

FOLLOW-UP REPORT

Denver Employees Retirement Plan *Denver Employees Retirement Plan Actuarial Valuation*

DECEMBER 2021



TIMOTHY M. O'BRIEN, CPA
DENVER AUDITOR

OFFICE OF THE AUDITOR
AUDIT SERVICES DIVISION, CITY AND COUNTY OF DENVER

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Office of the Auditor

201 West Colfax Avenue, #705
Denver CO, 80202
(720) 913-5000 | Fax (720) 913-5253

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City and County of Denver



TIMOTHY M. O'BRIEN, CPA
AUDITOR

201 West Colfax Avenue, #705, Denver, Colorado 80202
(720) 913-5000 | Fax (720) 913-5253 | www.denverauditor.org

AUDITOR'S LETTER

December 2, 2021

In keeping with generally accepted government auditing standards and Auditor's Office policy, as authorized by city ordinance, the Audit Services Division has a responsibility to monitor and follow up on audit recommendations to ensure city agencies address audit findings through appropriate corrective action and to aid us in planning future audits.

In our follow-up effort for the "Denver Employees Retirement Plan Actuarial Valuation" audit report completed by Bolton Partners Inc. and issued in November 2019, we determined the Denver Employees Retirement Plan fully implemented two of the four recommendations we reviewed for this follow-up report. We cannot determine the implementation status of a fifth recommendation until after the regularly scheduled experience study is completed in 2023. Therefore, we did not review it in this report. The other two recommendations were not implemented, so the Audit Services Division may revisit these risk areas in future audits.

The Highlights page in this report provides background and summary information about the original audit and the completed follow-up effort. Following the Highlights page is a detailed implementation status update for each recommendation.

I would like to express our sincere appreciation to the personnel at the Denver Employees Retirement Plan who assisted us throughout the audit and the follow-up process. For any questions, please feel free to contact me at 720-913-5000.

Denver Auditor's Office

A handwritten signature in black ink, appearing to read "Timothy M. O'Brien".

Timothy M. O'Brien, CPA
Auditor



Denver Employees Retirement Plan Actuarial Valuation

DECEMBER 2021

Objective

To review the Denver Employees Retirement Plan’s Jan. 1, 2019, Actuarial Valuation Report, including the assumptions and processes used to calculate the net pension liability for the plan as reported in the city’s Comprehensive Annual Financial Report.

Background

The Denver Employees Retirement Plan provides retirement, disability, and death benefits to eligible active, retired, and former city employees. It provides monthly benefit payments for about 9,700 retirees and beneficiaries and has over \$2 billion in assets.

On behalf of the Auditor’s Office, Bolton Partners audited the plan’s compliance with professional standards that guide a retirement plan’s valuation assumptions and how its assets and liabilities are calculated and disclosed.

ORIGINAL REPORT HIGHLIGHTS

The Denver Employees Retirement Plan Could Improve Some of Its Processes

While the Denver Employees Retirement Plan’s 2019 Actuarial Valuation Report complied with relevant actuarial standards and appropriately valued the provisions in city ordinance, the audit found opportunities for improvement.

CONCLUSION 1 – The Denver Employees Retirement Plan should adopt an amortization policy for future benefit increases.

CONCLUSION 2 – During the next experience study, the plan’s actuary should review any assumptions not reviewed in the 2018 study.

Unused sick and vacation leave assumptions were not reviewed in 2018 but may have a material impact on the valuation results.

CONCLUSION 3 – The Denver Employees Retirement Plan should supplement future valuation reports with a full development of the proposed budgeted contribution rates for the upcoming year.

CONCLUSION 4 – The plan should review and update all provisions and assumptions for pension benefits and retiree medical benefits because the Jan. 1, 2019, Actuarial Valuation Report did not contain assumptions for retiree medical election percentages.

CONCLUSION 5 – The plan should clarify the assumptions shown in a Governmental Accounting Standards Board report to ensure the assumptions correspond to the calculations in the valuation report.



2

FULLY IMPLEMENTED



2

NOT IMPLEMENTED



1

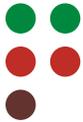
IN PROGRESS; PENDING REVIEW

Dec. 2, 2021

Action Since Audit Report

Denver Employees Retirement Plan Actuarial Valuation

5 recommendations proposed in November 2019



FULLY
IMPLEMENTED

2



NOT
IMPLEMENTED

2



IN PROGRESS;
PENDING REVIEW

1

Of the four recommendations we reviewed for this follow-up report, the Denver Employees Retirement Plan fully implemented two recommendations and it has yet to act on the other two.

For the two fully implemented recommendations, the plan's managers clarified several assumptions.

However, regarding the two other recommendations, the Denver Employees Retirement Plan did not adopt an amortization policy for future benefit increases and it did not include a full development of the proposed budgeted contribution rate for the upcoming year in its valuation reports.

At the time of the original report, Bolton Partners recommended the plan's actuary review any assumptions — such as unused sick and vacation leave — that were not reviewed in the 2018 experience study. Managers of the Denver Employees Retirement Plan reported at that time that the next experience study would take place in January 2023, consistent with the historic five-year schedule. As a result, we will review the status of this fifth recommendation at that time.

Finding | The Denver Employees Retirement Plan Could Improve Some of Its Processes

Recommendation 1



**NOT
IMPLEMENTED**

We recommend that an amortization policy be adopted for future benefit increases and that this policy be tied to average future working lifetime for current employees impacted by the change.

AGENCY ACTION

Original target date for completion: June 2020

Our follow-up work found the Denver Employees Retirement Plan did not create an amortization policy for future benefit increases. Specifically, the Jan. 1, 2020, Actuarial Valuation Report, where the amortization policy is described, did not include an explanation of what would happen if member benefits were to increase in the future and how the increase would be amortized over time.

In agreeing to this recommendation in the original report, management said at the time it was not considering benefit increases and would not consider them until the plan was fully funded. However, the plan's managers also pledged to formalize an amortization policy that would include benefit increases during the next actuarial valuation process, which was to occur by June 2020.

At the time of our follow-up, we found they did not do this. Managers of the plan explained they did not create the policy to avoid the perception that benefit increases were on the horizon, especially when they knew such increases were unlikely to happen.

Bolton Partners, which performed the original audit, said the intent of this recommendation was for plan management to work with its actuary to ensure the actuary followed best practices.¹ To consider this recommendation implemented, plan management would at least need to acknowledge in the amortization policy that:

- Until the plan is fully funded, there is no intention of increasing benefits.
- If an increase were to occur, plan management would work with the actuary to ensure it followed best practices for amortizing the increase.

¹ Conference of Consulting Actuaries Public Plans Community, "Actuarial Funding Policies and Practices for Public Pension Plans" (October 2014), accessed Aug. 26, 2021, https://www.ccaactuaries.org/docs/default-source/papers/cca-ppc_actuarial-funding-policies-and-practices-for-public-pension-plans.pdf?sfvrsn=6397cc76.

Because management did not make this acknowledgment in subsequent valuation reports, we consider this recommendation not implemented.

Recommendation 2

We recommend that any assumptions not reviewed as part of the latest experience study be reviewed during the next study as they may have a material impact to the liabilities, such as the unused sick and vacation leave loads.



**IN PROGRESS;
PENDING REVIEW**

AGENCY ACTION

Original target date for completion: January 2023

We will review the implementation status of this recommendation at a future date after the actuary completes the 2023 experience study.

This recommendation was for the Denver Employees Retirement Plan's actuary to review any assumptions — such as the unused sick and vacation leave — that were not reviewed in the 2018 experience study. Plan management said in its original response to the recommendation that the plan's actuary had been reviewing the unused sick and vacation leave as part of its annual valuation process, and the actuary would perform the next experience study in 2023 under a typical five-year schedule, in line with leading practices.²

Recommendation 3

We recommend that the Jan. 1, 2019, valuation report be supplemented to include the full development of the 2020 proposed budgeted contribution rate and that the future reports be revised to provide the details of the development of the actuarially determined contribution used for the budgeted contribution rate.



**NOT
IMPLEMENTED**

AGENCY ACTION

Original target date for completion: June 2020

Our follow-up work found that plan management did not supplement the 2019 valuation report nor did it include the details of the development of the actuarially determined contribution rates for the upcoming years in its

² "Enhancing Reliability of Actuarial Valuations for Pension Plans," Best Practices/Materials webpage, Government Finance Officers Association (September 2014), accessed Nov. 16, 2021, <https://www.gfoa.org/materials/enhancing-reliability-of-actuarial-valuations-for-pension>.

2020 and 2021 valuation reports.

Despite agreeing with the recommendation in the original audit report, plan management said the full development of the budgeted contribution rate was not necessary as the projected contributions for 2021 did not change from 2020. They said the actuary, Cheiron, advised against including the full development of the actuarially determined contribution rates for the upcoming year because actuarial standards do not support or preclude actuaries from doing so.

However, whether the rate changes does not affect what is disclosed in the report. In the original audit, Bolton Partners cited the actuarial standards of practice, which recommend actuaries disclose many aspects of contribution calculations – including the actuarially determined contribution.³

Describing the actuarially determined contribution for the next calendar year is important because Denver officials rely on these results to set the contribution rates in the city’s budget for the upcoming year. For example, the budget for 2021 was developed in summer and fall 2020, but the valuation report of Jan. 1, 2020 – issued in summer 2020 – did not provide the actuarially determined rate for 2021 for city officials to consider.

We conclude the Denver Employees Retirement Plan did not implement this recommendation. However, managers of the plan believe this is not an issue; they said the plan’s presentation to the mayor and the Finance Department during budget discussions provides the necessary information.

Recommendation 4

We recommend that Cheiron review all provisions and assumptions for both the pension and retiree medical benefits and update the appropriate sections of future valuation reports. This includes the Deferred Retirement Option Plan program as well. We recommend documenting any assumption used for the retiree medical valuation.



**FULLY
IMPLEMENTED**

AGENCY ACTION

Original target date for completion: June 2020

Our follow-up work found that Cheiron, the plan’s actuary, added a section titled “Retiree Medical Election Percentages” to both the 2020 and 2021 actuarial valuation reports. The section lists the assumption on

³ Actuarial Standards Board, Actuarial Standard of Practice No.4, “Measuring Pension Obligations and Determining Pension Plan Costs or Contributions” (December 2013), accessed Sept. 9, 2021, <http://www.actuarialstandardsboard.org/asops/measuring-pension-obligations-determining-pension-plan-costs-contributions/#41-communication-requirements>.

the percentage of members who elect retiree medical benefits.⁴ Also, as recommended, the actuary disclosed the Deferred Retirement Option Plan's amounts as part of actuarial liabilities for retirees.

Therefore, we conclude the Denver Employees Retirement Plan fully implemented this recommendation.

Recommendation 5

We recommend clarification of the assumptions shown in the Governmental Accounting Standards Board report to ensure the assumptions correspond to the calculations in the report.



**FULLY
IMPLEMENTED**

AGENCY ACTION

Original target date for completion: August 2020

During the original audit, Bolton Partners found calculations in a Governmental Accounting Standards Board report for the Denver Employees Retirement Plan in 2018 were performed correctly. However, the report incorrectly referenced assumptions to the actuarial valuation report for Jan. 1, 2017. Rather, the assumptions used for these calculations in the Governmental Accounting Standards Board report were from both the Jan. 1, 2017, and Jan. 1, 2018, valuation reports.

The original audit report recommended that the assumptions in the Governmental Accounting Standards Board report accurately reflect the calculations in the valuation report.

During follow-up, we compared the Dec. 31, 2019, Governmental Accounting Standards Board report to the Denver Employees Retirement Plan's Jan. 1, 2019, valuation report. We found the Governmental Accounting Standards Board report accurately referenced the valuation report and that the following assumptions between these reports matched:

- The expected return on assets of 7.5% net of investment expenses.
- The discount rate of 7.5%.
- The assumptions for post-retirement mortality rates.

As a result, we conclude the Denver Employees Retirement Plan fully implemented this recommendation.

⁴ Denver Employees Retirement Plan members who may elect retiree medical benefits include retirees, former employees who have vested in the plan, beneficiaries, and employees with disabilities.

Office of the Auditor

The **Auditor** of the City and County of Denver is independently elected by the residents of Denver. He is responsible for examining and evaluating the operations of city agencies and contractors for the purpose of ensuring the proper and efficient use of city resources. He also provides other audit services and information to City Council, the mayor, and the public to improve all aspects of Denver's government.

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201 West Colfax Avenue #705

Denver CO, 80202

(720) 913-5000 | Fax (720) 913-5253

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