2019 Valuation: Membership Data Report

Introduction

We have finalised the data validation stage of the 2019 valuation and have signed off your membership data as being fit for this purpose. We set out below a summary of the membership data that has been used for the valuation along with any updates and assumptions made to the data during the validation process.

This report is addressed to Wiltshire Council as Administering Authority of the Wiltshire Pension Fund ("the Fund"). This report and all data processes used throughout the 2019 formal valuation are compliant (where material and to a proportionate degree) with Technical Actuarial Standards 100 and 300 issued by the Financial Reporting Council.

This report may not be passed on to any third party, except as required by law or regulatory obligation, without the prior written consent of Hymans Robertson LLP. If it is passed onto a third party, then it should be provided in full.

Membership data validation process

Individual membership data as at 31 March 2019 was generated by the Fund in line with the Universal Data Extract (UDE) format and initially submitted to Hymans Robertson via the Data Portal on 22 July 2019.

The process followed during the membership data validation stage was:

1   Inspection by the Fund of the 'critical errors', 'range validations' and 'comparison validations' flagged up by the Data Portal

2   Discussions between Hymans Robertson and the Fund to understand and resolving the critical errors

3   Hymans Robertson review of the membership data submitted by the Fund and comparison of employee contributions and pensions paid in 2018/19 implied by the membership data against the actual figures paid.

4   Hymans Robertson raised any queries with the Fund from the review

5   Final data set agreed and signed off by Hymans Robertson

In reconciling the membership data provided with the Fund's financial data, details of the employee contributions and pensions paid over the year 2018/19 were separately taken from the HEAT system.

Membership data validation timeline

The timeline of the valuation upload process is given below:

- Initial membership data upload – 22 July 2019

- Removal of critical errors - 30 August 2019

- Sign off whole fund data (after appropriate data estimations made) – 9 September 2019

Discussions carried out between Hymans Robertson and fund officers regarding membership data queries, as well as the appropriate actions to be taken, are set out in the paper "190826 Membership data – review of remaining warnings". Further details on the amendments made to the membership data are provided below.

Data summary

A summary of the membership data at 31 March 2019 at whole Fund level is given below with a comparison to the 2016 valuation data.

	Membership numbers		Total salaries/ pensions (£000)		Total CARE pot (£000)		Average Age (weighted)	
	2016	2019	2016	2019	2016	2019	2016	2019
Actives	20,172	21,912	297,281	330,746	10,477	24,535	51.5	51.8
Deferreds	31,085	37,689	30,413	38,649	-	-	51.1	51.6
Pensioners	14,907	17,288	64,753	75,500	-	-	68.2	68.7

Membership data validation

Individual record validation

The Data Portal carries out data validations on certain data items in each individual member record. The validations are broken down into three types:

- Critical errors – where data items are missing, at the wrong date, inconsistent with other fields, etc. such that we cannot carry out an actuarial valuation.

- Range errors – where data items are outside an expected range. Some data items that fail these validations may be correct.

- Comparison errors – where data items are not as per expectations based on the data submitted for the 2016 valuation. Some data items that fail these validations may be correct

Please see the validation results spreadsheets in the Data Portal for details on the individual membership queries identified. A list of the parameters used in the Data Portal is provided in Appendix.

Further details about each validation applied to the membership data is set out in the Data Portal User Manual which can be accessed within the Data Portal or provided upon request.

As part of the data validation process we helped the Fund understand the reasons behind the critical errors, advice was given on how to correct individual member records on Altair and resolve the errors.

Review of submitted data

Individual membership data

As mentioned above, further to the individual record validations carried out by the Data Portal, a paper was prepared setting out membership data queries raised by Hymans Robertson that should be looked into by fund officers, subsequent versions of the paper contain the query responses from fund officers and the actions taken by Hymans Robertson.

The paper was provided in order to aid the data validation process and ensure the membership data was fit for purpose.

Amendments/approximations made to membership data

Details of all amendments and approximations made within the membership data provided are set out in the paper mentioned above.

Missing Records

Where an exit record exists (i.e. those records that contain a date and reason for leaving their current status) and no follow-on record exists, the Data Portal creates an estimated record based on the information available in the active/deferred member extract and appended this to the data set as shown in the data validation results spreadsheet.

Please note that no such records were created in the membership data provided i.e. all follow-on records had been successfully created by fund officers and so there was no requirement to generate estimated records.

Employer level reconciliation

We have compared the membership data supplied against the data used for the 2016 formal valuation at employer level for the purpose of checking high level summary statistics and membership movements. These checks are detailed in our reconciliation spreadsheet which was issued to the Fund on 12 September 2019.

We also compared the employee contributions and pension payments implied by the membership data against the equivalent figures from the 2018/19 HEAT data. We were able to reconcile the employee contributions implied by the membership data with the equivalent figure in the HEAT data to within 2.1% (compared to 1.0% at the 2016 valuation). Some smaller employers could not be reconciled closely but this is to be expected as the impact of members with fluctuating pay or changing employee contribution rates is more significant and our checks are limited by the nature of the data available.

The check on the pension paid data revealed that the figure implied by the membership data was 1.7% higher than the equivalent figure from the HEAT data. This was slightly higher than at the last valuation (the 2016 figures were reconciled to within 0.8%).

Individual employer membership data submissions

Revised membership data submissions were provided for each of the employers listed in the table below. Note that although in some cases below changes were made to individual members, given the relatively small size of the employer the changes made had a material impact on the underlying position.

Employer	Reason for revised membership data submission
Activate Learning Trust	Revised pension amount for individual member
Adoption West	Members not coded to new employer on Altair
Caterlink4	Revised CARE pots for active members
Create Great Studios	Revised service details for active member
Swindon Wildcats	Revised salary at 2016 and 2019 formal valuations

Internal transfers

The fund currently has a process in place to deal with internal member transfers and the associated transfer of asset values (between the employers involved). Similarly to the 2016 formal valuation, when reconciling some of the individual employer positions we noticed that there were a number of internal transfers of assets that had not been completed. The cases referred to here were discussed with Fund officers and corrected.

Other assumptions made in the data

We have calculated retirement ages for active and deferred members with no critical retirement date supplied in the data based on date of birth, qualifying service and date joined fund.

Please note that where GMP pension amounts for deferred and pensioner members are higher than the total pension amount, the total pension amount has been set equal to the GMP pension amount.

Overall comments on the data quality and suggestions for next steps

Overall, after the data validation stage, the membership data submitted by the Fund for the 2019 valuation is of good quality and fit for the purpose of a funding valuation.

Although the data submission and validation stage of the valuation is complete, this output can be used by the Fund to help continue to ensure its data is as complete and accurate as possible. Possible next steps to achieve this could be:

- Analysing the Data Portal validation results to ascertain if there any employers with a significant amount of validation errors. In these cases, it may suggest that the employer does not have a suitable level of knowledge and/or expertise in terms of understanding what data needs to be submitted to the Fund. The Fund can then carry out a targeted communication to help improve the standard of the employer's data submission. This analysis can be done by using the filter function in the Data Portal validation results spreadsheet (please contact us if further guidance is needed).

- Consider carrying out a focussed exercise to process all leaver forms.

- Carrying out annual data cleansing exercises using the Data Portal and reconciling membership data with accounts data.

- Liaising with the Fund's administration software provider to resolve any of the critical errors that are being caused by the UDE extraction programme. If no resolution is possible, understanding the workarounds required to clear these errors to allow the Fund to focus on 'genuine' validation errors.

- Put in place a formal data improvement plan. This plan should consider not only the data correction work required to improve the membership data at the time of review but also understanding the 'root' problems affecting data quality. Plans should then be put in place to resolve 'root' cause problems.

- To aid both short and long-term improvement, put in place employer training sessions that raise the knowledge levels of scheme employers. This will aid employers as they fulfil their statutory responsibilities.

Assumptions and limitations

Our data validations take the form of range and comparison checks. However, erroneous data can still pass the validations as we cannot compare against the underlying raw data in the administration system (we do not have access to this data). We therefore rely on the Fund to inspect the data to ensure it is clean and accurate before submission. Our valuation calculations are carried out assuming that the data extracted from the administration system is as specified in the Universal Data Extract. Again, we are unable to verify that this is the case as we do not have access to the underlying raw data stored in the administration system, therefore the responsibility lies with the Fund and their data administration software provider to ensure this is the case.

If the data is misreported or contains errors this may lead to a material misstatement of liabilities and contribution rates at either or both Fund and employer level.

Our data validations are set to ensure that the data supplied is fit for purpose for a formal funding valuation only. We have not sought to check or comment on whether the data supplied is compliant with the Pension Regulator's Code of Practice or is fit for any other purpose.

Barry Dodds FFA

Fund Actuary

For and on behalf of Hymans Robertson LLP

28 February 2020

Appendix: Data Portal details

The following tables provide a summary of the data portal inputs and the validation parameters used. As discussed on page 1, the initial membership data extract was uploaded on the 22nd of July 2019.

Job details

Job details	Value
Job ID	9472
Job type	Fund valuation (triennial)
Client	Wiltshire Pension Fund
Created at	22 July 2019 09:50:50
Valuation date	31 March 2019
Valuation data date	31 March 2016

Upload info

Upload info	Value
File name	190909 - WPF 2019 Valuation data - MJ estimations v3 (fix a handful of actual salaries) .xlsx
Uploaded at	09 September 2019 15:12:35
Validation version	3.2.10

Validation parameters

Name	Value
Active/Deferred age (years)	15 (inclusive) to 75 (inclusive)
Pensioner age (years)	55 (inclusive) to 100 (inclusive)
Child age (years)	0 (inclusive) to 21 (inclusive)
FTE salary (£)	10,000 (inclusive) to 100,000 (inclusive)
Actual salary (£)	1,000 (inclusive) to 100,000 (inclusive)
Pension/Deferred Pension (£)	100 (inclusive) to 50,000 (inclusive)
Additional Pension (£)	0 (inclusive) to 10,000 (inclusive)
CARE Pot Range (£)	0 (inclusive) to 5,000 (inclusive)
GMP Range (£)	0 (inclusive) to 20,000 (inclusive)
Part-time hours (%)	5% (inclusive) to 100% (inclusive)
Current member contribution rate (%)	3 (inclusive) to 20 (inclusive)
Entitlement service v DJF tolerance (years)	1.00
80th calculation service tolerance (years)	0.10
60th calculation service tolerance (years)	0.50
CARE entitlement service tolerance (years)	0.50
Estimated Actual (2014 definition) Salary (£ p.a.)	12000.00
Estimated FTE (2008) Salary (£ p.a.)	18000.00
Salary increase tolerance (%)	15%
Salary decrease tolerance (%)	5%
Pension/Deferred Pension tolerance (%)	10%
Spouse Pension as % of member pension	35%
Valid ages at critical retirement date (years)	55 (inclusive) to 65 (inclusive)
Valid ages at taper protection date (years)	55 (inclusive) to 65 (inclusive)