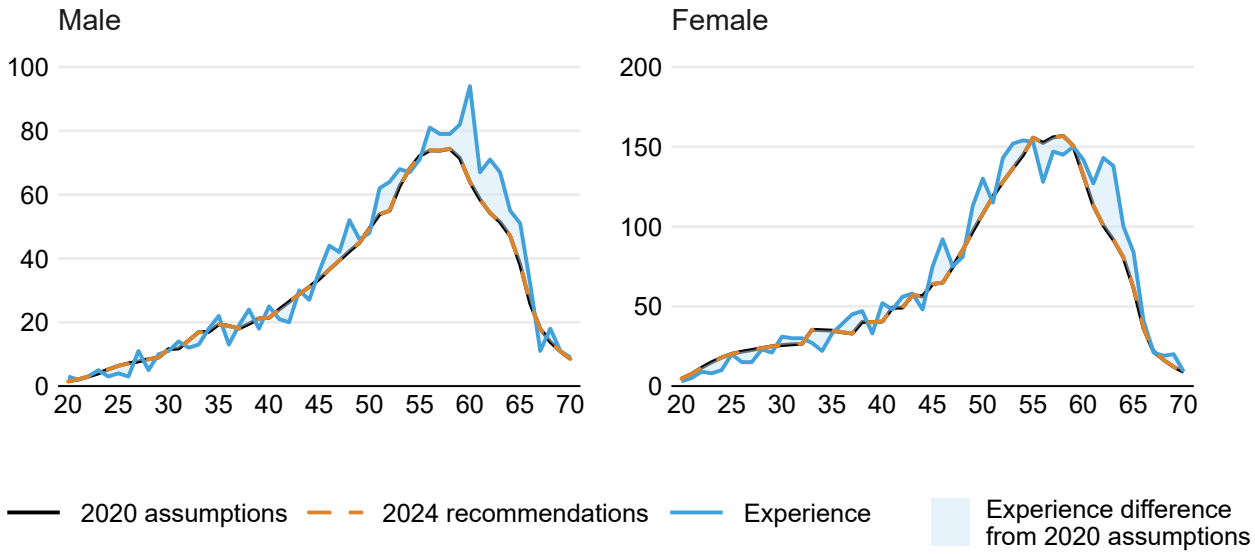
[1] Number of deaths in service over 2020-2024

[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

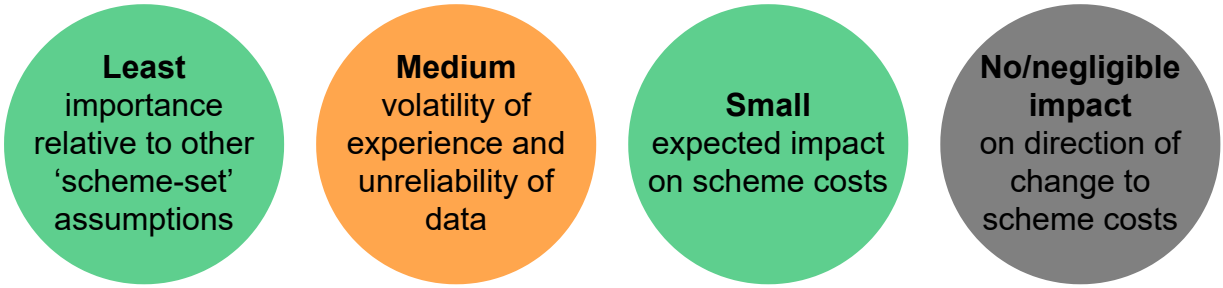


The analysed experience runs from 1 April 2020 to 31 March 2024 and so would be expected to capture the majority of deaths due to COVID-19.

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.



Where a member left service before 31 March 2008, only a legal spouse is eligible for a dependant’s pension.

> **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/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 is set in line the latest available ONS proportion married/partnered data.

For the period up to retirement for members who have yet to retire, the proportion married/partnered at the valuation date is derived from scheme experience.

Recommendation

Since 1 April 2022, all active members are accruing benefits in the 2015 scheme. At future valuations, 2015 scheme liabilities will become increasingly large as a proportion of the overall liability. Because of this, we recommend that all public service pension schemes will adopt a ‘proportion married or partnered’ assumption only, forgoing an additional assumption for ‘proportion married’ in isolation. This approach will simplify the assumptions and calculations which, alongside providing more consistency across schemes, will help to streamline future valuations.

We recommend that the ONS data used for run-off purposes is updated to the most recent ONS data on marriage, published in October 2025.

	Male	Female
Current		
<70	61%	54%
70-74	61%	52%
75-79	59%	42%
80-84	55%	34%
85+	47%	13%
Future		
All ages	61%	54%

Assumptions are applied at valuation date for current pensioners and at retirement for future pensioners

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

Scheme experience

Probability that an eligible partner exists

In the table 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.

	Experience[1]	2020 expectations (married)[2]	2020 expectations (partnered)[3]	2024 proposed[4]
Male	61%	72%	76%	61%
Female	54%	52%	54%	54%

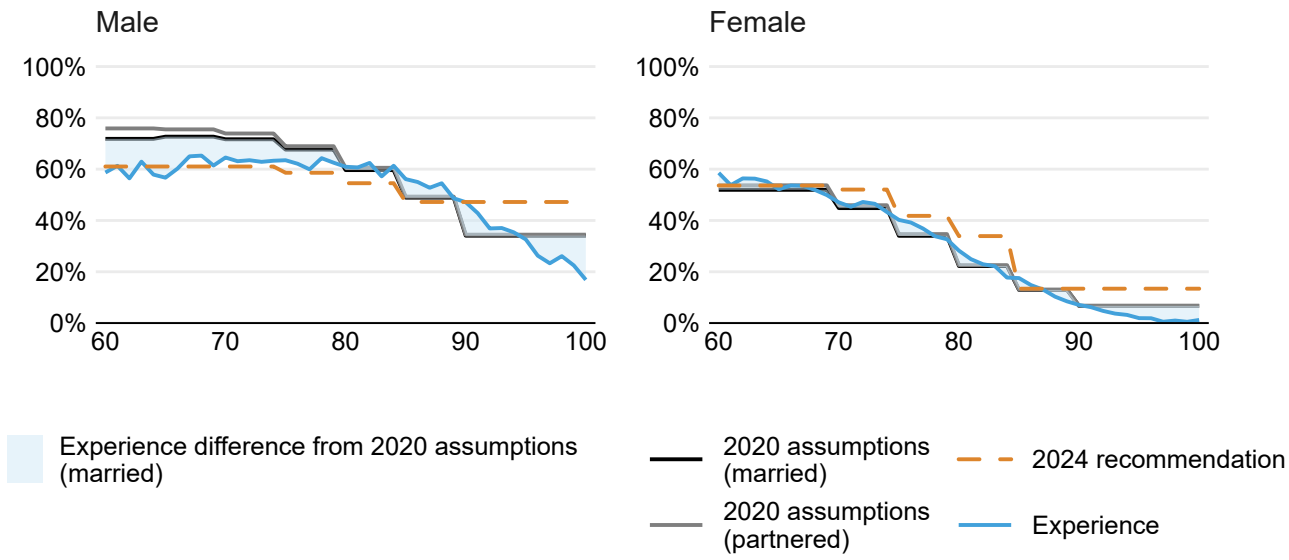
[1] Number of dependant pensions coming into payment, as a percentage of how many could have come into payment if every member who died had an eligible dependant, across retirement age range (60-69)

[2] Expected proportion married at valuation date under the 2020 recommendations

[3] Expected proportion partnered at valuation date under the 2020 recommendations

[4] Expected proportion married or partnered at retirement under the 2024 recommendations

Proportion married or partnered by age, split by gender



The tables and charts above show that recent experience of proportion married for male members is less than the 2020 assumptions. We recommend that the assumptions for both male and female members are updated to reflect recent experience and the move to a single table for proportions married and partnered.

Age difference

There was no experience data to produce an analysis for the age difference assumptions, we therefore recommend no change to the 2020 assumptions.

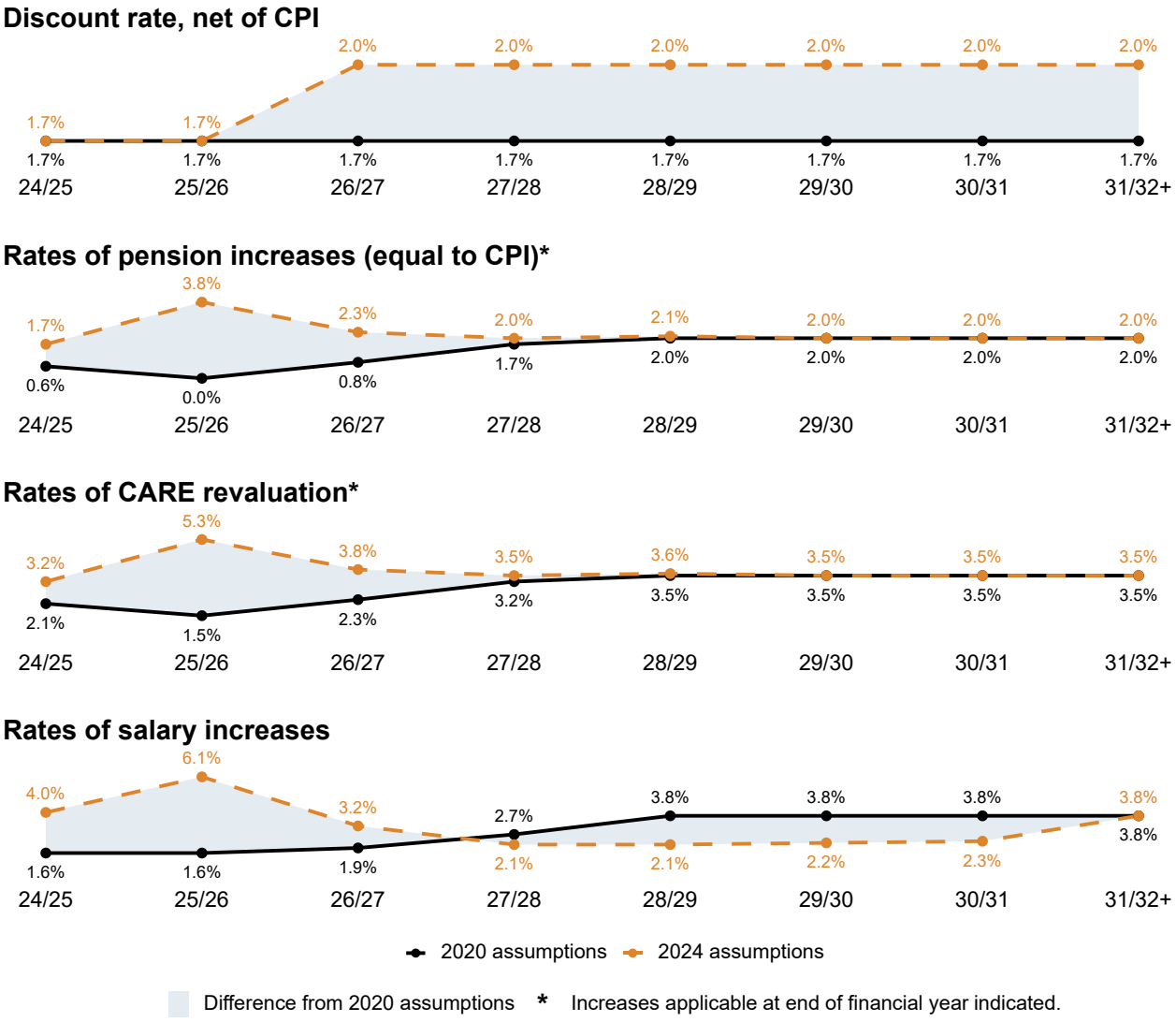
Wider considerations

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 of this remedy.

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	

Item	2020 assumption	2024 assumption
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.

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 profile of the membership in terms of average age and pay distribution is assumed to remain constant over the period.

- 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. 1995 Section, 2008 Section or 2015 Scheme), previous protected status (i.e. protected, tapered or unprotected) and based on the following criteria:

- Age: Age nearest
- Gender
- 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.

Benefits are valued in each 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.

Summary tables

We have set out a summary of the scheme-set assumptions to be adopted for the actuarial valuation of the NHS Pension Scheme 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	Normal health pensioners	S4NMA	96%
2024	Ill health pensioners	S4IMA	116%
2024	Dependants	S4DMA	78%
Female			
2024	Normal health pensioners	S4NFA_M	101%
2024	Ill health pensioners	S4IFA	122%
2024	Dependants	S4DFA_L	94%

Proportion commuted

	1995 section	2008 section	2015 scheme
Male	10.0%	20.0%	20.0%
Female	12.0%	20.0%	20.0%

Retirement ages

Age retirement rates for 1995 section										
	Manual		Non-manual		Practitioner		SPC		MHO	
Age	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
50	0.02	0.01	0.01	0.01	0.01	-	0.02	0.01	0.03	0.03
51	0.01	0.01	0.01	0.01	0.01	-	0.02	0.01	0.02	0.02
52	0.02	0.01	0.01	0.01	0.01	-	0.02	0.01	0.02	0.02
53	0.02	0.01	0.01	0.01	0.01	-	0.02	0.01	0.02	0.02
54	0.02	0.01	0.02	0.01	0.02	0.01	0.05	0.05	0.13	0.11
55	0.05	0.03	0.04	0.05	0.06	0.05	0.30	0.35	0.50	0.48
56	0.05	0.02	0.04	0.04	0.05	0.05	0.13	0.15	0.24	0.22
57	0.06	0.04	0.05	0.05	0.10	0.07	0.16	0.16	0.27	0.20
58	0.06	0.04	0.08	0.06	0.16	0.14	0.21	0.18	0.25	0.23
59	0.09	0.07	0.12	0.10	0.28	0.21	0.16	0.20	0.29	0.26
60	0.25	0.19	0.33	0.30	0.63	0.69	0.42	0.39	0.33	0.35
61	0.14	0.18	0.19	0.24	0.32	0.27	0.31	0.35	0.27	0.30
62	0.17	0.21	0.20	0.31	0.25	0.35	0.24	0.40	0.34	0.38
63	0.17	0.18	0.22	0.27	0.25	0.23	0.29	0.34	0.28	0.35
64	0.37	0.19	0.32	0.30	0.28	0.29	0.76	0.62	0.72	0.69
65	0.59	0.35	0.51	0.39	0.47	0.57	1.00	1.00	1.00	1.00
66	0.32	0.25	0.30	0.27	0.23	0.26	1.00	1.00	1.00	1.00
67	0.29	0.19	0.28	0.28	0.33	0.28	1.00	1.00	1.00	1.00
68	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Age retirement rates for 2008 section						
	Manual		Non-manual		Practitioner	
Age	Male	Female	Male	Female	Male	Female
55	0.02	0.02	0.02	0.02	0.02	0.02
56	0.02	0.02	0.02	0.02	0.02	0.02
57	0.02	0.02	0.02	0.02	0.02	0.02
58	0.02	0.02	0.02	0.02	0.02	0.02
59	0.03	0.03	0.03	0.03	0.03	0.03
60	0.04	0.04	0.04	0.04	0.04	0.04
61	0.05	0.05	0.05	0.05	0.05	0.05
62	0.06	0.06	0.06	0.06	0.06	0.06
63	0.07	0.07	0.07	0.07	0.07	0.07
64	0.08	0.08	0.08	0.08	0.08	0.08
65	0.62	0.64	0.63	0.64	0.58	0.70
66	0.70	0.50	0.55	0.45	0.32	0.40
67	0.55	0.50	0.50	0.40	0.32	0.40
68	0.50	0.50	0.50	0.35	0.32	0.40
69	0.40	0.50	0.55	0.35	0.32	0.40
70	1.00	1.00	1.00	1.00	1.00	1.00

Age retirement rates for 2015 Scheme				
	Male and Female			
Age	**SPA 65**	**SPA 66**	**SPA 67**	**SPA 68**
55	-	-	-	-
56	-	-	-	-
57	0.02	0.02	0.02	0.02
58	0.03	0.02	0.02	0.02
59	0.04	0.03	0.02	0.02
60	0.03	0.04	0.03	0.02
61	0.04	0.03	0.04	0.03
62	0.04	0.04	0.03	0.04
63	0.05	0.04	0.04	0.03
64	0.12	0.05	0.04	0.04
65	1.00	0.12	0.05	0.04
66	1.00	1.00	0.12	0.05
67	1.00	1.00	1.00	0.12
68	1.00	1.00	1.00	1.00

Rates of leaving service

Age	3+ years of service	2-3 years of service	1-2 years of service	0-1 years of service
<20	0.2104	0.2155	0.2397	0.3780
25	0.0631	0.0862	0.1798	0.2520
30	0.0421	0.0539	0.1079	0.1260
35	0.0421	0.0539	0.0719	0.1260
40	0.0316	0.0539	0.0719	0.1260
45	0.0316	0.0539	0.0719	0.1260
50	0.0316	0.0539	0.0719	0.1260
55	0.0366	0.0539	0.0719	0.1260
60	0.0538	0.0539	0.0719	0.1260
65	0.0538	0.0539	0.0719	0.1260
70	0.0000	0.0000	0.0000	0.0000

Promotional pay increase

Age	Manual Officers - Male	Manual Officers - Female	Non-manual Officers and Practitioners - Male	Non-manual Officers and Practitioners - Female
20	83	83	73	77
25	100	100	100	100
30	120	120	132	125
35	136	132	165	140
40	146	140	195	151
45	155	144	215	157
50	161	147	229	162
55	165	148	236	166
60	165	148	242	169
65	165	148	242	169

Rates of ill-health retirement

Age	Male	Female
20	0.0001	0.0001
25	0.0001	0.0001
30	0.0002	0.0002
35	0.0004	0.0003
40	0.0006	0.0005
45	0.0013	0.0008
50	0.0020	0.0010
55	0.0040	0.0030
60	0.0050	0.0060
62	0.0060	0.0070
64	0.0060	0.0080
66	0.0070	0.0090
68	0.0000	0.0000

i. Rates are zero if above the NPA of the relevant section.
ii. In all scheme sections, 75% of ill-health retirements are assumed to qualify for upper tier awards.

Mortality before retirement

Age	Male	Female
20	0.0002	0.0002
25	0.0002	0.0002
30	0.0003	0.0002
35	0.0005	0.0003
40	0.0006	0.0003
45	0.0009	0.0005
50	0.0012	0.0008
55	0.0019	0.0011
60	0.0030	0.0017
65	0.0048	0.0025

Family statistics

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

	Male	Female
Current		
<70	61%	54%
70-74	61%	52%
75-79	59%	42%
80-84	55%	34%
85+	47%	13%
Future		
All ages	61%	54%

Assumptions are applied at valuation date for current pensioners and at retirement for future pensioners

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