Office of Internal Audit

Retired Lives Data Extract Audit

etf
WISCONSIN DEPARTMENT
OF EMPLOYEE TRUST FUNDS

February 26, 2021

Prepared for Audit Committee Meeting of the Department of Employee Trust Funds, 3.24.21;
prepared by Michelle Hoehne

Reviewed and approved by Yikchau Sze, Director, Office of Internal Audit

Electronically Signed 3/9/21

Board	Mtg Date	Item #
AUD	3.24.21	5A

Audit Objective and Scope

We have completed an audit of the Retired Lives data generated by the Department of Employee Trust Funds (ETF) and provided to the Wisconsin Retirement System (WRS) consulting actuarial firm, Gabriel Roeder Smith (GRS). This audit was completed in accordance with the fiscal year (FY) 2020-2021 Biennial Audit Plan. Our audit was conducted in conformance with the International Standards for the Professional Practice of Internal Auditing issued by the International Internal Audit Standards Board.

The audit objective was to determine the accuracy and completeness of the data provided to GRS. The scope included both the 2019 and 2020 data that was used in the WRS 37th Annual Actuarial Valuation of Retired Lives as of December 31, 2019 and the WRS 38th Annual Actuarial Valuation of Retired Lives as of December 31, 2020, respectively. The results of the December 31, 2020 valuation will be presented to the ETF Board at its March 25, 2021 meeting. As our audit work was started prior to the pull of the 2020 data, we performed more extensive testing on the 2019 data and followed up with additional assurance testing after the 2020 data was available. The extent of testing for each year is included in the Audit Methodology section at the end of this report.

Background

The Retired Lives data extract is a data file provided to the WRS consulting actuarial firm, GRS, on an annual basis for use in the annual actuarial valuation of retired members covered by the WRS. The Retired Lives valuation determines the amounts to be transferred from member and employer accounts to fund new annuities and determines whether an adjustment should be applied to existing Core and Variable annuities.

The Retired Lives data is produced each year after the December benefit payroll file has been run. The data generated consists of an extract file as well as an exclusion file, which contains payroll records not included in the extract. Each annual Retired Lives data extract file includes all new, continuing, and ceased accounts since the prior year's December payroll. For 2019 and 2020, this included 294,874 and 301,806 payment records, respectively, with each payment record consisting of 42 data fields. The data fields include attributes such as demographic information, benefit information, and employee service information. Members may have multiple records depending on the structure of their annuity (core, variable, accelerated, etc.). Records on the exclusion file may be for items such as Duty Disability benefits, Variable transfers, the expiration of accelerated portions of a benefit, or benefits that had ended in the prior year. Each record included in the exclusion file (106,287 and 108,631 records for 2019 and 2020,

respectively) contains a field providing an explanation of why the information is excluded from the extract file.

Once the data pull program responsible for producing the extract and exclusion files has been run, ETF's Division of Trust Finance (DTF) performs a reasonableness review of the data before providing it to GRS. While GRS checks the data for internal consistency, they do not audit the data[1]. ETF is responsible for the accuracy and completeness of the data provided to GRS.

Audit Results and Recommendations
Positive Results
Overall, the Retired Lives data extract appeared to be materially complete in terms of payment records that should be included or excluded from the extract file and benefit payment amounts based on ETF system data. We also noted that DTF's review appears adequately designed to test for completeness of the extract data.

Findings, Recommendations and Management Responses:

Finding	**Risk/Effect**
Inaccurate Data Provided to Actuaries We found that a majority of the data fields appear to contain accurate information based on ETF systems data. However, we identified inaccurate data within the data fields pertaining to member's money purchase balances and service amounts at the time of benefit initiation in both the 2019 and 2020 extract files. The money purchase balance data issues were known to DTF. Since the money purchase balance fields are not currently used by GRS, DTF has planned to address this data issue when designing the extract files in the new pension administration system. However, the service amount data issue, which included approximate doubling of some member's service amounts, was unknown to DTF at the time of our review. GRS indicated that they do not use the service amounts to calculate liabilities. While these amounts are used to allocate reserve transfers between employment categories, GRS indicated that the total reserve transfers would not be impacted by the data errors. DTF performs a reasonableness review of the extract data. While the design of this review appears to effectively test data completeness, data accuracy testing is limited.	While the data inaccuracies identified are not expected to materially impact the actuarial valuation, inaccurate data provided by ETF to the actuaries increases the risk of potential impact on the actuarial calculations.
Recommendation DTF management should:	

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[1] Per GRS Actuarial Valuation Report Introduction. OIA did not investigate the data review process performed by GRS.

> - Work with ETF IT staff to assess the extent of inaccurate data in the service amount data fields and fix the program pulling the data.
> - Consider implementing additional data reasonableness checks or accuracy reviews into the extract data review process to strengthen the effectiveness of this data review control.
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> **Management Response**
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> Management is pleased the audit did not identify significant issues with the Retired Lives data extract. DTF staff will work with IT staff to determine the extent of inaccurate data in the service amount data fields and revise the program pulling the data, as needed. We will also discuss with GRS to assess any impact on actuarial valuations. DTF continually strives to improve data analytics pertaining to data used in actuarial valuations. We will work to enhance our review and testing of data in the retired lives file, as resources are available.
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> **Responsible Staff:** Amelia Slaney, Financial Compliance Bureau Director, DTF
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> **Completion Date:** November 30, 2021 for addressing service amount data fields. Ongoing for enhancements to reviewing and testing data included in the extract and used in developing the actuarial valuation.

Process Improvement Observations:

Additionally, minor improvements to data mapping documentation were identified and communicated to DTF for consideration.

Audit Methodology

The Office of Internal Audit conducted this audit by:

- obtaining an understanding of the procedures used to create and review the extract and excluded data files, including reviewing procedural documentation and conducting interviews with responsible staff.
- testing all data fields for a random sample of members on both the extract (2019 and 2020 data) and excluded data (2019 only) files for data accuracy as compared to ETF system data.
- using ACL Analytics software to perform data integrity analysis and reasonableness reviews for certain fields on the entire extract data population and performing targeted sample testing on those specific data fields, as deemed necessary (2019 data; data exceptions identified in 2019 were also assessed to be exceptions in the 2020 data).
- testing for completeness of the data on the extract file compared to ETF system data (2019 and 2020 data).
- reviewing the reasonableness of the data on the excluded data file (2019 and 2020 data).
- reviewing DTF's reasonableness check of the extract data file (2019 review).