



Government
Actuary's
Department

Police Pension Schemes (Scotland) (PPS (Scotland))

Membership data

Actuarial valuation as at 31 March 2020

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30 October 2023



Highlights

PPS (Scotland) valuation data

This report details the membership data for the members of the 1987 Scheme, 2006 Scheme and 2015 Scheme, referred to collectively as PPS (Scotland).



38,085
Members as at
31 March 2020

+ 4.0% vs. 2016

Initial data quality

99.4%
Proportion of 'at 31 March 2020' records provided
which we are able to use.

Improvement vs. 99.0% in 2016

Key headlines

Overall, the quality of the PPS (Scotland) valuation data as at 31 March 2020 is high, with a small improvement compared with the data used for the 2016 valuation.

In forming this opinion, we consider the proportion of individual records which passed our reasonableness checks and which could be used directly for the valuation. This proportion has increased slightly since the last valuation.

Data quality after checks and adjustments



After making the necessary adjustments detailed in this report, we conclude that the data is appropriate for the purpose of the 2020 PPS (Scotland) valuation. However, a different approach to adjusting data could still lead to different valuation results.

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Any terms that appear in this report in underlined text are defined in the **Glossary**.

At the Government Actuary's Department ('GAD'), we seek to achieve a high standard in all our work. We are accredited under the Institute and Faculty of Actuaries' Quality Assurance Scheme. Our website describes [the standards](#) we apply.

1. Introduction

Who is this report for?

This report is addressed to Scottish Ministers.

HM Treasury's Directions ('the Directions') requires the scheme actuary to provide information about the scheme and data. The purpose of this report is to provide the data we will be using and to help readers be confident that the results of the valuation are fit for purpose.

Why has the data been collected?

This data is needed to carry out an actuarial valuation of the PPS (Scotland) as at 31 March 2020, in accordance with the Directions. This data will be used to set actuarial assumptions, and together the data and assumptions will be used to calculate valuation results.

Why is the data important?

The results of the valuation are critically dependent on the quality of the data used. Poor data could lead to employers making different decisions due to paying too high or too low a contribution rate, or to benefit changes being made unnecessarily.

This data is often used for other important work as well, including the annual Resource Accounts.

Results

Assumptions

Data

Data is the first and most important building block of an actuarial valuation.

2. Data as at 31 March 2020

Who provided the data?

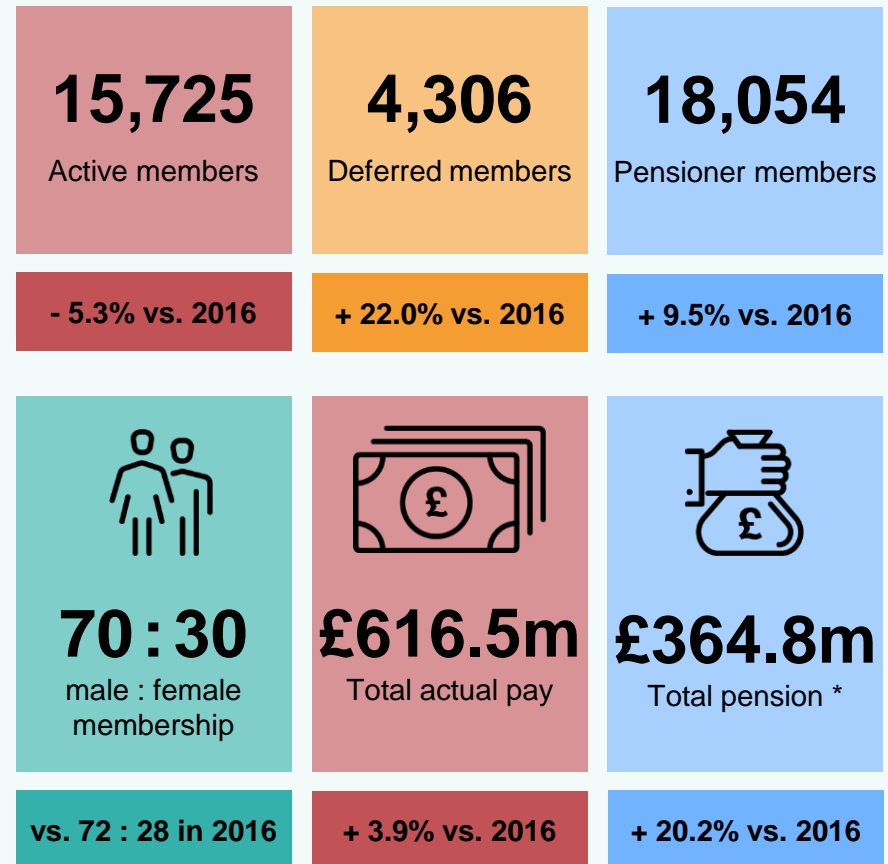
This data was wholly provided by the administrators of the PPS (Scotland), the Scottish Public Pensions Agency ('SPPA').

What is the data used for?

It will be used to calculate the results of the 2020 PPS (Scotland) valuation, specifically:

- employer contribution rates due from 2024
- the cost cap cost of the scheme
- actuarial liabilities as at 31 March 2020.

Detailed data summaries are included in [Appendix A – Detailed summaries: data as at 31 March 2020](#).



Pension amount includes the April 2020 pension increase

*Includes the accrued pension increase for Normal health members of the 1987 scheme aged under 55

3. Movements data

Where did the data come from?

This movements data for 2016 to 2020 was wholly provided by the administrators of the PPS (Scotland), SPPA.

What is movements data used for?

We requested movements data in order to review existing assumptions about the scheme membership and propose new assumptions where appropriate. Agreed assumptions are then used to carry out valuation calculations.

Membership reconciliation

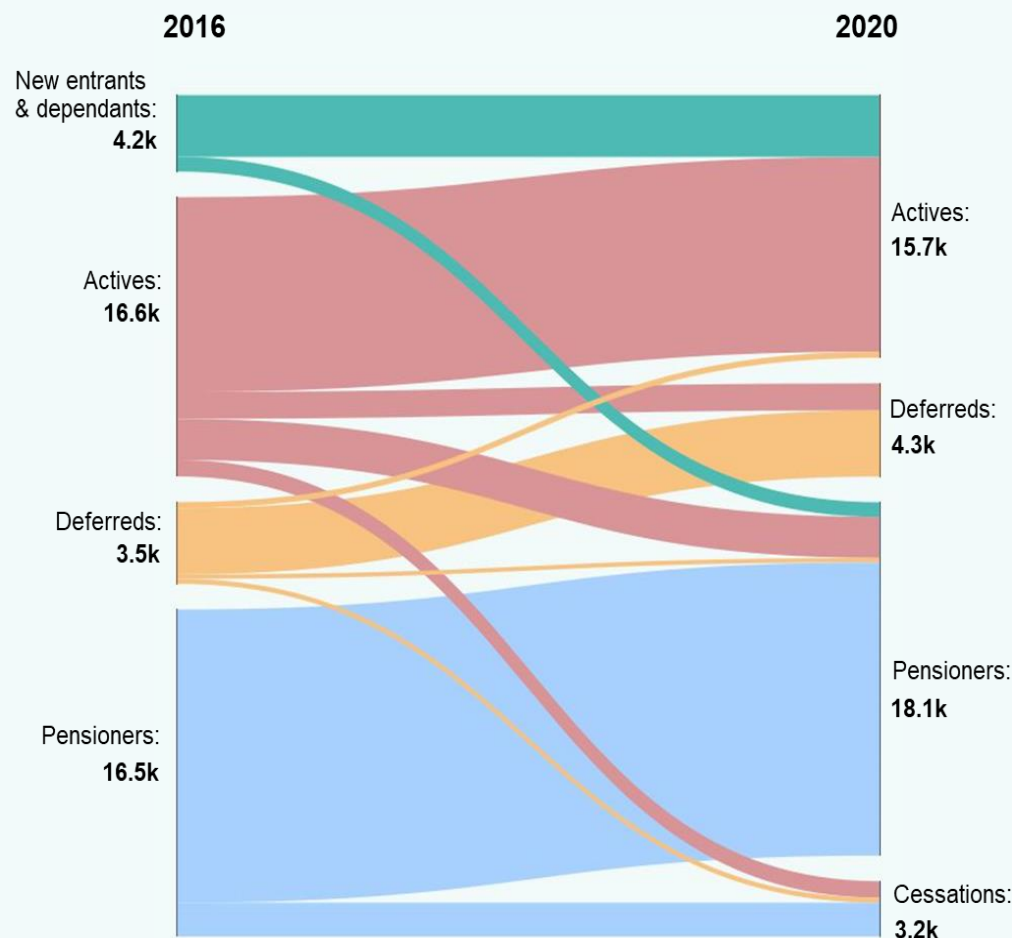
This movements data is used to perform a reconciliation which compares data as at 31 March 2016 and 31 March 2020 against movements occurring between this period to check that membership figures are in agreement.

Where can I find out more?

Detailed data summaries are included in [Appendix B – Detailed summaries: movements data](#).

What does the chart show?

The chart below summarises movements between member categories from 2016 to 2020. The thicker the line, the greater the number of member movements occurring.



4. Checks and adjustments

Why is this data checked?

We carry out checks to ensure this data is fit for purpose for the valuation. These checks also help us to understand and describe limitations on the valuation results due to data omissions. This is also a professional actuarial requirement.

What checks are carried out?

We carry out checks on aggregated statistics produced from the data, and on a record by record basis. A simplified process diagram is shown to the right.

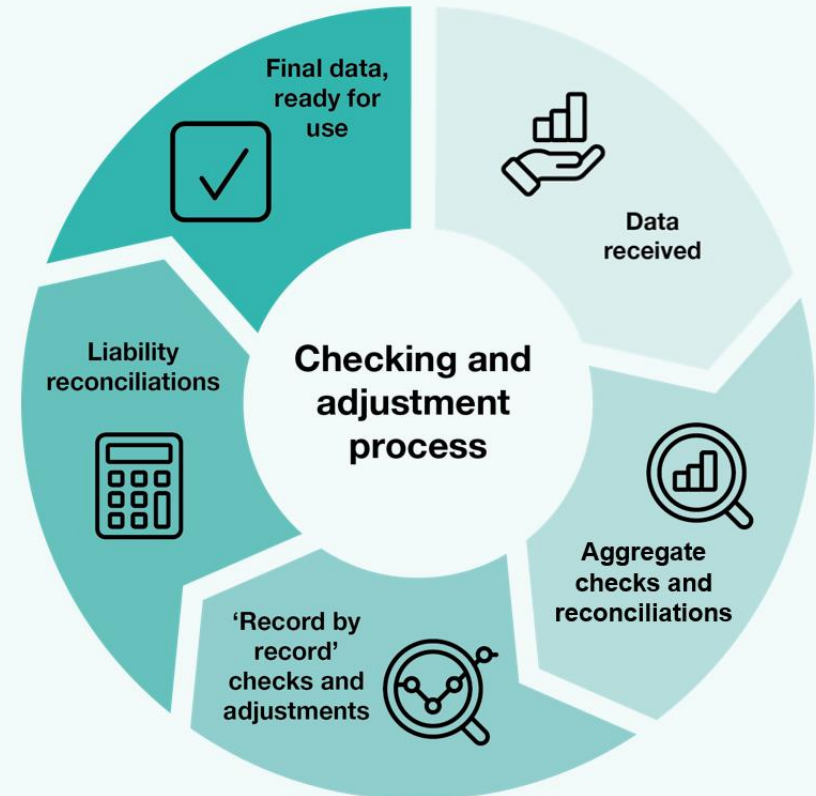
What happens to unreliable data?

Where our checks show that a data record seems to be unreliable, it is either excluded or adjusted. We do this to make sure the data is appropriate for calculating valuation results.

Where we exclude valid data records, we typically compensate for this by scaling up similar, included records.

Where can I find out more?

A detailed summary of what we've done is contained in [Appendix C – Checks, adjustments and uncertainty](#).



After checks & adjustments:

After finalising our checks and adjustments, we will consider potential data improvements. We will engage with the scheme manager on any issues we have identified to improve future data submissions, where possible and as appropriate.

5. Data quality

Who is responsible for data quality?

Scottish Ministers are responsible for ensuring appropriate data is provided in order to support the legislative requirement to perform a valuation.

The data provided must be in line with our specifications.

Was the data provided of good quality?

The percentage of data which was able to be used and not subject to exclusion is shown to the right. High percentages suggest good quality data.

In terms of the proportion of the records we are able to use, 99.4% is an improvement on the 99.0% used for the 2016 valuation.

Can the data be used for the valuation?

Yes. After making the adjustments detailed in this report, we believe the data is appropriate for the purposes of the 2020 valuation.

Initial data quality

99.4%

Proportion of 'at 31 March 2020' records provided which we are able to use

Improvement vs. 99.0% in 2016

99.0%

Actives

98.8%

Deferreds

99.9%

Pensioners

**Improvement vs.
98.1% in 2016**

**Deterioration vs.
98.9% in 2016**

**Deterioration vs.
100.0% in 2016**

Data quality after checks & adjustments



After making the necessary adjustments detailed in this report, we conclude that the data is appropriate for the purpose of the 2020 PPS (Scotland) valuation.

6. Impact of data limitations

Do data limitations cause uncertainty?

Yes. Our checks and adjustments aim to ensure that the data is appropriate for use in valuation calculations. However, our checks do not constitute a full audit of the data and our adjustments, although reasonable in our view, may not mean that the dataset adopted accurately reflects the true data of the scheme. This means that there is **residual data uncertainty**.

Is data uncertainty a significant issue?

Residual data uncertainty can potentially have an impact on valuation results, including for example on the cost cap cost of the scheme and any resulting impact on member benefits.

However, in large and complex datasets this uncertainty is normal and is not usually a cause for concern.

In our view, the residual uncertainty present in this data is not significant enough to dissuade users from taking actions recommended from this valuation.

Where can I find out more?

A more detailed summary of residual data uncertainty is set out in [Appendix C – Checks, adjustments and uncertainty](#).



7. Limitations

Data

In preparing this report, GAD has relied on data and other information supplied by the scheme administrators, SPPA, as described in the report. GAD has not sought independent verification around its general completeness and accuracy (beyond our comparisons with the relevant Resource Accounts).

Any checks that GAD has made are limited to those described in the report, including those relating to the overall reasonableness and consistency of the data. These checks do not represent a full independent audit of the data supplied.

Throughout this report, the totals given for summed data may not be exactly the same as the sum of the components shown due to rounding effects.

HM Treasury Directions

Throughout this report, in any place where we indicate the potential variability of valuation results, these take into account the HM Treasury Directions for the 2020 valuations.

Sharing

This report has been prepared for the use of SPPA and Scottish Ministers. We are content for SPPA to release this report to third parties, provided:

- It is released in full;
- The advice is not quoted selectively or partially;
- GAD is identified as the source of the report, and;
- GAD is notified of such release.

Other than SPPA and Scottish Ministers, no person or third party is entitled to place any reliance on the contents of this report, except to any extent explicitly stated herein. GAD has no liability to any person or third party for any action taken or for any failure to act, either in whole or in part, on the basis of this report.

This report will be published by GAD as part of completing the 2020 valuation of the Scheme.

Compliance statement:

This report has been prepared in accordance with the applicable Technical Actuarial Standards: TAS 100 and TAS 300 issued by the Financial Reporting Council ('FRC'). The FRC sets technical standards for actuarial work in the UK.

Appendix A

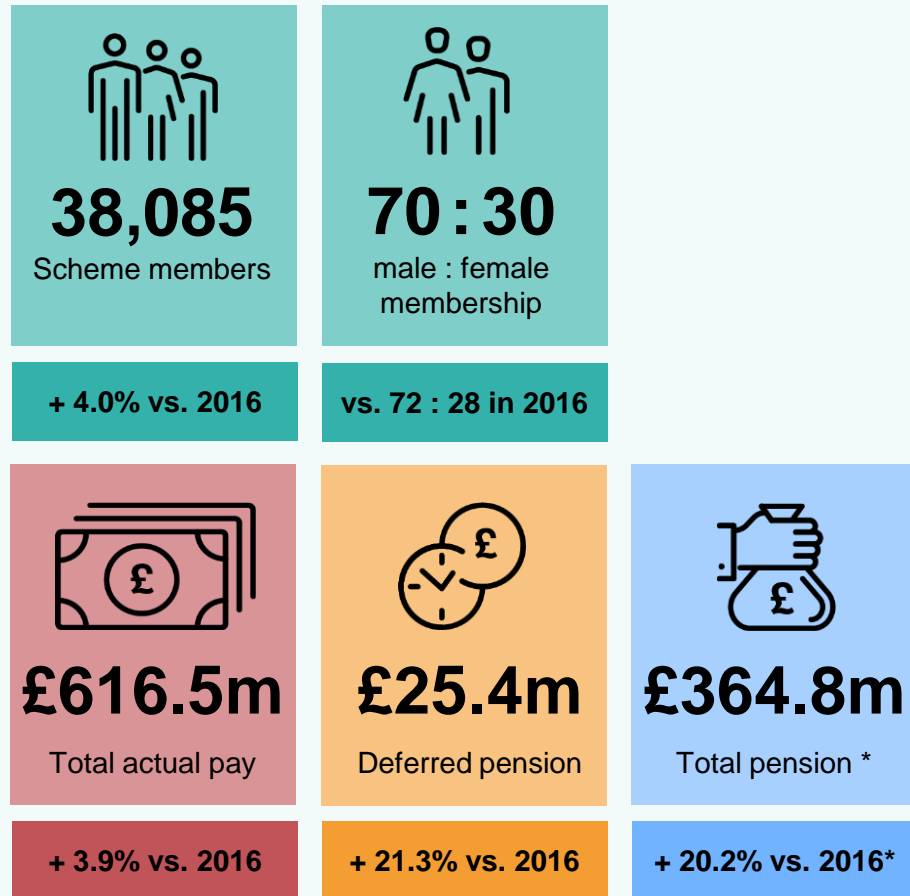
Detailed summaries: Data as at 31 March 2020



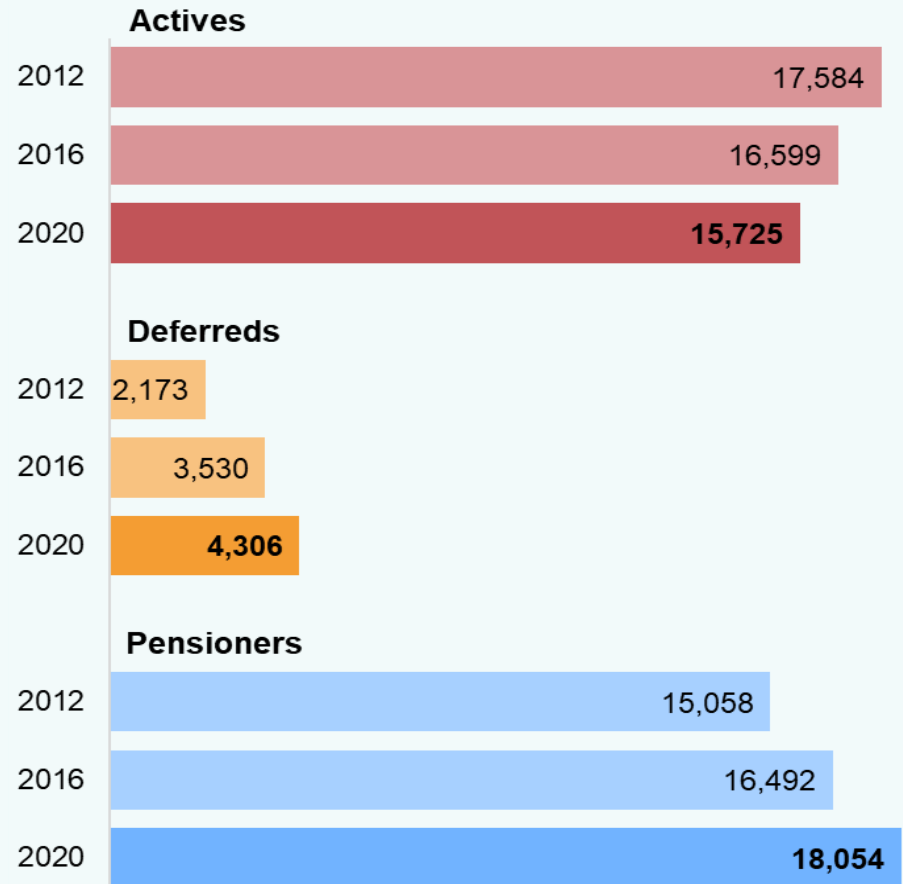
Scheme data

As at 31 March 2020

Summary statistics



Membership over time



Pension amounts include the April 2020 pension increase

*Includes the accrued pension increase for Normal health members of the 1987 scheme aged under 55

Scheme membership

As at 31 March 2020

Overall, the headcount has increased from 2016 to 2020.

There are substantially more male than female members across all categories.

The number of pensioner/dependants begin increasing from around age 45 and peak between ages 50 and 55, as expected.

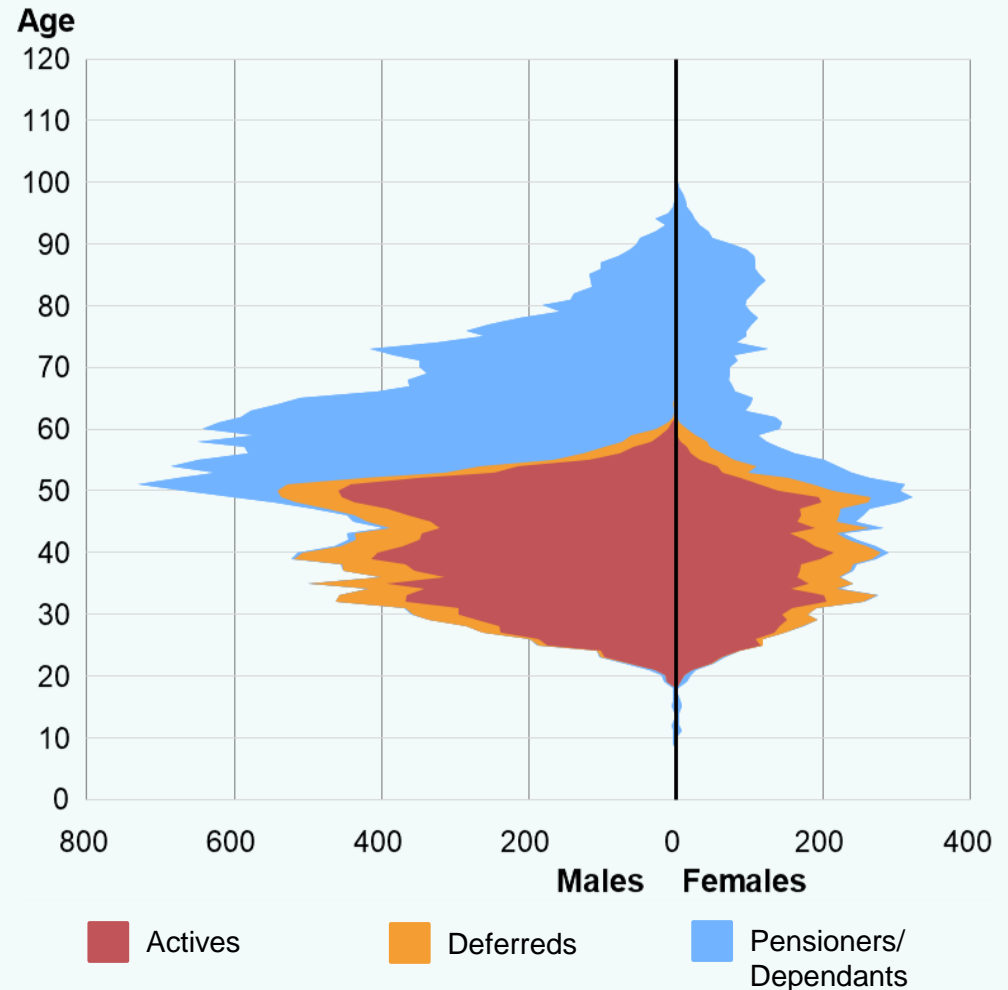
This corresponds with declining numbers of active members and deferred members over this age range.

Some active and deferred members have still not claimed their pensions, despite being over normal pension age.

Where can I see more?

[Appendix D – Tables of summary statistics](#)

Membership distribution



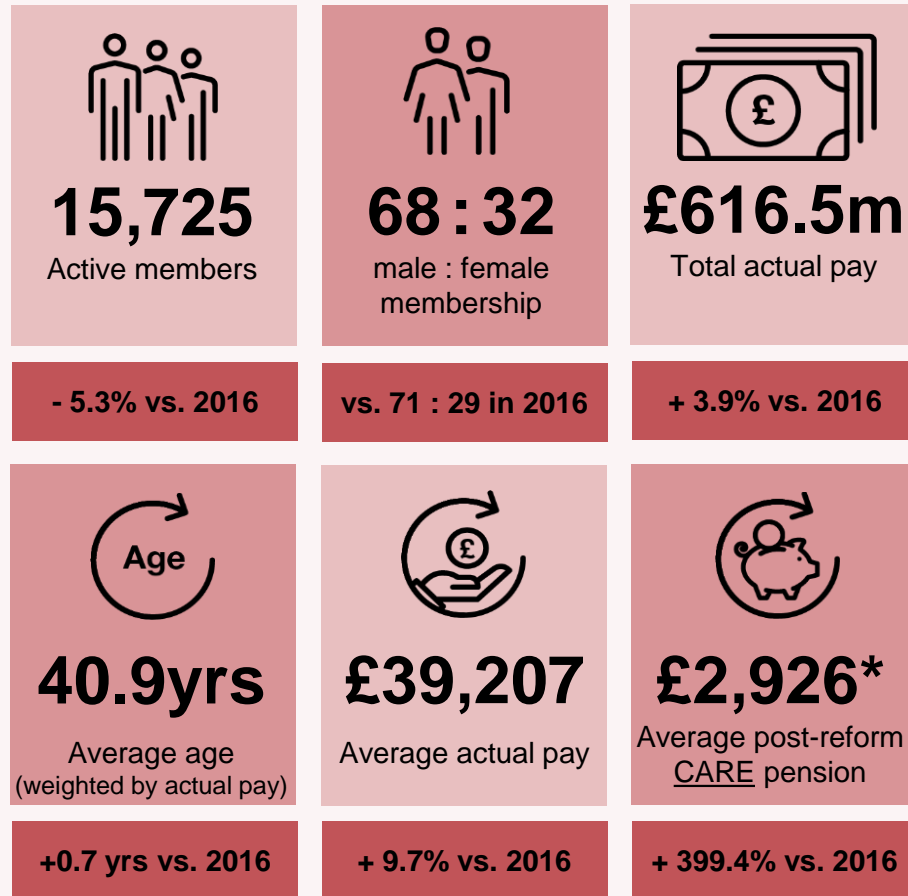
Actives



Actives data

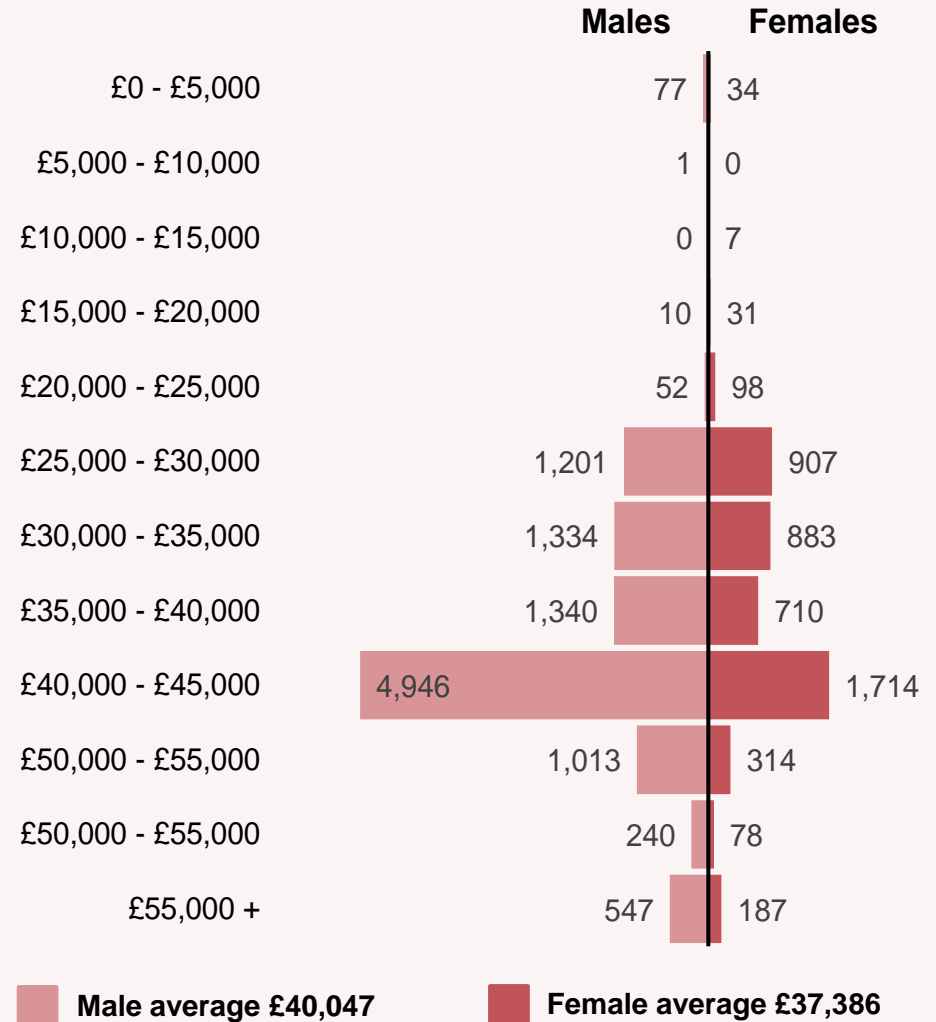
As at 31 March 2020

Summary statistics



*Average is only for members who have post reform CARE pension. Post reform CARE pension includes pension revaluation to April 2020

Actual pay distribution



Active membership

As at 31 March 2020

For members with service before 2015, this shows the active members' legacy scheme at the valuation date.

There are substantially more male than female members across all ages.

The vast majority of younger members are in the 2015 Scheme.

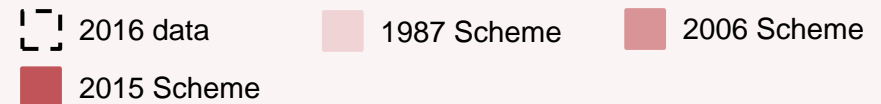
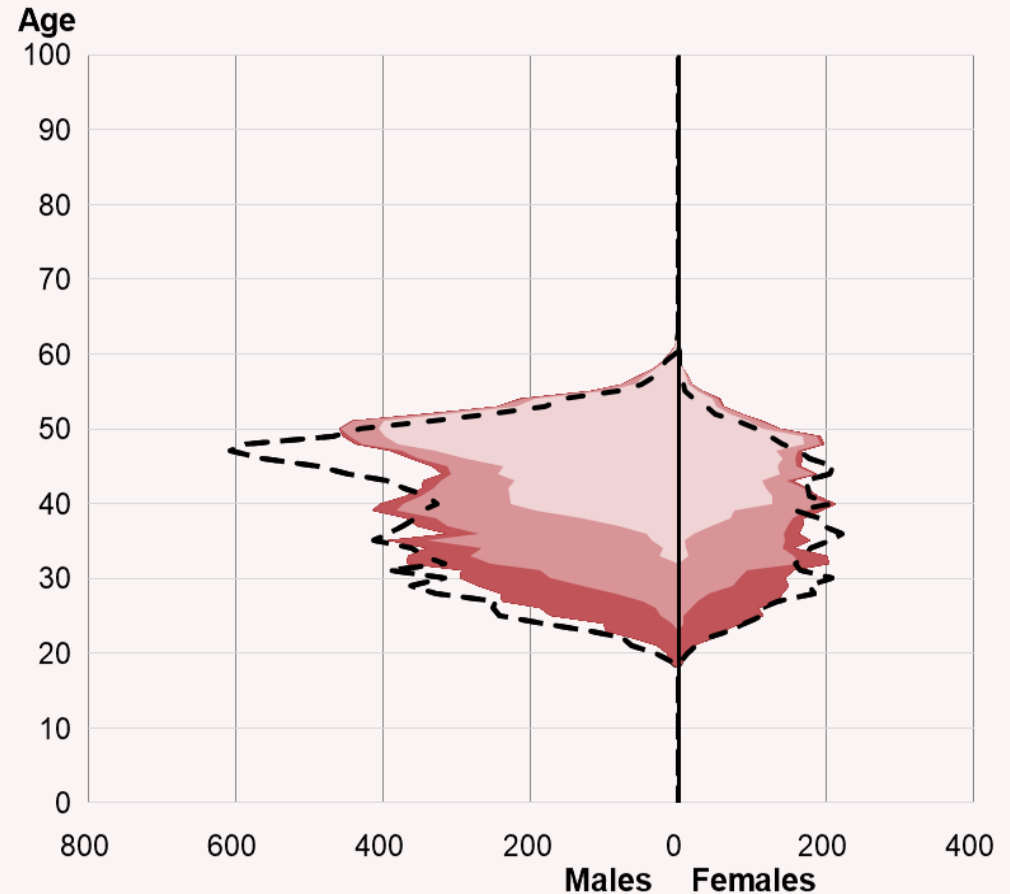
Before age 30, there are less members in 2020 compared with 2016 (as can be seen by the darkest shade of red inside the dotted line at the bottom of the chart).

There are fewer active members in 2020 at around ages 43-50 compared with 2016. There is a similar number of active members from age 50 onwards.

As the membership ages, the proportion of members with legacy 1987 Scheme and 2006 Scheme benefits increases (as shown by the two lightest shades).

From 1 April 2022, all future service will be in the 2015 Scheme.

Membership distribution



Where can I see more?

[Appendix D – Tables of summary statistics](#)

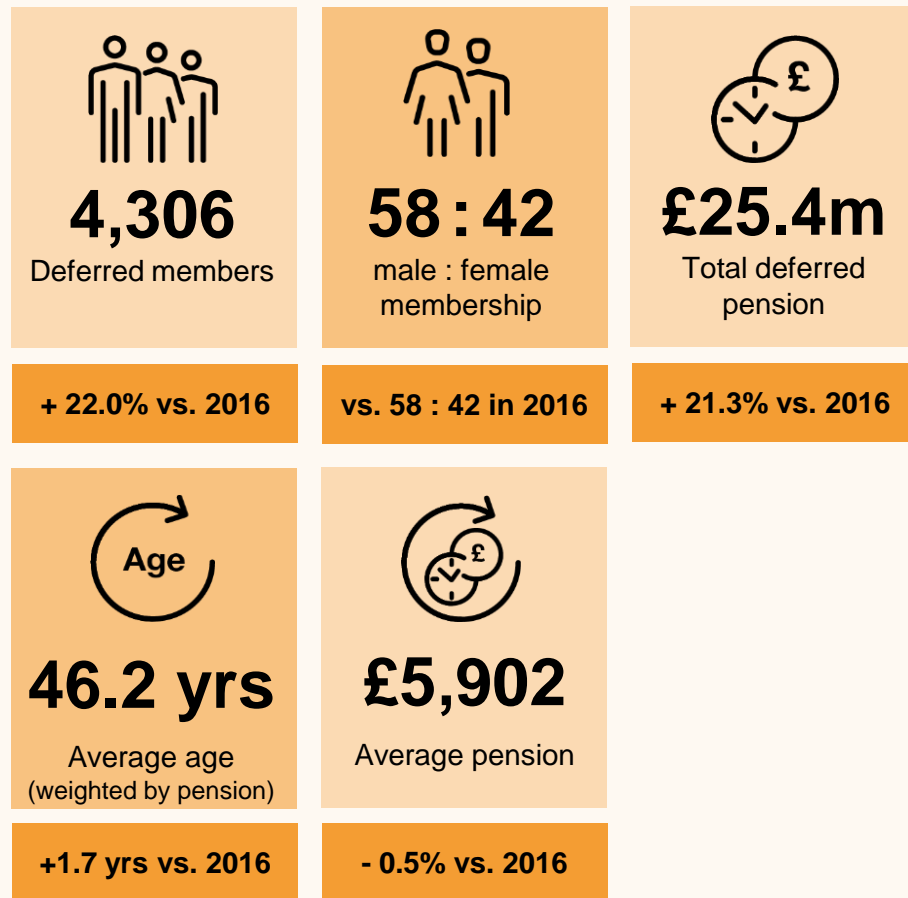
Defferreds



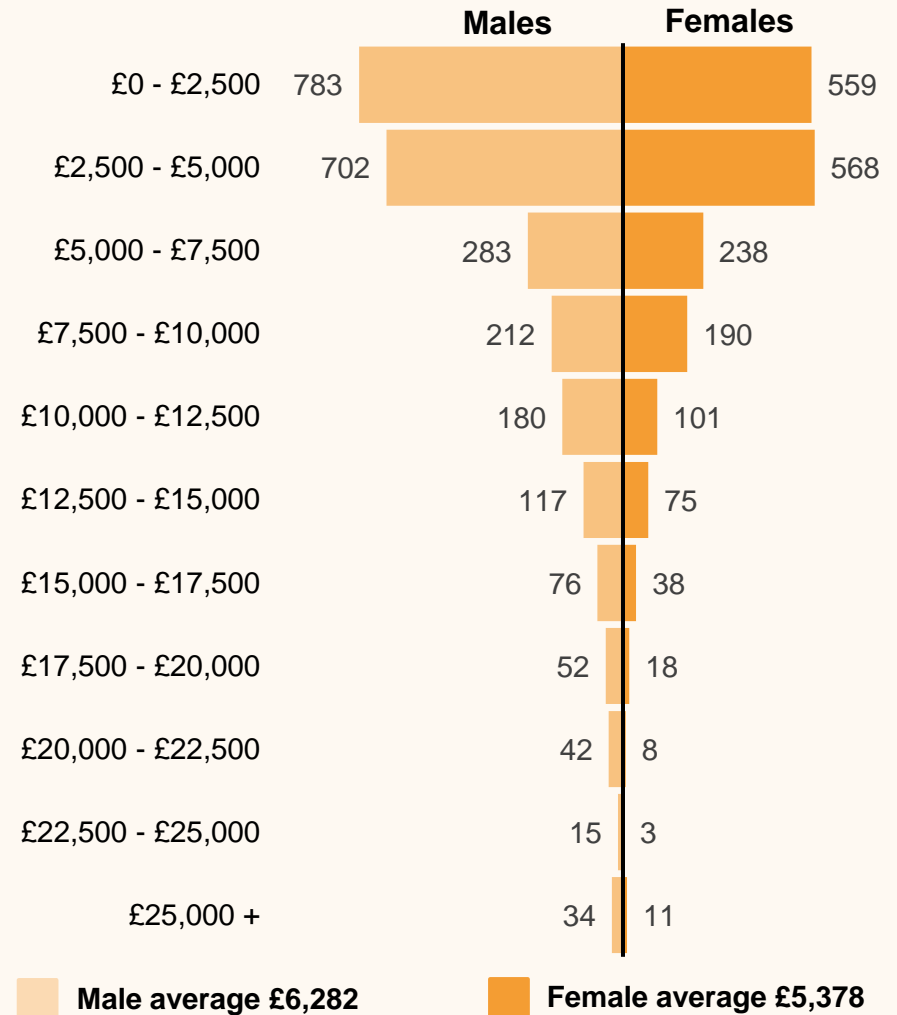
Deferreds data

As at 31 March 2020

Summary statistics



Deferred pension distribution



Pension amount includes the April 2020 pension increase

Deferred membership

As at 31 March 2020

For members with service before 2015, this chart shows the members' legacy scheme at the valuation date.

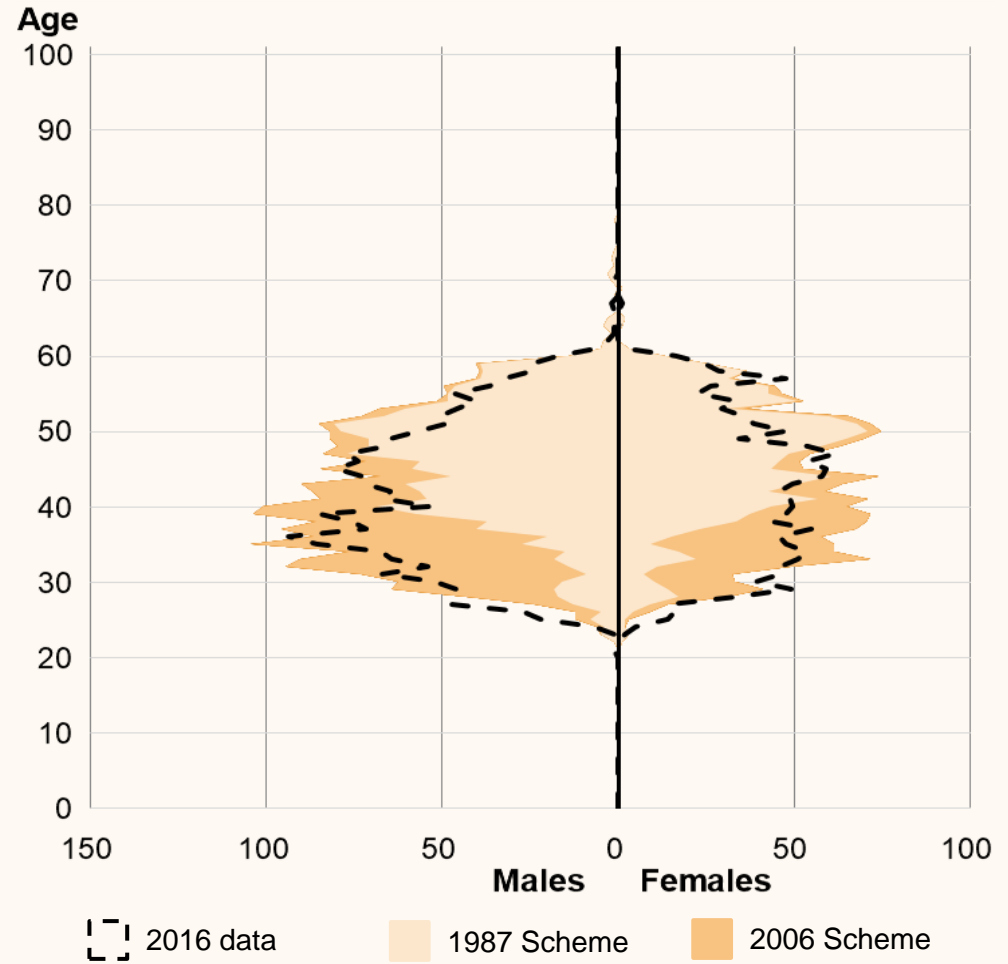
There are more male than female deferred members at most ages, with the majority of members having legacy 1987 Scheme (shown by the lightest shade).

There are more deferred members in 2020 compared to 2016 at most ages (as can be seen by the dotted line inside the shades of orange).

This is as a result of increased withdrawals from active service that have been seen over the inter-valuation period, and few deferred members reaching retirement age in the inter-valuation period (further details are shown on pages 24 and 25).

Some deferred members over deferred pension age have not yet claimed the pension that they are entitled to.

Membership distribution



Where can I see more?

[Appendix D – Tables of summary statistics](#)

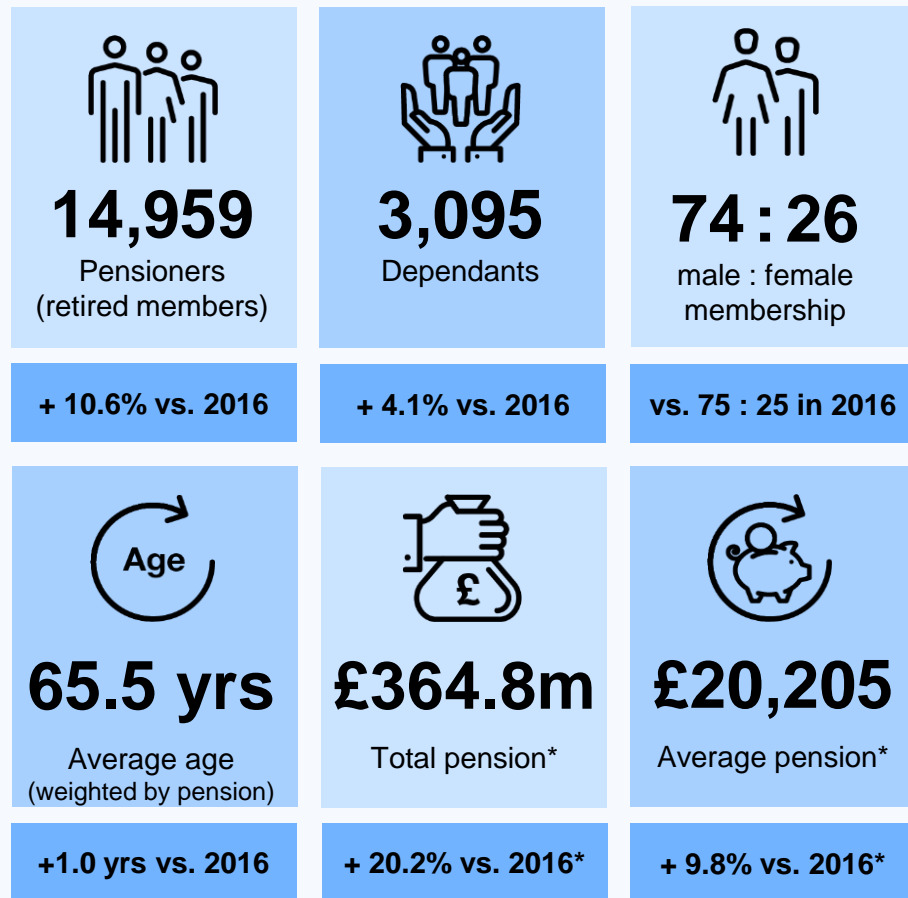
Pensioners



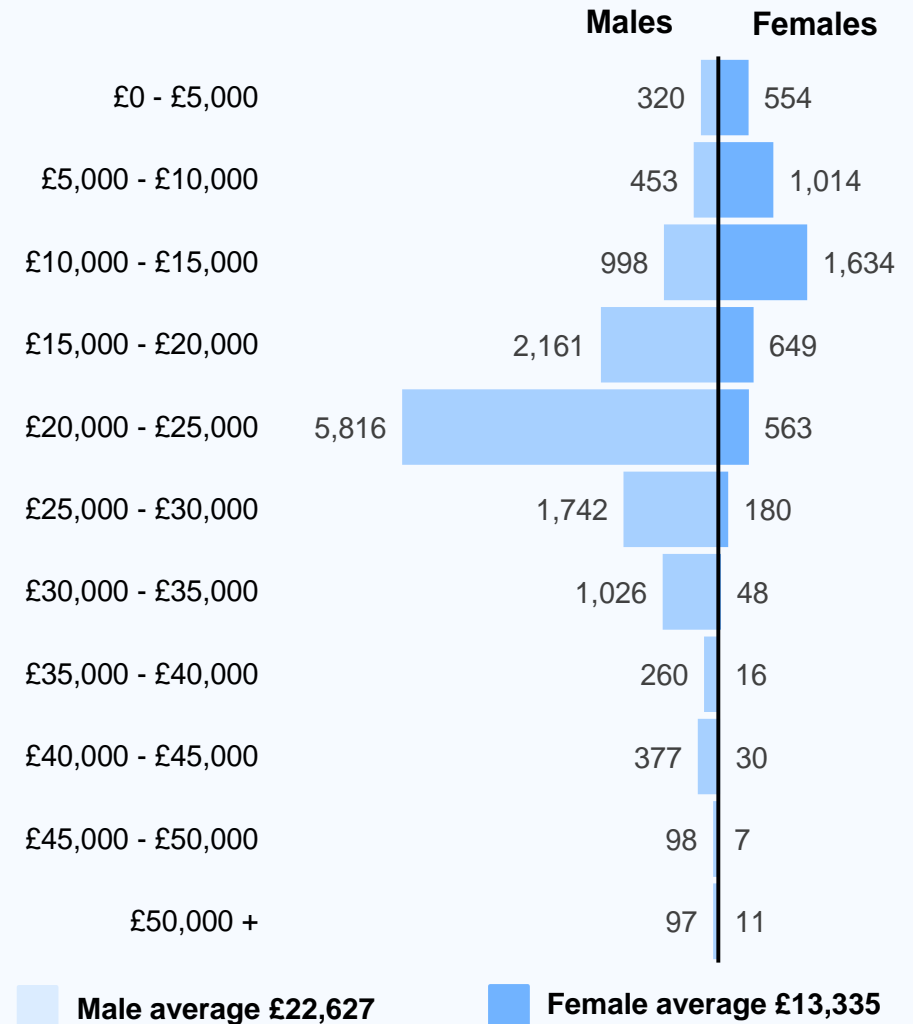
Pensioner data

As at 31 March 2020

Summary statistics



Pensioner data pension distribution



Pension amount includes the April 2020 [pension increase](#)

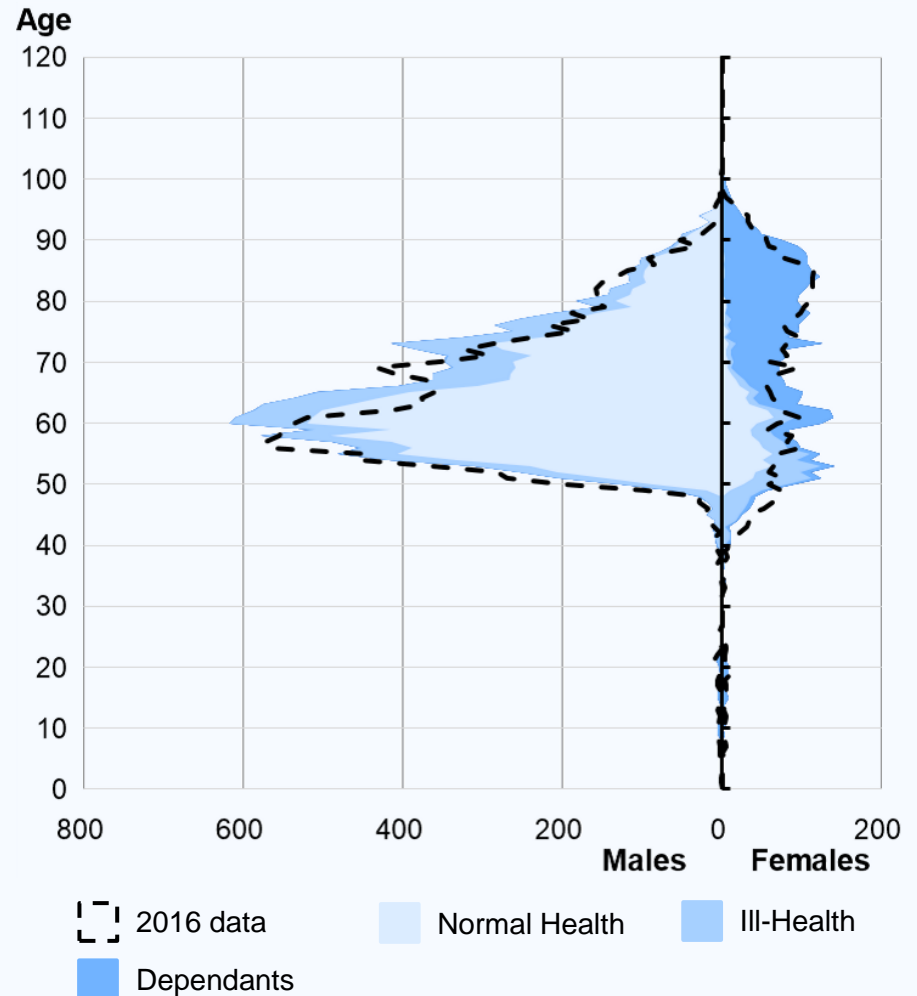
*Includes the accrued [pension increase](#) for Normal health members of the 1987 scheme aged under 55

Pensioner membership

As at 31 March 2020

There are more male than female pensioners at most ages.
 The majority of pensioners are those who retired in normal health (shown by the lightest shade).
 There are a significant number of female dependants.
 The male dependant population is very small (shown by the absence of the darkest shade on the left).
 Overall, compared with 2016 (shown by the dotted black line) the pensioner population in general has aged.

Membership distribution*



Where can I see more?

[Appendix D – Tables of summary statistics](#)

*This chart does not show members aged below 40 years.

Appendix B

Detailed summaries: Movements data



Membership movements

31 March 2016 to 31 March 2020

Actives

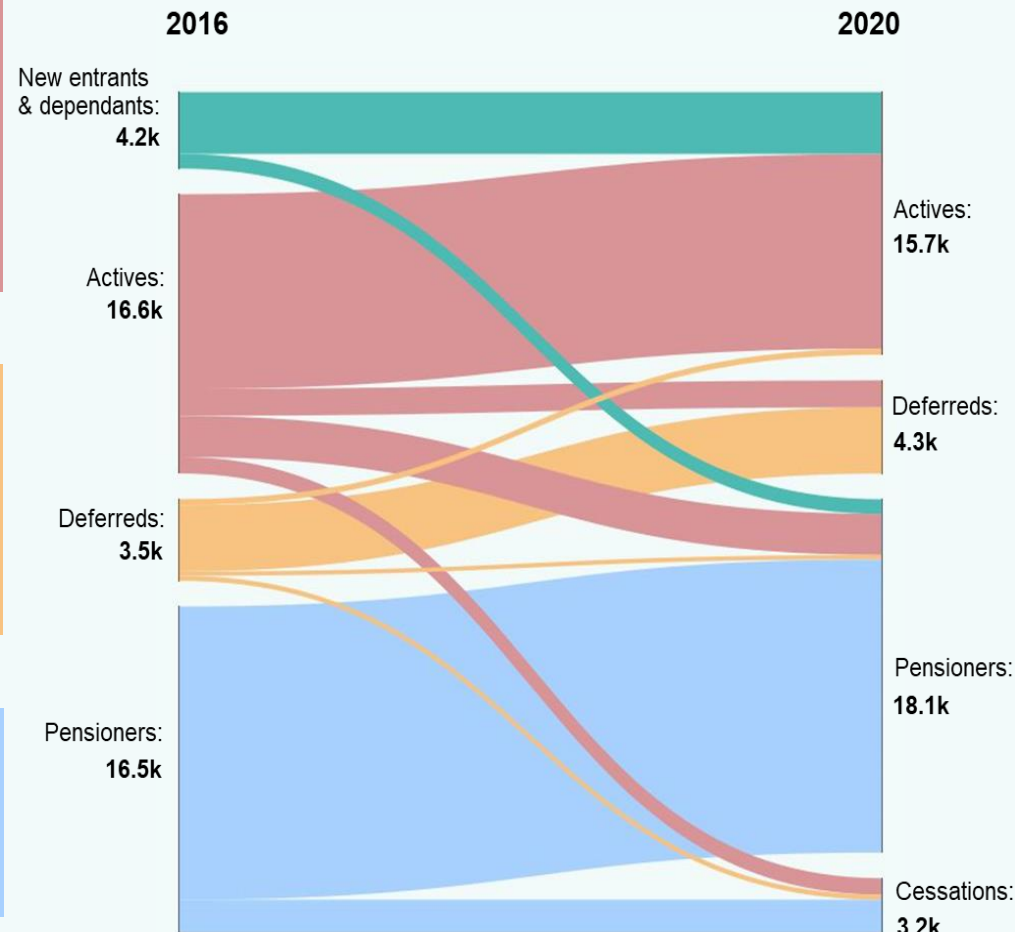
There were more movements from active status to deferred or pensioner status than the number of new entrants to active service, resulting in a decrease in the active population since 2016 (see next slide for more information).

Deferreds

There has been a large increase in the deferred population since 2016 (see next slide for more information).

Pensioners

Overall, the number of pensioners has grown due to the number of retirements exceeding cessation due to death or otherwise (see next slide for more information).



Membership movements

31 March 2016 to 31 March 2020

This table shows how the number of members in each category has changed over the period 31 March 2016 (top row) to 31 March 2020 (bottom row).

The intermediate rows summarise the membership movements provided over the period, as illustrated in the previous slide.

Reconciliation

The expected number of members in each category at 31 March 2020 is set out in the second last row of the table. This reflects the starting position at 31 March 2016 and the movements data provided.

There are a number of minor differentials between this expected position and the actual position at 31 March 2020.

- Actives: **c380** members
- Deferreds: **-c180** members
- Pensioners: **c80** members.

These differences are within our tolerance levels for a scheme of this size, so no further action needs to be taken.

	Actives	Deferreds	Pensioners
Figures in intermediate rows are rounded to the nearest 10			
Number at start of period:	16,599	3,530	16,492
New members:			
New entrants	3,400	-	-
New dependants	-	-	800
Movements between categories:			
Leavers from active service	-1,300*	1,480	-
Age related retirements	-1,900	-220	2,150
Ill-health retirements	-360	-20	380
Cessations with no ongoing liability:			
Member deaths	-30	-10	-1,090
Dependant deaths	-	-	-640
Other exits (examples include opt outs, transfer outs etc)	-1,060	-270	-120
Exclusion adjustment	-	-	-
Number expected at end of period:	15,350	4,490	17,970
Valuation data at end of period:	15,725	4,306	18,054
Difference:	380	-180	80

*The figure for 'Leavers from active service' in the actives column is calculated based on records of people who have left the actives population with 'deferral' given as the reason for leaving, whereas the corresponding figure in the deferreds' column is calculated based on records of people who have entered the deferred population. Although these two calculations should in theory yield the same number, in practice, there are inconsistencies between these two datasets as the numbers of members leaving active service may not equal the number of entrants to the deferred populations. The same is true for 'Age related retirements'. In addition, there was an apparent omission of c110 deferred records in 2016 (more detail on page 30) which we have classified as leavers from active service in the deferreds' column. However, as the members did not leave the actives population in the inter-valuation period, they only contribute to the count of new deferreds and not active leavers.

Appendix C

Checks, adjustments and uncertainties



Checking and adjustment process



1. Data received

Our work starts when schemes provide data. This is processed to remove any unnecessary personal information and to encrypt any personal information that needs to be retained.

All member data provided and discussed in this report was supplied to GAD by the scheme administrator, SPPA.

2. Aggregate checks and reconciliations

Initial checks carried out on the data are at an overall level, as opposed to an individual record basis.

Any unexpected changes compared to previous datasets are identified.

The data provided is then reconciled against that from a separate source (e.g. scheme resource accounts) to check for any potential issues.

3. 'Record by record' checks and adjustments

If the data passes our initial checks, we then undertake a series of automated, record-by-record checks to remove records that are deemed unreliable. For example, duplicate records, or those with missing key data. Where individual records are excluded, remaining records with similar characteristics are typically rated up to compensate for this, where appropriate.

4. Liability reconciliation

At the final checking stage, we use the adjusted data to calculate actuarial liabilities and reconcile them against those calculated in 2016, adjusted for cashflow information.

5. Final data, ready for use

After completion of checks and adjustments, the dataset is ready for calculating valuation results. We then decide whether, in our opinion, it is fit for the purpose of making decisions based on the valuation results.

If we notice significant issues at any stage of our checking process, we request new or additional data from the scheme administrator in order to correct or allow for them.

‘Record by record’ checks and adjustments

Process, limitations & uncertainty

We exclude individual records that have missing or unreliable key data and rate up similar remaining records to replace them, where appropriate.

This process assumes that the membership profile of excluded records is consistent with the profile of the similar reliable records. However, to the extent that this is not the case, there is a degree of uncertainty in the valuation results. Further details are set out in the section of this appendix titled ‘Residual Data uncertainty’.

Overall, we believe this is a reasonable approach to take given the scarcity of alternative information.

Top 3 reasons for excluding records*

65	Missing salary details (<u>rate up</u> applied)
58	Active service not in the expected range (<u>rate up</u> applied)
54	Total deferred pension zero or missing (<u>rate up</u> applied)

* Some members may fail more than one exclusion check. Only one exclusion will apply in such cases. As a result, the total number of members failing a check can exceed the number of exclusions.

Summary of excluded records

151 Actives excluded 1.0% of total records	53 Deferreds excluded 1.2% of total records	19 Pensioners excluded 0.1% of total records
Improvement vs. the 1.9% 2016 exclusion	Deterioration vs. the 1.1% 2016 exclusion	Deterioration vs. the 0.0% 2016 exclusion

Overall 0.6% of total records were excluded (improvement compared with the 1.0% excluded in 2016).

Further information

After finalising our checks and adjustments, we will consider potential data improvements. We will engage with the scheme manager on any issues we have identified to improve future data submissions, where possible and as appropriate.

Liability reconciliation

Summarised results

At the final data checking stage, we carry out the following reconciliation.

Reconciliation against 2016 valuation results

This step assesses the expected versus calculated value of the scheme's actuarial liability as at 31 March 2020. The expected liability is calculated by adjusting the 2016 liabilities for cashflow information from the scheme's accounts, allowing for known pension increases and salary awards since 2016. Differences between expected and calculated liabilities could imply missing or incorrect data.



This check is within our tolerance levels.

Tolerance levels and uncertainty

All reconciliations have a **tolerance level**, within which we accept any differences and move on. Our tolerance levels vary between checks, depending on the level of accuracy we believe appropriate.

If differences fall outside of the acceptable tolerance levels, further investigations are carried out before deciding whether to accept, adjust, or reject the data provided.

Limitations

The results of these checks are heavily dependent on the accuracy and completeness of the information contained in the scheme's published accounts as at 31 March 2017, 2018, 2019 and 2020.

If any of this information is materially inaccurate the results of our checks will also be inaccurate. We believe this is a low risk, as the scheme's accounts have been audited.

Other non-standard adjustments

Summary

In addition, we sometimes make adjustments to data provided to correct known data issues.

We only do this when requested, and when it is more efficient for us to make simple changes than to request new data from administrators.

The key adjustments we have made for PPS (Scotland) are detailed below.

Actives:

- A pro-rated actual salary was provided for most members who joined the Scheme in the financial year before the valuation date. We converted these pro-rated salaries to annualised salaries, in line with the data specification.

Deferreds:

- There were some members who were in the 2020 membership data but were not included in the 2016 valuation data, when their membership details would suggest that they should have been. We corresponded with the administrator to confirm that it was correct to include these members in the 2020 valuation data.

Pensioners:

- The administrator included the 2021 pension increase when providing each member's pension in payment, which wasn't required, as per the data specification. We therefore adjusted this data to exclude the April 2021 pension increase.

Limitations and uncertainty

The extent to which the true data differs from the adjusted data we use in our calculations creates a degree of **uncertainty** in the valuation results. More details are set out in the section of this appendix titled 'residual data uncertainty'.

Residual data uncertainty

Summary

The previous sections of this appendix have described the checks and adjustments made to the data to ensure it is fit for the purpose of calculating valuation results.

However, there are risks that the adjustments we have made do not truly represent the underlying data of the scheme, or that the data provided did not truly represent the underlying data of the scheme and we have not made the necessary adjustments to ensure that it does.

Potential impact on valuation results

We are comfortable that the checks and adjustments that have been made are reasonable and that the data is appropriate for the purpose of the 2020 valuation. In our opinion, the potential impact of data uncertainty on the employer contribution rate and member outcomes (via the cost control mechanism) is:

- Employer contribution rate: The uncertainty will be captured together with other experience and changes through the 2024 (or subsequent) valuations and is expected to have an impact of the order of $\pm 0.25\%$ of pensionable pay.
- Member Outcomes: No impact expected



After making necessary adjustments detailed in this report, we conclude that the data is appropriate for the purpose of the 2020 PPS (Scotland) valuation.

Appendix D

Tables of summary statistics



Summary statistics – introduction

Categorisation

The membership data in this appendix is categorised by scheme. Where applicable, members are assigned to the legacy scheme that they have already accrued benefits in, even if they have now started to accrue benefits in the reformed scheme. This means that:

- Members who have legacy benefits only as at 31 March 2020 will be categorised under their respective legacy schemes.
- Members who have a combination of legacy and reformed benefits as at 31 March 2020 having transitioned from a legacy to reformed scheme will be categorised under their respective legacy schemes.
- Members who have reformed benefits only as at 31 March 2020 will be categorised under the reformed scheme.

Interpretation

The rest of this appendix summarises the scheme data, after adjustments, into a series of tables. An example is shown below.

The first number in each section of the table, in bold text, shows data as at 31 March 2020. The second number, in standard text, shows the change from data as at 31 March 2016 to data as at 31 March 2020.

Positive changes show increases between 2016 and 2020 and negative changes show decreases.

The totals given for summed data may not be exactly the same as the sum of the components shown due to rounding effects.

Example table

Scheme	Males	Females	Total
Legacy scheme 1	100 +10	100 +10	200 +20
Legacy scheme 2	100 +10	100 +10	200 +20
Reformed scheme	100 +10	100 +10	200 +20
All schemes	300 +30	300 +30	600 +60

Summary statistics – actives

As at 31 March 2020

Number of members

Scheme	Males	Females	Total
1987 Scheme	5,137	2,050	7,187
	-1,895	-512	-2,407
2006 Scheme	3,625	1,787	5,412
	-481	-279	-760
2015 Scheme	2,000	1,126	3,126
	+ 1,426	+ 867	+ 2,293
All schemes	10,762	4,963	15,725
	-950	+ 76	-874

Average age* (years)

Scheme	Males	Females	Total
1987 Scheme	46.9	45.6	46.5
	+ 2.0	+ 2.6	+ 2.1
2006 Scheme	37.1	36.8	37.0
	+ 4.2	+ 4.1	+ 4.2
2015 Scheme	30.3	29.3	29.9
	+ 3.0	+ 2.3	+ 2.8
All schemes	41.4	39.6	40.9
	+ 0.6	+ 1.1	+ 0.7

*weighted by actual pay

The first number in each section, in bold text, shows the value as at 31 March 2020. The second number, in standard text, shows the change from data as at 31 March 2016 to data as at 31 March 2020. Positive changes show increases between 2016 and 2020 and negative changes show decreases.

Summary statistics – actives

As at 31 March 2020

Total full-time equivalent pay (£m pa)*

Scheme	Males	Females	Total
1987 Scheme	233 - 19.1%	91 - 5.7%	324 - 15.7%
2006 Scheme	142 + 11.3%	70 + 9.3%	212 + 10.6%
2015 Scheme	- -	- -	- -
All schemes	375 - 9.7%	161 0.0%	537 - 6.9%

Total actual pay (£m pa)

Scheme	Males	Females	Total
1987 Scheme	231 - 19.8%	87 - 8.4%	318 - 17.0%
2006 Scheme	142 + 11.1%	66 + 6.3%	208 + 9.5%
2015 Scheme	59 + 311.0%	32 + 407.6%	91 + 340.8%
All schemes	431 + 0.3%	186 + 13.4%	617 + 3.9%

*The full-time equivalent pay is calculated only for those members where the information has been provided (only in respect of members with final salary benefits).

Summary statistics – actives

As at 31 March 2020

Average full-time equivalent pay (£ pa)*

Scheme	Males	Females	Total
1987 Scheme	45,354 + 10.8%	44,614 + 17.9%	45,143 + 12.5%
2006 Scheme	39,214 + 26.1%	39,142 + 26.3%	39,190 + 26.2%
2015 Scheme	- -	- -	- -
All schemes	42,814 + 14.8%	42,065 + 21.0%	42,586 + 16.5%

Average actual pay (£ pa)

Scheme	Males	Females	Total
1987 Scheme	44,895 + 9.7%	42,380 + 14.5%	44,177 + 10.8%
2006 Scheme	39,130 + 25.8%	37,147 + 22.8%	38,475 + 24.9%
2015 Scheme	29,259 + 18.1%	28,668 + 16.5%	29,046 + 17.5%
All schemes	40,047 + 9.2%	37,386 + 11.6%	39,207 + 9.7%

*The average full-time equivalent pay is calculated only for those members where the information has been provided (only in respect of members with final salary benefits).

Summary statistics – actives

As at 31 March 2020

Average reckonable service (years)*

Scheme	Males	Females	Total
1987 Scheme	18.8 - 1.0	17.4 - 0.5	18.4 - 0.9
2006 Scheme	5.8 + 0.4	5.7 + 0.3	5.8 + 0.4
2015 Scheme	- -	- -	- -
All schemes	13.4 - 1.0	11.9 - 0.4	13.0 - 0.9

*Unweighted (shown for final salary schemes only).

Total post-reform CARE pension (£ m)**

Scheme	Males	Females	Total
1987 Scheme	12 + 553.8%	5 + 529.8%	18 + 546.3%
2006 Scheme	12 + 443.7%	5 + 430.9%	17 + 439.6%
2015 Scheme	3 + >1000%	1 + >1000%	4 + >1000%
All schemes	27 + 546.9%	12 + 529.2%	39 + 541.3%

**Pension mount presented includes pension revaluation to April 2020.

Summary statistics – deferreds

As at 31 March 2020

Number of members

Scheme	Males	Females	Total
1987 Scheme	1,542 + 143	1,232 + 175	2,774 + 318
2006 Scheme	954 + 302	578 + 156	1,532 + 458
All schemes	2,496 + 445	1,810 + 331	4,306 + 776

Average age* (years)

Scheme	Males	Females	Total
1987 Scheme	48.2 + 2.2	47.9 + 1.9	48.1 + 2.1
2006 Scheme	37.2 + 3.0	37.3 + 3.6	37.3 + 3.2
All schemes	46.2 + 1.6	46.1 + 1.7	46.2 + 1.6

* weighted by pension

The first number in each section, in bold text, shows the value as at 31 March 2020. The second number, in standard text, shows the change from data as at 31 March 2016 to data as at 31 March 2020. Positive changes show increases between 2016 and 2020 and negative changes show decreases.

Summary statistics – deferreds

As at 31 March 2020

Total deferred pension (£m pa)*

Scheme	Males	Females	Total
1987 Scheme	12.8 + 11.5%	8.1 + 18.3%	20.9 + 14.0%
2006 Scheme	2.8 + 77.9%	1.6 + 65.6%	4.5 + 73.2%
All schemes	15.7 + 19.6%	9.7 + 24.3%	25.4 + 21.3%

Average deferred pension (£ pa)*

Scheme	Males	Females	Total
1987 Scheme	8,323 + 1.1%	6,581 + 1.5%	7,549 + 1.0%
2006 Scheme	2,982 + 21.6%	2,815 + 20.9%	2,919 + 21.5%
All schemes	6,282 - 1.7%	5,378 + 1.5%	5,902 - 0.5%

Pension amounts includes the April 2020 pension increase

Summary statistics – pensioners

As at 31 March 2020

Number of members

Type	Males	Females	Total
Normal Health	10,353	857	11,210
	+ 943	+ 406	+ 1,349
III-Health	2,877	872	3,749
	- 38	+ 128	+ 90
Dependants*	118	2,977	3,095
	+ 4	+ 119	+ 123
All members	13,348	4,706	18,054
	+ 909	+ 653	+ 1,562

*Includes children and pension credit members

Average age** (years)

Type	Males	Females	Total
Normal Health	65.1	58.3	64.7
	+ 1.0	- 0.1	+ 0.8
III-Health	65.7	55.1	63.8
	+ 1.8	+ 1.9	+ 1.5
Dependants*	37.7	75.4	74.8
	+ 4.7	+ 1.4	+ 1.5
All members	65.2	67.2	65.5
	+ 1.1	- 0.1	+ 1.0

** weighted by pension

The 2016 comparator average age (weighted by pension) varies slightly from that shown in the 2016 data report as the 2016 pension has been reported differently (in this report we apply pension increases to Normal Health members of the 1987 scheme who are below 55 years old, whereas those increases were not included in the summary in the 2016 data report).

The first number in each section, in bold text, shows the value as at 31 March 2020. The second number, in standard text, shows the change from data as at 31 March 2016 to data as at 31 March 2020. Positive changes show increases between 2016 and 2020 and negative changes show decreases.

Summary statistics – pensioners

As at 31 March 2020

Total pension (£m pa)*

Type	Males	Females	Total
Normal Health	251 + 19.2%	17 + 99.2%	269 + 22.4%
Ill-Health	50 + 7.0%	11 + 32.4%	61 + 10.8%
Dependants**	1 + 17.3%	34 + 21.8%	35 + 21.7%
All members	302 + 17.0%	63 + 38.6%	365 + 20.2%

Average pension (£ pa)*

Type	Males	Females	Total
Normal Health	24,276 + 8.3%	20,326 + 4.8%	23,974 + 7.7%
Ill-Health	17,413 + 8.4%	12,466 + 12.9%	16,262 + 8.1%
Dependants**	5,032 + 13.4%	11,577 + 16.9%	11,327 + 16.9%
All members	22,627 + 9.0%	13,335 + 19.4%	20,205 + 9.8%

Pension amount includes the April 2020 pension increase

*The pension figures vary slightly from the 2016 data report as the 2016 pension has been reported differently (in this report we apply pension increases to Normal Health members of the 1987 scheme who are below 55 years old, whereas those increases were not included in the summary in the 2016 data report).

**Includes children's pensions and pension credit members

Appendix E

Glossary



Glossary

Actuarial liability	The monetary amount assessed, in today's terms, as being required to meet all future payments due in respect of current benefit entitlements. It is dependent on assumptions about future financial conditions and membership changes.
CARE	CARE stands for Career Average Revalued Earnings and refers to a methodology whereby earnings over a member's working lifetime in the scheme are used in the calculation of their benefits in the <u>reformed scheme</u> (referred to as the 2015 Scheme in this report).
Cost cap cost	<p>A way of measuring the cost of benefits being provided from the 2015 Scheme, which is then compared to a 'target cost'. The PPS (Scotland) target cost is set at 12.3% of pay.</p> <p>If the results of the valuation show that the cost cap cost is more than 3% of pensionable pay away from the target cost, and the cost of the Scheme still results in a breach once the impact of the economic check is taken into account, changes must be made to the 2015 Scheme (e.g., to the benefits provided) to bring the cost cap cost back to the target cost.</p>
Directions	<p>A document published by HM Treasury and referred to in The Public Service Pensions Act 2013, which sets out the process and requirements for carrying out valuations, including the results which need to be disclosed.</p> <p>Directions were first published in 2014 and have been updated several times since then.</p>
Employer contribution rates	<p>The percentage of scheme members' salaries which employers are required to pay in order to:</p> <ul style="list-style-type: none">• meet the costs of benefits currently being built up by active members• make good any shortfall in the notional amounts set aside to cover benefits already built up. <p>The result is heavily dependent on assumptions about future financial conditions and membership changes.</p>
McCloud	McCloud refers to a legal judgment made in December 2018. The England and Wales Court of Appeal judgment upheld claims of age discrimination brought by some firefighters and members of the judiciary against 'transitional protection' rules. These rules determined the date on which some members would move between <u>reformed and legacy schemes</u> .

Glossary

Normal pension age	<p>The age at which a member in normal health is entitled to unreduced benefits. This age varies in different Schemes:</p> <ul style="list-style-type: none">• 1987 Scheme: After 30 years' service at any age, or after 25 years' service at age 50 and above, or otherwise at age 55 (some senior officers have higher retirement ages); Deferred pension age 60• 2006 Scheme: 55; Deferred pension age 65.• 2015 Scheme: 60; flexible retirement from age 55 is available, subject to benefits being actuarially reduced; Deferred pension age equal to State Pension Age (SPA).
Pension increase	<p>Public service pensions are increased under the provisions of the Pensions (Increase) Act 1971 and Section 59 of the Social Security Pensions Act 1975.</p>
Pension revaluation	<p>The rate at which the <u>CARE</u> pension is revalued each year a member is an active member.</p>
Professional actuarial requirements	<p>The professional requirements that we have complied with when completing this actuarial valuation include:</p> <ol style="list-style-type: none">1. Technical Actuarial Standards: TAS 100 and TAS 300, issued by the FRC2. The Actuaries' Code, issued by the Institute and Faculty of Actuaries ('IFoA')3. The Civil Service Code. <p>GAD is also accredited under the IFoA's Quality Assurance Scheme. More details can be found in our terms of reference.</p>

Glossary

Rate up	A term used to refer to any multiplicative adjustments made to data in order to correct for known issues. For example, if it appears that a group of members have been omitted from the data we've received and salaries are understated by 2% as a result, we might apply a 'rate up' of 2% to the salary data we actually hold as a correction. Although the term 'rate up' implies an increase, we might also 'rate down' if appropriate to do so.
Reformed and legacy Schemes	The reformed Scheme that was set up in line with The Public Service Pensions Act 2013, and which came into force on 1 April 2015 (referred to as the 2015 Scheme in this report). All non-reformed Schemes are known as legacy Schemes. This terminology is used in the McCloud judgment.
Scheme	The membership data in Appendix D is categorised by Scheme. Members who have legacy and reformed benefits, or legacy only benefits, will be categorised under the legacy Schemes . Members who have reformed benefits only have been categorised under the reformed Scheme .