

# Office of Internal Audit

## Active Lives Data Extract Audit



May 20, 2020

Prepared for Audit Committee Meeting of the Department of Employee Trust Funds, 6.17.20;  
prepared by Michelle Hoehne

Page 1 of 5

Reviewed and approved by Yikchau Sze, OIA Director

Electronically Signed 6/3/20

Board	Mtg Date	Item #
AUD	6.17.20	4B

## Executive Summary

We have completed an audit of the 2018 Active Lives data extract generated by the Department of Employee Trust Funds (ETF). This audit was completed in accordance with the fiscal year (FY) 2020-2021 Biennial Audit Plan. The audit objective was to determine the accuracy and completeness of the data extract provided to the Wisconsin Retirement System (WRS) consulting actuarial firm – Gabriel Roeder Smith (GRS) -- for use in the WRS 38<sup>th</sup> Annual Actuarial Valuation and Gain/Loss Analysis of active lives as of December 31, 2018. The results of the actuarial valuation were used to establish the WRS contribution rates for calendar year 2020. The 2018 Active Lives data extract contained demographic information, employment information, service and earnings information, and account status and balance information for 452,812 member accounts.

Overall, the Active Lives data extract appears to be materially accurate and complete, based on ETF system data at the time of the extract. However, we did identify instances of incorrect data within the extract, caused by inaccurate data in ETF's underlying systems. Based on the instances, as a percentage of the total population and type of inaccuracies, there does not appear to be a material impact on the data provided to the actuaries, resulting in no apparent material impact to the calendar year 2020 WRS contribution rate set. OIA will consider the exceptions noted when planning and conducting future audits of various ETF operations.

We did not have any significant findings to report for the extract process. However, we identified potential process improvements for the Division of Trust Finance (DTF), which has responsibility for reviewing the data extract prior to providing it to the actuaries. To further strengthen this data review internal control, we recommend:

- DTF management consider ways in which the staff responsible for the reasonableness check of the data extract can enhance understanding in the detailed data of member accounts.
- Information pertaining to data relationships discussed during the audit should be incorporated into the existing DTF data extract file description information, to retain understanding of the data.
- Additional documentation of the mapping of the extract data should be incorporated into DTF information.

## **Background**

### *Data Extract Purpose*

The Active 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 non-retired members covered by the WRS. The results of the December 31, 2018, actuarial valuation were used to establish the WRS contributions rates for calendar year 2020.

The 2018 Active Lives data extract contained information for 452,812 member accounts. This includes active and inactive members, alternate payees, and closed accounts that were active or inactive on the previous Active Lives extract. Each member record includes 57 data fields. The data fields include attributes such as demographic information, employment information, service and earnings information, and account status and balance information.

### *Data Extract Procedures and Review*

The Active Lives data extract is produced from ETF's WEBS system in early April each year after all participant account updates for the prior year have been completed. Once the mainframe program responsible for producing the extract has been run, ETF's DTF completes a reasonableness check of the data extract before providing it to GRS. While GRS checks the data for internal reasonability and year-to-year consistency, they do not audit the data<sup>1</sup>. ETF is responsible for the accuracy and completeness of the data provided to GRS.

As communicated to the ETF Board at its March 26, 2020, meeting, the Legislative Audit Bureau recently contracted with Segal Consulting to perform an actuarial audit of the WRS, including the 2018 Active Lives Gain/Loss Analysis (Ref. ETF | 3.26.20 | 5D). While the audit included an assessment of the validity of the data used in the valuation, this assessment focused on how the data, as provided by ETF, was used by GRS. Therefore, OIA's Active Lives Data Extract Audit was designed to focus on the accuracy and completeness of the data provided by ETF, based on ETF system data.

## **Audit Objective and Scope**

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.

---

<sup>1</sup> Per GRS Actuarial Valuation Report Introduction. OIA did not investigate the data review process performed by GRS.

The audit objective and scope were to determine the accuracy and completeness of the data extract provided to GRS for use in the 38<sup>th</sup> Annual Valuation and Gain/Loss Analysis of active lives as of December 31, 2018; including an assessment of controls over the extract process and identification of any potential process improvements.

## **Audit Results**

### *Overall Results*

Overall, the Active Lives data extract appears to be materially accurate and complete, based on ETF system data at the time of the extract.

However, we did identify instances of incorrect data within the extract. Examples of inaccurate data included Social Security numbers, dates of birth, and active versus inactive account status. These instances were caused by inaccurate data in ETF's underlying systems. We note that inaccuracy of ETF system data is an inherent risk that cannot be fully mitigated because of the manual nature of data entry into systems and data needing to be communicated correctly and timely from various employers. Based on the instances as a percentage of the total population and type of inaccuracies, there does not appear to be a material impact on the data provided to the actuaries, resulting in no apparent material impact to the calendar year 2020 WRS contribution rate set. OIA will consider the exceptions noted when planning and conducting future audits.

### *Process Improvement Observations*

We did not have any significant findings to be reported for the extract process. However, we identified potential process improvements for DTF.

We observed that DTF could improve its understanding and documentation of relationships among different data elements of the extract. DTF does have procedural documentation for its data reasonableness check and additional documentation describing the data. However, documentation did not adequately describe data relationships, such as the fact that an individual may have multiple records if they are both a participant and an alternate payee due to a domestic relations order and the multiple reasons for what could cause a Final Average Earnings or calendar year earnings reported to be zero. As a result, staff were not able to immediately answer these types of questions posed by OIA.

Additionally, we observed that the documentation could be further developed to provide mapping of what system data table the data comes from. This mapping documentation development, along with the data relationship documentation, will assist in staff

retaining knowledge of the data and aid in understanding any changes necessary to the extract as a result of future system or WRS program changes.

Therefore, we recommend that DTF consider taking the following steps to further strengthen the internal control of the data review process:

- DTF management should consider ways in which the staff responsible for the reasonableness check of the data extract can enhance understanding in the detailed data of member accounts.
- Information pertaining to data relationships discussed during the audit should be incorporated into the existing DTF data extract file description information to retain understanding of the data.
- Additional documentation of the mapping of the extract data should be incorporated into DTF information.

*DTF Management Response:*

*Management is pleased with the reassurance provided by the audit that the extract used by the actuary in setting WRS contribution rates is materially accurate. DTF agrees with the recommendations. DTF staff have taken steps to improve staff understanding and documentation over the past couple of years and plan to continue improving each year.*

## **Audit Methodology**

The OIA conducted this audit by:

- obtaining an understanding of the procedures used to create and review the extract, including reviewing procedural documentation, conducting interviews with responsible staff and performing process walkthroughs;
- reviewing the completeness and accuracy of DTF's reasonableness check of the data extract;
- using ACL Analytics software to perform data integrity analysis based on identified data relationships for the entire extract;
- performing targeted sample testing for data accuracy as compared to ETF system data; and
- using ETF system data imported into ACL to recreate the data extract member population and portions of the extract to analyze for completeness and accuracy of the extract data.