



Government  
Actuary's  
Department

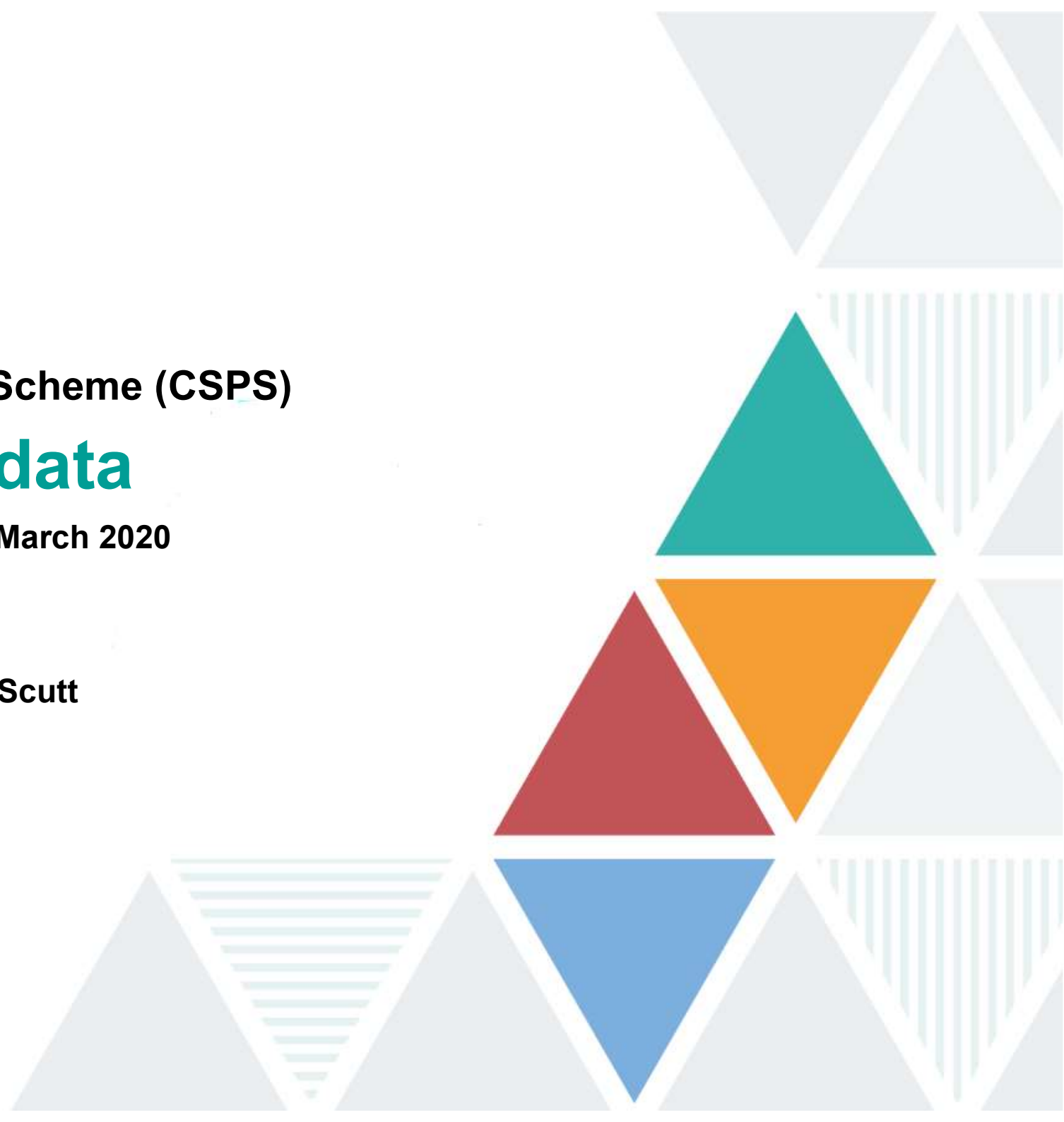
## **Civil Service Pension Scheme (CSPS)**

# **Membership data**

**Actuarial valuation as at 31 March 2020**

**John Bayliss and Benjamin Scutt**

**18 September 2023**



# Highlights

## CSPS valuation data



**1.539m**

Members as at  
31 March 2020

**+4.5% vs. 2016**

## Initial data quality

**96.1%**

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

**Improvement vs. 95.7% in 2016**

## Key headlines

The quality of the 2020 CSPS valuation data as at 31 March 2020 has slightly improved 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 for this valuation. The proportion has increased slightly since the last valuation.

There were some issues with the data relating to suspended members which we were able to adjust for (see page 8).

## 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 CSPS 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 Government Actuaries 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 the Minister for the Civil Service. HM Treasury’s Directions (‘the Directions’) require 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.

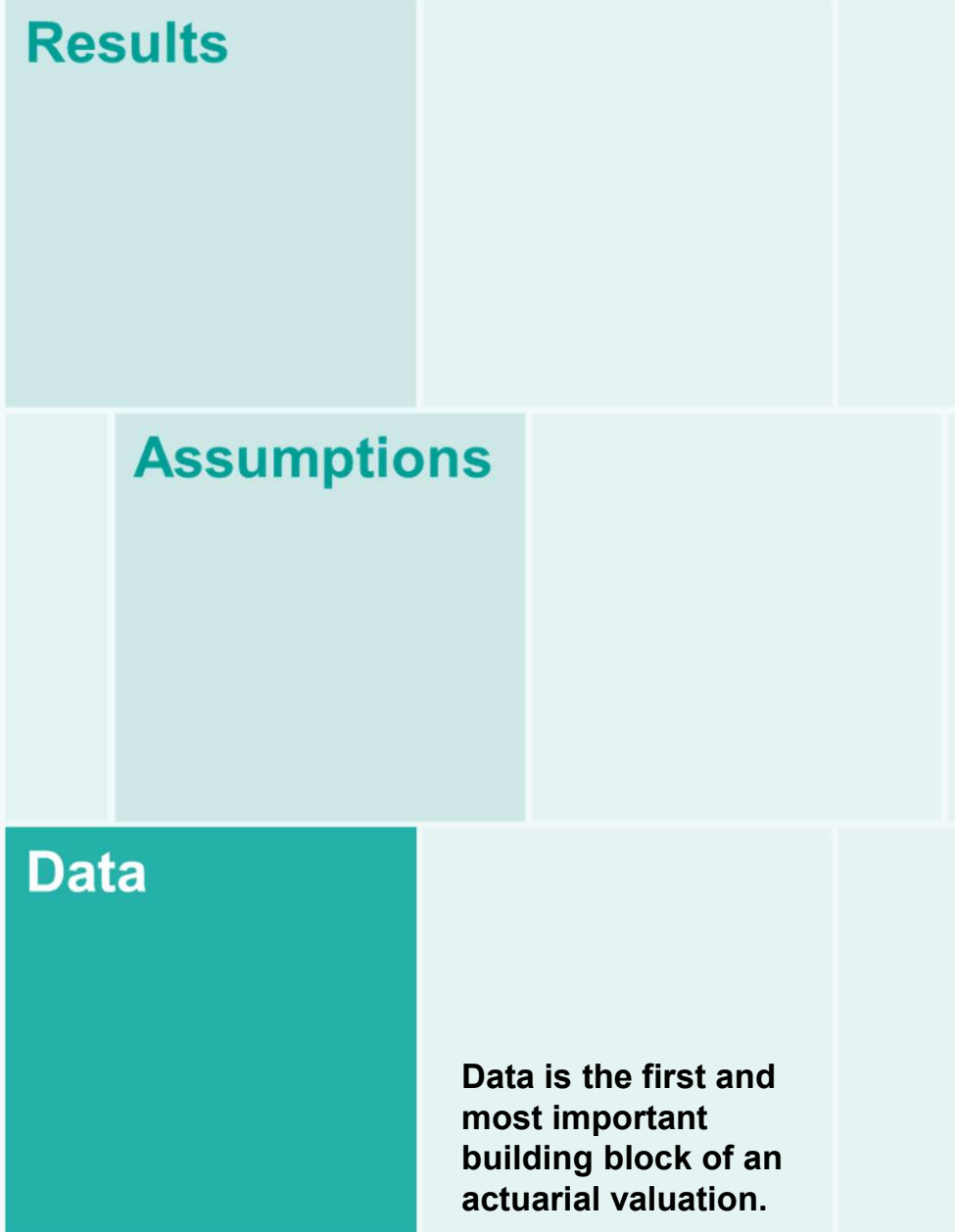
## Why has the data been collected?

This data is needed to carry out an actuarial valuation of the CSPA as at 31 March 2020, in accordance HM Treasury’s 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 CSPA annual Resource Accounts.



## 2. Data as at 31 March 2020

### Who provided the data?

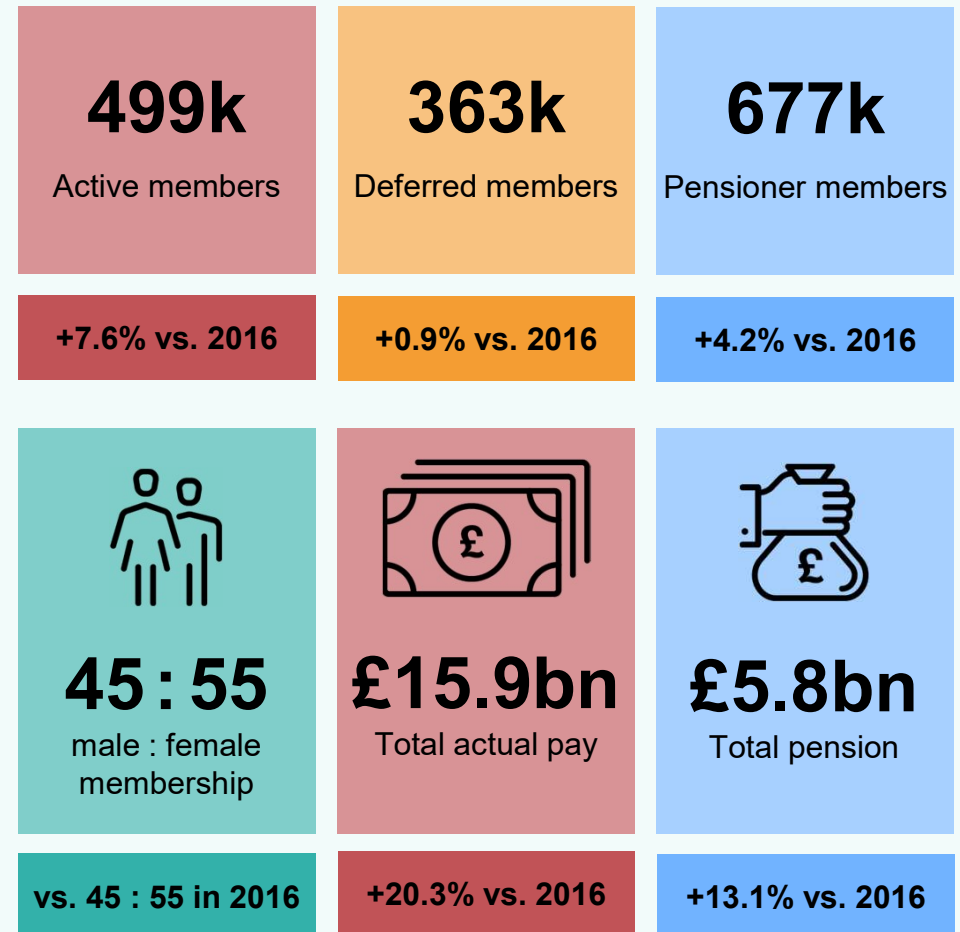
This data was wholly provided by the administrators of the CSPS, MyCSP.

### What is the data used for?

It will be used to calculate the results of the 2020 CSPA 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

# 3. Movements data

## Where did the data come from?

This movements data for 2016 to 2020 was wholly provided by the administrators of the CSPS, MyCSP.

## 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

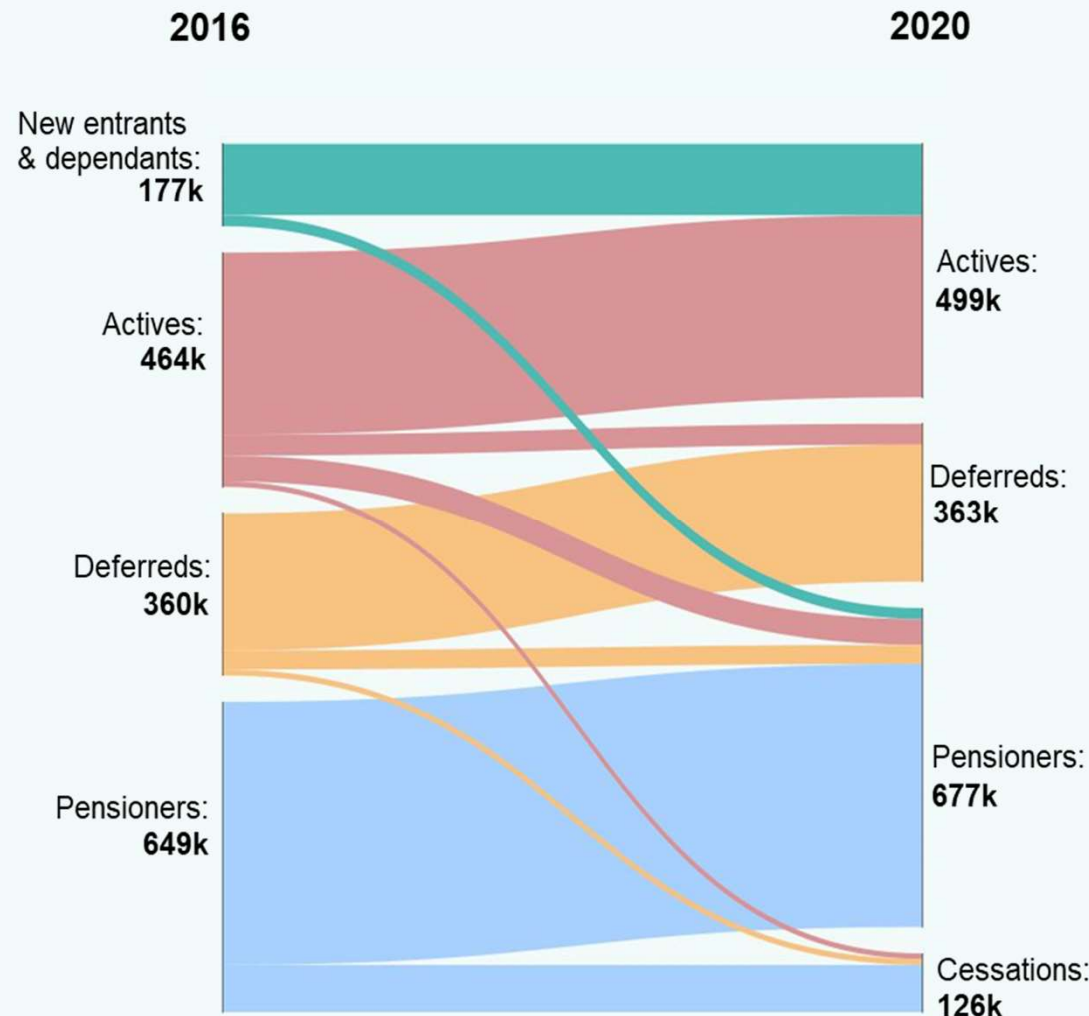
This movements data is used to perform a reconciliation which compares data as at 31 March 2016 and 31 March 2020 against movements occurring between this period to check that membership figures are in agreement.

## 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.

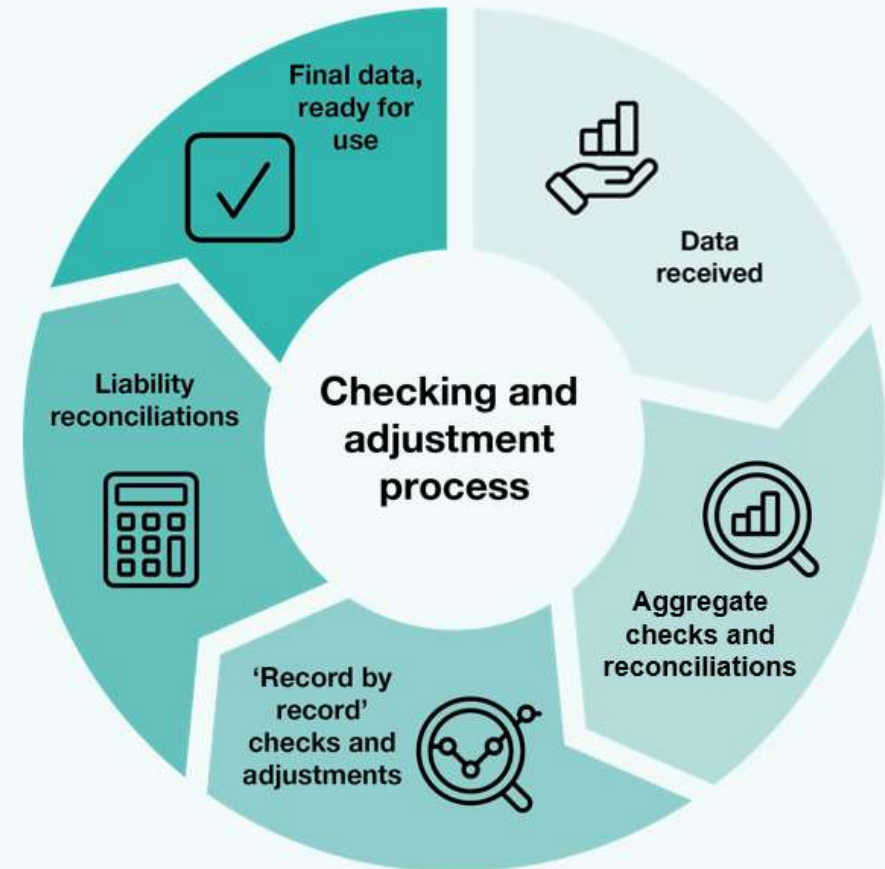
### What happens to unreliable data?

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 scheme managers 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?

The Minister for the Civil Service is responsible for ensuring appropriate data is provided in order to support the legislative requirement to perform a valuation.

It is the department's responsibility to ensure that data that is provided is 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.

The quality of the 2020 CSPA valuation data as at 31 March 2020 is slightly better than that used for the 2016 valuation. We are happy to report that the issue with reckonable service identified in the 2016 valuation process was corrected in the 2020 data.

There was a group of pensioners who were recorded in the initial data as suspended but who were subsequently identified as being records that had ceased due to death. Excluding these members from the initial data (and treating as ceased pensions) was the main reason for the lower percentage for pensioners compared with 2016.

## 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

**96.1%**

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

**Improvement vs. 95.7% in 2016**

**96.7%**  
Actives

**96.5%**  
Deferreds

**95.5%**  
Pensioners

**Improvement vs. 94.1% in 2016**

**Improvement vs. 95.1% in 2016**

**Deterioration vs. 97.3% 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 CSPA 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 data sets 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 MyCSP 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 HM Treasury's [Directions](#).

## Sharing

This report has been prepared for the use of the Minister for the Civil Service and the Cabinet Office. We are content for the Minister for the Civil Service and the Cabinet Office 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 the Minister for the Civil Service and the Cabinet Office, 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

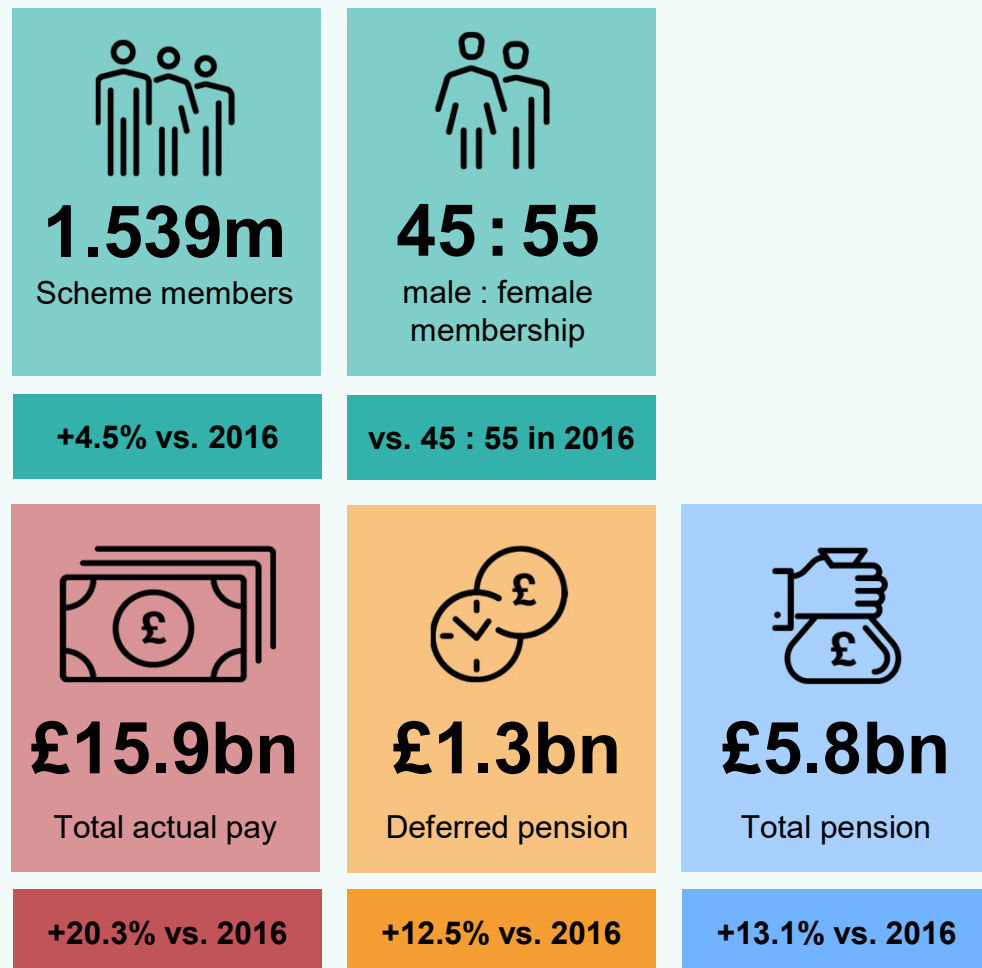
Detailed summaries: Data as at 31 March 2020



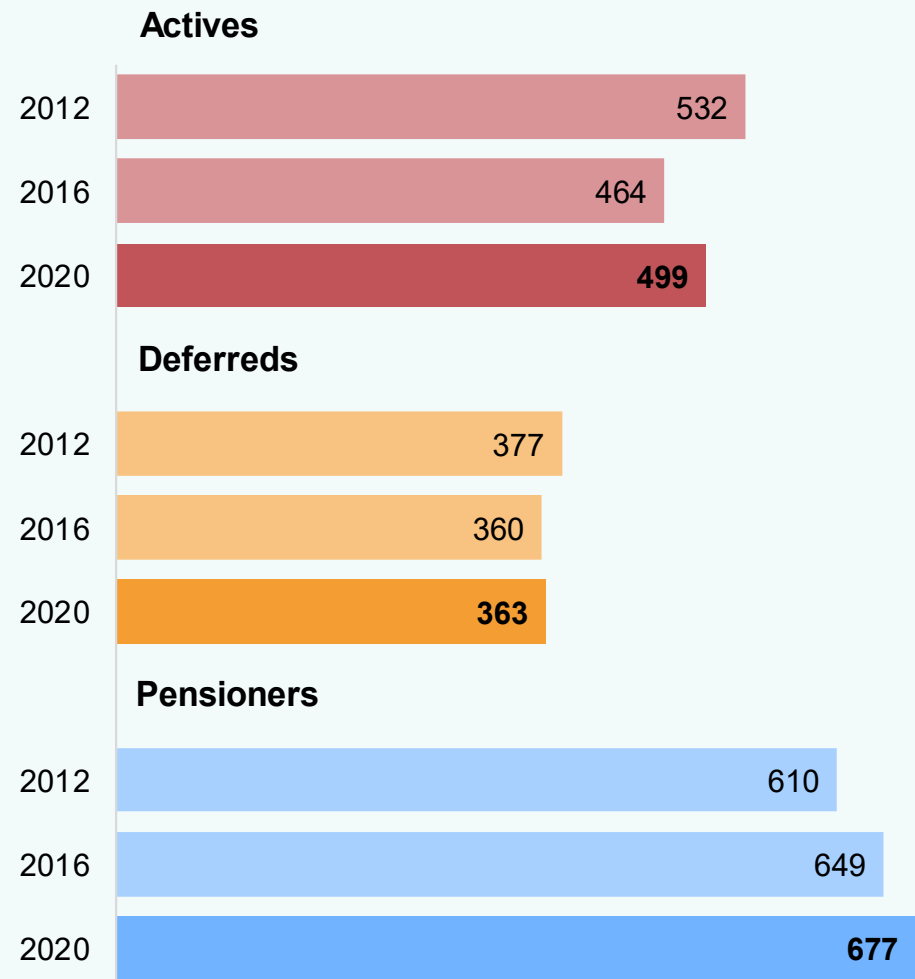
# Scheme data

As at 31 March 2020

## Summary statistics



## Membership over time (000's)



Pension amount includes the April 2020 pension increase

# Scheme membership

As at 31 March 2020

There are more female than male members across all categories.

Pensioner/dependant numbers begin increasing from around age 55 and peak between ages 60 and 65.

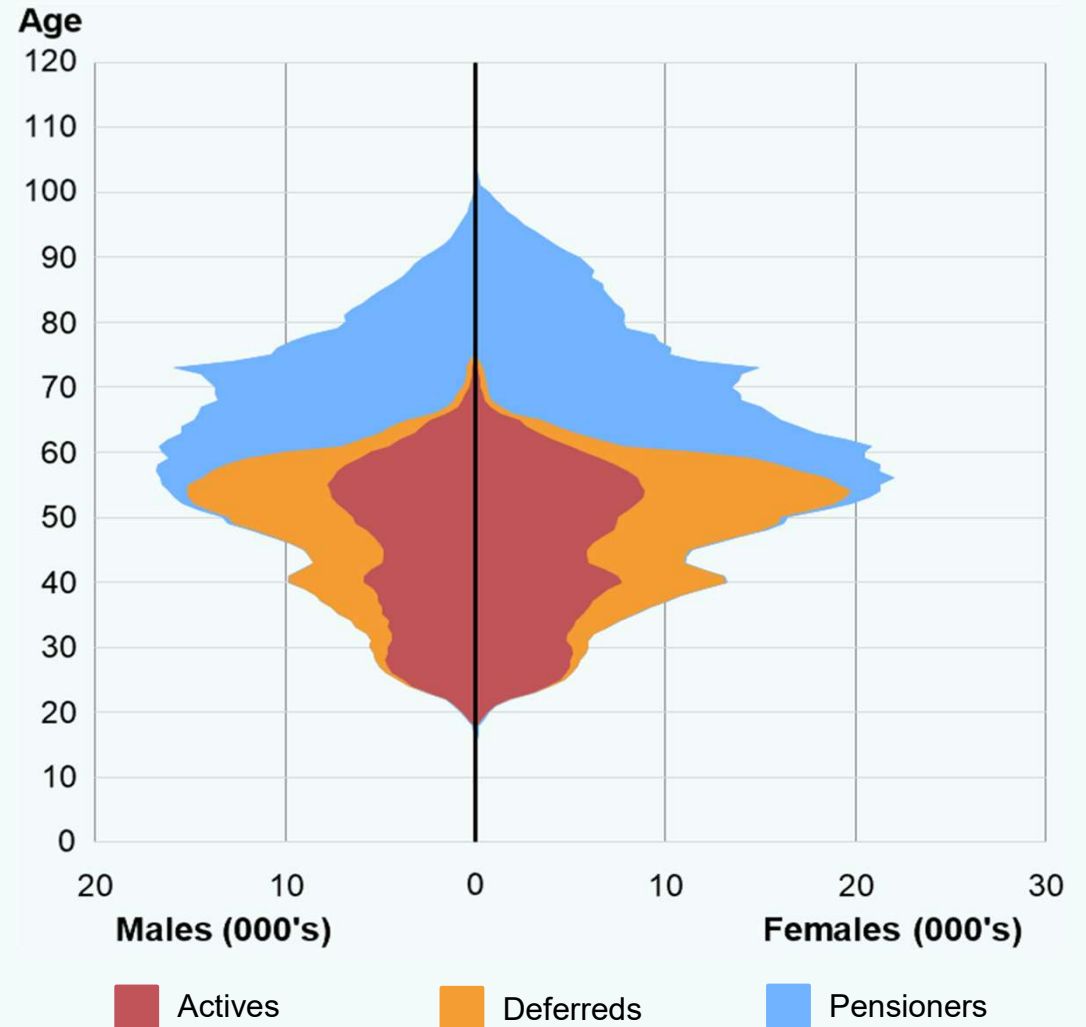
This corresponds with declining numbers of active members and deferred members over this age range.

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

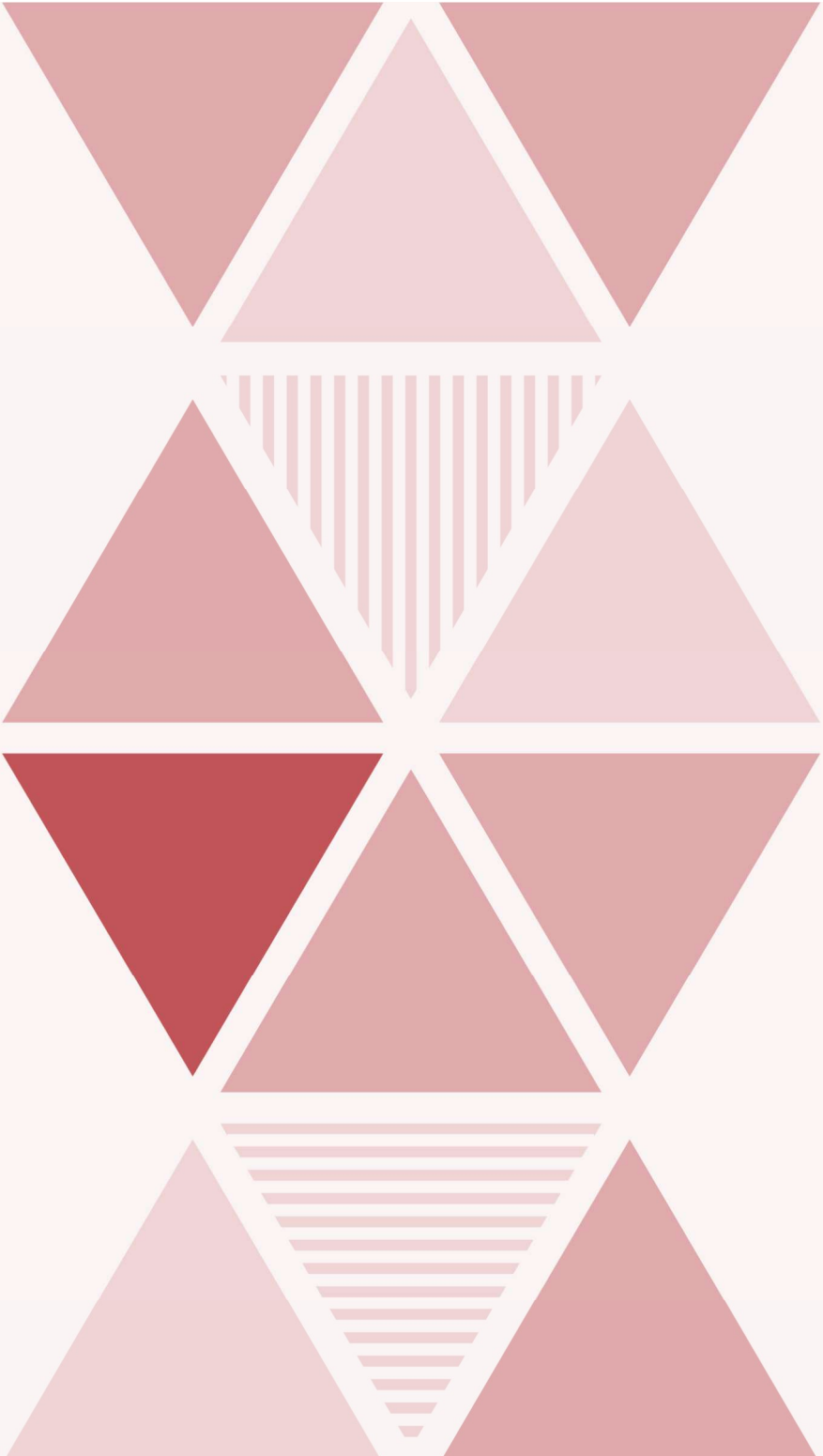
## Where can I see more?

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

**Membership distribution**



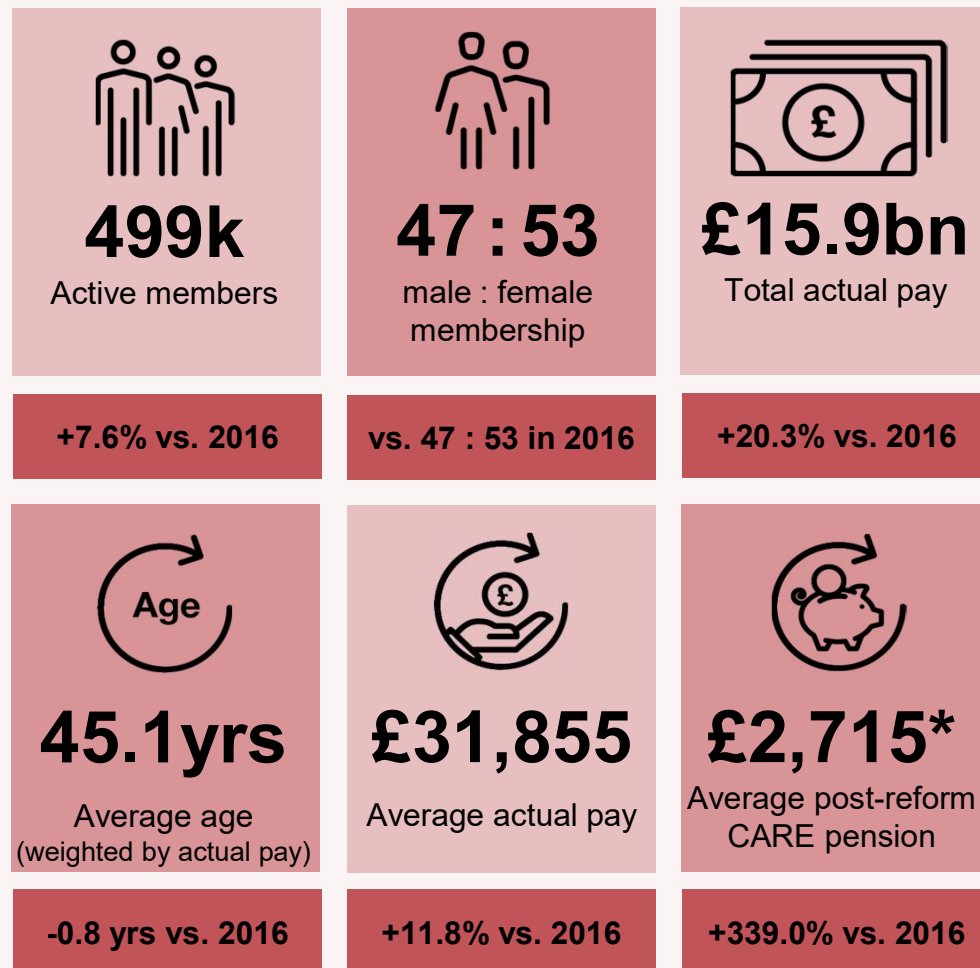
**Actives**



# Actives data

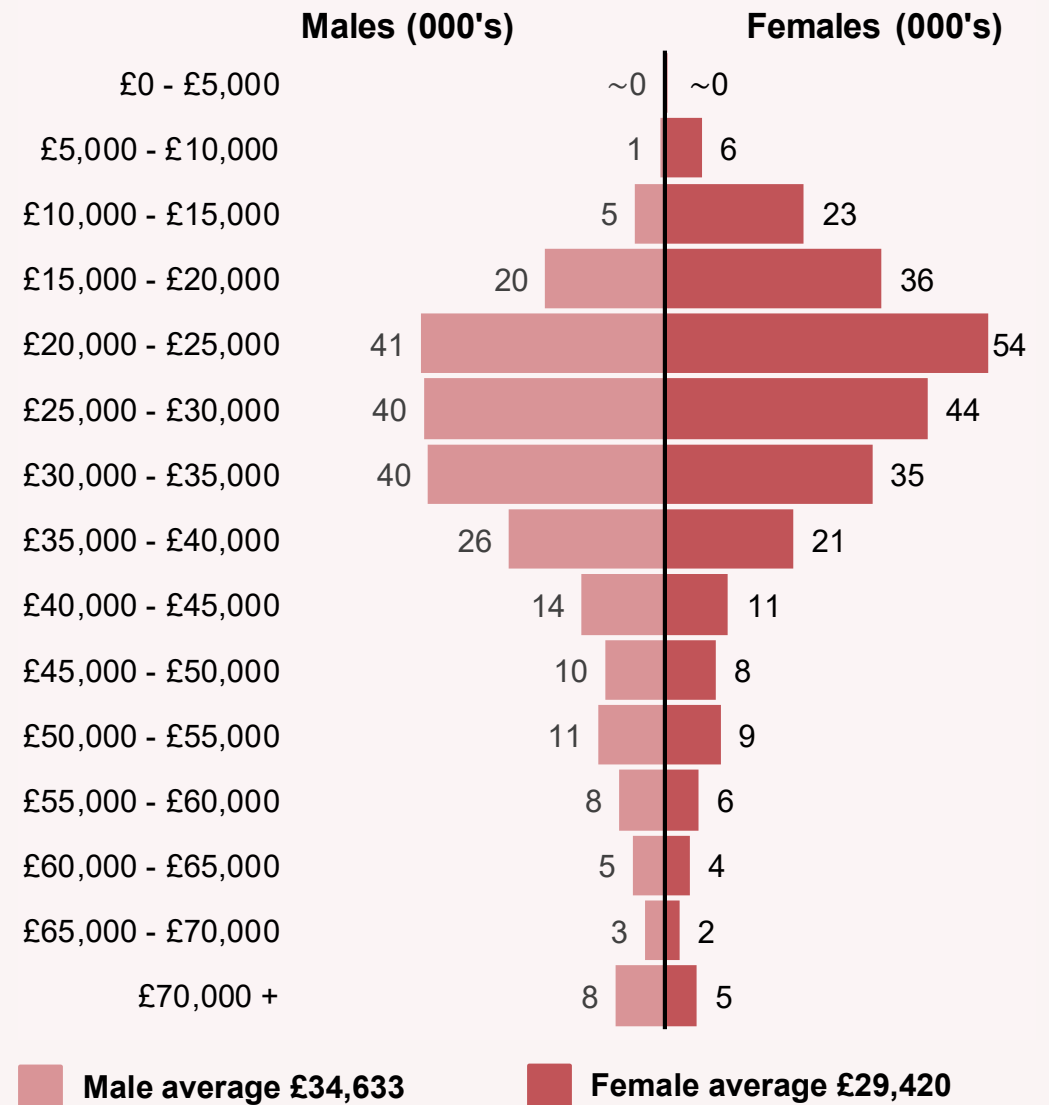
As at 31 March 2020

## Summary statistics



Pension amount does not include the April 2020 [pension revaluation](#)  
 \*Average is only for members who have post reform CARE pension

## Actual pay distribution



~0 means the figure is too small to report after rounding



# Active membership

As at 31 March 2020

There are more female than male actives at most ages.

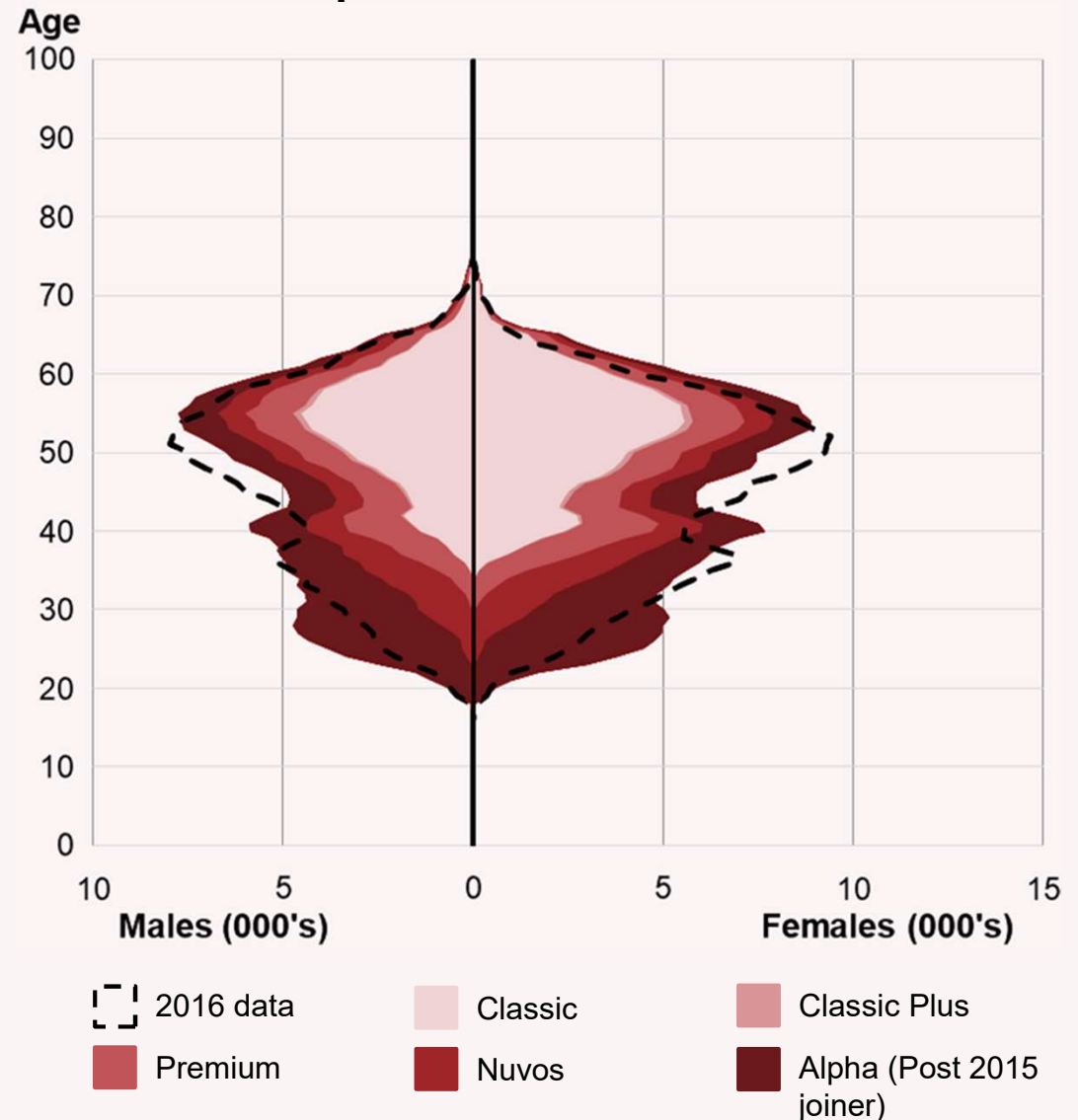
The majority of active members are in the legacy sections of the scheme (shown by the four lightest shades).

Over time, the numbers in these sections should fall as members retire and are replaced by members of the career average 2015 section. From 1 April 2022, all future service will be in the 2015 section.

Overall:

- there are more actives at younger ages in 2020 (as can be seen by the darkest shade of red outside of the dotted line at the bottom of the chart); and
- fewer active members around ages 45-50 at 2020 compared with 2016.

**Membership distribution**



## Where can I see more?

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

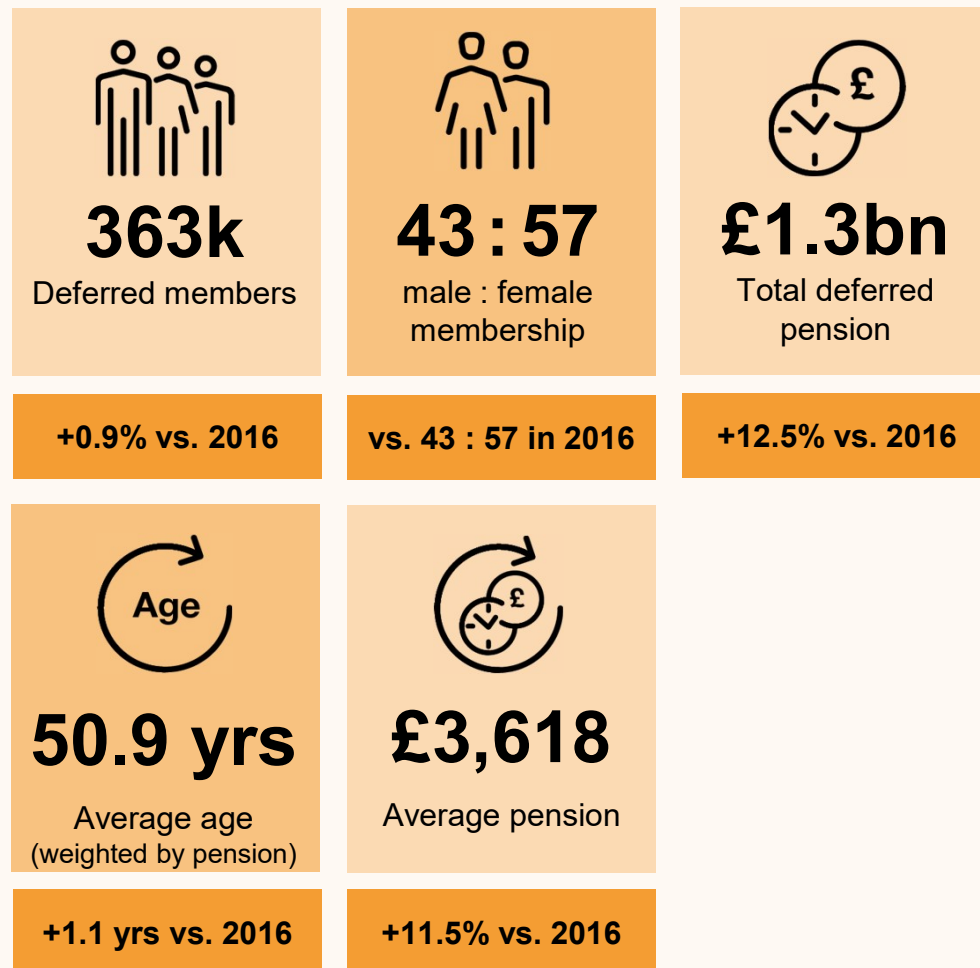
# Deferreds



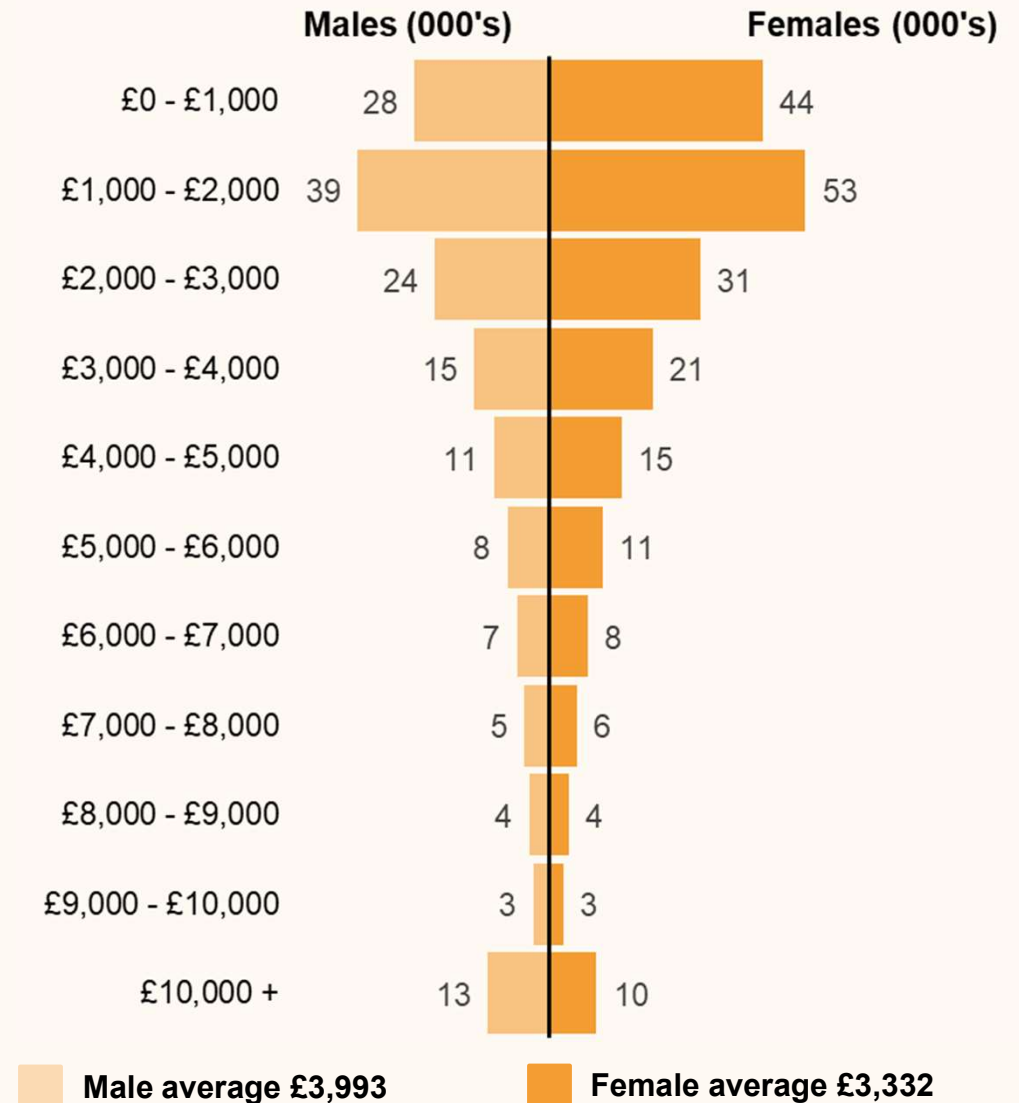
# Deferreds data

As at 31 March 2020

## Summary statistics



## Deferred pension distribution



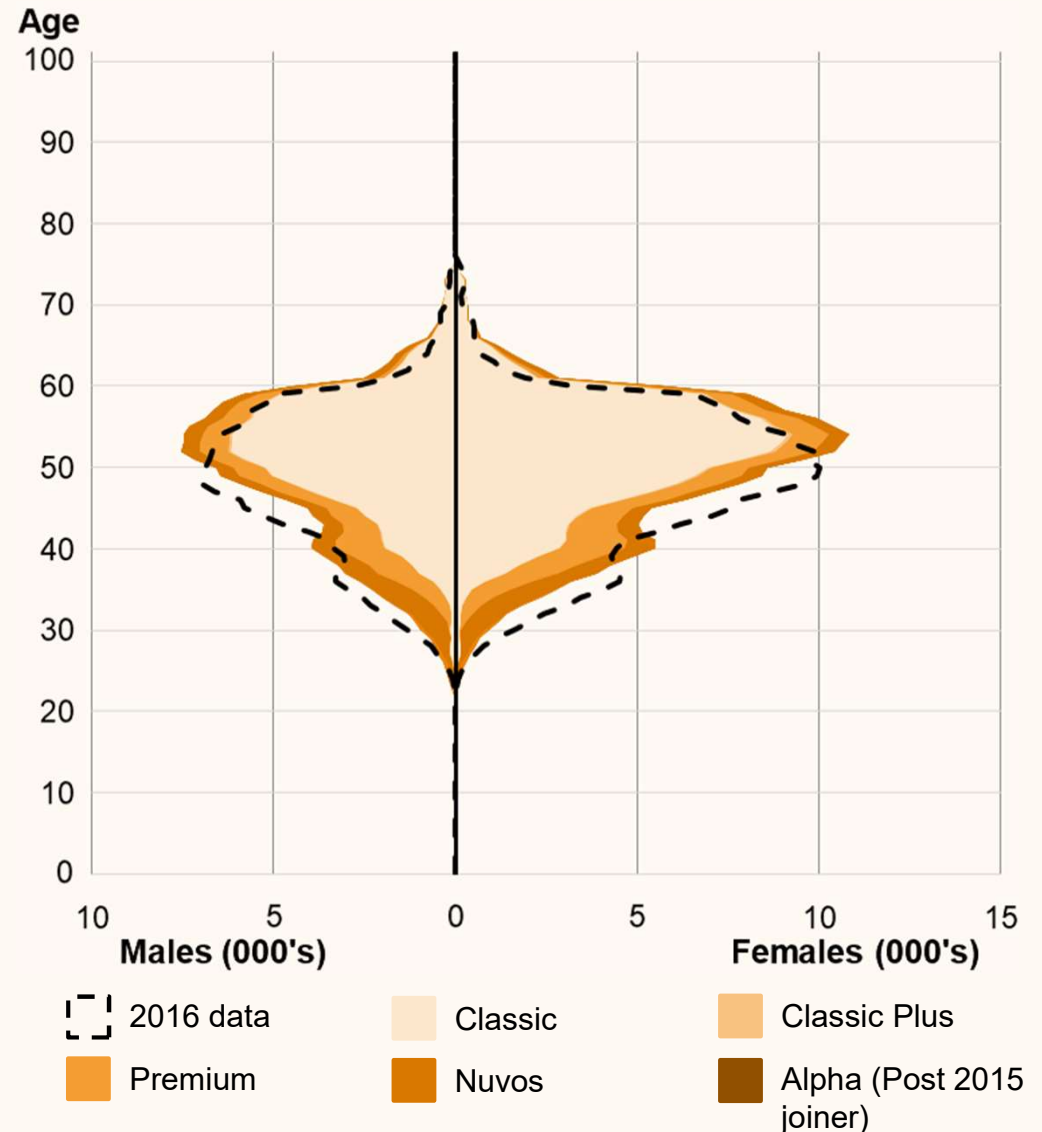
Pension amount includes the April 2020 pension increase

# Deferred membership

As at 31 March 2020

- There are more female than male deferreds at most ages.
- The majority of deferred members are in the Classic section of the scheme (shown by the lightest shade).
- Some deferred members over normal pension age have not yet claimed the pension they are entitled to.
- Overall:
- there are more deferred members aged between 50 and 60 at 2020 (outline of the solid coloured section) compared with 2016 (dotted black outline); and
  - fewer members at the youngest ages in 2020 compared with 2016.

**Membership distribution**



## Where can I see more?

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

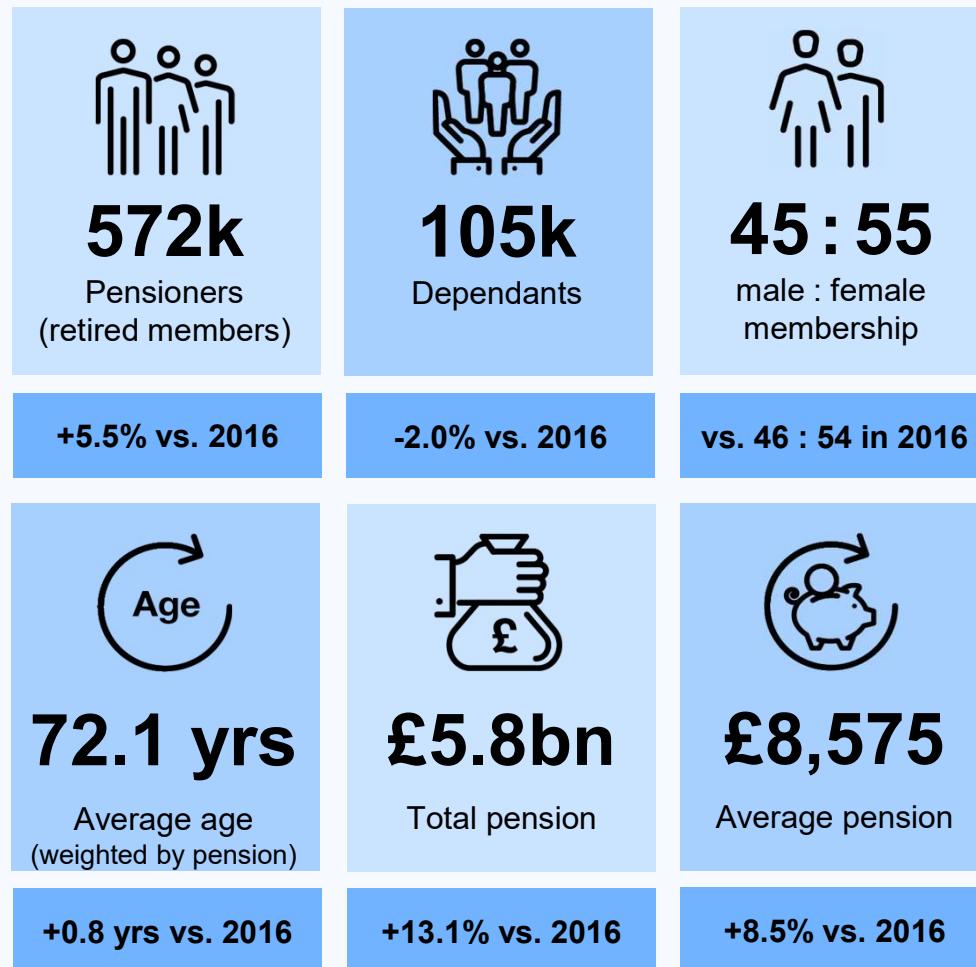
# Pensioners



# Pensioner data

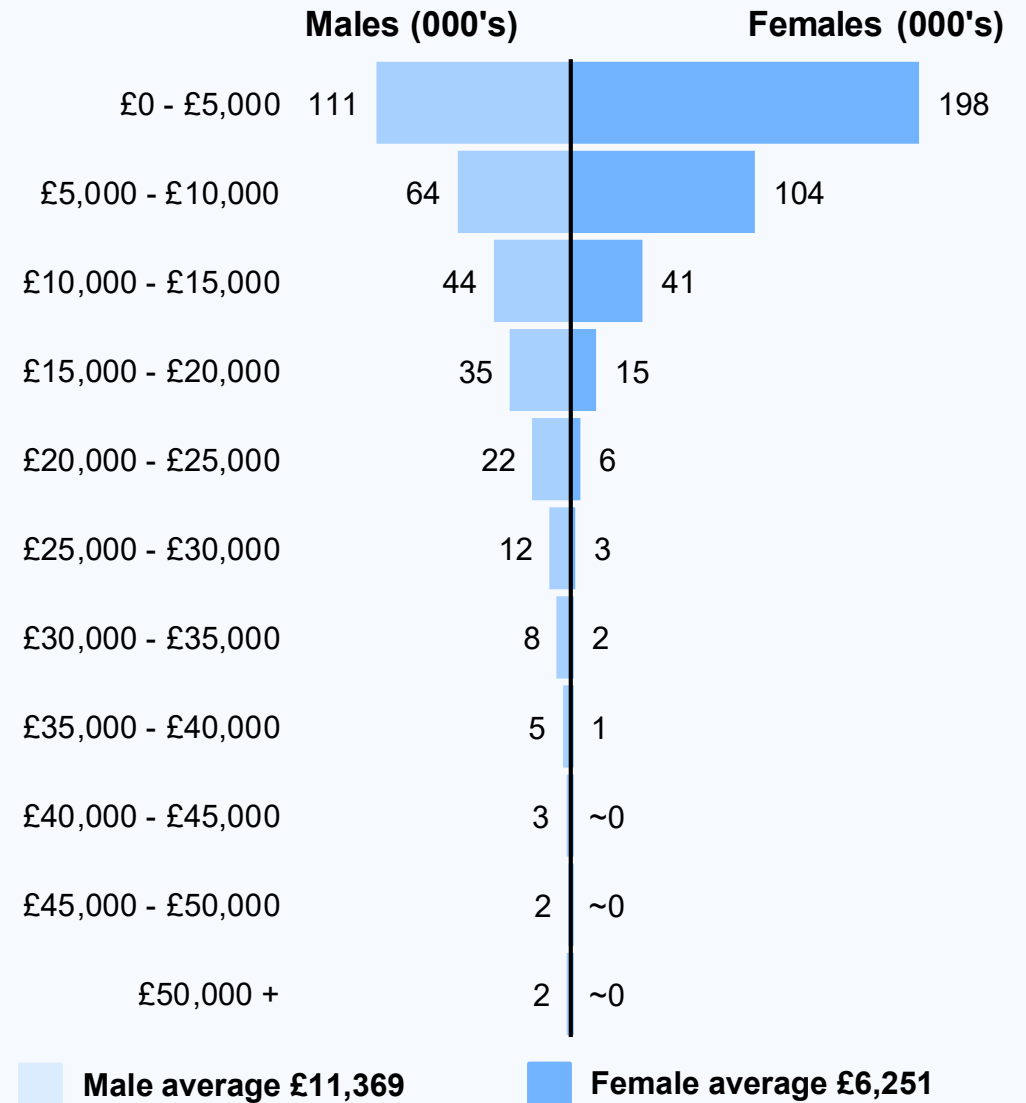
As at 31 March 2020

## Summary statistics



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

## Pensioner data pension distribution



~0 means the figure is too small to report after rounding

# Pensioner membership

As at 31 March 2020

## Membership distribution

There are more female than male pensioners at most ages.

The majority of pensioners are those who retired in normal health (shown by the lightest shade).

There are also members who retired in ill-health (both males and females) and dependants (mostly female).

There are very few male dependants (shown in the darkest shade on the left).



**Where can I see more?**

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



# Appendix B

Detailed summaries: Movements data



# Membership movements 1

31 March 2016 to 31 March 2020

## Actives

The active membership of the scheme has increased since the 2016 valuation driven by the large number of new entrants. The age profile of the new entrants has led to a reduction in the overall average age of the active membership; as shown in the more detailed data summary on page 34.

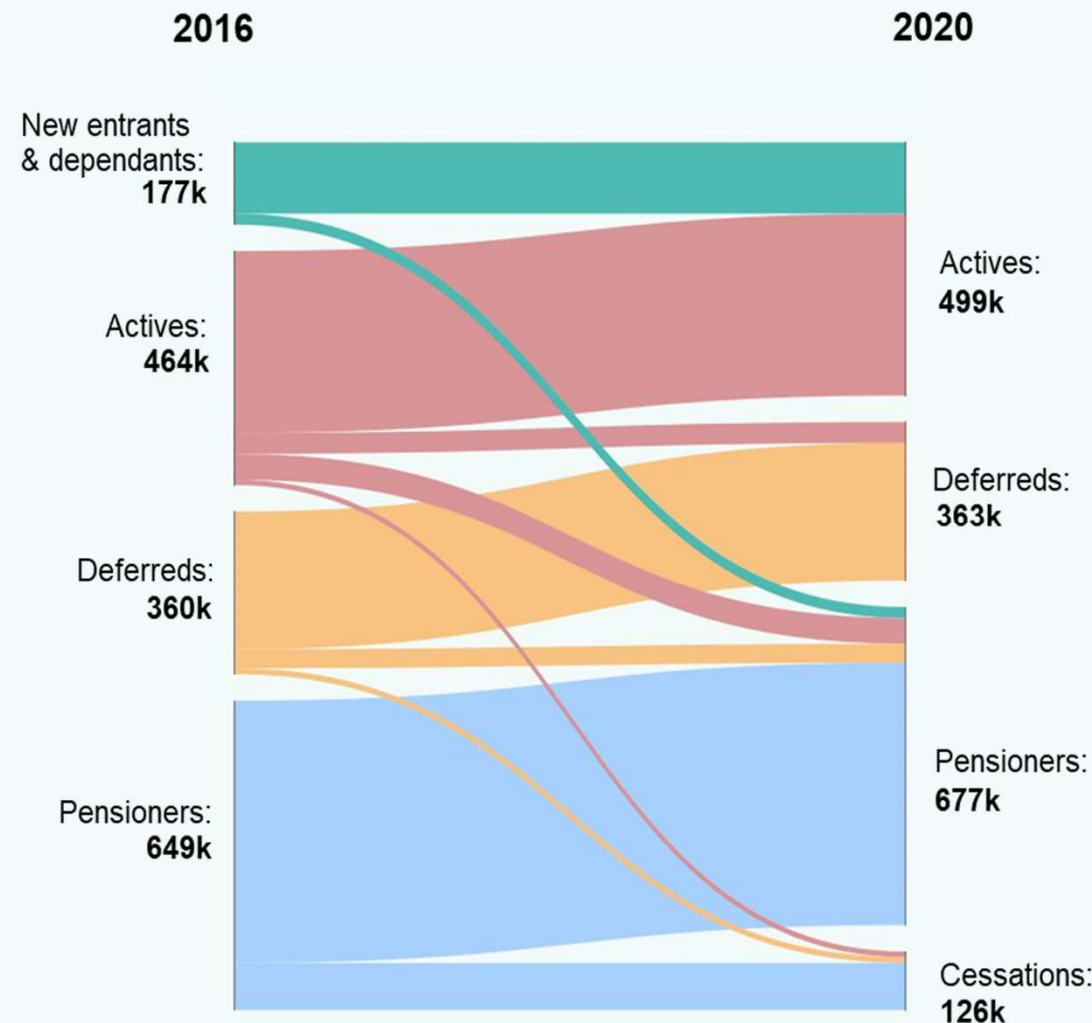
## Deferreds

The number of new deferred members has broadly been offset by the number of members leaving deferred status and so the number of deferred members remains similar at 2020 compared with 2016.

## Pensioners

The pensioner membership of the scheme has grown slightly between the 2016 and 2020 valuations.

There were approximately 15k pensioners who were recorded as suspended but who the scheme identified as a record that had ceased due to death. These records have been treated as ceased pensions.



# Membership movements 2

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: **c6k** members
- Deferreds: **c12k** members
- Pensioners: **c9k** members.

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

	Actives (‘000s)	Deferreds (‘000s)	Pensioners (‘000s)
<b>Number at start of period:</b>	<b>464</b>	<b>360</b>	<b>649</b>
<b>New members:</b>			
New entrants	154	-	-
New dependants	-	-	24
<b>Movements between categories:</b>			
Leavers from active service	-45	45	-
Re-joiners and re-employed	-	-	-
Retirements	-56	-41	97
<b>Cessations with no ongoing liability*:</b>			
Deaths	-2	~0	-97
Other exits	-10	-13	-4
<b>Number expected at end of period:</b>	<b>505</b>	<b>351</b>	<b>668</b>
<b>Valuation data at end of period:</b>	<b>499</b>	<b>363</b>	<b>677</b>
Difference:	-6	12	9

~0 means the figure is too small to report after rounding

# Appendix C

Checks, adjustments and uncertainties



# Checking and adjustment process



## 1. Data received

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

## 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\*

<b>21,916</b>	Suspended pensioners with assumed nil liability (not rated up)
<b>10,843</b>	Member deferred pension outside a reasonable range (rated up)
<b>9,892</b>	Classic or Classic Plus active members with nil 80 <sup>th</sup> service (or more than 45 years) (rated up)

\* 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

<b>16,577</b> Actives excluded <b>3.3%</b> of total records	<b>12,873</b> Deferreds excluded <b>3.5%</b> of total records	<b>31,937</b> Pensioners excluded <b>4.5%</b> of total records
<b>Improvement vs. the 5.9% 2016 exclusion</b>	<b>Improvement vs. the 4.9% 2016 exclusion</b>	<b>Deterioration vs. the 2.7% 2016 exclusion</b>

Overall 3.9% of total records were excluded (improvement compared with the 4.3% excluded in 2016).

## Further information

After finalising our checks and adjustments we will consider potential data improvements. We will engage with scheme managers 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 resource 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 resource 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 CSPS are detailed below.

### Actives:

- For the 2016 valuation, scheme section and protection status fields provided were considered unreliable and adjustments were made where required. After initial investigations on the 2020 data, these adjustments were considered more consistent with service and pension amounts than the unadjusted data and were retained for 2020.
- Five salary bands were assigned based on 2020 amounts from:  
<https://www.civilservicepensionscheme.org.uk/employees/employer-contribution-rates/>

### Deferreds:

- For most (approximately 85%) of the deferred members we relied on the 2016 data and/or the movement data to determine a member's scheme section.

### Pensioners

- We categorised pensioners' scheme section in a consistent way to 2016 using the scheme codes provided.
- Where it wasn't clear what type of member was recorded (eg whether a child, normal health or ill-health pensioner etc) we made an assumption driven by a record's age at the valuation date and when the pension commenced.

## 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 the necessary adjustments detailed in this report, we conclude that the data is appropriate for the purpose of the 2020 CSPA valuation.

# Appendix D

Tables of summary statistics



# Summary statistics – introduction

## Categorisation

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

- Members who have legacy benefits only as at 31 March 2020 will be categorised under their respective legacy section.
- 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 section.
- Members who have reformed benefits only as at 31 March 2020 will be categorised under the reformed section.

Note that all active members accrue benefits in Alpha from 1 April 2022.

## Interpretation

This 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.

## Example table

Section	Males	Females	Total
<b>Legacy section 1</b>	<b>100</b> +10	<b>100</b> +10	<b>200</b> +20
<b>Legacy section 2</b>	<b>100</b> +10	<b>100</b> +10	<b>200</b> +20
<b>Reformed section</b>	<b>100</b> +10	<b>100</b> +10	<b>200</b> +20
<b>All sections</b>	<b>300</b> +30	<b>300</b> +30	<b>600</b> +60

# Summary statistics – actives 1

As at 31 March 2020

## Number of members (000's)

Section	Males	Females	Total
<b>Classic</b>	<b>76</b>	<b>100</b>	<b>176</b>
	-23	-24	-47
<b>Classic Plus</b>	<b>3</b>	<b>4</b>	<b>7</b>
	-1	-1	-2
<b>Premium</b>	<b>39</b>	<b>44</b>	<b>83</b>
	-10	-10	-21
<b>Nuvos</b>	<b>39</b>	<b>40</b>	<b>79</b>
	-12	-10	-22
<b>Alpha (Post 2015 joiner)</b>	<b>77</b>	<b>79</b>	<b>155</b>
	+62	+64	+126
<b>All sections</b>	<b>233</b>	<b>266</b>	<b>499</b>
	+16	+19	+35

## Average age\* (years)

Section	Males	Females	Total
<b>Classic</b>	<b>52.7</b>	<b>52.0</b>	<b>52.3</b>
	+1.8	+2.2	+2.0
<b>Classic Plus</b>	<b>52.9</b>	<b>51.6</b>	<b>52.2</b>
	+2.3	+2.6	+2.4
<b>Premium</b>	<b>48.1</b>	<b>46.9</b>	<b>47.5</b>
	+2.0	+2.7	+2.3
<b>Nuvos</b>	<b>42.5</b>	<b>40.9</b>	<b>41.7</b>
	+2.5	+3.2	+2.8
<b>Alpha (Post 2015 joiner)</b>	<b>37.3</b>	<b>35.7</b>	<b>36.6</b>
	+1.3	+1.5	+1.4
<b>All sections</b>	<b>45.6</b>	<b>44.5</b>	<b>45.1</b>
	-0.9	-0.6	-0.8

\* weighted by actual pay

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.

# Summary statistics – actives 2

As at 31 March 2020

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

Section	Males	Females	Total
Classic	2,858 -14.4%	3,183 -9.2%	6,041 -11.7%
Classic Plus	131 -15.4%	133 -12.8%	264 -14.2%
Premium	1,455 -9.7%	1,485 -6.3%	2,940 -8.0%
Nuvos	1,446 -6.3%	1,422 -1.0%	2,868 -3.7%
Alpha (Post 2015 joiner)	2,403 +508.3%	2,373 +564.3%	4,776 +534.9%
<b>All sections</b>	<b>8,293</b> +17.8%	<b>8,596</b> +22.2%	<b>16,889</b> +20.0%

## Total actual pay (£m pa)

Section	Males	Females	Total
Classic	2,731 -15.4%	2,796 -9.7%	5,526 -12.6%
Classic Plus	129 -15.4%	123 -11.3%	252 -13.5%
Premium	1,420 -10.2%	1,325 -7.1%	2,745 -8.7%
Nuvos	1,421 -6.4%	1,314 -2.5%	2,735 -4.6%
Alpha (Post 2015 joiner)	2,373 +508.2%	2,268 +561.2%	4,642 +533.0%
<b>All sections</b>	<b>8,074</b> +17.5%	<b>7,826</b> +23.2%	<b>15,900</b> +20.3%

# Summary statistics – actives 3

As at 31 March 2020

## Average full-time equivalent pay (£ pa)

Section	Males	Females	Total
Classic	37,479 +11.1%	31,988 +12.6%	34,370 +11.6%
Classic Plus	41,609 +10.1%	37,036 +13.4%	39,171 +11.7%
Premium	37,693 +14.7%	33,638 +15.7%	35,529 +15.1%
Nuvos	37,496 +22.1%	35,388 +24.1%	36,421 +23.0%
Alpha (Post 2015 joiner)	31,387 +16.6%	30,205 +19.1%	30,788 +17.7%
All sections	35,572 +9.6%	32,317 +13.4%	33,837 +11.5%

## Average actual pay (£ pa)

Section	Males	Females	Total
Classic	35,811 +9.7%	28,096 +12.0%	31,443 +10.5%
Classic Plus	41,055 +10.2%	34,064 +15.4%	37,328 +12.6%
Premium	36,786 +14.0%	30,015 +14.8%	33,174 +14.2%
Nuvos	36,842 +21.9%	32,701 +22.1%	34,729 +21.9%
Alpha (Post 2015 joiner)	30,997 +16.5%	28,870 +18.5%	29,920 +17.3%
All sections	34,633 +9.4%	29,420 +14.4%	31,855 +11.8%



# Summary statistics – actives 4

As at 31 March 2020

## Average reckonable service (years)\*

Section	Males	Females	Total
<b>Classic</b>	<b>21.6</b> -0.9	<b>18.6</b> -0.9	<b>19.9</b> -1.0
<b>Classic Plus</b>	<b>23.3</b> +0.5	<b>20.6</b> +0.6	<b>21.8</b> +0.6
<b>Premium</b>	<b>12.5</b> +0.5	<b>10.9</b> +0.4	<b>11.6</b> +0.5
<b>Nuvos</b>	- -	- -	- -
<b>Alpha (Post 2015 joiner)</b>	- -	- -	- -
<b>All sections</b>	<b>18.6</b> -0.5	<b>16.4</b> -0.5	<b>17.4</b> -0.5

\*Unweighted (shown for final salary sections only)

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

Section	Males	Females	Total
<b>Classic</b>	<b>197.9</b> +462%	<b>208.1</b> +466%	<b>406.0</b> +464%
<b>Classic Plus</b>	<b>9.5</b> +427%	<b>9.9</b> +422%	<b>19.4</b> +424%
<b>Premium</b>	<b>119.6</b> +400%	<b>114.4</b> +394%	<b>234.0</b> +397%
<b>Nuvos</b>	<b>139.0</b> +336%	<b>129.0</b> +347%	<b>267.9</b> +341%
<b>Alpha (Post 2015 joiner)</b>	<b>118.8</b> +>1000%	<b>108.0</b> +>1000%	<b>226.8</b> +>1000%
<b>All sections</b>	<b>584.7</b> +498%	<b>569.4</b> +498%	<b>1,154.1</b> +498%

Pension amount does not include the April 2020 pension revaluation  
The total Nuvos CARE pension is £205.4m pa.

# Summary statistics – deferreds 1

As at 31 March 2020

## Number of members (000's)

Section	Males	Females	Total
<b>Classic</b>	<b>107</b>	<b>146</b>	<b>253</b>
	-10	-14	-25
<b>Classic Plus</b>	<b>1</b>	<b>2</b>	<b>3</b>
	-0	-0	-0
<b>Premium</b>	<b>26</b>	<b>33</b>	<b>59</b>
	+4	+5	+8
<b>Nuvos</b>	<b>22</b>	<b>24</b>	<b>46</b>
	+8	+8	+16
<b>Alpha (Post 2015 joiner)</b>	<b>2</b>	<b>1</b>	<b>3</b>
	+2	+1	+3
<b>All sections</b>	<b>157</b>	<b>206</b>	<b>363</b>
	+3	-0	+3

## Average age\* (years)

Section	Males	Females	Total
<b>Classic</b>	<b>53.2</b>	<b>52.6</b>	<b>52.9</b>
	+1.5	+1.8	+1.7
<b>Classic Plus</b>	<b>53.4</b>	<b>52.3</b>	<b>52.8</b>
	+3.1	+3.5	+3.3
<b>Premium</b>	<b>47.9</b>	<b>47.4</b>	<b>47.6</b>
	+2.2	+2.5	+2.4
<b>Nuvos</b>	<b>45.0</b>	<b>44.8</b>	<b>44.9</b>
	+0.7	+1.1	+0.9
<b>Alpha (Post 2015 joiner)</b>	<b>37.3</b>	<b>35.4</b>	<b>36.4</b>
	-	-	-
<b>All sections</b>	<b>51.0</b>	<b>50.8</b>	<b>50.9</b>
	+0.9	+1.3	+1.1

\* weighted by pension

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.

# Summary statistics – deferreds 2

As at 31 March 2020

## Total deferred pension (£m pa)

Section	Males	Females	Total
<b>Classic</b>	<b>411</b> -1.7%	<b>471</b> +0.5%	<b>882</b> -0.5%
<b>Classic Plus</b>	<b>10</b> -3.2%	<b>13</b> +1.8%	<b>23</b> -0.4%
<b>Premium</b>	<b>124</b> +45.2%	<b>128</b> +42.9%	<b>251</b> +44.0%
<b>Nuvos</b>	<b>80</b> +85.2%	<b>72</b> +78.2%	<b>152</b> +81.8%
<b>Alpha (Post 2015 joiner)</b>	<b>3</b> -	<b>2</b> -	<b>5</b> -
<b>All sections</b>	<b>627</b> +12.7%	<b>686</b> +12.2%	<b>1,313</b> +12.5%

## Average deferred pension (£ pa)

Section	Males	Females	Total
<b>Classic</b>	<b>3,841</b> +7.8%	<b>3,231</b> +10.3%	<b>3,489</b> +9.1%
<b>Classic Plus</b>	<b>9,418</b> +7.8%	<b>7,069</b> +8.7%	<b>7,910</b> +8.0%
<b>Premium</b>	<b>4,853</b> +23.8%	<b>3,859</b> +22.8%	<b>4,292</b> +23.3%
<b>Nuvos</b>	<b>3,640</b> +17.0%	<b>3,044</b> +16.2%	<b>3,331</b> +16.8%
<b>Alpha (Post 2015 joiner)</b>	<b>1,759</b> -	<b>1,530</b> -	<b>1,649</b> -
<b>All sections</b>	<b>3,993</b> +10.5%	<b>3,332</b> +12.3%	<b>3,618</b> +11.5%

Pension amount includes the April 2020 pension increase

# Summary statistics – pensioners 1

As at 31 March 2020

## Number of members (000's)

Type	Males	Females	Total
<b>Normal Health</b>	<b>271</b> +17	<b>261</b> +32	<b>532</b> +49
<b>Ill Health</b>	<b>21</b> -9	<b>19</b> -10	<b>40</b> -19
<b>Dependant</b>	<b>15</b> +3	<b>90</b> -5	<b>105</b> -2
<b>All sections</b>	<b>307</b> +10	<b>369</b> +17	<b>677</b> +28

## Average age\* (years)

Type	Males	Females	Total
<b>Normal Health</b>	<b>72.7</b> +1.2	<b>70.2</b> +0.8	<b>71.8</b> +1.0
<b>Ill Health</b>	<b>67.3</b> -1.3	<b>65.2</b> -2.4	<b>66.5</b> -1.7
<b>Dependant</b>	<b>63.8</b> -1.3	<b>79.7</b> +0.2	<b>78.5</b> -0.2
<b>All sections</b>	<b>72.2</b> +1.1	<b>71.9</b> +0.3	<b>72.1</b> +0.8

\* weighted by pension

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.

# Summary statistics – pensioners 2

As at 31 March 2020

## Total pension (£m pa)

Type	Males	Females	Total
Normal Health	<b>3,229</b> +12.8%	<b>1,702</b> +27.2%	<b>4,932</b> +17.4%
Ill Health	<b>228</b> -19.5%	<b>139</b> -19.8%	<b>367</b> -19.6%
Dependant	<b>38</b> +48.2%	<b>469</b> +4.8%	<b>506</b> +7.1%
<b>All sections</b>	<b>3,495</b> +10.2%	<b>2,310</b> +17.9%	<b>5,805</b> +13.1%

## Average pension (£ pa)

Type	Males	Females	Total
Normal Health	<b>11,916</b> +5.9%	<b>6,526</b> +11.6%	<b>9,273</b> +6.7%
Ill Health	<b>10,814</b> +16.3%	<b>7,391</b> +20.8%	<b>9,199</b> +18.5%
Dependant	<b>2,454</b> +18.8%	<b>5,214</b> +10.8%	<b>4,812</b> +9.3%
<b>All sections</b>	<b>11,369</b> +6.5%	<b>6,251</b> +12.4%	<b>8,575</b> +8.5%

Pension amount includes the April 2020 pension increase

# Appendix E

## Glossary



# Glossary 1

<b>Actuarial liability</b>	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.
<b>CARE</b>	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 Nuvos and 2015 sections of the CSPS.
<b>Cost cap cost</b>	<p>A way of measuring the cost of benefits being provided from the 2015 section of the scheme, which is then compared to a 'target cost'. The CSPS target cost is set at 18.5% 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 section (e.g., to the benefits provided) to bring the cost cap cost back to the target cost.</p>
<b>Directions</b>	<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 since then.</p>
<b>Employer contribution rates</b>	<p>The percentage of scheme members' salaries which employers are required to pay in order to:</p> <ul style="list-style-type: none"> <li>• meet the costs of benefits currently being built up by active members</li> <li>• make good any shortfall in the notional amounts set aside to cover benefits already built up.</li> </ul> <p>The result is heavily dependent on assumptions about future financial conditions and membership changes.</p>
<b>McCloud</b>	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 reformed and legacy sections of the scheme.

# Glossary 2

<p><b>Normal pension age</b></p>	<p>The age at which a member in normal health is entitled to unreduced benefits. This age varies in different scheme sections eg:</p> <ul style="list-style-type: none"> <li>• Age 60 for the legacy scheme benefits (Classic, Classic Plus and Premium)</li> <li>• Age 65 for the legacy scheme benefits (Nuvos)</li> <li>• State Pension Age (SPA) (ie currently ages 65 to 68 depending on date of birth) for the reformed scheme benefits (Alpha).</li> </ul>
<p><b>Pension increase</b></p>	<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>
<p><b>Pension revaluation</b></p>	<p>The rate at which the CARE pension is revalued each year a member is an active member.</p>
<p><b>Professional actuarial requirements</b></p>	<p>The professional requirements that we have complied with when completing this actuarial valuation include:</p> <ol style="list-style-type: none"> <li>1. Technical Actuarial Standards: TAS 100 and TAS 300, issued by the Financial Reporting Council (FRC)</li> <li>2. The Actuaries' Code, issued by the Institute and Faculty of Actuaries (IFoA)</li> <li>3. The Civil Service Code.</li> </ol> <p>GAD is also accredited under the IFoA's Quality Assurance Scheme. More details can be found in our terms of reference.</p>



# Glossary 3

<b>Rate up</b>	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.
<b>Reformed and legacy sections</b>	The reformed section of the scheme is the section 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 section in this report). All non-reformed sections are known as legacy sections. This terminology is used in the McCloud judgment.
<b>Section</b>	The membership data in Appendix D is categorised by section. Members who have legacy and reformed benefits, or legacy only benefits, will be categorised under the legacy section. Members who have reformed benefits only will be categorised under the reformed section.