

Report of the Amortization Work Group

Prepared by participants in the Amortization Work
Group and staff of the Legislative Commission on
Pensions and Retirement

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Attachments

1. Draft Bill LCPR25-009
2. Amendment LCPR25-009-1A
3. First Amendment to the Standards for Actuarial Work

Appendix

- A. Work Group participants, LCPR staff, and other attendees
- B. Examples of layered amortization for the PERA General Plan and PERA Police and Fire Plan

Bibliography

Note: Due to accessibility requirements, we are not able to attach copies of these reports and memos as an addendum because the documents would need to be remediated. That would require more staff time and resources than are available. We have provided links to the documents instead. If any link is broken, please contact Lisa Diesslin, lisa.diesslin@lcpr.mn.gov or other Commission staff.

[*Background Information on the Amortization of Defined Benefit Retirement Plan Unfunded Actuarial Accrued Liabilities*](#), MINNESOTA LEGISLATIVE COMMISSION ON PENSIONS AND RETIREMENT (revised July 2011)

[*Actuarial Funding Policies and Practices for Public Pension Plans*](#), CONFERENCE OF CONSULTING ACTUARIES (Second Edition, August 2024)

[*"Memo in response to question posed by amortization working group at 10/3/24 meeting"*](#) (November 1, 2024) from David Draine, Principal Officer—Research, Maria Garnett, Officer—State Policy, The Pew Charitable Trusts, State Fiscal Policy Project

[*"Memo in response to question posed by amortization working group at 10/3/24 meeting and follow-up request posed by LCPR staff"*](#) (November 7, 2024) from David Draine, Principal Officer—Research, Maria Garnett, Officer—State Policy, The Pew Charitable Trusts, State Fiscal Policy Project

[*Overview of Public Pension Plan Amortization Policies*](#), NATIONAL ASSOCIATION OF STATE RETIREMENT ADMINISTRATORS (April 2022)

SECTION 1: Creation of the Amortization Work Group

The 2024 Pension and Retirement Policy and Supplemental Budget Bill, enacted on May 15, 2024, established an Amortization Work Group (Work Group). The Work Group consists of the executive directors and designated staff from the Minnesota State Retirement System (MSRS), Public Employees Retirement Association (PERA), Teachers Retirement Association (TRA), and the St. Paul Teachers Retirement Fund Association (SPTRFA).

The Work Group received guidance from the retained actuaries for the funds, Gabriel, Roeder, Smith & Company (GRS) and Cavanaugh Macdonald Consulting LLC (CavMac), the actuary for the Legislative Commission on Pensions and Retirement (LCPR), VIA Actuarial Solutions, and representatives from the Pew Charitable Trusts. The participants in the Work Group are fully described in the Appendix.

The purpose of the Work Group is to recommend legislation amending [Minnesota Statutes, section 356.215, subdivision 11](#), to conform to current actuarial best practices for amortizing liabilities. The Work Group was to consider:

1. layered amortization;
2. whether amortization policy should be regulated by statute, addressed in an appendix to the Commission's standards for actuarial work, or documented elsewhere;
3. whether all pension plans must employ the same approach to amortization;
4. whether the proposed legislation will result in any cost to the pension funds and, if so, estimates of the cost; and
5. whether changes to amortization will require the approval of the Legislative Commission on Pensions and Retirement.

The Work Group was required to convene its first meeting by August 1, 2024, and submit its recommendations to the LCPR by January 10, 2025. The Work Group met five times, with each meeting conducted in a hybrid format.

SECTION 2: Background and Definitions

Unfunded Actuarial Accrued Liabilities (UAAL): The unfunded portion of liabilities attributable to benefits provided for a member's past service. The UAAL may increase or decrease due to benefit accruals, benefit increases or decreases, assumption changes, investment gains and losses, and other economic or demographic gains and losses.

Amortization Method: The amounts and timing of payments needed to pay for the UAAL. The amortization method defines how much and how long current and future active members and their employers will pay for the liabilities attributable to the portion of current member's past

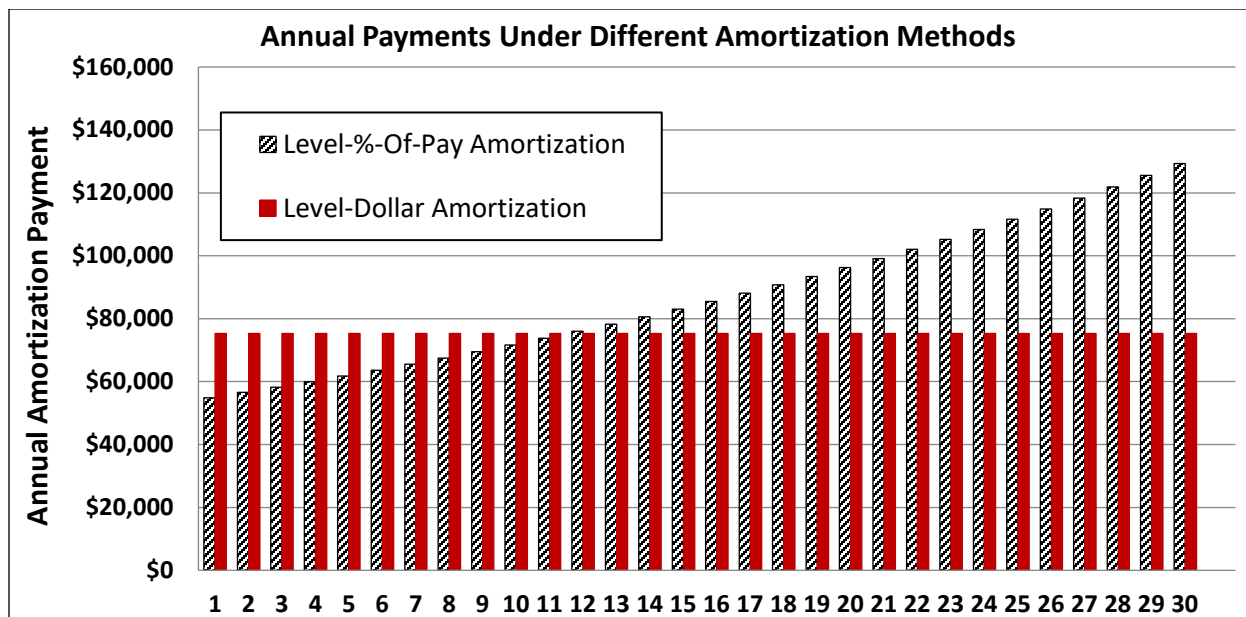
service that is not sufficiently funded. Achievement of intergenerational equity depends on good amortization methodology. The following are the three typical components of an Amortization Method:

- **Growth Pattern**
 - **Level-Dollar Amortization:**
 - Involves equal annual payments over the amortization period.
 - Each payment reduces the principal and covers interest on the outstanding UAAL.
 - **Level-Percent-of-Pay Amortization:**
 - Payments are a fixed percentage of current and assumed future payroll.
 - As payroll grows, so do the contributions, making it easier to budget payments over time as long as the payroll growth assumption is accurate.
 - Payments under this method may not be sufficient to reduce the principal early in the payment period. This is known as negative amortization.
- **Amortization Type**
 - **Closed Amortization:**
 - The debt is amortized over a fixed period, typically not extended.
 - Helps ensure the debt is paid off within a specific timeframe.
 - **Single amortization base:** Provides a fixed amortization end-date but can produce “tail volatility” towards the end of the period.
 - **Layered amortization bases:** Different layers of debt are amortized over different periods; often used for new debt while keeping old debt on a different schedule.
 - **Open/Rolling Amortization:**
 - The period resets periodically (e.g., annually), which can extend the amortization period indefinitely.
 - While providing flexibility, it might not ensure the debt is fully paid off in a set timeframe.
- **Amortization Period:** The length of time over which the UAAL is amortized.

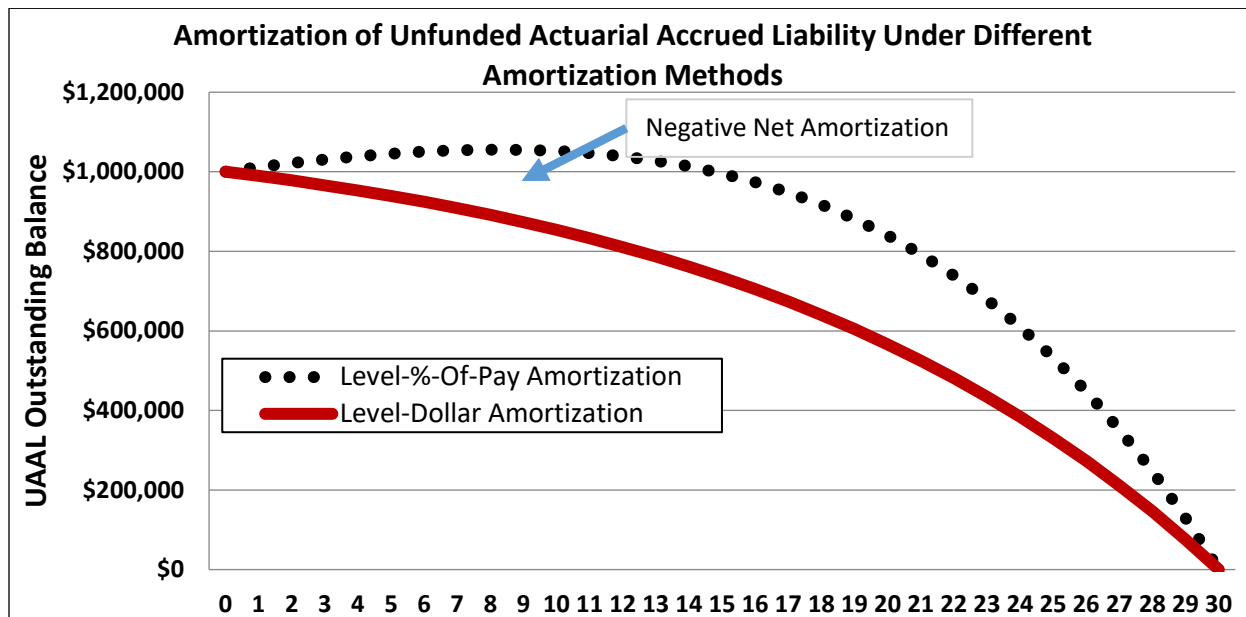
Regardless of the amortization method used, new UAAL can accrue at any time including after the initial UAAL has been eliminated.

Tail Volatility: Refers to contribution rate fluctuations that can occur towards the end of an amortization period. For example, a large actuarial gain or loss can create a substantial contribution rate change if it must be amortized over a short amortization period.

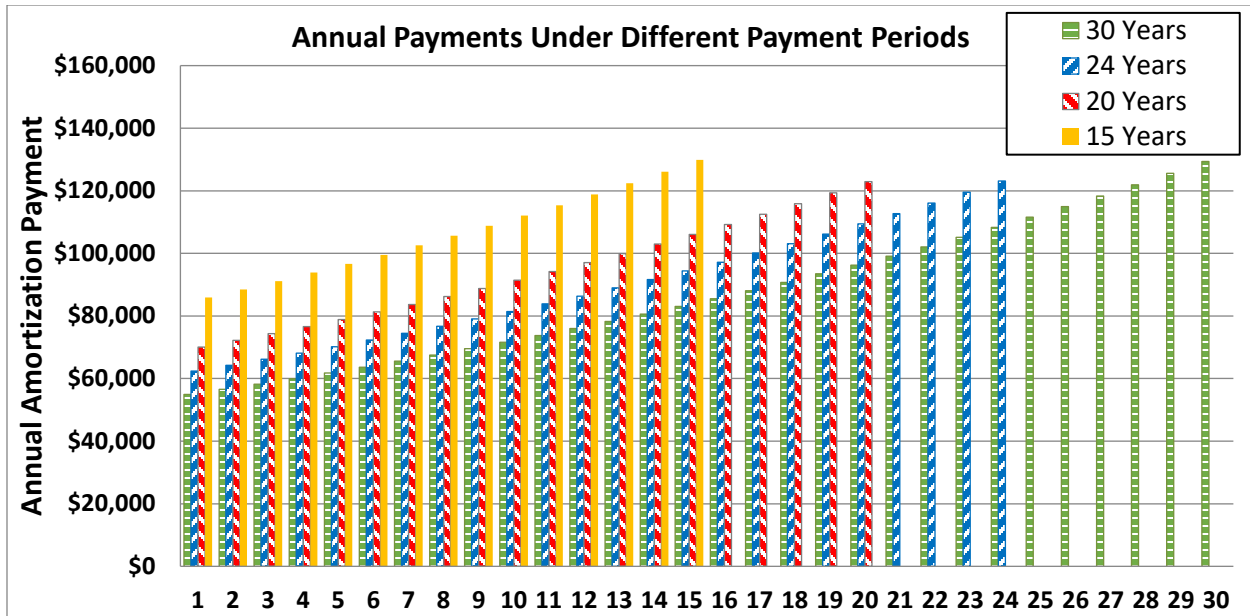
Negative Amortization: When annual required amortization payments are less than the interest accumulated on the UAAL. Even when a payment is made, the amount owed will still go up because the payments are not enough to cover the interest.



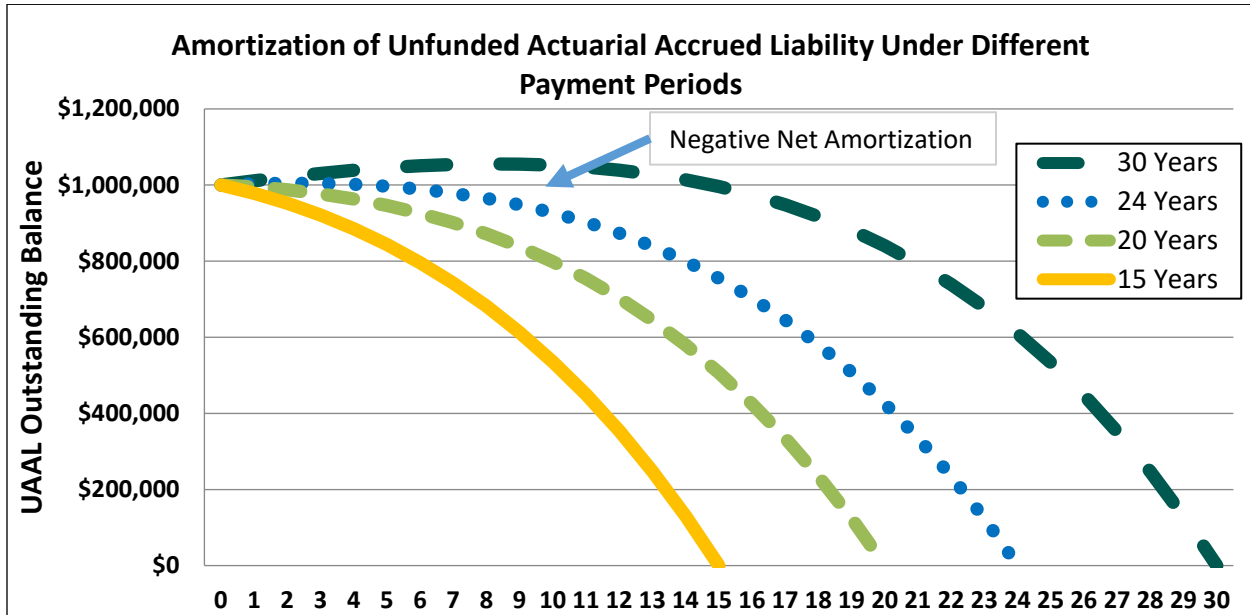
This graph shows the annual amortization payment to pay off a \$1,000,000 Unfunded Actuarial Accrued Liability (UAAL) over 30 years using a Level-Dollar amortization method and a Level-%-Of-Pay amortization method. The Level-%-Of-Pay method assumes 3% total payroll increases. Both methods reflect a 7% investment return assumption for discounting.



This graph shows the reduction in a \$1,000,000 Unfunded Actuarial Accrued Liability (UAAL) over 30 years using a Level-Dollar amortization payment and a Level-%-Of-Pay amortization payment. The Level-%-Of-Pay methodology assumes 3% total payroll increases. Both methods reflect a 7% investment return assumption for discounting. The increase in the UAAL under the level-percentage-of-pay methodology is an example of negative net amortization.



This graph shows the annual amortization payment to pay off a \$1,000,000 unfunded liability over time periods ranging from 15 to 30 years. The payments are shown using the Level-%-Of-Pay method with payments assumed to increase at 3% and using a 7% investment return assumption for discounting.



This graph shows the reduction in a \$1,000,000 Unfunded Actuarial Accrued Liability using a Level-%-Of-Pay methodology for time periods ranging from 15 to 30 years. The payments reflect a 3% total payroll growth assumption and use a 7% investment return assumption for discounting.

SECTION 3: Current Methodology

[Minnesota Statutes, section 356.215, subdivision 11](#), outlines the process for amortizing unfunded liabilities of public pension plans, specifies the period over which the unfunded liabilities must be paid off, sets the target date by which the pension plan should be fully funded, and allows for adjustments to the amortization schedule based on actuarial valuations and experience studies. The amortization contribution requirements that this statutory language implies is advisory, but it is a key component of the LCPR's determination of whether the statutorily fixed member and employer contribution rates are adequate.¹

The “established date for full funding” for each pension plan set in statute, therefore, is inherently subject to the whims of the political process and “a function of the policymakers’ pension funding philosophy.”² Historically, each pension plan has rolled its UAAL together and essentially reset the lump sum of liabilities each time the Minnesota Legislature votes to update the full funding dates in statute. The practice of extending amortization of the UAAL to a date in the future is a practice dating back to at least 1957, as shown by the table below.

| Year of Law Change | Plan(s) Impacted | Established Date for Full Funding (number of years to reach that date) |
|--------------------|--|--|
| 1957 | Uncoded Public Employees Retirement Plan | 1997 (40 years) |
| 1965 | Statewide and General Employee Retirement Plan Local Police and Paid Firefighter Relief Association | 1997 (32 years) |
| 1967 | Local Police and Paid Firefighter Relief Association | 2007 (40 years) |
| 1975 | Statewide and General Employee Retirement Plan | 1997 (22 years) |
| 1979 | Statewide and General Employee Retirement Plan | 2009 (30 years) |
| 1987 | Minneapolis Employees Retirement Fund (MERF) | 2017 (30 years) |
| 1989 | All Plans (excluding MERF) | 2020 (31 years) |
| 1991 | Minneapolis Employees Retirement Fund | 2020 (29 years) |
| 1999 | All Plans (excluding MERF) | 2029 (30 years) |
| 2001 | PERA General | 2031 (30 years) |
| 2008 | MSRS Correctional, Judges Retirement Plan PERA Police and Fire | 2038 (30 years) |

¹ [Background Information on the Amortization of Defined Benefit Retirement Plan Unfunded Actuarial Accrued Liabilities, page 1, MINNESOTA LEGISLATIVE COMMISSION ON PENSIONS AND RETIREMENT \(revised July 2011\).](#)

² *Id.*, page 2.

| Year of Law Change | Plan(s) Impacted | Established Date for Full Funding (number of years to reach that date) |
|--------------------|---|--|
| 2008 | St. Paul Teachers Retirement Fund Association | 2033 (25 years) |
| 2010 | MSRS General | 2040 (30 years) |
| 2010 | MERF | 2031 (21 years) |

Source: [*Background Information on the Amortization of Defined Benefit Retirement Plan Unfunded Actuarial Accrued Liabilities*, MINNESOTA LEGISLATIVE COMMISSION ON PENSIONS AND RETIREMENT \(revised July 2011\)](#).

After 2010, the date for full funding continued to be extended. The most recent extensions occurred in 2018 and 2023. In 2018, amortization of the UAAL for all plans was extended to 2048 (30 years).³ In 2023, amortization of the UAAL for TRA was extended to 2053 (30 years),⁴ but changed back to 2048 in 2024.⁵

Many of the changes in law illustrated above were automatic responses to changes in benefits, actuarial assumptions, or actuarial methods. According to the original rolling amortization, the procedure in the statute “computes a new full funding date based on a weighted averaging of the prior UAAL portion and the prior amortization period and of the added unfunded actuarial accrued liability portion and a new 30-year amortization period.”⁶ Most plans, however, have advocated exempting themselves from this provision, instead relying on fixed full funding dates and amortization periods as set forth in section 356.215, subdivision 11.

Current methodology, set in subdivision 11, calls for a fixed period amortization by 2048 of the entire UAAL. While this period is now less than 25 years, amortization periods have seldom been that short, as shown in the chart above.

While these historical amortization policies may have been considered acceptable at one time—as further discussed in the following sections—the Work Group believes that the current statutory methodology is not consistent with actuarial best practices because it does not reduce the unfunded liability in a reasonable time, is subject to tail volatility, and is less transparent.

³ [Laws 2018, chapter 211, article 5, section 3](#).

⁴ [Laws 2023, chapter 64, article 14, section 8](#).

⁵ [Laws 2024, chapter 102, article 8, section 1](#).

⁶ [*Background Information on the Amortization of Defined Benefit Retirement Plan Unfunded Actuarial Accrued Liabilities*, page 7, MINNESOTA LEGISLATIVE COMMISSION ON PENSIONS AND RETIREMENT \(revised July 2011\)](#).

SECTION 4: Amortization Work Group Considerations

As stated in Section 1, the legislation requiring the formation of the Work Group directed the group to consider: (1) layered amortization; (2) whether amortization policy should be regulated by statute, addressed in an appendix to the Commission's standards for actuarial work, or documented elsewhere; (3) whether all pension plans must employ the same approach to amortization; (4) whether the proposed legislation will result in any cost to the pension funds and, if so, estimates of the cost; and (5) whether changes to amortization will require the approval of the Commission. The Work Group discussed each of these topics but focused most of their discussions on the complex topic of layered amortization.

The Work Group considered the following over the course of five meetings.

A. Actuarial General Policy Objectives and Amortization Specific Policy Objectives

The Work Group relied primarily on a Conference of Consulting Actuaries (CCA) white paper titled "[Actuarial Funding Policies and Practices for Public Pension Plans](#)". This document provides guidance to actuaries, policymakers, and other interested parties on developing actuarially based funding policies for public pension plans. The white paper covers various aspects such as actuarial cost methods, asset smoothing methods, amortization policies, and direct rate smoothing. The paper is based on extensive discussions and consensus among over 50 leading actuaries from the CCA Public Plans Community, including actuaries from GRS and CavMac. Although the white paper's proposed model is only one source of guidance, it is generally consistent with other contemporary actuarial funding policy guidance.

Beyond policy objectives specifically for amortization methods, the CCA white paper also provides broader General Policy Objectives. Those General Policy Objectives for pension plans are:

- **Contribution Sufficiency:** The principal goal of a funding policy is to pre-fund the benefits. Contributions must be sufficient to fund at least the value of benefits accrued.
- **Demographic Matching:** Each generation of taxpayers pays for the benefits of the employees who provided services to them.
- **Volatility Management:** Strive for contribution stability but not at the detriment of other policy objectives.
- **Transparency and Accountability:** The intent and impact of each funding policy element is known to all stakeholders.
- **Sound Governance:** Policy decisions are made in the best interest of the plan members.

The CCA white paper identified Specific Policy Objectives for Amortization Methods to ensure sustainability and fairness. Those key objectives are:

- **Intergenerational Equity:** Ensure that costs are allocated fairly across different generations of taxpayers.
- **Predictability and Stability:** Offering stable and predictable contributions over time to avoid unexpected financial burdens.
- **Minimize Volatility:** Using methods that reduce contribution rate volatility, which helps in financial planning.
- **Adequate Funding:** Guaranteeing that sufficient funds are available to pay promised benefits when they come due.

The CCA white paper also categorized certain policy element structures and parameters or ranges as Non-recommended Practices. Non-recommended Practices are practices that appear to reflect General Policy Objections that may not be consistent with the actuarial best practices. Some of the Non-recommended Practices include: (1) a single/combined fixed period amortization of the entire UAAL with periodic re-amortization to a new (longer) period; (2) amortization over more than 25 years; and (3) rolling amortization of an entire UAAL with periodic re-amortization to a new (longer) period.

These objectives and practices aim to promote intergenerational equity and ensure that pension plans remain solvent and capable of meeting their long-term obligations.

B. Amortization Policies for Public Pension Systems in Other States

The information considered by the Work Group included two memoranda provided by Pew Charitable Trusts. The memoranda discussed how other states approach the establishment of an amortization policy for public pension systems, including whether said policy is established in statute or board policy and closed or layered. The memoranda included the following chart, which illustrates the approaches taken by a sampling of states:

| | Board Policy | State Statute | Other |
|-----------------------------|--------------|---------------|-------|
| Closed Amortization | MA | IL, VT | |
| Layered Amortization | KS | PA, RI | |
| Other | | | CT |

Source: [Memo in response to question posed by Amortization Work Group at 10/3/24 meeting, PEW CHARITABLE TRUSTS \(Nov. 1, 2024\)](#).

C. Overview of UAAL Source, Model Practices for Layered Amortization, and Additional Considerations

The Work Group considered the guidance from the CCA white paper, which suggested applying different amortization periods depending on the source of the unfunded liability. For example, liability attributable to an increase in the COLA should, according to the model practice recommended, be amortized over a period not exceeding retirees' life expectancy or 10 years as an approximation.

UAAL Source: "Legacy" UAAL

- **Model Practice:** No Recommendation
- **Additional Considerations:** The Work Group considered what would provide a less impactful transition.

UAAL Source: Experience Gain or Loss

- **Model Practice:** 15 to 20 years

UAAL Source: Changes to Actuarial Assumptions or Methods

- **Model Practice:** 15 to 20 years

UAAL Source: Benefit Changes for Active Members

- **Model Practice:** Active demographics, or up to 15 years as an approximation
- **Work Group Considerations:** The Work Group considered a methodology that would be consistent for all plans rather than active demographics.

UAAL Source: Long-term Benefit Changes for Inactive Members

- **Model Practice:** Inactive demographics, or 10 years as an approximation
- **Work Group Considerations:** The Work Group considered a methodology that would be consistent for all plans rather than inactive demographics.

UAAL Source: Short-term Benefit Changes

- **Model Practice:** 5 years or less

UAAL Source: Contributions More or Less Than Actuarially Determined Contribution

- **Model Practice:** No Recommendation
- **Work Group Considerations:** The Work Group recognizes that as a fixed rate plan, the annual contributions are different than the actuarial contribution rates. As a result, a new base is needed for contributions more or less than the Actuarially Determined Contribution.

The Work Group also considered methods to actively manage amortization bases to avoid future tail volatility. Tail volatility refers to annual required contribution rate fluctuations that can occur towards the end of an amortization period. The CCA white paper suggests that tail volatility can be controlled with limited active management of the amortization layers. The Work Group recommends that the LCPR Standards for Actuarial Work be updated with guidelines to help control tail volatility since it is not possible to predict exactly when tail volatility will occur.

Finally, the Work Group considered how to handle amortization bases for an overfunded plan. Three alternatives were discussed: (1) keep the 30-year amortization of surplus in Minnesota Statutes, section 356.215, subdivision 11, paragraph (d); (2) keep the 30-year amortization, but remove it from statute and put it in standards; (3) remove the 30-year amortization and do not make any distinction between an overfunded and underfunded plan. The Work Group agreed on the third option because it preserves all amortization bases and the transparency they provide. This means there is no special action taken if a plan moves from underfunded to overfunded. The existing amortization bases and new amortization bases continue as is.

SECTION 5: Amortization Work Group Recommendations

After several meetings, the Work Group participants agreed to make the following recommendations to the LCPR:

1. The Work Group recommends a “layered amortization” approach which would replace the language currently in Minnesota Statutes, section 356.215, subdivision 11. Currently all sources of an UAAL are combined during the annual valuation process and the single amount is amortized over the plan’s amortization period defined by the Legislature in section 356.215, subdivision 11, as “the established date for full funding,” which is currently 2048. Under the “layered amortization” approach all sources of the UAAL would be individually tracked and amortized over different periods that are more appropriate for cost attribution and transparency.
2. The Work Group recommends that Minnesota Statutes, section 356.215, subdivision 11, be updated with the following individual amortization periods:
 - a. “Legacy” UAAL: Retain current statutory amortization target date (2048)
 - b. Experience Gain or Loss: 15 years
 - c. Assumption or Method Changes: 20 years
 - d. Active Benefit Changes: 15 years
 - e. Long-term Inactive Benefit Changes: 15 years
 - f. Short-term Benefit Changes: Match the period during which the benefit change is in effect
 - g. Contributions More or Less Than Actuarially Determined Contribution: 15 years

3. The Work Group recommends that the 30-year amortization period for an overfunded plan (i.e., a negative UAAL) be removed from Minnesota Statute section 356.215, subdivision 11, and the Standards for Actuarial Work.
4. The Work Group recommends that the Standards for Actuarial Work be updated with the following guidelines:
 - a. **Annual review of amortization patterns:** In coordination with the annual actuarial valuations, each system's retained actuary will prepare an illustration for each pension plan illustrating the projected amortization payment amounts based on the current amortization bases. Using these amortization runout projections, the retained actuary will identify situations where active amortization management could minimize tail volatility while still being consistent with amortization policy objectives (i.e., contribution sufficiency, demographic matching, transparency, accountability, sound governance, intergenerational equity, predictability, stability, and adequate funding).
 - b. **Active management strategies:** Based on the annual amortization review, the systems may consider the following active strategies for managing amortization bases nearing the end of their scheduled periods (e.g., fewer than three years remaining). These strategies are intended to minimize potential tail volatility while not affecting the long-term sustainability of the Actuarially Determined Contribution rates.
 - i. **Synchronizing Bases:** Amortization bases with similar ending years whose remaining unamortized amounts are partially-offsetting or fully-offsetting may be synchronized using an identical ending year. Synchronizing bases keeps them as separate amortization layers but with new payment amounts and a uniform remaining period. If bases are synchronized, their new remaining amortization period should not exceed the weighted average payment period of the bases before synchronization. An advantage of this method is that can reduce tail volatility while retaining the history of the original amortization amounts and outstanding balances.
 - ii. **Accelerating Bases:** Amortization bases with a remaining balance below a predetermined de minimis threshold (e.g., 0.5% of the plan's actuarial accrued liability) may be fully amortized in the subsequent valuation cycle rather than continuing to amortize small amounts over the remaining period. This can prevent prolonged volatility from minor residual amounts.
5. The Work Group recommends that the methodology take effect with the July 1, 2025, actuarial valuations.
6. The Work Group recommends that the individual layers created from UAAL changes for the fiscal year ending June 30, 2025, should be amortized separately.
7. The Work Group recommends that the changes should be made to the statute as needed, but details should be captured in the Standards for Actuarial Work.

SECTION 6: Board Actions

The PERA Board of Trustees and MSRS Board of Directors have authorized their staff to pursue legislation using layered amortization methodology and timeframes recommended by the Work Group.

The SPTRFA Board of Trustees supported the proposal as drafted, but did not take formal action due to the preliminary nature of the proposal. They also expressed concern that amortization only halfway addresses unfunded liabilities since there is no corresponding funding mechanism.

The TRA Board of Trustees met on January 8, 2025, and considered layered amortization and the recommendations of the Work Group. At the meeting, it was moved and seconded that the Board “authorize staff to pursue legislation using the layered amortization methodology and timeframes recommended by the work group.” The motion failed on a tied 4-4 vote. After additional discussion, it was moved and seconded that staff be authorized “to pursue legislation using the layered amortization methodology and timeframes recommended . . . , with the exception that the active benefit changes be moved from 15 to 20 years as a recommendation to the work group.” The motion passed on a 5-3 vote.

SECTION 7: Impact on Decision Making

The recommended changes only impact the amortization of unfunded liabilities arising from changes in benefits, assumptions, methods, or contributions, or experience gains or losses. The changes in methodology does not change benefits or contributions as those are fixed by statute.

What is expected to change is the information to be used by decision-makers in proposing or approving plan changes. For example, if the Work Group recommendations are adopted, and a benefit change is enacted effective July 1, 2025, the estimated cost will be communicated as an amount payable over 15 years rather than as a lesser amount payable over 23 years (until 2048).

It is important to note that the communication of a larger cost paid over a shorter period of time will change after 2033 when the legacy amortization period will be less than the proposed 15-year period set for benefit changes. After 2033, the new methodology will communicate a lower cost paid over a longer period of time.

The executive directors and staff of the pension funds intend to communicate the impact of any changes with their respective stakeholders.

SECTION 8: What Will the Change Accomplish?

The recommended change will ensure the following:

- Each amortization payment will fully amortize the amortization base within a reasonable time period and reduce the outstanding balance by a reasonable amount each year.
- The sum of all UAAL amortization payments will fully amortize the total UAAL within a reasonable time period and reduce the UAAL by a reasonable amount within a sufficiently short period (no net negative amortization).
- There will be greater transparency of UAAL increases and decreases.
- There will be no need for the legislature to consider and reset target amortization dates.
- When looking at a pension plan's UAAL, legislators and stakeholders will be able to see how the UAAL is apportioned among benefit, assumption, and other changes, how the layers of liability compare to each other, and when a change is expected to be fully paid down.

SECTION 9: Examples of Layered Amortization

The executive directors and staff of PERA, MSRS, and St. Paul Teachers prepared graphic illustrations of what layered amortization would look like using data from certain pension plans they administer. Two examples, one for the PERA General Plan and the other for the PERA Police and Fire Plan, are attached to this report as Appendix B. The examples show what information would be available if the Work Group's recommendations had been put into effect in 2014 and the expected run-out if all assumptions are met after 2024.

SECTION 10: Implementation

The Work Group's recommended changes to Minnesota Statutes, section 356.215, subdivision 11, are provided in the form of a draft bill, as Attachment 1 to this report.

An amendment to the draft bill sought by the TRA Board of Trustees would amend the amortization period for benefit changes for active employees. The amendment is provided as Attachment 2 to this report.

The Work Group recommends approval of the First Amendment to the Standards for Actuarial Work, which is provided as Attachment 3 to this report.

1.1

A bill for an act

1.2

relating to retirement; modifying the method for amortizing unfunded liabilities;

1.3

adding a definition for standards for actuarial work; making conforming changes;

1.4

amending Minnesota Statutes 2024, section 356.215, subdivisions 1, 4, 8, 11, 17.

1.5

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MINNESOTA:

1.6

Section 1. Minnesota Statutes 2024, section 356.215, subdivision 1, is amended to read:

1.7

Subdivision 1. **Definitions.** (a) For the purposes of sections 3.85 and 356.20 to 356.23,

1.8

each of the terms in the following paragraphs has the meaning given.

1.9

(b) "Actuarial valuation" means a set of calculations prepared by an actuary retained

1.10

under section 356.214 if so required under section 3.85, or otherwise, by an approved

1.11

actuary, to determine the normal cost and the accrued actuarial liabilities of a benefit plan,

1.12

according to the entry age actuarial cost method and based upon stated assumptions including,

1.13

but not limited to rates of interest, mortality, salary increase, disability, withdrawal, and

1.14

retirement and to determine the payment necessary to amortize over a stated period any

1.15

unfunded accrued actuarial liability disclosed as a result of the actuarial valuation of the

1.16

benefit plan.

1.17

(c) "Approved actuary" means:

1.18

(1) a person who is regularly engaged in the business of providing actuarial services and

1.19

who is a fellow in the Society of Actuaries; or

1.20

(2) a firm that retains a person described in clause (1) on its staff.

1.21

(d) "Entry age actuarial cost method" means an actuarial cost method under which the

1.22

actuarial present value of the projected benefits of each individual currently covered by the

benefit plan and included in the actuarial valuation is allocated on a level basis over the service of the individual, if the benefit plan is governed by section 424A.093, or over the earnings of the individual, if the benefit plan is governed by any other law, between the entry age and the assumed exit age, with the portion of the actuarial present value which is allocated to the valuation year to be the normal cost and the portion of the actuarial present value not provided for at the valuation date by the actuarial present value of future normal costs to be the actuarial accrued liability, with aggregation in the calculation process to be the sum of the calculated result for each covered individual and with recognition given to any different benefit formulas which may apply to various periods of service.

(e) "Experience study" means a report providing experience data and an actuarial analysis of the adequacy of the actuarial assumptions on which actuarial valuations are based.

(f) "Actuarial value of assets" means the market value of all assets as of the preceding June 30, reduced by:

(1) 20 percent of the difference between the actual net change in the market value of total assets between the June 30 that occurred three years earlier and the June 30 that occurred four years earlier and the computed increase in the market value of total assets over that fiscal year period if the assets had earned a rate of return on assets equal to the annual percentage investment return assumption used in the actuarial valuation for the July 1 that occurred four years earlier;

(2) 40 percent of the difference between the actual net change in the market value of total assets between the June 30 that occurred two years earlier and the June 30 that occurred three years earlier and the computed increase in the market value of total assets over that fiscal year period if the assets had earned a rate of return on assets equal to the annual percentage investment return assumption used in the actuarial valuation for the July 1 that occurred three years earlier;

(3) 60 percent of the difference between the actual net change in the market value of total assets between the June 30 that occurred one year earlier and the June 30 that occurred two years earlier and the computed increase in the market value of total assets over that fiscal year period if the assets had earned a rate of return on assets equal to the annual percentage investment return assumption used in the actuarial valuation for the July 1 that occurred two years earlier; and

(4) 80 percent of the difference between the actual net change in the market value of total assets between the most recent June 30 and the June 30 that occurred one year earlier and the computed increase in the market value of total assets over that fiscal year period if

the assets had earned a rate of return on assets equal to the annual percentage investment return assumption used in the actuarial valuation for the July 1 that occurred one year earlier.

(g) "Unfunded actuarial accrued liability" means the total current and expected future benefit obligations, reduced by the sum of the actuarial value of assets and the present value of future normal costs.

~~(h) "Pension benefit obligation" means the actuarial present value of credited projected benefits, determined as the actuarial present value of benefits estimated to be payable in the future as a result of employee service attributing an equal benefit amount, including the effect of projected salary increases and any step rate benefit accrual rate differences, to each year of credited and expected future employee service.~~

(h) "Standards for actuarial work" means the document required under section 3.85, subdivision 10, to be adopted by the Legislative Commission on Pensions and Retirement as so adopted and amended from time to time.

EFFECTIVE DATE. This section is effective the day following final enactment.

Sec. 2. Minnesota Statutes 2024, section 356.215, subdivision 4, is amended to read:

Subd. 4. **Actuarial valuation; contents.** (a) The actuarial valuation must be made in conformity with the requirements of the definition contained in subdivision 1 and the ~~most recent~~ standards for actuarial work ~~adopted by the Legislative Commission on Pensions and Retirement.~~

(b) The actuarial valuation must measure all aspects of the benefit plan of the fund in accordance with changes in benefit plans, if any, and salaries reasonably anticipated to be in force during the ensuing fiscal year. The actuarial valuation must be prepared in accordance with the entry age actuarial cost method. The actuarial valuation required under this section must include the information required in subdivisions 5 to 15.

EFFECTIVE DATE. This section is effective the day following final enactment.

Sec. 3. Minnesota Statutes 2024, section 356.215, subdivision 8, is amended to read:

Subd. 8. **Actuarial assumptions.** (a) The actuarial valuation must use the applicable following investment return assumption:

| plan | investment return assumption |
|--|------------------------------|
| general state employees retirement plan | 7% |
| correctional state employees retirement plan | 7 |

| | | |
|------|--|---|
| 4.1 | State Patrol retirement plan | 7 |
| 4.2 | legislators retirement plan, and for the | 0 |
| 4.3 | constitutional officers calculation of total plan | |
| 4.4 | liabilities | |
| 4.5 | judges retirement plan | 7 |
| 4.6 | general public employees retirement plan | 7 |
| 4.7 | public employees police and fire retirement plan | 7 |
| 4.8 | local government correctional service retirement | 7 |
| 4.9 | plan | |
| 4.10 | teachers retirement plan | 7 |
| 4.11 | St. Paul teachers retirement plan | 7 |
| 4.12 | Bloomington Fire Department Relief Association | 6 |
| 4.13 | local monthly benefit volunteer firefighter relief | 5 |
| 4.14 | associations | |
| 4.15 | monthly benefit retirement plans in the statewide | 6 |
| 4.16 | volunteer firefighter retirement plan | |
| 4.17 | (b) The actuarial valuation for each of the covered retirement plans listed in section | |
| 4.18 | 356.415, subdivision 2, and the St. Paul Teachers Retirement Fund Association must take | |
| 4.19 | into account the postretirement adjustment rate or rates applicable to the plan as specified | |
| 4.20 | in section 354A.29, subdivision 7, or 356.415, whichever applies. | |
| 4.21 | (c) The actuarial valuation must use the applicable salary increase and payroll growth | |
| 4.22 | assumptions found in the appendix to the standards for actuarial work adopted by the | |
| 4.23 | Legislative Commission on Pensions and Retirement pursuant to section 3.85, subdivision | |
| 4.24 | 10. The appendix must be updated whenever new assumptions have been approved or | |
| 4.25 | deemed approved under subdivision 18. | |
| 4.26 | (d) The assumptions set forth in the appendix to the standards for actuarial work continue | |
| 4.27 | to apply, unless a different salary assumption or a different payroll increase assumption: | |
| 4.28 | (1) has been proposed by the governing board of the applicable retirement plan; | |
| 4.29 | (2) is accompanied by the concurring recommendation of the actuary retained under | |
| 4.30 | section 356.214, subdivision 1, if applicable, or by the approved actuary preparing the most | |
| 4.31 | recent actuarial valuation report if section 356.214 does not apply; and | |
| 4.32 | (3) has been approved or deemed approved under subdivision 18. | |
| 4.33 | <u>EFFECTIVE DATE.</u> <u>This section is effective the day following final enactment.</u> | |

5.1 Sec. 4. Minnesota Statutes 2024, section 356.215, subdivision 11, is amended to read:

5.2 Subd. 11. **Amortization contributions.** (a) ~~In addition to the exhibit indicating the level~~
5.3 ~~normal cost,~~ The actuarial valuation of the retirement each pension plan listed in subdivision
5.4 8, paragraph (a), other than the legislators retirement plan and relief association plans, must
5.5 contain an exhibit for financial reporting purposes indicating the additional annual
5.6 contribution sufficient to amortize on a level percent of payroll basis the unfunded actuarial
5.7 accrued liability and must contain an exhibit indicating the additional contribution sufficient
5.8 to amortize the unfunded actuarial accrued liability. For the retirement plans listed in
5.9 subdivision 8, paragraph (a), but excluding the legislators retirement plan, the Bloomington
5.10 Fire Department Relief Association, and the local monthly benefit volunteer firefighter
5.11 relief associations, the additional contribution must be calculated on a level percentage of
5.12 covered payroll basis by the established date for full funding in effect when the valuation
5.13 is prepared, assuming annual payroll growth at the applicable percentage rate set forth in
5.14 the appendix described in subdivision 8, paragraph (c). For the legislators retirement plan,
5.15 the additional annual contribution must be calculated on a level annual dollar amount basis,
5.16 resulting from any of the following changes, over the period specified for that change, except
5.17 that the pension plan's unfunded actuarial accrued liability as of July 1, 2024, must be
5.18 amortized over a period that ends June 30, 2048:

5.19 (1) experience gain or loss: 15 years;

5.20 (2) assumption or method change: 20 years;

5.21 (3) benefit change for active members: 15 years;

5.22 (4) long-term benefit change for inactive members: 15 years;

5.23 (5) short-term benefit change for inactive members: the number of years during which
5.24 the benefit change will be in effect; and

5.25 (6) an annual contribution that is more or less than the actuarially determined contribution:
5.26 15 years.

5.27 (b) The amortization periods specified in paragraph (a) apply:

5.28 (1) unless the standards for actuarial work state otherwise; and

5.29 (2) except that, for the legislators retirement plan, the additional annual contribution
5.30 sufficient to amortize the unfunded actuarial accrued liability must be calculated on a level
5.31 dollar basis with an amortization period of one year.

~~(b) This paragraph applies only if the calculation under this paragraph for a retirement plan results in an established date for full funding that is earlier than the established date for full funding applicable to the retirement plan under paragraph (c). For any retirement plan, if there has been a change in any or all of the actuarial assumptions used for calculating the actuarial accrued liability of the fund, a change in the benefit plan governing annuities and benefits payable from the fund, a change in the actuarial cost method used in calculating the actuarial accrued liability of all or a portion of the fund, or a combination of the three, and the change or changes, by itself or by themselves and without inclusion of any other items of increase or decrease, produce a net increase in the unfunded actuarial accrued liability in the fund, the established date for full funding must be determined using the following procedure:~~

~~(i) the unfunded actuarial accrued liability of the fund must be determined in accordance with the plan provisions governing annuities and retirement benefits and the actuarial assumptions in effect before an applicable change;~~

~~(ii) the level annual dollar contribution or level percentage, whichever is applicable, needed to amortize the unfunded actuarial accrued liability amount determined under item (i) by the established date for full funding in effect before the change must be calculated using the investment return assumption specified in subdivision 8 in effect before the change;~~

~~(iii) the unfunded actuarial accrued liability of the fund must be determined in accordance with any new plan provisions governing annuities and benefits payable from the fund and any new actuarial assumptions and the remaining plan provisions governing annuities and benefits payable from the fund and actuarial assumptions in effect before the change;~~

~~(iv) the level annual dollar contribution or level percentage, whichever is applicable, needed to amortize the difference between the unfunded actuarial accrued liability amount calculated under item (i) and the unfunded actuarial accrued liability amount calculated under item (iii) over a period of 30 years from the end of the plan year in which the applicable change is effective must be calculated using the applicable investment return assumption specified in subdivision 8 in effect after any applicable change;~~

~~(v) the level annual dollar or level percentage amortization contribution under item (iv) must be added to the level annual dollar amortization contribution or level percentage calculated under item (ii);~~

~~(vi) the period in which the unfunded actuarial accrued liability amount determined in item (iii) is amortized by the total level annual dollar or level percentage amortization contribution computed under item (v) must be calculated using the investment return~~

~~assumption specified in subdivision 8 in effect after any applicable change, rounded to the nearest integral number of years, but not to exceed 30 years from the end of the plan year in which the determination of the established date for full funding using the procedure set forth in this clause is made and not to be less than the period of years beginning in the plan year in which the determination of the established date for full funding using the procedure set forth in this clause is made and ending by the date for full funding in effect before the change; and~~

~~(vii) the period determined under item (vi) must be added to the date as of which the actuarial valuation was prepared and the date obtained is the new established date for full funding.~~

~~(e) The established date for full funding is the date provided for each of the following plans:~~

~~(i) for the general employees retirement plan of the Public Employees Retirement Association, the established date for full funding is June 30, 2048;~~

~~(ii) for the Teachers Retirement Association, the established date for full funding is June 30, 2048;~~

~~(iii) for the correctional state employees retirement plan and the State Patrol retirement plan of the Minnesota State Retirement System, the established date for full funding is June 30, 2048;~~

~~(iv) for the judges retirement plan, the established date for full funding is June 30, 2048;~~

~~(v) for the local government correctional service retirement plan and the public employees police and fire retirement plan, the established date for full funding is June 30, 2048;~~

~~(vi) for the St. Paul Teachers Retirement Fund Association, the established date for full funding is June 30, 2048; and~~

~~(vii) for the general state employees retirement plan of the Minnesota State Retirement System, the established date for full funding is June 30, 2048.~~

~~(d) For the retirement plans for which the annual actuarial valuation indicates an excess of valuation assets over the actuarial accrued liability, the valuation assets in excess of the actuarial accrued liability must be recognized as a reduction in the current contribution requirements by an amount equal to the amortization of the excess expressed as a level percentage of pay over a 30-year period beginning anew with each annual actuarial valuation of the plan.~~

8.1

EFFECTIVE DATE. This section is effective beginning with the July 1, 2025, actuarial

8.2

valuations.

8.3

Sec. 5. Minnesota Statutes 2024, section 356.215, subdivision 17, is amended to read:

8.4

Subd. 17. **Actuarial services by approved actuaries.** (a) The actuarial valuation or

8.5

quadrennial experience study must be made and any actuarial consulting services for a

8.6

retirement fund or plan must be provided by an approved actuary. The actuarial valuation

8.7

or quadrennial experience study must include a signed written declaration that it has been

8.8

prepared according to sections 356.20 to 356.23 and according to the ~~most recent~~ standards

8.9

for actuarial work ~~adopted by the Legislative Commission on Pensions and Retirement.~~

8.10

(b) Actuarial valuations or experience studies prepared by an approved actuary retained

8.11

by a retirement fund or plan must be submitted to the Legislative Commission on Pensions

8.12

and Retirement within ten days of the submission of the document to the retirement fund

8.13

or plan.

8.14

EFFECTIVE DATE. This section is effective the day following final enactment.

1.1 moves to amend S.F. No.; H.F. No., document LCPR25-009, as
1.2 follows:

1.3 Page 5, line 21, before the colon, insert "other than active members of the Teachers
1.4 Retirement Association"

1.5 Page 5, after line 21, insert:

1.6 "(4) benefit change for active members of the Teachers Retirement Association: 20
1.7 years;"

1.8 Page 5, line 22, delete "(4)" and insert "(5)"

1.9 Page 5, line 23, delete "(5)" and insert "(6)"

1.10 Page 5, line 25, delete "(6)" and insert "(7)"

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First Amendment to the Standards for Actuarial Work

Recitals

The 2024 Pension and Retirement Policy and Supplemental Budget Bill, enacted on May 15, 2024, established an Amortization Work Group.

The purpose of the Amortization Work Group is to recommend legislation to the Legislative Commission on Pensions and Retirement (Commission) that amends Minnesota Statutes, section 356.215, subdivision 11, to conform to current actuarial best practices for amortizing liabilities. The Amortization Work Group was to consider layered amortization and related topics.

After several meetings during 2024 and early 2025, the Amortization Work Group participants reached agreement on several recommendations to be made to the Commission, including amending the applicable statute and the Commission's Standards for Actuarial Work.

As stated on page i of the Standards, the Standards "may be amended at any time by the Legislative Commission on Pensions and Retirement. Any such amendment is effective for the actuarial valuation performed as of the first valuation date following the effective date of the amendment except as otherwise provided by the Legislative Commission on Pensions and Retirement."

The Commission accepts the Work Group's recommendation to amend the Standards as set forth below and adopts this First Amendment to the Standards for Actuarial Work at a meeting of the Commission on _____, 2025, to take effect as described on page 2 in the paragraph labeled "Effective Date."

Amendment

The Legislative Commission on Pensions and Retirement amends the Standards for Actuarial Work as follows:

1. Section III, subpart C, paragraph 2, is revised to delete "However, a surplus (i.e. a negative UAAL) is to be amortized over a thirty-year period."
2. The following is inserted as a new section:

"Annual Review of Amortization Patterns

- (1) In coordination with the annual actuarial valuations, each retirement plan's retained actuary will prepare an illustration for each pension plan illustrating the projected amortization payment amounts based on the current amortization bases. Using these amortization runout projections, the retained actuary will identify situations where active amortization management could minimize tail volatility while still being consistent with amortization policy objectives (i.e., contribution sufficiency, demographic matching, transparency, accountability, sound governance, intergenerational equity, predictability, stability, and adequate funding).

- (2) Based on the annual review of amortization patterns, the retirement plan may consider the following active strategies for managing amortization bases nearing the end of their scheduled periods (e.g., fewer than three years remaining). These strategies are intended to minimize potential tail volatility while not affecting the long-term sustainability of the Actuarially Determined Contribution rates.
- (a) Synchronizing Bases: Amortization bases with similar ending years whose remaining unamortized amounts are partially-offsetting or fully-offsetting may be synchronized using an identical ending year. Synchronizing bases keeps them as separate amortization layers but with new payment amounts and a uniform remaining period. If bases are synchronized, their new remaining amortization period should not exceed the weighted average payment period of the bases before synchronization. An advantage of this method is that it can reduce tail volatility while retaining the history of the original amortization amounts and outstanding balances.
- (b) Accelerating Bases: Amortization bases with a remaining balance below a predetermined de minimis threshold (e.g., 0.5% of the plan's actuarial accrued liability) may be fully amortized in the subsequent valuation cycle rather than continuing to amortize small amounts over the remaining period. This can prevent prolonged volatility from minor residual amounts."

3. The following is inserted as a new section:

"To the extent any provision in the Standards is inconsistent with amendments to section 356.215, subdivision 11, enacted in 2025, and that require the use of layered amortization, the provision must be interpreted consistent with subdivision 11, as amended."

Effective Date

This First Amendment to the Standards for Actuarial Work is effective for actuarial valuations performed as of the first valuation date following the date of approval by the Commission but only if legislation amending Minnesota Statutes, Section 356.215, subdivision 11, to require layered amortization is enacted in 2025.

Amortization Work Group Participants

Participants required by Laws 2024, Chapter 102, Article 8, Section 13

| Name and Title | Representing |
|---|---|
| Doug Anderson , Executive Director | Public Employees Retirement Association (PERA) |
| Amy Streng , Policy Coordinator | PERA |
| Erin Leonard , Executive Director | Minnesota State Retirement System (MSRS) |
| Cheryl Jahnke , Financial Reporting and Risk Management Director | MSRS |
| Jenkins Vangehn , Legislative Liaison | MSRS |
| Tim Maurer , Executive Director | Teachers Retirement Association (TRA) |
| Holly Dayton , Legislative Liaison | TRA |
| Rachel Barth , Legal and Legislative Director | TRA |
| Phill Tencick , Executive Director | St. Paul Teachers' Retirement Fund Association (SPTRFA) |

Participants Invited by the Legislative Commission on Pensions and Retirement (LCPR) Executive Director

| Name and Title | Representing |
|---|--|
| Mark Schulte , Consulting Actuary | VIA Actuarial – Actuary for the LCPR |
| Emily Knutson , Consulting Actuary | VIA Actuarial – Actuary for the LCPR |
| Bonnie Wurst , Senior Consultant | GRS Consulting – Actuary for MSRS, PERA and SPTRFA |

LCPR Staff

The staff of the LCPR established the Work Group, organized the meetings, and provided ongoing administrative support.

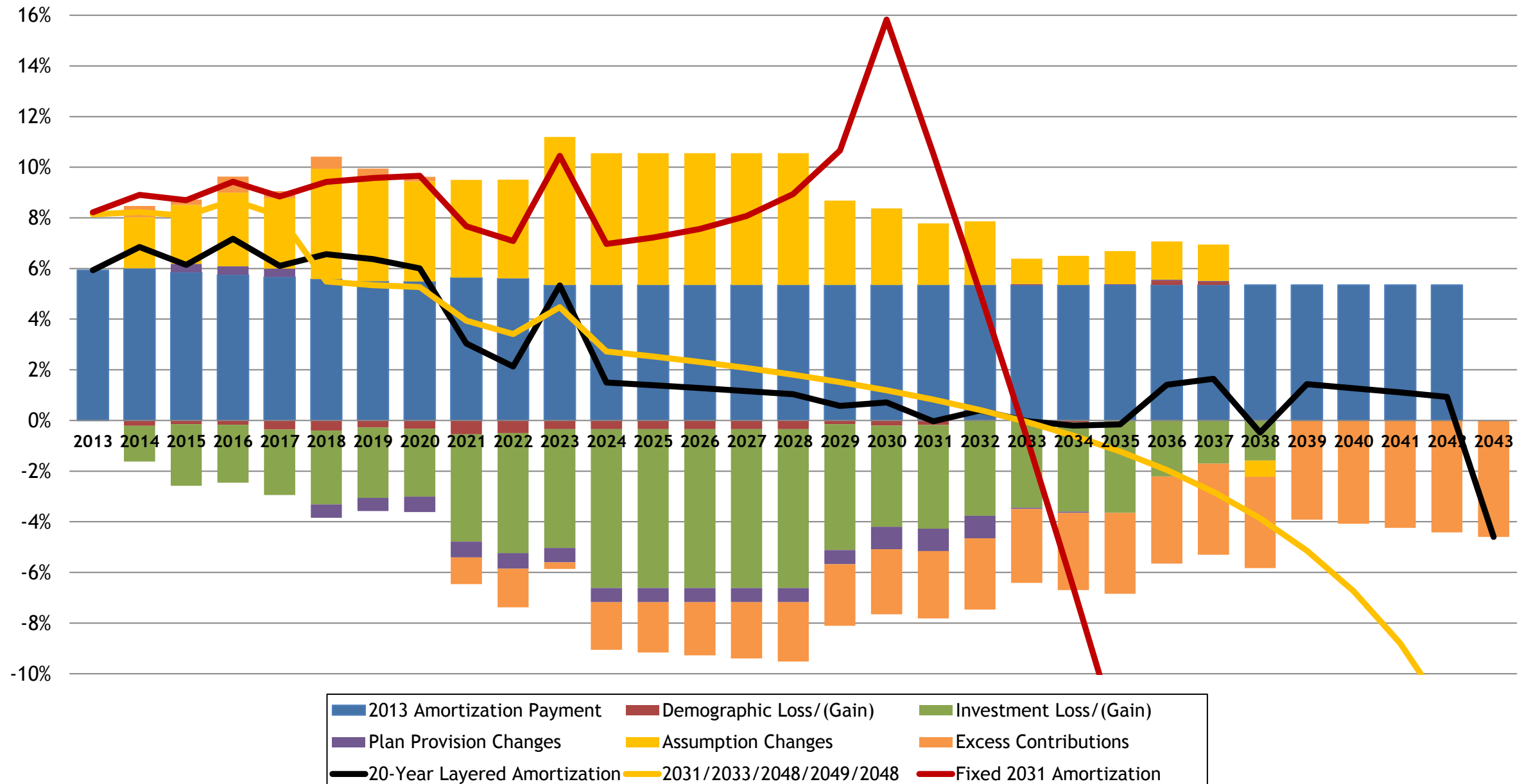
| Name and Title | Representing |
|--|--------------|
| Susan Lenczewski , Executive Director | LCPR |
| Lisa Diesslin , Commission Assistant | LCPR |
| Sean Kelly , Deputy Director | LCPR |
| Aleena Wilson , Analyst | LCPR |

Additional Individuals Attending One or More Meetings

| Name and Title | Representing |
|--|--|
| Nick Stumo-Langer , LCPR Committee Administrator | Minnesota House of Representatives – DFL Caucus |
| Colie Colburn , Committee Administrator | Minnesota House of Representatives – DFL Caucus |
| John Boehler , Research Consultant | Minnesota House of Representatives – DFL Caucus |
| Kyle Schwab , Research Consultant | Minnesota House of Representatives – DFL Caucus |
| Ryan Wiskerchen , Research Consultant | Minnesota House of Representatives – Republican Caucus |
| Justin Brill , Research Consultant | Minnesota House of Representatives – Republican Caucus |
| Jacob Grundhauser , Research Consultant | Minnesota House of Representatives – Republican Caucus |
| Ryan Majerus , Researcher | Minnesota Senate |
| David Draine , Principal Officer – Research | PEW Charitable Trusts |
| Andrea Wales , Principal Associate – State Policy | PEW Charitable Trusts |
| Maria Garnett , Officer – State Policy | PEW Charitable Trusts |
| Rebecca Power , Legislative Analyst | Montana State Administration and Veterans' Affairs Committee |

Appendix B

PERA General Plan: Amortization of UAAL Using Various Amortization Methods



Appendix B

PERA P&F Plan: Amortization of UAAL Using Various Amortization Methods

