

Office of Internal Audit

Annuity Calculation Limited Review



April 17, 2025

Background

The Benefit Initiation Section (BIS) within the Benefit Services Bureau (BSB) of the Division of Benefits Administration (DBA) performs the final calculation of annuities for the Wisconsin Retirement System (WRS). There are three main types of annuity calculations performed:

- **Retirement Benefits**
 - o **Automated Calculations**: annuity calculations that are performed automatically in the RetCalcs system based on employer supplied information.
 - o **Manual Calculations**: annuity calculations that are manually calculated by BIS staff due to special situations, such as rehired annuitants that are retiring again, part-time add-on service, or employer additional payments. Some of these may be completed outside the RetCalcs system depending on the member's circumstances.
- **Special Death Benefit**: benefit calculations for the beneficiaries of a deceased employee. These payments may be an annuity or lump sum payment.
- **Disability Benefits**: benefit calculations for WRS members who have become disabled while working for a WRS employer. These calculations are performed manually based on employer supplied information.

All benefit calculations are processed and finalized through the Wisconsin Employee Benefits System (WEBS). For the Automated Retirement Benefit calculations, the RetCalcs system performs the calculations using information from WEBS. All other benefit calculations are manually calculated, and the benefit information is updated in WEBS. Once the final benefit is calculated, the benefit is entered into the Benefit Payment System (BPS) which pays the annuity benefits to each member or beneficiary. All benefit calculations performed by BIS have a secondary review before they are processed within the WEBS and BPS systems.

The table below shows the total number of benefits finalized during the last two years:

Benefit Type	2023	2024
Retirement Benefit	10,802	11,180
Special Death Benefit	31	28
Disability Benefit	237	208
Total	11,070	11,416

Audit Objective and Scope

This review is performed on a periodic basis in accordance with the FY24-FY25 Biennial Audit Plan to ensure that annuity payments were calculated correctly and were distributed to the correct individuals in a timely manner. We reviewed the annuity benefits finalized during calendar year 2024.

Our review was performed in conformance with the Global Internal Audit Standards for the Professional Practice of Internal Auditing.

Review Approach

We conducted our review by first confirming our understanding of the annuity finalization process with staff and any changes made to the process or calculation since our last review. We recreated the Retirement Annuity calculation using our data analytics software and compared our calculation to the amount paid to the annuitant. We then identified any differences greater than \$2, which is the threshold for an annuity correction. Out of the 11,142 Retirement Annuities calculated in the RetCalcs system, we identified 429 differences (3.85%). The remaining 38 Retirement Annuities were performed outside the RetCalcs system due to the uniqueness of the calculations, such as Rehired Annuitants.

To further test the annuities, we randomly sampled the RetCalcs annuity differences, as well as the Special Death and Disability annuity payment calculations finalized during our review period. We selected our sample sizes using a risk-based approach. Our samples were distributed between the different calculation types as follows:

Benefit Type	Sample Size	% of Population
RetCalcs Differences	86	20.0%
Non-RetCalcs Calculations	5	13.2%
Special Death Benefit	28	100.0%
Disability Retirement Annuity	42	20.2%

For the RetCalcs annuity differences, we compared our calculation to the calculation performed by BIS staff. For the other calculations, we recalculated the annuities using an OIA template that was created based on our understanding of the benefit calculations. This template incorporated the formulas used in the annuity calculation process and referenced tables from the WEBS database. We also vouched the benefit calculations to supporting documentation; traced to the Annuity Rate Display (ARD) and

the BPS; ensured the calculations had a secondary review; and evaluated the timeliness of the annuity finalization process.

Review Results

We were able to validate all annuity calculations in our review with only two exceptions. In the Disability Calculations, one of the annuities had an error in the calculation of the pro rata option factors, which resulted in about \$10 less in the monthly annuity payments. In the Special Death Calculations, an annuity was entered into BPS incorrectly by \$6. Both exceptions have been corrected by BIS staff. The differences we reviewed from our recalculation of the RetCalcs annuities were primarily due to manual adjustments or updates needed for our data analytics calculation. No errors were identified in the sample of 86 RetCalcs differences we reviewed.

We also found that all annuity calculations had a secondary review and majority of the benefit calculations were finalized in a timely manner except for some Disability Calculations, which is due to timing of the forms received from external parties that are required for the Disability Calculations such as the employer statements and medical report forms. The average processing time for the Disability Calculations in our sample was 3 months and 20 days, which is within the expected timeframe for processing Disability Calculations. See the table below for our timeliness analysis.

Annuity Type	Timeliness Requirement	Within Expected Timeframe
Retirement Benefit	ET-4133 "WRS Guide to Retirement": 6 to 12 months after retirement.	100%
Disability Benefit	ET-5107 "Disability Retirement Benefits": 3 to 4 months after ETF receives the disability application.	65%