Government Actuary's Department

Police Pension Schemes (Northern Ireland) (PPS NI)

Membership data

Actuarial valuation as at 31 March 2020

Robert Fornear FIA and Rachael Henry FFA

30 October 2023

Highlights

PPS NI valuation data

This report details the membership data for the members of the 1988 Scheme, 2006 Scheme and 2015 Scheme, referred to collectively as PPS NI.

21.2k

Members as at
31 March 2020

+ 5.0% vs. 2016

Key headlines

Overall, the quality of the PPS NI valuation data as at 31 March 2020 is high however it has slightly deteriorated 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 the valuation. This proportion has decreased since the last valuation.

Initial data quality

98.7%

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

Slight deterioration vs. 99.2% in 2016

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 NI 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 the Department of Justice (Northern Ireland). Public Service Pensions (Valuations and Employer Cost Cap) Directions (Northern Ireland) 2014 (as amended) ('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 NI 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 PPS NI annual Resource Accounts.

2. Data as at 31 March 2020

Who provided the data?

This data was wholly provided by the administrators, Police Service of Northern Ireland ('PSNI').

What is the data used for?

It will be used to calculate the results of the 2020 PPS NI 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**.

6.7k	1.3k	13.2k
Active members	Deferred members	Pensioner members
+ 0.2% vs. 2016	+ 0.5% vs. 2016	+ 8.0% vs. 2016

73 : 27	£253.6m	£240.8m
male : female membership	Total actual pay	Total pension*
vs. 75 : 25 in 2016	+ 2.5% vs. 2016	+ 19.3% vs. 2016

Pension amounts includes the April 2020 pension increase
*Includes the accrued pension increase for Normal health members of the 1988 Scheme aged under 55

3. Movements data

Where did the data come from?

This data was wholly provided by the administrators, Police Service of Northern Ireland ('PSNI').

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

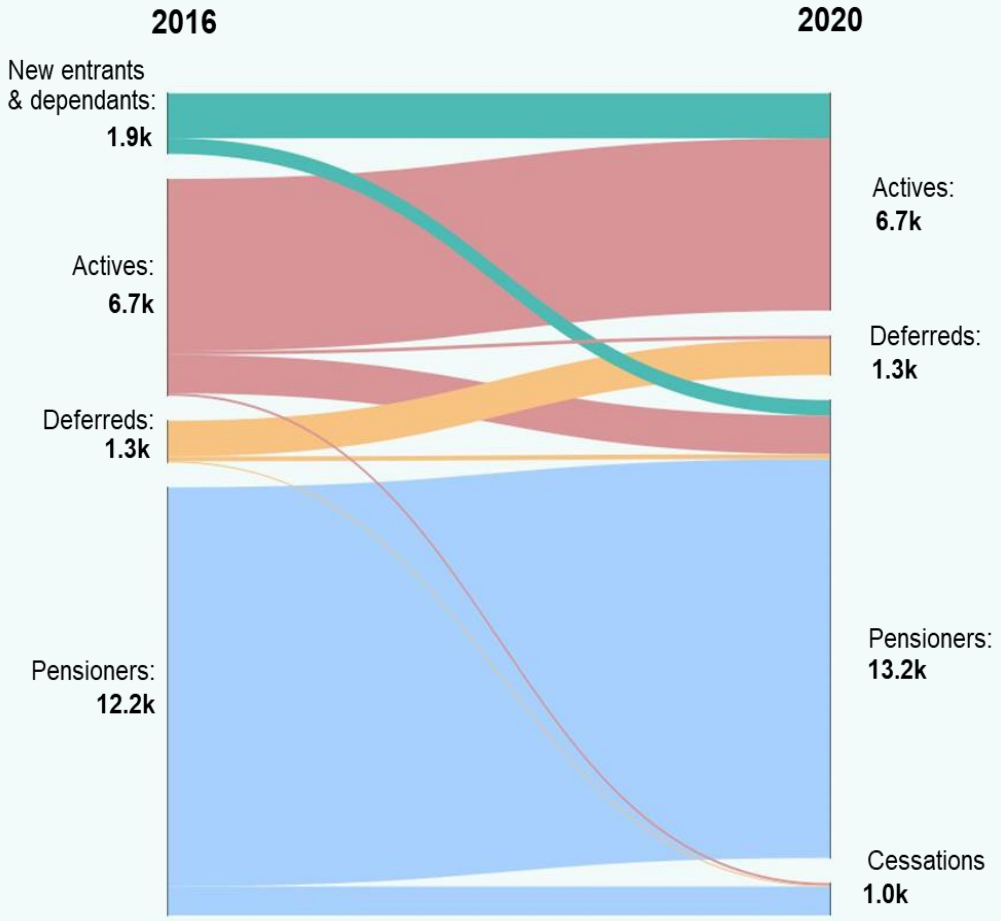
This movements data is used to perform a reconciliation which compares data as at 31 March 2016 and 31 March 2020 against movements occurring between this period to check that membership figures are in agreement.

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.

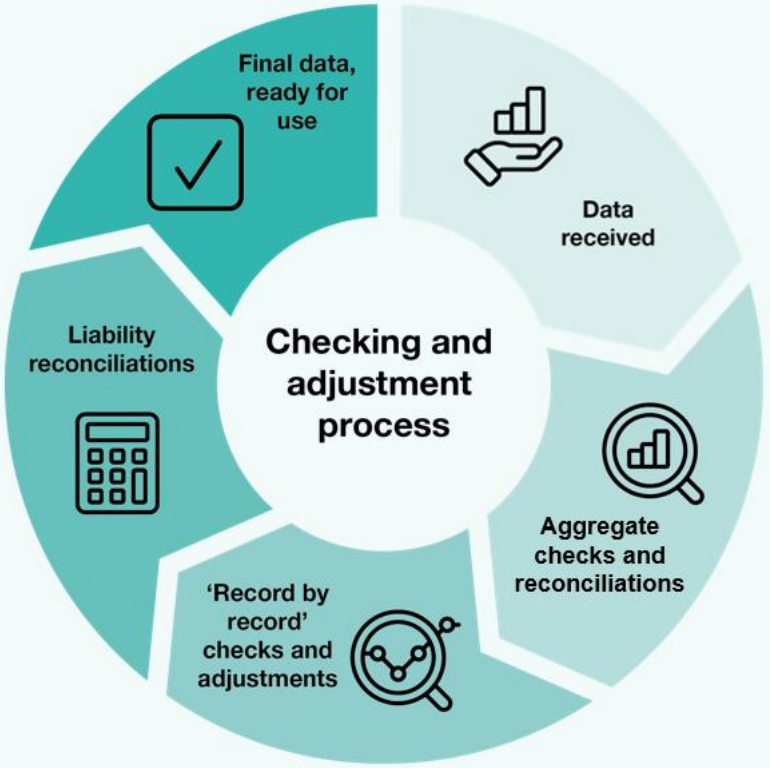
What happens to unreliable data?

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?

The Department for Justice (Northern Ireland) is responsible for ensuring appropriate data is provided in order to support the legislative requirement to perform a valuation.

It is the Department of Justice (Northern Ireland)'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.

In terms of the proportion of the records we are able to use, 98.7% is a slight deterioration on the 99.2% used for the 2016 valuation.

More detail on this slight deterioration is described on page 25.

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

98.7%
Proportion of 'at 31 March 2020' records provided which we are able to use

Slight deterioration vs. 99.2% in 2016

Actives	Deferreds	Pensioners
99.1%	**96.8%**	**98.7%**
Deterioration vs. 99.7% in 2016	**Deterioration vs. 99.9% in 2016**	**Deterioration vs. 98.9% 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 NI 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 PSNI 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.

Directions

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

Sharing

This report has been prepared for the use of the Department of Justice (Northern Ireland).

We are content for the Department of Justice (Northern Ireland) 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 Department of Justice (Northern Ireland) 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

21.2k
Scheme members

+ 5.0% vs. 2016

73 : 27
male : female membership

vs. 75 : 25 in 2016

£253.6m
Total actual pay

+ 2.5% vs. 2016

£12.5m
Deferred pension

+ 6.4% vs. 2016

£240.8m
Total pension*

+ 19.3% vs. 2016

Pension amounts includes the April 2020 pension increase
*Includes the accrued pension increase for Normal health members of the 1988 scheme aged under 55

Membership over time

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/dependents begin increasing from around age 50 and peak between ages 55 and 60 as expected.

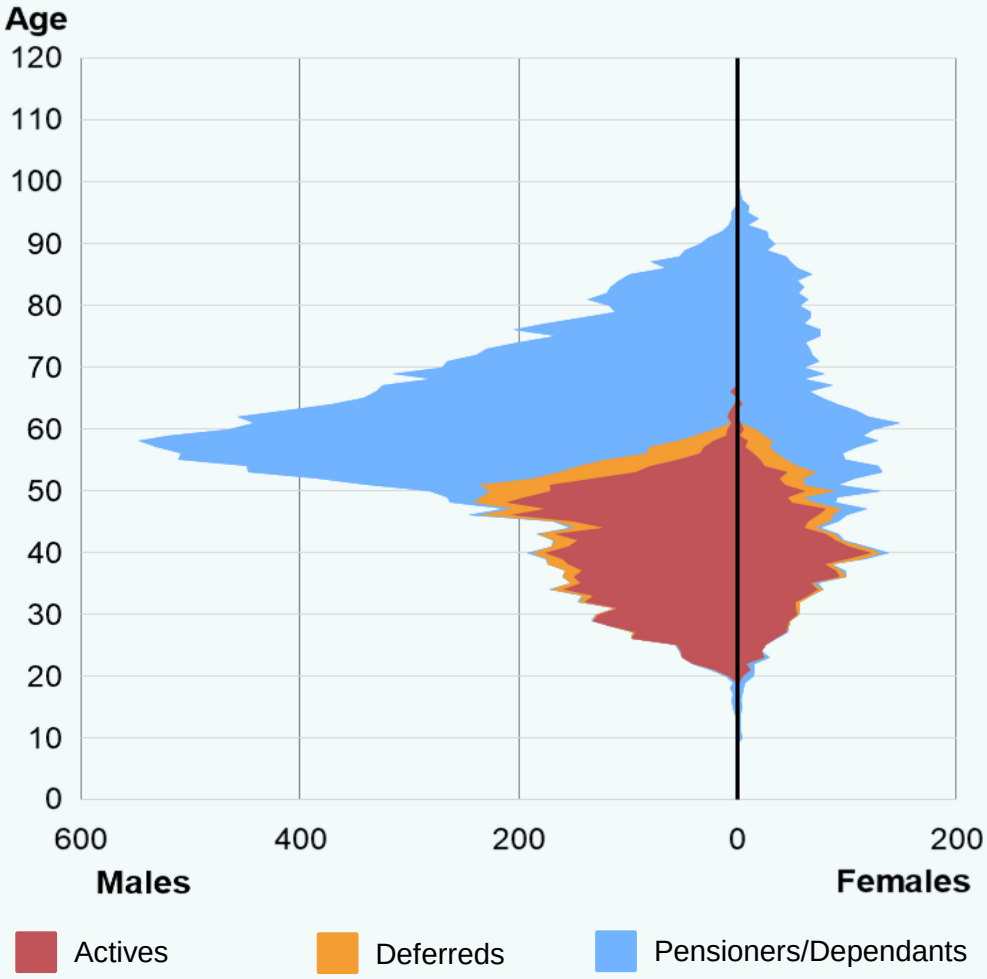
This corresponds with declining numbers of active members and deferred members over this age range.

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

6.7k
Active members
+ 0.2% vs. 2016

69 : 31
male : female membership
vs. 71 : 29 in 2016

£253.6m
Total actual pay
+ 2.5% vs. 2016

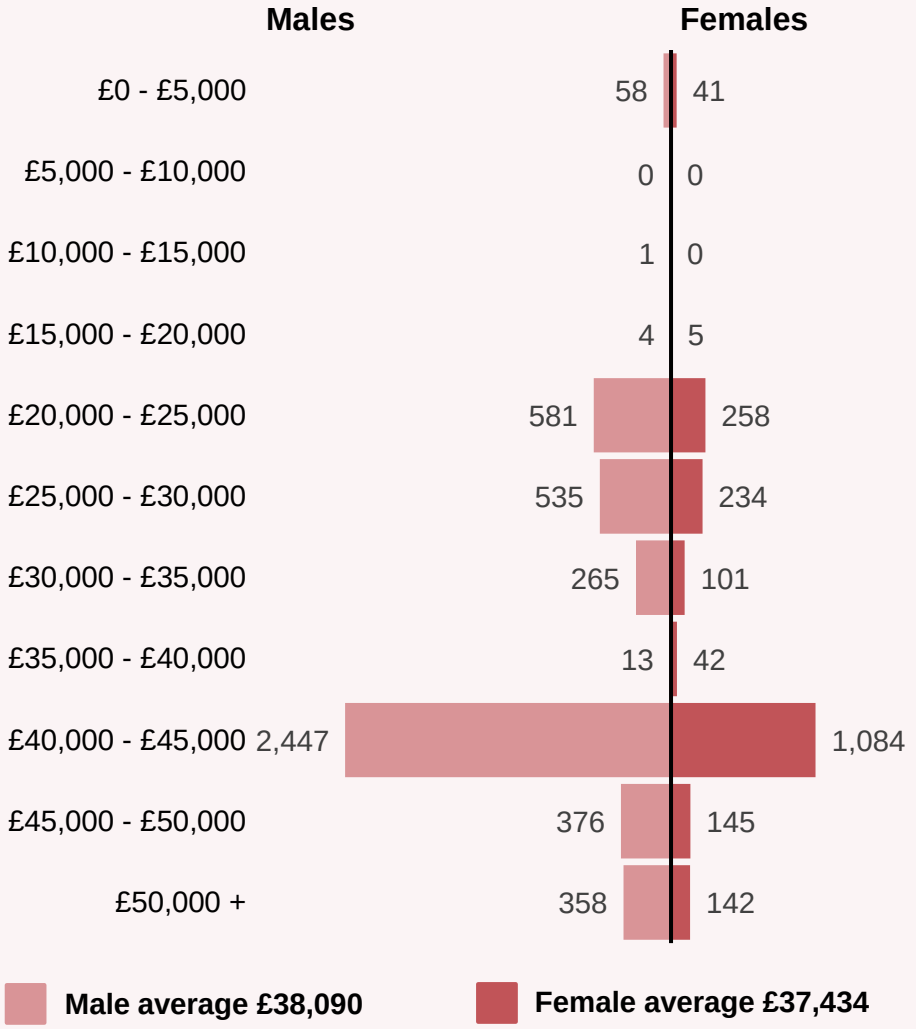
41.5yrs
Average age (weighted by actual pay)
-0.3 yrs vs. 2016

£37,889
Average actual pay
+ 2.3% vs. 2016

£2,709*
Average post-reform CARE pension
+ 368.7% vs. 2016

*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 significantly more male than female members across all ages.

In general, as you move from younger to older ages:

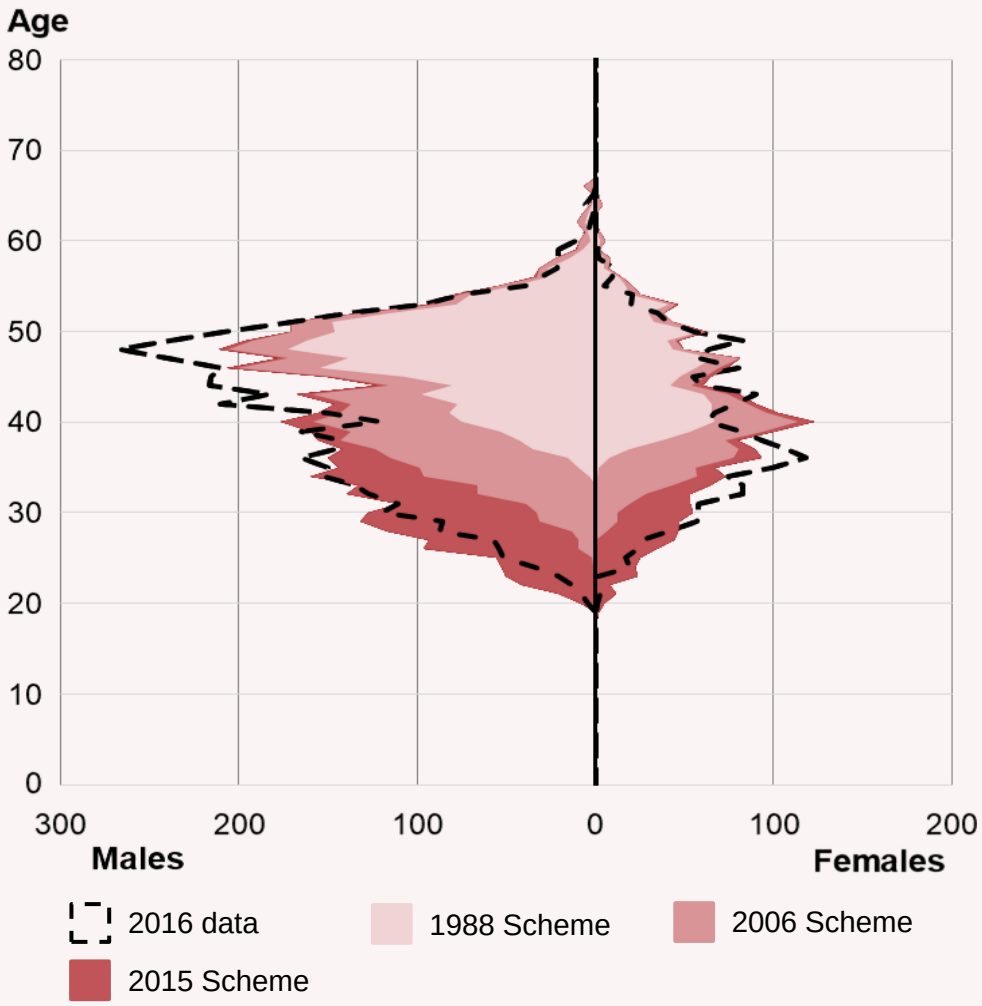
- The vast majority of younger members are in the 2015 Scheme.
- Below age 30, there are more members in 2020 compared with 2016 (as can be seen by the darkest shade of red outside of the dotted line at the bottom of the chart);
- There are fewer active members around ages 40-50 and at 2020 compared with 2016.
- As the membership ages, the proportion of members with legacy 1988 Scheme and 2006 Scheme increases (as shown by the two lightest shades).
- There are a similar number of members from aged 50 onwards at 2020 compared with 2016.

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

Where can I see more?

Appendix D – Tables of summary statistics

Membership distribution



Deferreds

Deferreds data

As at 31 March 2020

Summary statistics

1.3k
Deferred members
+ 0.5% vs. 2016

67 : 33
male : female membership
vs. 72 : 28 in 2016

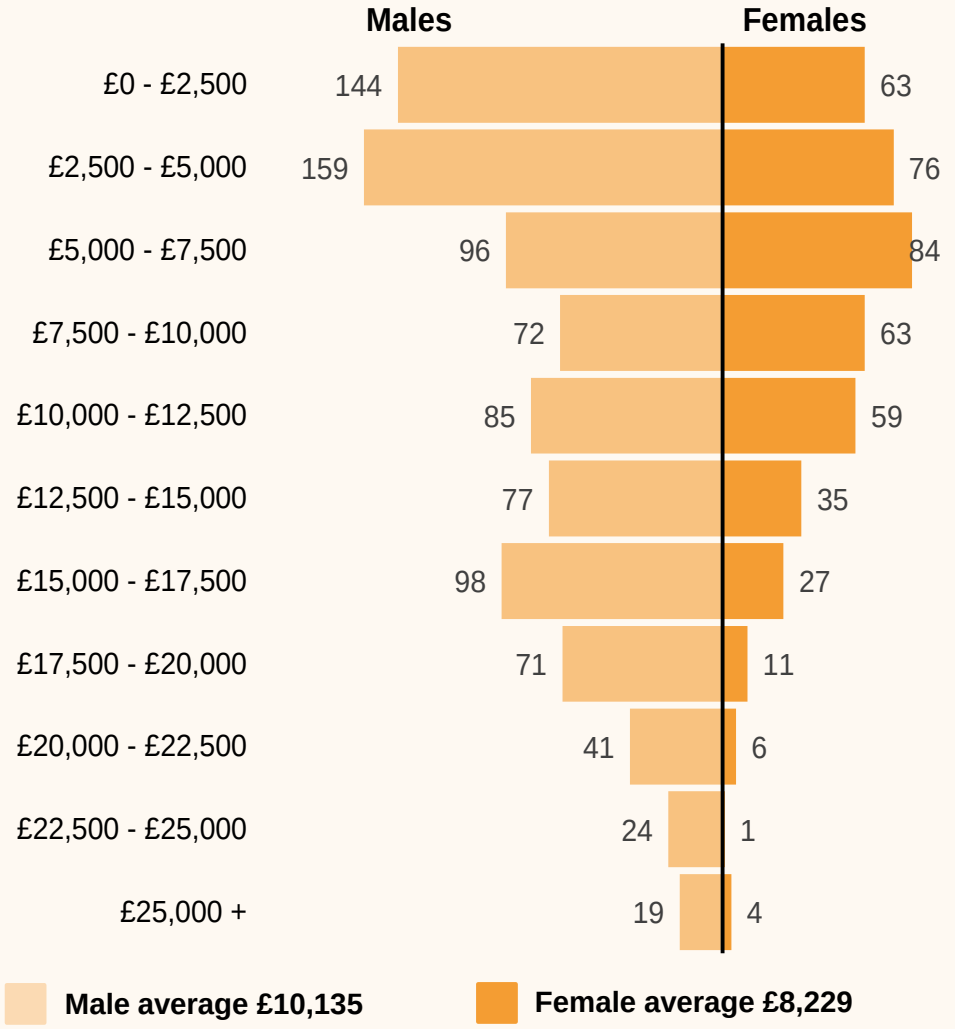
£12.5m
Total deferred pension*
+ 6.4% vs. 2016

51.8 yrs
Average age (weighted by pension)
+2.4 yrs vs. 2016

£9,513
Average pension
+ 5.9% vs. 2016

Pension amount includes the April 2020 pension increase

Deferred pension distribution



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 all ages, with the majority of members having legacy 1988 Scheme (shown by the lightest shade).

There are less deferred members in 2020 compared to 2016 until around age 50 as can be seen by the dotted line inside the shades of orange.

Overall, compared with 2016 (shown by the dotted black line) the deferred population has aged.

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

Where can I see more?

Appendix D – Tables of summary statistics

Membership distribution

Pensioners

Pensioner data

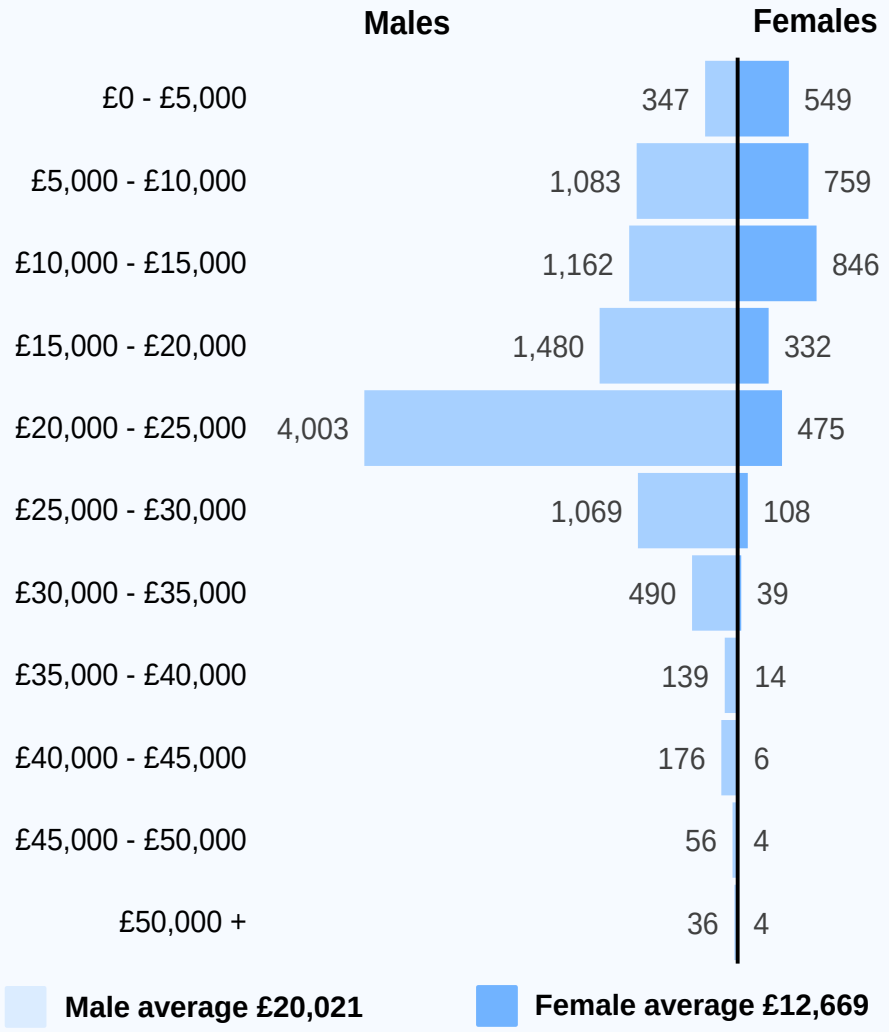
As at 31 March 2020

Summary statistics

11.1k Pensioners (retired members)	**2.1k** Dependants	**76 : 24** male : female membership
+ 7.7% vs. 2016	**+ 9.7% vs. 2016**	**vs. 78 : 22 in 2016**
65.0 yrs Average age (weighted by pension)	**£240.8m** Total pension*	**£18,272** Average pension
+2.2 yrs vs. 2016	**+ 19.3% vs. 2016**	**+ 10.5% vs. 2016**

Pension amounts includes the April 2020 pension increase
*Includes the accrued pension increase for Normal health members of the 1988 Scheme aged under 55

Pensioner data pension distribution



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 smaller groups of male members who retired in ill-health and female dependants.

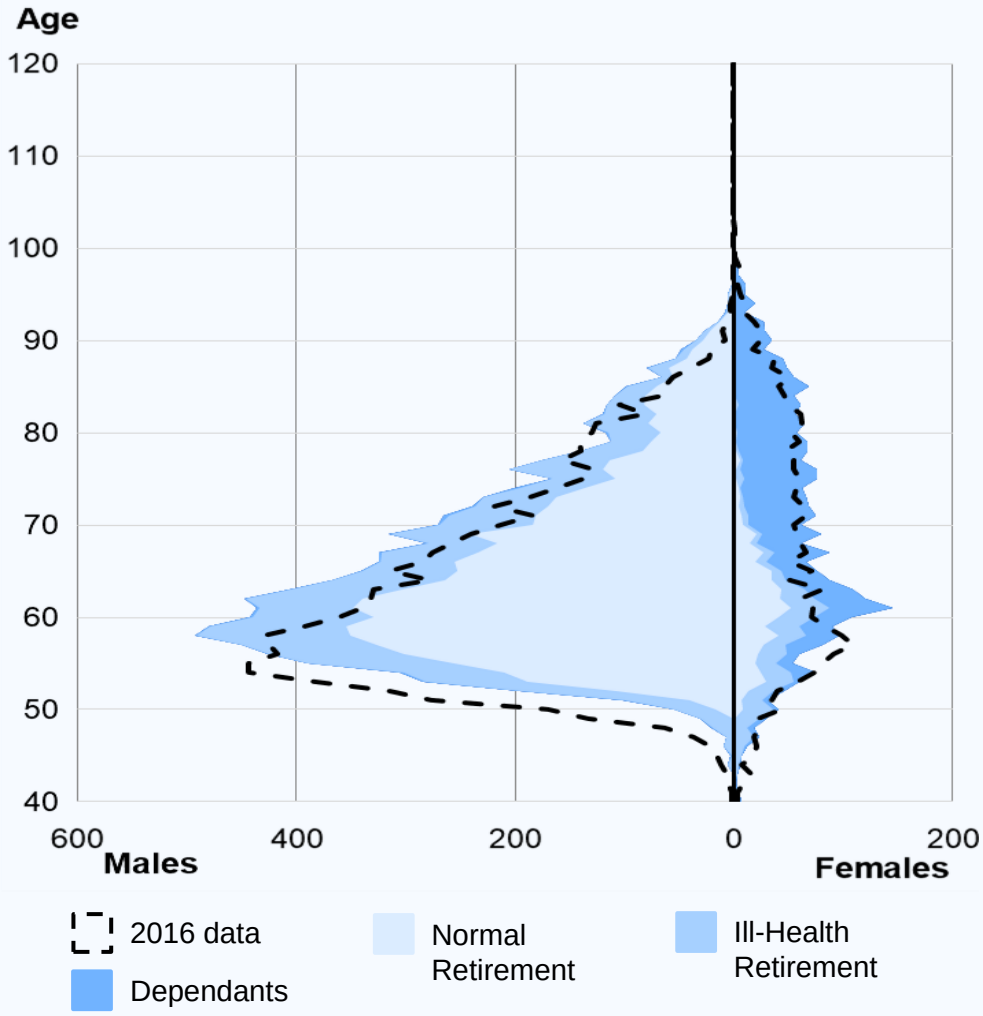
There are very few male dependants (shown in the darkest shade on the left).

Overall, compared with 2016 (shown by the dotted black line) the pensioner population in general has aged.

Where can I see more?

Appendix D – Tables of summary statistics

Membership distribution*



*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

The number of members at 2020 is calculated by taking the original member data provided for the 2020 valuation and adjusting for changes made after the data was provided (see next slide for more information).

The active population has remained stable since 2016.

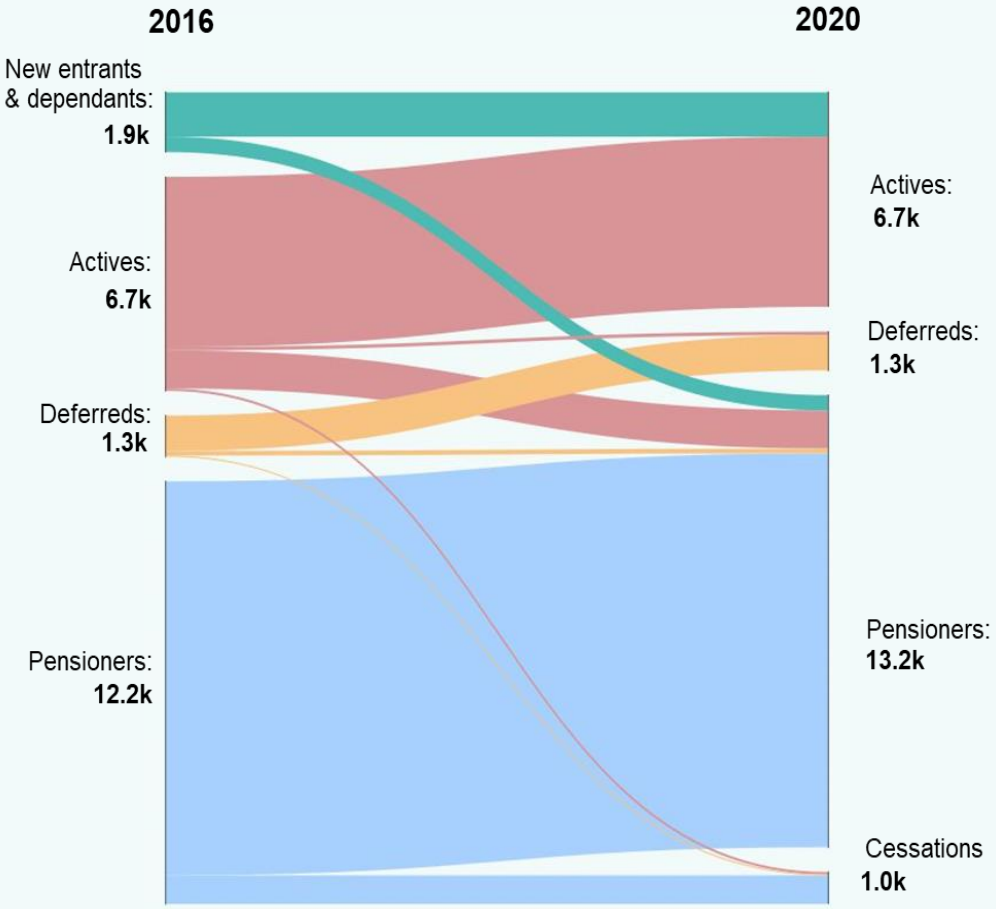
Deferreds

The number of members at 2020 is calculated by taking the original member data provided for the 2020 valuation and adjusting for changes made after the data was provided (see next slide for more information).

As for the active population, the deferred population has remained stable since 2016.

Pensioners

Overall the pensioner population has grown slightly due to the number of retirements exceeding cessation due to death or overwise (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: **0** members
- Deferreds: **-60** members
- Pensioners: **110** members.

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

Figures in intermediate rows are rounded to the nearest 10	**Actives**	**Deferreds**	**Pensioners**
Number at start of period:	**6,680**	**1,310**	**12,200**
New members:			
New entrants	1,390	-	-
New dependants	-	-	480
Movements between categories:			
Leavers from active service*	-110	270	-
Age related retirements*	-900	-150	1,090
Ill-health retirements*	-290	-20	340
Cessations with no ongoing liability:			
Member deaths	-10	-	-540
Dependant deaths	-	-	-280
Other exits	-70	-30	-80
Number expected at end of period:	**6,690**	**1,380**	**13,070**
Valuation data at end of period:	**6,690**	**1,320**	**13,180**
Difference:	0	-60	110

*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' and 'Ill-health retirements'. In addition, there was an apparent omission of ~100 deferred records in 2016 (more details on slide 30) which we have classified as leavers from active service in the deferred column, but the members did not leave the actives population in the inter-valuation period and therefore 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 collated and 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 directly by PSNI.

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. annual 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*

146	Pensioner member pension outside of reasonable range (rate up applied)
44	Duplicate deferred records (no rate up applied)
34	FTE active service outside of reasonable range for member’s scheme (rate up 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

61	**44**	**168**
Actives excluded	Deferreds excluded	Pensioners excluded
0.9%	**3.2%**	**1.3%**
of total records	of total records	of total records
Deterioration vs. the 0.3% 2016 exclusion	**Deterioration vs. the 0.1% 2016 exclusion**	**Deterioration vs. the 1.1% 2016 exclusion**

Overall 1.3% of total records were excluded (which is a slight deterioration compared with the 0.8% excluded in 2016).

Further information

After finalising our checks and adjustments we will consider potential data improvements if appropriate. 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 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 NI are detailed below.

Actives:

- The pro-rated salary was provided for those who joined in the last financial year before the valuation date ie after 31 March 2019. An adjustment was applied to correct this to convert these salaries to annualised salaries.

Deferreds:

- There were about 88 duplicate records (i.e. 6.5% of deferred membership) where the salary and accrued CARE pension values were different and non-zero for both records within each duplicate pair. An adjustment was applied to correct this so these members would not be included twice.
- There were also some members who were not included in the 2016 valuation data when their membership details would suggest that they should have been.

Pensioners:

- The Guaranteed Minimum Pension ('GMP') benefit was double counted in the pension provided to us by PSNI. An adjustment was applied to correct this.

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 ±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 PPS NI 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 scheme.
- 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 scheme.
- 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 scheme 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

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
1988 Scheme	**2,005** - 1,009	**904** - 253	**2,909** - 1,262
2006 Scheme	**1,442** - 70	**667** - 43	**2,110** - 113
2015 Scheme	**1,191** + 989	**482** + 401	**1,673** + 1,390
All schemes	**4,639** - 90	**2,053** + 106	**6,692** + 16

Average age* (years)

Scheme	Males	Females	Total
1988 Scheme	**47.4** + 1.6	**45.6** + 2.5	**46.9** + 1.8
2006 Scheme	**39.0** + 3.8	**37.8** + 3.9	**38.6** + 3.8
2015 Scheme	**30.5** + 1.6	**30.3** + 1.5	**30.5** + 1.6
All schemes	**41.9** - 0.6	**40.6** + 0.7	**41.5** -0.3

* 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
1988 Scheme	**91** - 27.8%	**40** - 14.3%	**131** - 24.1%
2006 Scheme	**58** + 20.6%	**27** + 21.7%	**85** + 20.8%
2015 Scheme	**-** **-**	**-** **-**	**-** **-**
All schemes	**148** - 14.5%	**67** - 2.7%	**215** - 11.2%

Total actual pay (£m pa)

Scheme	Males	Females	Total
1988 Scheme	**91** - 27.8%	**39** - 14.8%	**130** - 24.3%
2006 Scheme	**56** + 17.7%	**26** + 17.0%	**82** + 17.5%
2015 Scheme	**30** + 596%	**12** + 604%	**42** + 598%
All schemes	**177** - 0.5%	**77** + 10.2%	**254** + 2.5%

*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
1988 Scheme	**45,138** + 8.5%	**44,307** + 9.7%	**44,880** + 8.7%
2006 Scheme	**39,961** + 26.3%	**40,269** + 29.5%	**40,059** + 27.3%
2015 Scheme	**-** **-**	**-** **-**	**-** **-**
All schemes	**42,973** + 12.3%	**42,592** + 15.5%	**42,853** + 13.2%

Average actual pay (£ pa)

Scheme	Males	Females	Total
1988 Scheme	**45,129** + 8.5%	**43,465** + 9.0%	**44,612** + 8.5%
2006 Scheme	**39,041** + 23.4%	**38,429** + 24.5%	**38,847** + 23.8%
2015 Scheme	**25,087** + 18.0%	**24,743** + 18.3%	**24,988** + 18.1%
All schemes	**38,090** + 1.4%	**37,434** + 4.5%	**37,889** + 2.3%

*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
1988 Scheme	**18.9** - 1.6	**15.9** - 0.9	**18.0** - 1.5
2006 Scheme	**6.3** + 0.4	**6.3** + 0.3	**6.3** + 0.4
2015 Scheme	**-** **-**	**-** **-**	**-** **-**
All schemes	**13.7** - 1.9	**11.8** - 0.9	**13.1** - 1.7

*Unweighted (shown for final salary schemes only).

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

Scheme	Males	Females	Total
1988 Scheme	**4.8** + 527.9%	**2.6** + 490.6%	**7.3** + 506.0%
2006 Scheme	**4.7** + 501.7%	**2.1** + 497.4%	**6.8** + 500.4%
2015 Scheme	**1.2** + >1000%	**0.5** + >1000%	**1.6** + >1000%
All schemes	**10.6** + 570.1%	**5.1** + 533.6%	**15.7** + 557.8%

**The pension amount presented includes pension revaluation to April 2020.

Summary statistics – deferreds

As at 31 March 2020

Number of members

Scheme	Males	Females	Total
1988 Scheme	**761** - 93	**370** + 37	**1,131** - 56
2006 Scheme	**118** + 34	**53** + 16	**171** + 50
2015 Scheme	**7** + 7	**6** + 6	**13** + 13
All schemes	**886** - 52	**429** + 59	**1,315** + 7

Average age* (years)

Scheme	Males	Females	Total
1988 Scheme	**52.5** + 2.8	**52.0** + 2.2	**52.4** + 2.7
2006 Scheme	**41.0** + 2.7	**40.8** + 4.7	**40.9** + 3.2
2015 Scheme	**33.6** -	**32.7** -	**33.2** -
All schemes	**52.0** + 2.6	**51.4** + 2.0	**51.8** + 2.4

* 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
1988 Scheme	**8,565** - 1.7%	**3,363** + 22.3%	**11,928** + 4.1%
2006 Scheme	**404** + 87.8%	**158** + 110.1%	**563** + 93.6%
2015 Scheme	**10** -	**9** -	**19** -
All schemes	**8,979** + 0.6%	**3,530** + 25.0%	**12,510** + 6.5%

Pension amounts includes the April 2020 pension increase

Average deferred pension (£ pa)

Scheme	Males	Females	Total
1988 Scheme	**11,255** + 10.3%	**9,089** + 10.2%	**10,547** + 9.2%
2006 Scheme	**3,425** + 33.7%	**2,990** + 46.6%	**3,290** + 37.0%
2015 Scheme	**1,420** -	**1,462** -	**1,439** -
All schemes	**10,135** + 6.5%	**8,229** + 7.9%	**9,513** + 5.9%

Summary statistics – pensioners

As at 31 March 2020

Number of members

Type	Males	Females	Total
Normal Retirement	**7,000** + 166	**600** + 136	**7,600** + 302
Ill-Health Retirement	**2,938** + 394	**545** + 96	**3,483** + 490
Dependants*	**104** - 14	**1,991** + 199	**2,095** + 185
All types	**10,042** + 546	**3,136** + 431	**13,178** + 977

*Includes children and pension credit members

Average age** (years)

Type	Males	Females	Total
Normal Retirement	**64.6** + 2.1	**60.8** + 1.7	**64.4** + 2.1
Ill-Health Retirement	**65.1** + 2.7	**57.2** + 1.8	**64.0** + 2.5
Dependants*	**52.5** + 10.0	**72.6** + 1.8	**72.0** + 2.1
All types	**64.7** + 2.3	**66.3** + 1.4	**65.0** + 2.2

** 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 1988 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 Retirement	**155.1** + 11.7%	**12.2** + 39.8%	**167.4** + 13.4%
Ill-Health Retirement	**45.3** + 38.3%	**6.8** + 46.8%	**52.1** + 39.3%
Dependants**	**0.6** + 10.3%	**20.7** + 27.1%	**21.3** + 26.5%
All types	**201.1** + 16.8%	**39.7** + 33.9%	**240.8** + 19.3%

Average pension (£ pa)*

Type	Males	Females	Total
Normal Retirement	**22,161** + 9.1%	**20,395** + 8.1%	**22,021** + 8.9%
Ill-Health Retirement	**15,424** + 19.7%	**12,434** + 21.0%	**14,956** + 19.7%
Dependants**	**5,921** + 25.2%	**10,405** + 14.4%	**10,183** + 15.3%
All types	**20,021** + 10.4%	**12,669** + 15.5%	**18,272** + 10.5%

Pension amounts 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 1988 Scheme who are below 55 years old, whereas those increases were not included in the summary in the 2016 data report).

**Includes children 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 reformed scheme (referred to as the 2015 Scheme in this report).
Cost cap cost	A way of measuring the cost of benefits being provided from the 2015 Scheme, which is then compared to a 'target cost'. The PPS NI target cost is set at 13.1% of pay. 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.
Directions	A document published by Department of Finance, The Public Service Pensions (Valuations and Employer Cost Cap) Directions (Northern Ireland) 2014 as amended, which sets out the process and requirements for carrying out valuations, including the results which need to be disclosed. Directions were first published in 2014 and have been updated several times since then. The latest Directions, on which the results of this valuation are based, are **the Public Service Pensions (Valuation and Employer Cost Cap) Directions (Northern Ireland) 2023**, as they apply at the date of signing.
Employer contribution rates	The percentage of scheme members' salaries which employers are required to pay in order to: • 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. The result is heavily dependent on assumptions about future financial conditions and membership changes.
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 reformed and legacy schemes.

Glossary

Normal pension age	The age at which a member in normal health is entitled to unreduced benefits. This age varies in different schemes: • **1988 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**: Age 55; Deferred pension age 65. • **2015 Scheme**: Age 60, with flexible retirement from age 55 being permitted subject to benefits being actuarially reduced; Deferred pension age equal to State Pension Age (SPA).
Pension increase	Public service pensions are increased under the provisions of the Pensions (Increase) Act 1971 and Section 59 of the Social Security Pensions Act 1975.
Pension revaluation	The rate at which the CARE pension is revalued each year a member is an active member.
Professional actuarial requirements	The professional requirements that we have complied with when completing this actuarial valuation include: 1. Technical Actuarial Standards: TAS 100 and TAS 300, issued by the FRC. 2. The Actuaries' Code, issued by the Institute and Faculty of Actuaries ('IFoA') 3. The Civil Service Code. GAD is also accredited under the IFoA's Quality Assurance Scheme. More details can be found in our terms of reference.

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 Scheme	The 2015 Scheme was set up in line with The Public Service Pensions Act (Northern Ireland) 2014, 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.
Schemes	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 scheme. Members who have reformed benefits only have been categorised under the reformed scheme.