



Pension Plan for Bargaining Unit Employees of TriMet

Actuarial Valuation Report as of June 30, 2024

Produced by Cheiron

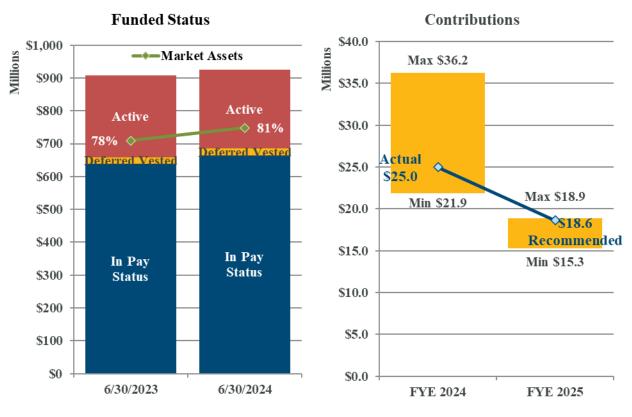
September 2024

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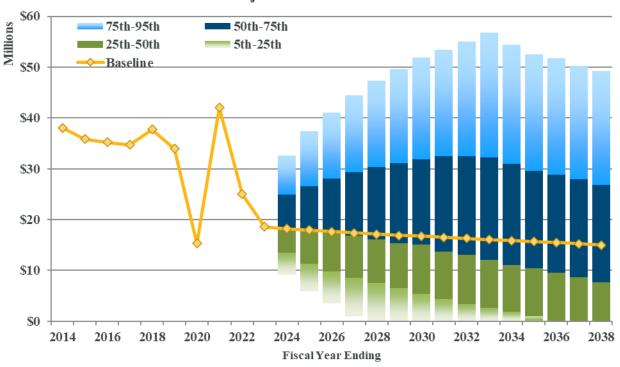
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SECTION I – BOARD SUMMARY



Historical and Projected Recommended Contributions





SECTION I – BOARD SUMMARY

Funded Status

The chart in the upper left corner of the dashboard on the prior page shows the assets, Actuarial Liability, and funded status for the current and prior valuations. These measures are to assess funding progress in a budgeting context. They are not appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations. For many pension plans, the liability measures for financial reporting under GASB 67 and 68 differ, but they are the same for TriMet.

The bars represent the Actuarial Liability (or Total Pension Liability), which is used as a funding target and is separated between the liability for members currently receiving benefits (dark blue), inactive members entitled to future benefits (gold), and active members (red). About 72% of the liability is for members currently receiving benefits. The green line shows the Market Value of Assets (or Fiduciary Net Position). The percentage on the top of the bar represents the funded status, which increased from 78% to 81%.

Table I-1 below summarizes the Actuarial Liability, assets, and funded status as of June 30, 2023 and 2024.

Table I-1

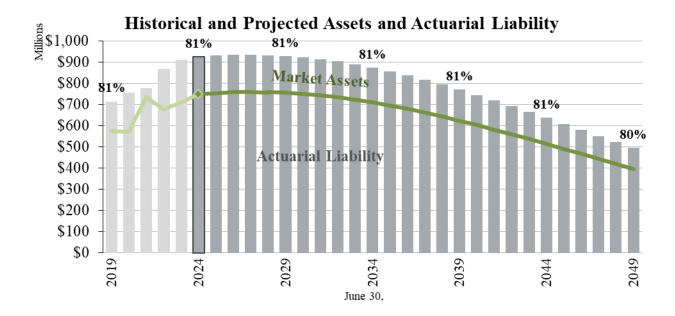
Summary of Funded Status								
	J	une 30, 2024	J	une 30, 2023	% Change			
Actuarial Liability								
Actives	\$	239,303,694	\$	249,785,703	-4.2%			
Deferred Vested		21,816,155		19,998,028	9.1%			
In Pay Status		663,607,879		638,630,175	<u>3.9</u> %			
Total	\$	924,727,728	\$	908,413,906	1.8%			
Market Value of Assets	\$	748,227,706	\$	708,822,532	5.6%			
Unfunded Actuarial Liability	\$	176,500,022	\$	199,591,374	-11.6%			
Funding Ratio		80.9%		78.0%	2.9%			

The Actuarial Liability represents the target amount of assets the plan should have in the trust as of the valuation date based on the actuarial cost method. In aggregate, the Actuarial Liability increased 1.8%, primarily reflecting expected increases as well as larger-than-expected COLA increases. The Market Value of Assets increased by 5.6% due to contributions and favorable investment returns offset by benefit payments and expenses. As a result, the Unfunded Actuarial Liability (UAL) decreased from approximately \$199.6 million to \$176.5 million, and the funding ratio increased from 78.0% to 80.9%.



SECTION I – BOARD SUMMARY

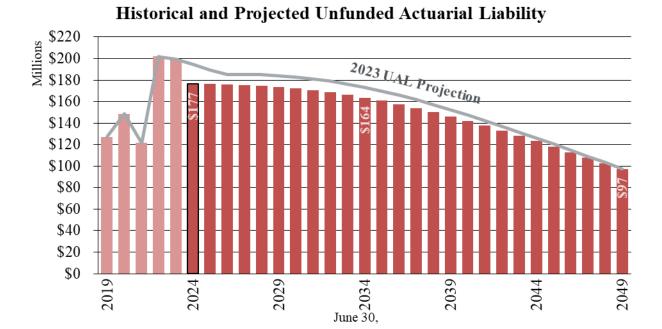
Because the Plan has been closed to new entrants since August 1, 2012, and the Actuarial Liability is projected to begin declining as benefits are paid out, the Plan's funding policy differs significantly from what would be used for an ongoing pension plan. The funding policy adopted by the trustees seeks to maintain a well-funded pension plan without developing a surplus that could not be used efficiently until all benefits have been paid. The Recommended contributions under the funding policy will cause the funded ratio to converge to 80% and maintain that funded percentage level as benefits are paid out. The chart below shows the historical and projected assets compared to the Actuarial Liability, assuming TriMet contributes the Recommended contribution and all other assumptions are met. The historical Actuarial Liability is in light gray, while the projected Actuarial Liability is in darker gray. The Actuarial Liability is projected to reach its peak in 2027, and the funded ratio, shown at the top of the bars, is expected to remain mostly level, declining very gradually until it reaches 80%.



As shown in the following chart, however, the UAL is expected to decrease even as the funded ratio remains at 81%. The Recommended contribution includes a component to pay the unfunded portion of benefit payments during the year, so the funded ratio will be maintained, and the UAL will decline each year if all assumptions are met. After 25 years, the UAL is expected to decrease to about \$97 million from the current \$177 million.



SECTION I – BOARD SUMMARY



Section IV of this report provides more detail on the assets, and Section V provides more detail on the liability measures.

Contributions and Pension Expense

Under the funding policy, three different Actuarially Determined Contributions (ADCs) are calculated in each actuarial valuation: the Minimum, the Maximum, and the Recommended contributions. As long as the plan remains above 80% funded, the Minimum contribution, as specified in the Working Wage Agreement and the plan document, equals normal cost plus administrative expenses plus a 40-year amortization payment on the UAL. While the Plan's funded ratio is between 80% and 90%, the Maximum contribution is the amount needed to maintain the funded ratio if all assumptions are met. The Recommended contribution is a blend between the Minimum and Maximum contributions. At 80% funded, the Recommended contribution equals the Maximum; at 90% funded, the Recommended contribution equals the Minimum. For more details on the funding policy in different situations, please refer to Section VI and Appendix B.

The chart in the upper right corner of the dashboard on page 1 shows the range (gold bars) from the Minimum to Maximum and the Recommended contribution, assuming it is paid monthly throughout the year. For FYE 2024, the Plan was less than 80% funded, so the Recommended contribution was equal to TriMet's full budget for contributions to the pension and OPEB trusts of \$25.0 million. For FYE 2025, the Plan is over 80% funded, so the Minimum contribution is the Minimum defined in the Plan document and the Working Wage Agreement, and the Maximum contribution is \$18.9 million – the amount needed to keep the same funded ratio if all assumptions are met. The Recommended contribution based on being 80.9% funded is \$18.6 million.



SECTION I – BOARD SUMMARY

The Tread Water Cost equals the normal cost plus interest on the UAL. The normal cost represents the expected cost of the benefits attributed to the next year of service, and the interest on the UAL represents the amount that would need to be contributed to keep the UAL at the same dollar amount if all assumptions are met. To the extent contributions exceed the Tread Water Cost, the UAL is expected to decline.

For FYE 2025, the Tread Water Cost is approximately \$18.5 million, which is slightly less than the Maximum and Recommended contributions. Under the funding policy, Recommended contributions ramp up quickly if the plan's funded ratio drops below 80%. Above 80%, the Recommended contributions aim to let the funded ratio gradually decline to 80% and maintain a funded ratio of 80% after that. At 80% funded, a component of the Recommended contribution is the unfunded portion (20%) of the next year's benefit payments, ensuring that there will always be sufficient assets to pay benefits. This approach limits the likelihood of developing surplus assets while reducing the amount of the UAL over time. However, it also means that the UAL is not expected to be completely paid off until the last benefit is paid.

Under GASB 68, the annual pension expense equals the Tread Water Cost plus the cost of any benefit changes and the recognized portion of prior experience gains and losses and assumption changes. Details of this calculation are shown in Section VII of the report.

Table I-2 compares the Recommended contribution under the Plan's funding policy to actual contribution amounts and pension expense for the fiscal years ending in 2023 and 2024. The pension expense decreased from \$67.2 million for FYE 2023 to \$44.4 million for FYE 2024, while the Recommended contribution decreased from \$40.7 million to \$25.0 million.

Table I-2

Annual Contributions and Pension Expense							
		FYE 2024		FYE 2023	% Change		
Pension Expense (\$ Amount)	\$	44,449,036	\$	67,196,994	-33.9%		
Recommended Contribution ¹ Actual Contribution Contribution Deficiency/(Excess)	\$ \$	24,999,996 24,983,747 16,250	\$ 	40,658,448 51,268,158 (10,609,710)	-38.5% -51.3%		

¹ Amounts assume monthly contributions made throughout the year

In FYE 2024, the actual contribution was slightly less than the Recommended contribution due to the timing of the actual contribution. For FYE 2023, the actual contribution exceeded the Recommended contribution due to the payment of the FYE 2022 Minimum contribution under the Working Wage Agreement after June 30, 2022.



SECTION I – BOARD SUMMARY

For FYE 2025 and in the future, the projections in the chart at the bottom of the dashboard (page 1) assume that the Recommended contribution under the new funding policy is contributed. The baseline represents the projected Recommended contribution if all assumptions are met and contributions are made in accordance with that policy. The baseline projection shows a gradual decline in future contributions as the Plan maintains its funded ratio. The range of the bars represents the potential range of the Recommended contribution based on the potential range of investment returns. There is a wide range of projected contributions although it is narrower than under the prior funding policy. For these projections, we used an expected return of 6.25% and a standard deviation of 10.30% The dark blue bars show potential contributions in moderately poor investment scenarios, and the light blue bars show potential contributions under very poor investment return scenarios.

Section II of this report provides more detailed information on the risks to contribution amounts, and Section VI provides additional detail on the development of the range of contribution amounts.

¹ Standard deviation provided in Meketa's August 1, 2024 Board of Trustees meeting materials.



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SECTION I – BOARD SUMMARY

Changes

During FYE 2024, the UAL decreased by \$23.1 million. Table I-3 below shows the breakdown of the changes in the UAL in the last year by source.

Table I-3

Changes in UAL	
	Amount
UAL, June 30, 2024	\$ 176,500,022
UAL, June 30, 2023	 199,591,374
Change in UAL	\$ (23,091,352)
Sources of Changes	
Plan Changes	\$ 0
Assumption Changes	0
Contributions vs. Tread Water Cost	(4,683,925)
Investment (gain) or loss	(25,845,925)
Liability (gain) or loss	
Benefit Rates	1,768,605
Retirement experience	1,495,285
Mortality experience	(2,960,618)
Retiree COLA experience	8,333,811
Other experience	 (1,198,585)
Total Liability (gain) or loss	\$ 7,438,498
Total Changes	\$ (23,091,352)

The largest increase in the UAL was \$8.3 million due to retiree COLA experience, followed by the \$1.8 million increase due to the higher-than-assumed benefit rate increase and the \$1.5 million increase due to retirements. Most of these losses are related to recent price inflation. Investment earnings and contributions reduced the UAL by \$25.8 million and \$4.7 million, respectively. Mortality experience also reduced the UAL by about \$3.0 million, but some of this gain appears to be due to delayed reporting of deaths in the prior year. Finally, other liability experience reduced the UAL by approximately \$1.2 million.



SECTION I – BOARD SUMMARY

Table I-4 below summarizes the results of this valuation compared to the prior valuation.

Table I-4

Summary of Valuation Results							
	J	une 30, 2024	J	une 30, 2023	% Change		
Membership							
Actives		700		782	-10.5%		
Deferred		140		137	2.2%		
In Pay Status		2,264		2,240	1.1%		
Total		3,104		3,159	-1.7%		
Active Member Payroll	\$	59,624,377	\$	63,747,864	-6.5%		
Actuarial Liability or Total Pension Liability	\$	924,727,728	\$	908,413,906	1.8%		
Market Value of Assets or Plan Fiduciary Net Position		748,227,706		708,822,532	5.6%		
Unfunded Actuarial Liability or Net Pension Liability	\$	176,500,022	\$	199,591,374	-11.6%		
Deferred Outflows of Resources		(6,562,961)		(34,545,563)	-81.0%		
Deferred Inflows of Resources		20,942,536		6,368,497	228.8%		
Net Impact on Statement of Net Position	\$	190,879,597	\$	171,414,308	11.4%		
Funding Ratio		80.9%		78.0%	2.9%		
		FYE 2024		FYE 2023			
Actuarially Determined Contributions ¹							
Minimum Contribution	\$	15,311,796	\$	21,879,204	-30.0%		
Maximum Contribution	\$	18,886,236	\$	36,221,004	-47.9%		
Recommended Contribution	\$	18,559,788	\$	24,999,996	-25.8%		

 $^{^{1}\ \} Contribution\ amounts\ assume\ monthly\ contributions\ made\ throughout\ the\ year$



SECTION II – ASSESSMENT AND DISCLOSURE OF RISK

Actuarial valuations are based on assumptions about future economic and demographic experience. These assumptions represent a reasonable estimate of future experience, but actual future experience will undoubtedly be different and may be significantly different. This section of the report is intended to identify the primary risks to the plan, provide some background information about those risks, and assess those risks.

Identification of Risks

The fundamental risk to a pension plan is that the contributions needed to pay the benefits become unaffordable. While we believe it is unlikely that the closed Plan by itself would become unaffordable, the contributions needed to support the Plan may differ significantly from expectations. While there are several factors that could lead to contribution amounts deviating from expectations, we believe the primary sources are:

- Investment risk,
- Inflation risk, and
- Contribution risk.

Other risks that we have not identified may also turn out to be important.

Investment Risk is the potential for investment returns to be different than expected. Lower investment returns than anticipated will increase the Unfunded Actuarial Liability, necessitating higher contributions in the future unless other gains offset these investment losses. In contrast, higher investment returns than anticipated may create a potentially significant surplus that could be difficult to use until all benefits have been paid. The Plan's asset allocation determines expected future investment returns and their potential volatility.

Inflation risk is the potential for actual inflation to be different than expected. Retirement benefits under the plan are increased yearly by 90% or 100% of inflation (CPI-W) depending upon retirement date up to a maximum of 7.00%. Higher inflation than expected will result in the payment of greater benefits, and lower inflation than expected will result in the payment of lower benefits.

Contribution risk is the potential for actual future Minimum actuarially determined contributions under the funding policy to deviate from expected future contributions to an extent that they become unaffordable. The Recommended and Maximum contributions under the funding policy are intended to signal when higher contributions may be appropriate in order to reduce the risk of high and potentially unaffordable future Minimum contributions.

The table on the next page shows a 10-year history of changes in the UAL by source.



SECTION II – ASSESSMENT AND DISCLOSURE OF RISK

Table II-1

	UAL Change by Source								
FYE	Plan Changes	Assumption Changes		ontributions vs. Tread Water	In	vestments		Liability eperience	Total UAL Change
2015	\$ 0	\$ (16,558)	\$	(12,602)	\$	19,270	\$	(541)	\$ (10,431)
2016	0	18,776		(16,375)		30,755		(8,966)	24,190
2017	0	0		(12,799)		(14,722)		(19,615)	(47,136)
2018	3,286	0		(16,275)		(6,367)		20,936	1,580
2019	0	0		(15,850)		19,087		(2,453)	784
2020	0	34,129		(20,002)		34,973		(5,374)	43,726
2021	0	3,945		(14,170)		(133,928)		3,365	(140,788)
2022	900	68,817		(4,270)		72,727		12,727	150,901
2023	0	0		(22,526)		(3,991)		33,434	6,917
2024	0	0		(4,683)		(25,846)		7,438	(23,091)
Total	\$ 4,186	\$ 109,109	\$	(139,552)	\$	(8,042)	\$	40,951	\$ 6,652

Amounts in Thousands

Over the last 10 years, the UAL has increased by approximately \$6.7 million. Contributions reduced the UAL by \$140.0 million, and investment returns reduced the UAL by \$8.0 million; while liability experience increased the UAL by \$41.0 million, plan changes increased the UAL by \$4.2 million, and assumption changes increased the UAL by \$109.1 million.

Plan Maturity Measures

A mature pension plan's future financial condition is more sensitive to each of the risks identified above than a less mature plan. Understanding the plan's maturity is important before assessing each of these risks.

Plan maturity can be measured in various ways, but there is one very important dynamic – the larger the plan is compared to the contribution or revenue base that supports it, the more sensitive the plan will be to risk. Given that the Plan has been closed to new entrants since 2012, maturity measures isolated on the Plan show significant increases in maturity.

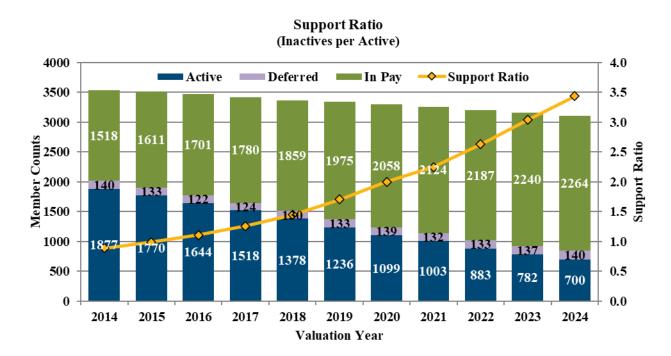
Support Ratio (Inactives per Active)

One simple measure of plan maturity is the ratio of the number of inactive members (those receiving benefits or entitled to a deferred benefit) to the number of active members. For a closed plan, the Support Ratio is expected to increase significantly unless active employees who the



SECTION II - ASSESSMENT AND DISCLOSURE OF RISK

Plan does not cover are included. The chart below shows the growth in the Support Ratio for the closed Plan for the current and prior 10 years.



Net Cash Flow

The plan's net cash flow as a percentage of the beginning-of-year assets indicates its liquidity needs and the sensitivity of the plan to short-term investment returns. Net cash flow is equal to contributions less benefit payments and administrative expenses. Mature plans can have large amounts of benefit payments compared to contributions, particularly if they are well funded.

The chart on the following page shows the projected net cash flow for the next ten fiscal years assuming contributions are equal to the Recommended Contribution based on the new funding policy. The bars represent the dollar amounts of the different components of the projected net cash flow, and the line represents the net cash flow as a percentage of the assets as of the beginning of the fiscal year.



SECTION II - ASSESSMENT AND DISCLOSURE OF RISK

Projected Net Cash Flow Contributions Benefits →Net Cash Flow % Expenses \$40 4% Net Cash Flow Amounts \$20 2% \$0 (\$20)(\$40)(\$60)(\$80)-8% 2026 2028 2029 2030 2025 2027 2031 2032 2033 2034 Fiscal Year Ending

When TriMet contributed larger amounts to improve the Plan's funded status, the net cash flow had been positive or only slightly negative. Future contributions are projected to be smaller even as benefit payments continue to grow. As a result, the net cash flow is expected to become increasingly negative. If TriMet contributes the Recommended Contribution under the new funding policy and all assumptions are met, the cash flow is expected to become increasingly negative, growing from about -5.4% of assets in FYE 2025 to -7.8% of assets in FYE 2034.

The first issue this change presents to the Plan is an increased need for liquidity in the investments so that benefits can be paid. When the cash flow was positive or close to neutral, benefits could be paid out of contributions without liquidating investments. As net cash flow becomes increasingly negative, the benefit payments will require liquidation of some investments to the extent the investment portfolio doesn't generate sufficient cash income.

The other change of note is the sensitivity to short-term investment returns. Investment losses in the short term are compounded by the net withdrawal from the plan leaving a smaller asset base to try to recover from the investment losses. On the other hand, large investment gains in the short term also tend to have a longer beneficial effect as any future losses are relative to a smaller liability base due to the negative cash flow.

Assessing Costs and Risks

A closed pension plan will ultimately either end up with excess assets after all benefits have been paid or run out of assets before all benefits have been paid. If the Plan develops surplus assets, it may be able to reduce the risk in its investment portfolio, immunize investments, or purchase annuities to settle the remaining obligation. If the surplus assets exceed the additional amounts

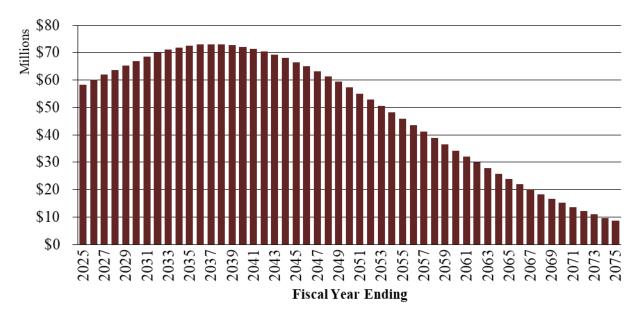


SECTION II - ASSESSMENT AND DISCLOSURE OF RISK

needed to buy annuities or immunize the portfolio, it is unclear how they could be used until all benefits have been paid.

If the Plan, on the other hand, were to run out of assets, TriMet would be forced to pay benefits directly on a pay-as-you-go basis. As long as TriMet can afford the pay-as-you-go costs, benefits would remain unchanged. However, if TriMet cannot afford the pay-as-you-go costs when the plan has run out of assets, benefits may be impaired. The chart below shows a projection of expected benefit payments for the closed plan. The peak level of benefit payments is not expected to be reached until 2036.

Projected Benefit Payments

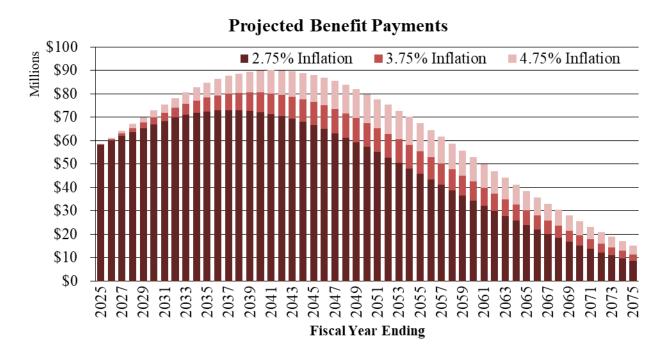




SECTION II – ASSESSMENT AND DISCLOSURE OF RISK

Sensitivity to Inflation

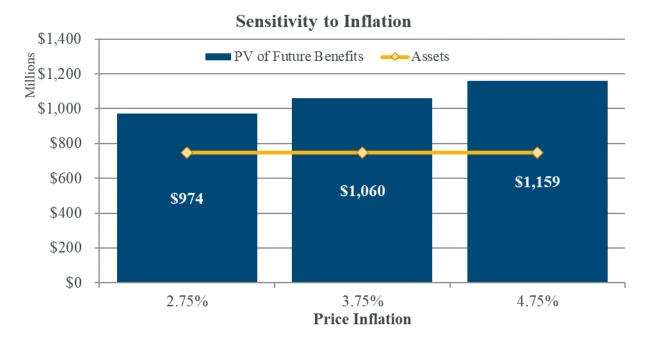
The chart below illustrates the sensitivity of projected benefit payments to inflation. The darkest bars show the projected benefit payments with the assumed inflation of 2.75%; the medium bars show the additional benefit payments if inflation is 3.75% each year; and, the lightest bars show the additional benefit payments if inflation is 4.75% each year.



Higher inflation could result in materially higher benefit payments, requiring more assets in the plan. The chart on the following page compares assets to the present value of all projected future benefit payments assuming inflation of 2.75%, 3.75%, and 4.75%. The present value of future benefits is shown as a dark blue bar. The Market Value of Assets is shown by the gold line.



SECTION II - ASSESSMENT AND DISCLOSURE OF RISK



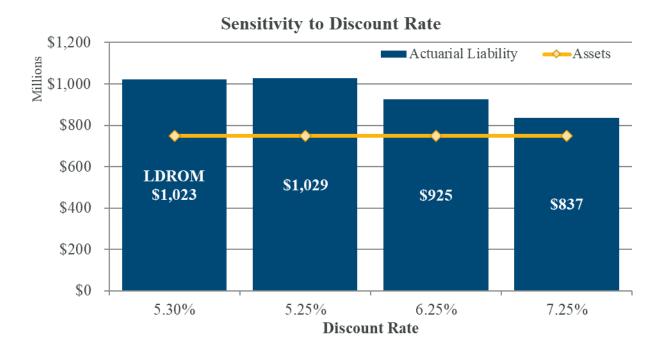
The COLA granted to retirees and beneficiaries receiving benefits equals either 100 percent or 90 percent of the inflation rate, depending on the date of retirement. If inflation is 2.75%, annual COLAs would be 2.75% (2.475% if 90 percent applies) and the Plan would need approximately \$974 million in assets today to pay all projected benefits compared to current assets of \$748 million. If inflation is 3.75%, annual COLAs would be 3.75% (3.375% if 90 percent applies), and the Plan would need approximately \$1,060 million in assets today. Finally, if inflation is 4.75%, annual COLAs would be 4.75% (4.275% if 90 percent applies), and the Plan would need \$1,159 million in assets to pay all projected benefits. These estimates assume that all other assumptions are met.

Sensitivity to Discount Rate

The chart on the next page compares the Market Value of Assets (gold line) to the Actuarial Liability (blue bar) using discount rates equal to the current expected rate of return and 100 basis points above and below the expected rate of return. In addition, the chart shows the low-default-risk obligation measure (LDROM), which is the Actuarial Liability using a discount rate derived from low-default-risk fixed-income securities that approximately match the benefit payments of the plan.



SECTION II - ASSESSMENT AND DISCLOSURE OF RISK



The Plan invests in a diversified portfolio with the objective of maximizing investment returns at a reasonable level of risk. If investments return 6.25% annually, the Plan would need approximately \$925 million in assets today to pay all benefits attributable to past service compared to current assets of \$748 million. If investment returns are only 5.25%, the Plan would need approximately \$1,029 million in assets today, and if investment returns are 7.25%, the Plan would only need approximately \$837 million in assets today. The lowest-risk portfolio for a pension plan with fixed cash flows would be composed entirely of low-default-risk fixed income securities whose cash flows match the benefit cash flows of the Plan. As of June 30, 2024, we estimate that such a portfolio would have an expected return of 5.30%, and the Plan would need \$1,023 million to pay all benefits attributed to past service. This amount is the LDROM. The \$98 million difference between the LDROM and the Actuarial Liability at 6.25% represents the expected savings from bearing the risk of investing in the Plan's diversified portfolio. Alternatively, it also represents the cost of eliminating the investment risk.

Because the Plan invests in a diversified portfolio, not the LDROM portfolio, the reported funded status is higher and expected employer contributions are lower. Benefit security for Plan members depends on a combination of the Plan's assets, the investment returns generated on those assets, and TriMet's ability to make any needed future contributions. An LDROM portfolio would generate more predictable but lower expected investment returns, potentially changing the level of reliance on future TriMet contributions to secure benefits.

However, the liability measures shown above assume an annual inflation of 2.75%. If annual inflation is higher, more assets would be needed to pay the benefits, and if inflation is lower, fewer assets would be needed to pay benefits. In this case, it is better to consider the sensitivity based on the investment return over inflation. The assumption of 6.25% nominal investment



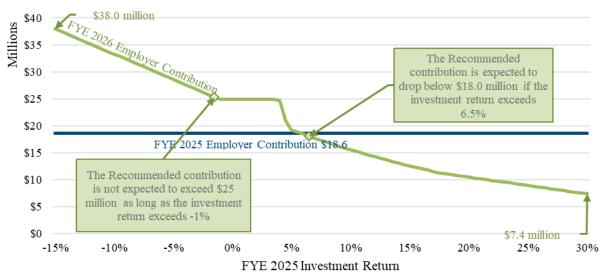
SECTION II – ASSESSMENT AND DISCLOSURE OF RISK

returns and 2.75% inflation equates to a real investment return assumption of 3.50%. Similarly, expected nominal investment returns of 5.25% and 7.25% equate to 2.50% and 4.50% real investment returns, respectively.

Sensitivity to Investment Returns

Contribution amounts are very sensitive to investment returns. The chart below shows the FYE 2026 contribution amount depending on the investment return earned during FYE 2025, assuming all other assumptions are met. The Recommended Contribution is expected to remain near \$18 million in FYE 2026 if investment returns are as assumed and all other assumptions are met. However, it could range anywhere from \$7 to \$38 million, depending on investment returns for FYE 2025.

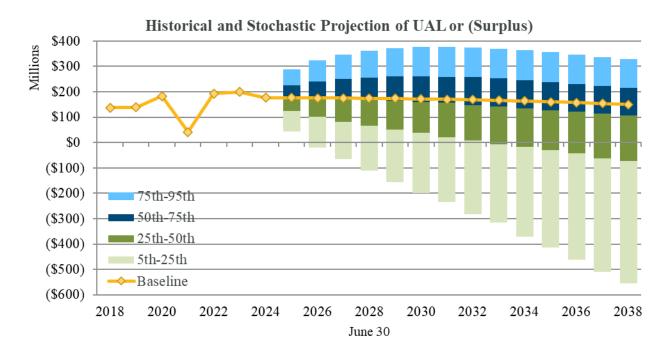
Projected FYE 2026 Employer Contribution Amount Based on FYE 2025 Investment Return



The stochastic projections of contributions shown at the bottom of the dashboard (page 1) show a wide range of future Recommended contributions depending on the range of future investment returns. The chart on the following page shows the projected range of the UAL or surplus on the same basis. Surplus amounts are shown as negative numbers.



SECTION II - ASSESSMENT AND DISCLOSURE OF RISK



While the UAL is projected in the baseline to decline gradually, there is a wide range of potential outcomes. However, the new funding policy has limited this range, reducing the potential surplus in 2036 from over \$800 million to about \$460 million while keeping the potential UAL in 2036 under \$350 million. Good investment returns can grow the surplus unrestrained because the minimum contribution is \$0. The range of projected outcomes, particularly for surplus, may be managed by changes in investment policy if a surplus develops.

More Detailed Assessment

While a more detailed assessment of risk is always valuable to enhance the understanding of the risks identified above, given the closed plan and regular asset-liability studies, the advantages of a more detailed assessment may not justify its costs at this time.



SECTION III - CERTIFICATION

The purpose of this report is to present the June 30, 2024 Actuarial Valuation of the Pension Plan for Bargaining Unit Employees of TriMet ("Plan"). This report is for the use of the Plan and TriMet.

In preparing our report, we relied on information, some oral and some written, supplied by TriMet. This information includes, but is not limited to, the plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23.

Most actuarial assumptions were adopted by the trustees at their May 6, 2020 meeting based on the results of an experience study and our recommendations. Please refer to the experience study report for the rationale for the assumptions. Based on our recommendations, mortality assumptions were updated by the trustees at their September 23, 2021 meeting, and the economic assumptions were updated by the trustees at their June 13, 2022 meeting. The new funding policy was adopted by the Trustees at a meeting on August 11, 2023. Please refer to the presentations of the analysis at those meetings for the rationale for the assumptions.

The liability measures and funding ratios in this report are for the purpose of establishing contribution rates. These measures are not appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the Plan's benefit obligations.

Future actuarial measurements may differ significantly from the current measurements due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; and, changes in plan provisions or applicable law.

Cheiron utilizes ProVal actuarial valuation software leased from Winklevoss Technologies (WinTech) to calculate liabilities and project benefit payments. We have relied on WinTech as the developer of ProVal. We have a basic understanding of ProVal and have used ProVal in accordance with its original intended purpose. We have not identified any material inconsistencies in assumptions or output of ProVal that would affect this valuation.

Deterministic projections in this report were developed using P-scan, a proprietary tool used to illustrate the impact of changes in assumptions, methods, plan provisions, or actual experience (particularly investment experience) on the future financial status of the Plan. P-scan uses standard roll-forward techniques that implicitly assume a stable active population.

Stochastic projections in this report were developed using R-scan, our proprietary tool for assessing the probability of different outcomes based on the range of potential investment returns.

This report and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices and our understanding of the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board



SECTION III - CERTIFICATION

as well as applicable laws and regulations. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this report. This report does not address any contractual or legal issues. We are not attorneys, and our firm does not provide any legal services or advice.

This report was prepared for the Plan and TriMet for the purposes described herein. Other users of this report are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to any other user.

Willie R. Hallack Stom M Hostrys

William R. Hallmark, ASA, EA, MAAA, FCA Consulting Actuary Steven M. Hastings, FSA, EA, MAAA, FCA Consulting Actuary



SECTION IV – ASSETS

This section shows the changes in the Market Value of Assets and calculates the money-weighted investment return for GASB 67 and 68. The Actuarial Value of Assets is equal to the Market Value of Assets.

Statement of Change in Market Value of Assets

Table IV-1 shows the changes in the Market Value of Assets for the current and prior fiscal years.

Table IV-1

Change in Market Value of Assets							
		FYE 2024	FYE 2023				
Market Value, Beginning of Year	\$	708,822,532 \$	675,579,582				
Contributions		24,983,747	42,004,938				
Net Investment Earnings		69,229,449	45,827,360				
Benefit Payments		(54,570,316)	(54,308,816)				
Administrative Expenses		(237,706)	(280,532)				
Market Value, End of Year	\$	748,227,706 \$	708,822,532				

The Market Value of Assets increased from approximately \$709 million as of June 30, 2023 to \$748 million as of June 30, 2024. Actual contributions and investment earnings increased the market value by approximately \$25 million and \$69 million respectively while benefit payments and administrative expenses decreased the market value by approximately \$55 million.

The rate of return during the year is calculated on a money-weighted basis, which reflects the effect of external cash flows (contributions less benefit payments and administrative expenses) on a monthly basis. Table IV-2 shows the external cash flows by month, the number of months each cash flow was considered invested, and the external cash flows with interest at the money-weighted rate of return to the end of the year. The sum of the external cash flows with interest equals the Market Value of Assets at the end of the year.



SECTION IV – ASSETS

Table IV-2

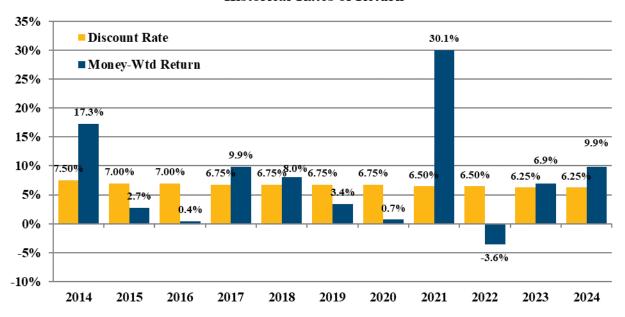
Money-Weighted Rate of Return Fiscal Year Ending June 30, 2024							
	Net	External Cash Flows	Months Invested		External Cash ws With Interest		
Beginning Value, June 30, 2023	\$	708,822,532	12	\$	778,855,081		
Monthly Net External Cash Flows							
July		(4,506,476)	11		(4,912,994)		
August		(4,509,420)	10		(4,877,754)		
September		(4,861,346)	9		(5,217,301)		
October		20,770,839	8		22,117,370		
November		(4,506,991)	7		(4,761,636)		
December		(4,542,999)	6		(4,762,140)		
January		(4,507,366)	5		(4,687,837)		
February		(4,846,166)	4		(5,000,783)		
March		(4,229,136)	3		(4,329,936)		
April		(4,515,482)	2		(4,586,950)		
May		(4,780,151)	1		(4,817,831)		
June		(4,789,582)	0		(4,789,582)		
Ending Value, June 30, 2024				\$	748,227,706		
Money-Weighted Rate of Return		9.88%					

The money-weighted rate of return for the year ended June 30, 2024, was 9.88% compared to an expected return of 6.25%. As shown in the chart on the following page, over the last 10 years, the money-weighted rate of return has varied significantly from 30.1% in 2021 to -3.6% in 2022.



SECTION IV – ASSETS

Historical Rates of Return





SECTION V – MEASURES OF LIABILITY

This section presents detailed information on liability measures for the Plan for funding purposes, including:

- Present value of future benefits,
- Actuarial Liability, and
- Normal cost.

Present Value of Future Benefits: The present value of future benefits represents the expected amount of money needed today if all assumptions are met to pay for all benefits earned as of the valuation date and expected to be earned in the future by current plan members under the current plan provisions. Table V-1 below shows the present value of future benefits as of June 30, 2024 and June 30, 2023.

Table V-1

Present Value of Future Benefits							
	June 30, 2024	June 30, 2023	% Change				
Actives	\$ 288,155,640	\$ 303,645,736	-5.1%				
Deferred	21,816,155	19,998,028	9.1%				
In Pay Status	663,607,879	638,630,175	<u>3.9</u> %				
Total	\$ 973,579,674	\$ 962,273,939	1.2%				



SECTION V – MEASURES OF LIABILITY

Actuarial Liability

The Actuarial Liability represents the expected amount of money needed today if all assumptions are met to pay for benefits attributed to service before the valuation date under the Entry Age Actuarial Cost Method. As such, it is the amount of assets targeted by the actuarial cost method for the Plan to hold as of the valuation date. It is not the amount necessary to settle the obligation. Under GASB 67 and 68, the Entry Age Actuarial Liability is referred to as the Total Pension Liability. Table V-2 below shows the Actuarial Liability as of June 30, 2024 and June 30, 2023.

Table V-2

Actuarial Liability							
	June 30, 2024	June 30, 2023	% Change				
Actives							
Retirement	\$ 215,243,801	\$ 226,038,893	-4.8%				
Termination	2,433,763	2,938,897	-17.2%				
Death	885,552	933,706	-5.2%				
Disability	11,591,487	12,353,676	-6.2%				
Transfers to Management	9,149,091	7,520,531	<u>21.7</u> %				
Total Actives	\$ 239,303,694	\$ 249,785,703	-4.2%				
Vested Terminated	\$ 21,816,155	\$ 19,998,028	9.1%				
In Pay Status							
Retirees and Beneficiaries	\$ 595,349,064	\$ 570,492,706	4.4%				
Disabled	68,258,815	68,137,469	0.2%				
Total In Pay	\$ 663,607,879	\$ 638,630,175	3.9%				
Total	\$ 924,727,728	\$ 908,413,906	1.8%				



SECTION V – MEASURES OF LIABILITY

The Actuarial Liability is expected to increase each year due to interest and the accrual of an additional year of service for active members. It is expected to decrease each year due to benefits that have been paid. Differences between the actual experience and assumed experience also contribute to the change in Actuarial Liability. Table V-3 below provides a history of the experience gains and losses attributable to each primary demographic assumption. Consistent patterns of gains or of losses provide an indication that an assumption may need to be updated.

Table V-3

History of Demographic (Gains) and Losses									
		Fiscal Year Ending							
	2020	2021	2022	2023	2024				
Benefit Rates	\$ (6,199,897)	\$ 6,526,272	\$ (1,098,661)	\$ 11,083,636	\$ 1,768,605				
Retirement	2,173,599	(592,238)	1,499,574	(478,592)	1,495,285				
Termination	(980,389)	35,606	23,704	728,977	(270,568)				
Mortality	(135,833)	1,566,931	(2,428,408)	1,835,917	(2,960,618)				
Disability	46,435	367,408	(64,789)	998,190	(139,317)				
Retiree COLAs	(488,858)	(2,250,235)	15,930,316	23,284,790	8,333,811				
Other	210,485	(2,288,787)	(1,134,392)	(4,018,842)	(788,700)				
Total	\$ (5,374,458)	\$ 3,364,957	\$ 12,727,344	\$ 33,434,076	\$ 7,438,498				



SECTION V - MEASURES OF LIABILITY

Normal Cost

Under the Entry Age (EA) Actuarial Cost Method, the present value of future benefits for each individual is spread over the individual's expected working career under the Plan as a level percentage of the individual's expected pay. The normal cost rate is determined by taking the value, as of entry age into the Plan, of each member's projected future benefits divided by the present value, also at entry age, of each member's expected future salary. The normal cost rate is multiplied by the current salary to determine each member's normal cost. The normal cost of the Plan is the sum of the normal costs for each individual. The normal cost represents the expected amount needed to fund the benefits attributed to the next year of service under the Entry Age Actuarial Cost Method. Under GASB 67 and 68, the EA normal cost is called the service cost. Table V-4 below shows the total normal cost as of June 30, 2024 and June 30, 2023.

Table V-4

Normal Cost								
	June 30, 2024 June 30, 2023 % Change							
Retirement	\$	5,362,988	\$	5,910,837	-9.3%			
Termination		731,362		778,292	-6.0%			
Death		35,559		39,400	-9.7%			
Disability		875,880		937,075	-6.5%			
Transfers to Management		227,921		192,514	18.4%			
Total Normal Cost	\$	7,233,710	\$	7,858,118	-7.9 %			



SECTION VI – CONTRIBUTIONS

This section of the report develops Minimum, Maximum, and Recommended contribution amounts under the Plan's Funding Policy. Because the Plan has been closed to new entrants since August 1, 2012, and the Actuarial Liability is projected to begin declining as benefits are paid out, the Plan's funding policy differs significantly from what would be used for an ongoing pension plan. The objective is to maintain a well-funded pension plan without developing a surplus that could not be used efficiently until all benefits have been paid. Consequently, the funding policy targets maintaining a funded ratio between 80% and 90% rather than the normal target of 100%.

The Funding Policy is designed to protect benefit security while managing intergenerational equity. The year-to-year stability of pension contributions is not critical to TriMet as long as pension contributions do not exceed the combined budgets for contributions to the pension and OPEB trusts. Consequently, the Funding Policy does not attempt to control contribution volatility through asset smoothing, allowing contributions to adjust quickly to changes in funding levels to prevent the accumulation of surplus and to rapidly restore funding levels if the funded ratio falls below 80%.

The Recommended contribution is designed to target and maintain a funded ratio of 80%. If the funded ratio falls below 80%, the Recommended contribution increases rapidly, taking advantage of the full sponsor budget for contributions to the pension and OPEB trusts and going even higher if needed to restore an 80% funded ratio within 10 years. If the funded ratio exceeds 80%, the Recommended contribution is reduced to allow the funded ratio to gradually decline to 80% over several years. At a funded ratio of 80%, the Recommended contribution is the amount needed to maintain an 80% funded ratio. As the Actuarial Liability of the closed plan decreases, the Recommended contribution reduces the UAL by contributing the full amount of the next year's unfunded benefit payments. This contribution also ensures that the plan will always accumulate sufficient assets to make benefit payments when due.

Minimum Contribution

If the funded percentage is less than 80%, the Minimum contribution is equal to the sum of:

- Normal cost,
- Assumed administrative expenses,
- 10-year layered amortization payment to reach 80% funded, and
- The UAL payment amount needed to maintain the UAL or funded percentage at 80%.

However, since the funded percentage is greater than or equal to 80%, the Minimum contribution is equal to the sum of:

- Normal cost.
- Assumed administrative expenses, and
- A payment on the UAL equal to a 40-year amortization as a level percentage of payroll.

This amount equals the minimum required contribution in the plan document and the Working Wage Agreement.



SECTION VI - CONTRIBUTIONS

Table VI-1 shows the development of the Minimum contribution as of the beginning of the year.

Table VI-1

Development of Minimum Contribution						
	I	YE 2025				
 Normal Cost Administrative Expenses Unfunded Actuarial Liability 40-Year Amortization Payment on UAL Minimum Contribution: (1) + (2) + (4) 	\$ 1	7,233,710 353,378 76,500,022 7,307,368 14,894,456				

Maximum Contribution

Contributions greater than the Maximum are acceptable and could, in certain circumstances, be desirable. The Maximum contribution amount is designed to indicate when additional contributions may increase the probability of accumulating a surplus more than is needed to protect the security of benefits. However, judgment should be applied, weighing the circumstances at the time.

If the funded percentage is less than 80%, the Maximum contribution is the amount needed to raise it to 80% in one year.

If the funded percentage is greater than or equal to 90%, the Maximum contribution is equal to the Minimum contribution – the sum of:

- Normal cost.
- Assumed administrative expenses, and
- A payment on the UAL equal to a 40-year amortization as a level percentage of payroll.

However, since the funded percentage is greater than or equal to 80% and less than 90%, the Maximum contribution is the amount needed to "maintain funded status," which is the sum of:

- Normal cost.
- Assumed administrative expenses, and
- The UAL payment amount needed to "maintain funded status."

The UAL payment amount needed to "maintain funded status" is defined as the greater of the amount needed to keep the UAL from growing as a dollar amount (interest on the UAL) and the amount needed to keep the funded percentage from declining (benefit payments times (1 minus funded percentage)). Table VI-2 shows the calculation of the Maximum contribution for



SECTION VI – CONTRIBUTIONS

FYE 2025 as of the beginning of the year. In the prior valuation, the funded percentage was 78.0%, and the Maximum contribution was \$36.2 million.

Table VI-2

Development of Maximum Contribution Payment Needed to Maintain Funded Status							
			FYE 2025				
1.	Normal Cost	\$	7,233,710				
2.	Administrative Expenses		353,378				
3.	Unfunded Actuarial Liability		176,500,022				
4.	Interest on (3)		10,382,354				
5.	Expected Benefit Payments (One Year)		58,241,034				
6.	Funded Percentage		80.9%				
7.	Unfunded Portion of Benefit Payments: (5) x [100% - (6)]		10,784,388				
8.	Payment Needed to Maintain Funded Status (1) + (2) + [Maximum of (4) and (7)]	\$	18,371,476				

Recommended Contribution

If the funded percentage is less than 80%, the Recommended contribution is the greater of the Minimum contribution or TriMet's budgeted amount for pension and OPEB trust contributions, but not more than the Maximum contribution. We understand that TriMet's current budgeted amount for pension and OPEB trust contributions is \$25.0 million.

If the funded percentage is greater than or equal to 90%, the Recommended contribution equals the Minimum contribution.

However, since the funded percentage is between 80% and 90%, the Recommended contribution is prorated from the Maximum contribution if the plan is 80% funded to the Minimum contribution if the plan is 90% funded. Table VI-3 shows the calculation of the Recommended contribution for FYE 2025 as of the beginning of the fiscal year.



SECTION VI - CONTRIBUTIONS

Table VI-3

FYE 2025 Recommended Contribution						
	C	Contribution	Weight		Weighted Contribution	
Minimum Maximum Recommended	\$	14,894,456 18,371,476	9.1% 90.9%	\$ 	1,360,308 16,693,612 18,053,920	

The FYE 2025 Recommended contribution is slightly more than the normal cost plus interest on the UAL and continuing to make Recommended contributions is expected to result in a gradual decrease in the UAL. However, the UAL is not expected to be completely paid off until shortly before the last benefit is paid. Since this plan is closed, the GASB 67/68 crossover test shown in Appendix D provides a full projection of the expected benefit payments, contributions, and asset levels until the final benefits are expected to be paid in 2114.

Reasonable Actuarially Determined Contribution (Reasonable ADC)

The Plan's funding policy will not always satisfy the requirements for a Reasonable ADC under the newly issued Actuarial Standards of Practice No. 4, particularly when the Plan is relatively well funded. For purposes of disclosing a Reasonable ADC, it is defined as the greater of the Recommended contribution described above or the sum of:

- Normal cost.
- Assumed administrative expenses, and
- A payment on the UAL equal to a 25-year amortization with annual payments increasing with assumed inflation (level real dollar amortization).

The 25-year amortization period will decline by one year in each future valuation until the period reaches 20 years. Note that the effective amortization period becomes shorter when the plan is less well-funded due to the Recommended contribution. This structure was selected to balance generational equity with the predictability and stability of contributions while also minimizing the likelihood of a surplus and ensuring assets are available to pay benefits when due. Table VI-4 shows the calculation of the Reasonable ADC as of the beginning of the fiscal year.



SECTION VI - CONTRIBUTIONS

Table VI-4

Development of Reasonable ADC							
		FYE 2025	FYE 2024		% Change		
1. Recommended Contribution*	\$	18,053,920	\$	21,282,864	-15.2%		
2. Normal Cost		7,233,710		7,858,118	-7.9%		
3. Administrative Expenses		353,378		343,920	2.8%		
4. Amortization Payment on UAL		10,251,193		11,021,599	-7.0%		
5. Minimum Reasonable ADC $[(2) + (3) + (4)]$	\$	17,838,281	\$	19,223,637	-7.2%		
6. Reasonable ADC [Max of (1) and (5)]	\$	18,053,920	\$	21,282,864	-15.2%		

For FYE 2024, the Minimum contribution instead of Recommended contribution

Table VI-5 shows each contribution amount for FYE 2025 and 2024. The amounts are shown assuming contributions are made at the beginning of the fiscal year or the beginning of each month.



SECTION VI – CONTRIBUTIONS

Table VI-5

Actuarially Determined Contribution Amounts								
		FYE 2025		FYE 2024	% Change			
Funded Percentage		80.9%		78.0%	2.9%			
Minimum Contribution								
Beginning of Year	\$	14,894,456	\$	21,282,864	-30.0%			
Equivalent Monthly Contribution		1,275,983		1,823,267	-30.0%			
Annual Amount	\$	15,311,796	\$	21,879,204	-30.0%			
Maximum Contribution								
Beginning of Year	\$	18,371,476	\$	35,233,773	-47.9%			
Equivalent Monthly Contribution		1,573,853		3,018,417	-47.9%			
Annual Amount	\$	18,886,236	\$	36,221,004	-47.9%			
Recommended Contribution								
Beginning of Year	\$	18,053,920	\$	24,318,603	-25.8%			
Equivalent Monthly Contribution		1,546,649		2,083,333	-25.8%			
Annual Amount	\$	18,559,788	\$	24,999,996	-25.8%			
Reasonable ADC								
Beginning of Year	\$	18,053,920	\$	21,282,864	-15.2%			
Equivalent Monthly Contribution		1,546,649		1,823,267	-15.2%			
Annual Amount	\$	18,559,788	\$	21,879,204	-15.2%			

Annual Amount equals Equivalent Monthly Contribution x 12



SECTION VII – GASB 67 AND 68 DISCLOSURES

This report section provides accounting and financial reporting information for the Plan and TriMet under Governmental Accounting Standards Board Statements 67 and 68. This information includes:

- Determination of Discount Rate,
- Changes in the Net Pension Liability,
- Calculation of the Net Pension Liability at the discount rate as well as discount rates 1% higher and lower than the discount rate,
- Schedule of Employer Contributions,
- Disclosure of Deferred Inflows and Outflows, and
- Calculation of the Annual Pension Expense for TriMet.

Determination of Discount Rate

The discount rate used to measure the Total Pension Liability was 6.25%.

We have assumed that contributions to the Plan will follow the Recommended Contribution in the Plan's Funding Policy.

We performed a formal cash flow projection as described under Paragraph 41 of GASB Statement 67 which can be found in Appendix D. All benefit payments in the projection are paid from the Fiduciary Net Position. Therefore, the long-term expected rate of return on Plan investments was applied to all periods of projected benefit payments to determine the Total Pension Liability.



SECTION VII – GASB 67 AND 68 DISCLOSURES

Note Disclosures

Table VII-1 below shows the changes in the Total Pension Liability, the Plan Fiduciary Net Position (i.e., fair value of Plan assets), and the Net Pension Liability during the Measurement Year.

Table VII-1

Change in l	Nei	t Pension L	iab	ility		
		I	ncre	ase (Decreas	e)	
	To	Total Pension Liability (a)		Plan Fiduciary Net Position (b)		let Pension Liability (a) - (b)
Balances at 6/30/2023	\$	908,413,906	\$	708,822,532	\$	199,591,374
Changes for the year:						
Service cost		7,858,118				7,858,118
Interest		55,587,522				55,587,522
Changes of benefits		0				0
Differences between expected and actual						
experience		7,438,498				7,438,498
Changes of assumptions		0				0
Contributions - employer				24,983,747		(24,983,747)
Contributions - member				0		0
Net investment income				69,229,449		(69,229,449)
Benefit payments		(54,570,316)		(54,570,316)		0
Administrative expense				(237,706)		237,706
Net changes	\$	16,313,822	\$	39,405,174	\$	(23,091,352)
Balances at 6/30/2024	\$	924,727,728	\$	748,227,706	\$	176,500,022

During the measurement year, the NPL decreased by approximately \$23.1 million. The service cost and interest cost increased the NPL by approximately \$63.4 million. Investment returns and contributions offset by administrative expenses decreased the NPL by approximately \$94.0 million. However, losses due to liability experience increased the NPL by approximately \$7.4 million.



SECTION VII – GASB 67 AND 68 DISCLOSURES

Changes in the discount rate affect the measurement of the TPL. Lower discount rates produce a higher TPL, and higher discount rates produce a lower TPL. Because the discount rate does not affect the measurement of assets, the percentage change in the NPL can be very significant for a relatively small change in the discount rate. The table below shows the sensitivity of the NPL to the discount rate.

Table VII-2

Sensitivity of Net Pension	Liability to Cha	nges in Disco	unt Rate
	1%	Discount	1%
	Decrease	Rate	Increase
	5.25%	6.25%	7.25%
Total Pension Liability Plan Fiduciary Net Position Net Pension Liability	\$1,028,732,696	\$ 924,727,728	\$ 836,989,533
	748,227,706	748,227,706	748,227,706
	\$280,504,990	\$ 176,500,022	\$ 88,761,827
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	72.7%	80.9%	89.4%

A one percent decrease in the discount rate increases the TPL by approximately 11% and the NPL by approximately 59%. A one percent increase in the discount rate decreases the TPL by approximately 9% and the NPL by approximately 50%.



SECTION VII – GASB 67 AND 68 DISCLOSURES

Required Supplementary Information

The schedules on the following pages show the changes in NPL and related ratios required by GASB for the last 10 years.

Table VII-3a

Schedule of Ch	ange	es in Ne	et]	Pension I	ia	bility and	d l	Related F	Rat	tios
	FY.	E 2024	F	YE 2023	F	YE 2022	I	EYE 2021	F	YE 2020
Total Pension Liability (TPL)										
Service cost	\$	7,858,118	\$	7,943,288	\$	7,795,441	\$	8,150,506	\$	8,675,232
Interest	5	55,587,522		53,090,927		49,410,345		48,271,615		47,371,742
Changes of benefit terms		0		0		900,168		0		0
Differences between expected										
and actual experience		7,438,498		33,434,076		12,727,343		3,364,957		(5,374,458)
Changes of assumptions		0		0		68,816,625		3,945,186		34,128,985
Benefit payments	(5	54,570,316)	_	(54,308,816)	_	(46,781,948)	_	(44,963,247)	_	(41,940,023)
Net change in TPL	\$ 16	5,313,822	\$	40,159,475	\$	92,867,974	\$	18,769,017	\$	42,861,478
TPL - beginning	908	3,413,906	8	868,254,431	7	75,386,457	_7	756,617,440	7	13,755,962
TPL - ending	\$924	,727,728	<u>\$9</u>	08,413,906	\$8	68,254,431	\$7	75,386,457	\$7	56,617,440
Plan fiduciary net position										
Contributions - employer	\$ 2	24,983,747	\$	51,268,158	\$	6,041,222	\$	33,929,446	\$	37,755,077
Contributions - member		0		0		0		0		0
Net investment income	ϵ	59,229,449		45,827,360		(26,351,807)		170,879,705		3,683,365
Benefit payments	(5	54,570,316)		(54,308,816)		(46,781,948)		(44,963,247)		(41,940,023)
Administrative expense		(237,706)		(280,532)		(203,299)		(289,090)		(362,932)
Net change in plan fiduciary										
net position	\$ 39	,405,174	\$	42,506,170	\$ ((67,295,832)	\$ 1	59,556,814	\$	(864,513)
Plan fiduciary net position -										
beginning	708	3,822,532	_6	666,316,362	_7	33,612,194	_ 5	574,055,380	5	74,919,893
Plan fiduciary net position - ending	\$748	3,227,706	\$7	08,822,532	\$6	66,316,362	\$7	33,612,194	\$5	74,055,380
Net pension liability - ending		5,500,022		.99,591,374		01,938,069	_	41,774,263	-	82,562,060
Plan fiduciary net position as a percentage of the TPL	<u> </u>	80.9%	<u></u>	78.0%	<u></u>	76.7%	<u>-</u>	94.6%	<u></u>	75.9%
Covered payroll	\$ 6	59,740,810	\$	74,468,029	\$	78,431,367	\$	83,541,536	\$	90,088,824
Net pension liability as a percentage of covered payroll		253.1%	-	268.0%		257.5%		50.0%		202.6%



SECTION VII – GASB 67 AND 68 DISCLOSURES

Table VII-3b

Schedule of Ch	anges in No	et Pension l	Liability an	d Related I	Ratios
	FYE 2019	FYE 2018	FYE 2017	FYE 2016	FYE 2015
<u>Total Pension Liability (TPL)</u>					
Service cost	\$ 9,642,740	\$ 9,875,234	\$ 10,850,730	\$ 10,702,574	\$ 11,756,232
Interest	46,537,334	43,832,738	43,888,922	43,371,673	43,025,200
Changes of benefit terms	0	3,286,046	0	0	0
Differences between expected					
and actual experience	(2,453,333)	20,935,664	(19,614,961)	(8,966,475)	(541,183)
Changes of assumptions	0	0	0	18,776,392	(16,558,463)
Benefit payments	(38,904,785)	(36,394,436)	(34,162,919)	(32,679,854)	(30,677,192)
Net change in TPL	\$ 14,821,956	\$ 41,535,246	\$ 961,772	\$ 31,204,310	\$ 7,004,594
TPL - beginning	698,934,006	657,398,760	656,436,988	625,232,678	618,228,084
TPL - ending	<u>\$713,755,962</u>	<u>\$698,934,006</u>	<u>\$657,398,760</u>	<u>\$656,436,988</u>	<u>\$625,232,678</u>
Plan fiduciary net position					
Contributions - employer	\$ 34,717,720	\$ 35,227,507	\$ 35,862,442	\$ 38,026,735	\$ 36,200,926
Contributions - member	0	0	0	0	0
Net investment income	18,620,471	41,479,101	46,645,429	1,948,822	12,275,500
Benefit payments	(38,904,785)	(36,394,436)	(34,162,919)	(32,679,854)	(30,677,192)
Administrative expense	(395,612)	(356,886)	(247,254)	(281,539)	(363,267)
Net change in plan fiduciary					
net position	\$ 14,037,794	\$ 39,955,286	\$ 48,097,698	\$ 7,014,164	\$ 17,435,967
Plan fiduciary net position -					
beginning	560,882,099	520,926,813	472,829,115	465,814,951	448,378,984
Plan fiduciary net position -					
ending	<u>\$574,919,893</u>	<u>\$560,882,099</u>	<u>\$520,926,813</u>	<u>\$472,829,115</u>	<u>\$465,814,951</u>
Net pension liability - ending	\$138,836,069	<u>\$138,051,907</u>	<u>\$136,471,947</u>	<u>\$183,607,873</u>	<u>\$159,417,727</u>
Plan fiduciary net position as a percentage of the TPL	80.5%	80.2%	79.2%	72.0%	74.5%
Covered payroll	\$ 97,405,506	\$ 109,924,285	\$ 106,596,389	\$ 117,666,306	\$ 116,555,801
Net pension liability as a percentage of covered payroll	142.5%	125.6%	128.0%	156.0%	136.8%



SECTION VII – GASB 67 AND 68 DISCLOSURES

The schedule below compares the Actuarially Determined Contribution (ADC) to actual contributions. Beginning in FYE 2024, the ADC shown in this exhibit is the Recommended contribution under the Plan's funding policy. By comparison, the Reasonable ADC calculated for FYE 2024 was \$21,879,204.

Table VII-4

Sch	edule of Er	nployer Coi	ntributions		
	FYE 2024	FYE 2023	FYE 2022	FYE 2021	FYE 2020
Actuarially Determined Contribution Contributions in Relation to the	\$24,999,996	\$ 40,658,448	\$ 26,460,096	\$ 28,789,812	\$ 25,173,360
Actuarially Determined Contribution	24,983,747	51,268,158	6,041,222	33,929,446	37,755,077
Contribution Deficiency/(Excess)	\$ 16,250	\$ (10,609,710)	\$ 20,418,874	\$ (5,139,634)	<u>\$ (12,581,717)</u>
Covered Payroll	\$69,740,810	\$ 74,468,029	\$ 78,431,367	\$ 83,541,536	\$ 90,088,824
Contributions as a Percentage of Covered Payroll	35.82%	68.85%	7.70%	40.61%	41.91%
	FYE 2019	FYE 2018	FYE 2017	FYE 2016	FYE 2015
Actuarially Determined Contribution	\$26,040,372	\$ 24,565,994	\$ 28,497,521	\$ 28,030,416	\$ 31,926,000
Contributions in Relation to the					
Actuarially Determined Contribution	34,717,720	35,227,507	35,862,442	38,026,735	36,200,926
Contribution Deficiency/(Excess)	\$ (8,677,348)	\$ (10,661,513)	\$ (7,364,921)	\$ (9,996,319)	\$ (4,274,926)
Covered Payroll	\$97,405,506	\$109,924,285	\$106,596,389	\$117,666,306	\$116,555,801
Contributions as a Percentage of Covered Payroll	35.64%	32.05%	33.64%	32.32%	31.06%

Key methods and assumptions used to determine the ADC under TriMet's funding policy for FYE 2024. A complete description of the assumptions and the funding method can be found in the 2023 actuarial valuation report.

Actuarial Cost Method	Individual Entry Age as a level percent of pay
Asset Valuation Method	The Actuarial Value of Assets equals the market value of assets.
Other	When the plan is 80% funded, payments on the unfunded liability equal the amount needed to maintain the funded status. Recommended contributions grade down the payment on the unfunded liability to a 40-year rolling amortization as a level percentage of payroll when the funded ratio is 90% or higher.
Discount Rate	6.25%



SECTION VII – GASB 67 AND 68 DISCLOSURES

Benefit Rate Increases	3.25%
Inflation	2.75%
Healthy Mortality	2016 Cheiron ATU mortality tables with generational mortality projection using MP-2020



SECTION VII – GASB 67 AND 68 DISCLOSURES

Employer Accounting

The schedules in this section are to be used by TriMet for its employer accounting for FYE 2024. These schedules develop the annual pension expense, including the amounts of deferred inflows and outflows. Experience gains and losses and assumption changes are recognized over the average future working life of active and inactive members, which is 1.9 years. Investment gains and losses are recognized over five years.

The table below summarizes the current balances of deferred outflows and deferred inflows of resources, along with the net recognition over the next five years.

Table VII-5

	(Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$	6,562,961	\$ 0
Changes in assumptions		0	0
Net difference between projected and actual earnings on			
pension plan investments		0	20,942,536
Total	\$	6,562,961	\$ 20,942,536
Amounts reported as deferred outflows and deferred inflov	vs of r	esources will be	recognized in
pension expense as follows:):		
•		(11,703,473)	
pension expense as follows: Measurement year ended June 36	\$	(11,703,473) 8,519,230	
pension expense as follows: Measurement year ended June 302025	5 \$ 5	, , ,	
pension expense as follows: Measurement year ended June 30 2025 2026	5 \$ 5	8,519,230	

The tables on the following pages provide details on the current balances of deferred inflows and outflows of resources along with the recognition of each base for each of the current and following five years and the total for any years thereafter.

Thereafter \$

0



SECTION VII – GASB 67 AND 68 DISCLOSURES

Table VII-6

	Recognition of Experience (Gains) and Losses																	
	Recognition		Beginning Remaining	Re	Ending emaining		2024		2025		Recognition				2029			- C 4
Year	Period	Amount	Amount	Α	Amount		2024		2025		2026		2027		2028		1 ne re	after
2024	1.9	\$ 7,438,498	\$ 7,438,498	\$	3,523,499	\$	3,914,999	\$	3,523,499	\$	0	\$	0	\$		0	\$	0
2023	2.2	33,434,076	18,236,769		3,039,462		15,197,307		3,039,462		0		0			0		0
2022	2.5	12,727,343	2,545,469		0	_	2,545,469		0		0		0			0		0
Deferred O	utflows		28,220,736		6,562,961		21,657,775		6,562,961		0		0			0		0
Deferred (I	nflows)		0		0		0		0		0		0			0		0
Net Change	in Pension Ex	pense	\$ 28,220,736	\$	6,562,961	\$	21,657,775	\$	6,562,961	\$	0	\$	0	\$		0	\$	0

Table VII-7

	Recognition of Assumption Changes													
Change Year	Recognition Period	Total Amount	Beginning Remaining Amount	Ending Remaining Amount	2024	2025		Recogniti 2026	on Year 2027	2028	There	after		
2023 2022	2.2 2.5	\$ 0 68,816,625	\$ 0 13,763,325	\$ 0 0	\$ 0 13,763,325	\$	0 \$ 0	0 0	\$ 0 0	\$	0 \$ 0	0 0		
Deferred (Outflows		13,763,325	0	13,763,325		0	0	0		0	0		
Deferred (Inflows)		0	0	0		0	0	0		0	0		
Net Chang	ge in Pension Ex	pense	\$ 13,763,325	\$ 0	\$ 13,763,325	\$	0 \$	0	\$ 0	\$	0 \$	0		



SECTION VII – GASB 67 AND 68 DISCLOSURES

Table VII-8

			Recog	nition of In	vestment (C	Sains) and l	Losses			
Experience Year	Recognition Period	Total Amount	Beginning Remaining Amount	Ending Remaining Amount	2024	2025	Recognition 2026	on Year 2027	2028	Thereafter
Tear	1 criou	Amount	Amount	Amount	2024	2023	2020	2021	2020	Therealter
2024	5.0	\$(25,845,925)	\$(25,845,925)	\$(20,676,740)	\$ (5,169,185)	\$ (5,169,185)	\$ (5,169,185)	\$ (5,169,185)	\$ (5,169,185)	\$ 0
2023	5.0	(4,284,802)	(3,427,842)	(2,570,882)	(856,960)	(856,960)	(856,960)	(856,962)	0	0
2022	5.0	72,726,867	43,636,121	29,090,748	14,545,373	14,545,373	14,545,375	0	0	0
2021	5.0	(133,928,306)	(53,571,323)	(26,785,662)	(26,785,661)	(26,785,662)	0	0	0	0
2020	5.0	34,972,743	6,994,547	0	6,994,547	0	0	0	0	0
Net Change	in Pension Ex	pense	\$(32,214,422)	\$(20,942,536)	\$(11,271,886)	\$(18,266,434)	\$ 8,519,230	\$ (6,026,147)	\$ (5,169,185)	\$ 0



SECTION VII – GASB 67 AND 68 DISCLOSURES

The annual pension expense recognized by TriMet can be calculated in two different ways. First, it is the change in the amounts reported on TriMet's Statement of Net Position that relate to the Plan and are not attributable to employer contributions. That is, it is the change in NPL plus the changes in deferred outflows and inflows plus employer contributions.

Alternatively, annual pension expense can be calculated by its individual components. While GASB does not require or suggest organizing the individual components shown in the table below, we believe it helps to understand the level and volatility of pension expense.

Table VII-9

Calculation of Pension Expense												
		Meas	sure	ment Year En	ding							
		2025		2024	. 0	2023						
Change in Net Pension Liability	\$	(38,459)	\$	(23,091,352)	\$	(2,346,695)						
Change in Deferred Outflows		6,562,961		27,982,602		16,276,041						
Change in Deferred Inflows	((18,266,434)		14,574,039		1,999,490						
Employer Contributions		18,559,788		24,983,747		51,268,158						
Pension Expense	\$	6,817,856	\$	44,449,036	\$	67,196,994						
Operating Expenses												
Service cost	\$	7,233,710	\$	7,858,118	\$	7,943,288						
Employee contributions		0		0		0						
Administrative expenses		364,254		237,706		280,532						
Total	\$	7,597,964	\$	8,095,824	\$	8,223,820						
Financing Expenses												
Interest cost	\$	56,455,140	\$	55,587,522	\$	53,090,927						
Expected return on assets	((45,531,77 <u>5</u>)		(43,383,524)		(41,542,558)						
Total	\$	10,923,365	\$	12,203,998	\$	11,548,369						
Changes												
Benefit changes	\$	0	\$	0	\$	0						
Recognition of assumption changes		0		13,763,325		28,549,476						
Recognition of liability gains and losses		6,562,961		21,657,775		21,160,641						
Recognition of investment gains and losses	((18,266,434)		(11,271,886)		(2,285,312)						
Total	\$ ((11,703,473)	\$	24,149,214	\$	47,424,805						
Pension Expense	\$	6,817,856	\$	44,449,036	\$	67,196,994						

Figures for the 2025 measurement year are projected



SECTION VII – GASB 67 AND 68 DISCLOSURES

Operating expenses are items directly attributable to the plan's operation during the measurement year. Service cost less employee contributions represents the increase in employer-provided benefits attributable to the year, and administrative expenses are the cost of operating the plan for the year.

Financing expenses equal the interest on the Total Pension Liability less the expected return on assets. Since the discount rate is equal to the long-term expected return on assets, the financing expense is primarily the interest on the Net Pension Liability with an adjustment for the difference between the interest on the service cost and contributions.

The recognition of changes drives most of the volatility in pension expense from year to year. Changes include any changes in benefits made during the year and the recognized amounts due to assumption changes, gains or losses on the TPL, and investment gains or losses.

The total pension expense decreased by about \$22.7 million from the prior year. While operating and financing expenses remained relatively level, the recognition of changes decreased \$23.3 million due primarily to a decrease in the recognition of assumption changes and an increase in the recognition of investment gains.

The projected expense for FYE 2025 reflects decreases in the recognition of assumption changes and liability experience, and an increase in the recognition of investment gains. Actual experience during FYE 2025 may have a significant impact on this projection.



APPENDIX A – MEMBERSHIP INFORMATION

Data Assumptions and Methods

In preparing our data, we relied on information supplied by TriMet. This information includes but is not limited to, plan provisions, employee data, and financial information. Our methodology for obtaining the data used for the valuation is based on the following assumptions and practices:

- All active employees are assumed to accrue a full year of service in all future years.
- The most recent annual salary for actives is calculated as "Hourly Rate" multiplied by 2,080 for members identified as Full-Time Operators.
- The most recent annual salary for actives is calculated as "Hourly Rate" multiplied by 1,560 for members identified as Mini-Run Operators.

Table A-1

	Active Member Data		
	June 30, 2024	June 30, 2023	% Change
Active Union Members			
Count	642	727	-11.7%
Average Current Age	54.4	54.3	0.2%
Average Eligibility Service	20.5	20.0	2.5%
Average Benefit Service	19.9	19.3	3.1%
Transfers to Management			
Count	58	55	5.5%
Average Age	53.2	52.0	2.2%



Table A-2

In Pay Sta	atus	Member D	ata		
	Jı	me 30, 2024	Ju	me 30, 2023	%Change
Retirees					
Count		1,745		1,716	1.7%
Average Age		72.2		71.7	0.7%
Average Retirement Age		61.7		61.7	0.0%
Total Annualized Benefits	\$	46,622,567	\$	43,908,765	6.2%
Average Annual Benefit	\$	26,718	\$	25,588	4.4%
Beneficiaries & Alternate Payees					
Count		342		342	0.0%
Average Age		73.8		73.4	0.5%
Total Annualized Benefits	\$	5,195,272	\$	5,148,866	0.9%
Average Annual Benefit	\$	15,191	\$	15,055	0.9%
Disabled					
Count		177		182	- 2.7%
Average Age		66.5		65.7	1.2%
Total Annualized Benefits	\$	5,414,086	\$	5,327,597	1.6%
Average Annual Benefit	\$	30,588	\$	29,273	4.5%
Total					
Count		2,264		2,240	1.1%
Average Age		72.0		71.5	0.7%
Total Annualized Benefits	\$	57,231,925	\$	54,385,227	5.2%
Average Annual Benefit	\$	25,279	\$	24,279	4.1%



Table A-3

Deferred Member Data						
		Co	unt			
	Ju	ne 30, 2024	Ju	ne 30, 2023	% Change	
Vested Terminated Members						
Count		126		123	2.4%	
Average Age		51.3		51.1	0.5%	
Total Annualized Benefits	\$	1,833,292	\$	1,718,992	6.6%	
Average Annual Benefit	\$	14,550	\$	13,976	4.1%	
Deferred Beneficiaries						
Count		14		14	0.0%	
Average Age		56.8		57.7	-1.6%	



Table A-4

		Cha	inge in P	lan Membo	ership				
	Active	Terminated Vested		Deferred Beneficiary	Retiree	Beneficiary	Disabled	Alternate Payee	Totals
June 30, 2023	727	123	55	14	1,716	280	182	62	3,159
New Entrants	0	0	0	0	0	0	0	0	0
Rehires/Returned to Work	1	0	0	0	0	0	0	0	1
Vested Terminations	(11)	11	0	0	0	0	0	0	0
Nonvested Terminations	0	0	0	0	0	0	0	0	0
Disabilities	(2)	0	0	0	0	0	2	0	0
Retirements	(66)	(9)	0	0	75	0	0	0	0
Deaths	(2)	(1)	0	(3)	(46)	0	(7)	0	(59)
New Beneficiaries	0	0	0	3	0	22	0	3	28
Beneficiary Deaths	0	0	0	0	0	(25)	0	0	(25)
Benefit Ceased	0	0	0	0	0	0	0	0	0
Transfers to Mgmt*	(7)	0	7	0	0	0	0	0	0
Transfers from Mgmt*	2	2	(4)	0	0	0	0	0	0
Miscellaneous Adjustments	0	0	0	0	0	0	0	0	0
June 30, 2024	642	126	58	14	1,745	277	177	65	3,104

^{*}Includes transfers who are not eligible for Management DB Plan.



Table A-5

	Distribution of Active Union Members as of June 30, 2024									
				Yea	rs of Servic	ee				
Age	Under 5	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 and up	Total
Under 35	0	0	1	0	0	0	0	0	0	1
35 to 39	0	0	14	9	0	0	0	0	0	23
40 to 44	0	1	25	21	2	0	0	0	0	49
45 to 49	0	0	26	40	17	8	0	0	0	91
50 to 54	0	2	28	40	20	35	3	0	0	128
55 to 59	0	1	24	53	37	40	17	2	0	174
60 to 64	0	1	21	35	24	21	14	7	2	125
65 to 69	0	2	10	12	5	8	2	1	0	40
70 and up	0	0	2	4	3	1	0	0	1	11
Total Count	0	7	151	214	108	113	36	10	3	642



APPENDIX A – MEMBERSHIP INFORMATION

Chart A-1

Active Count Distribution

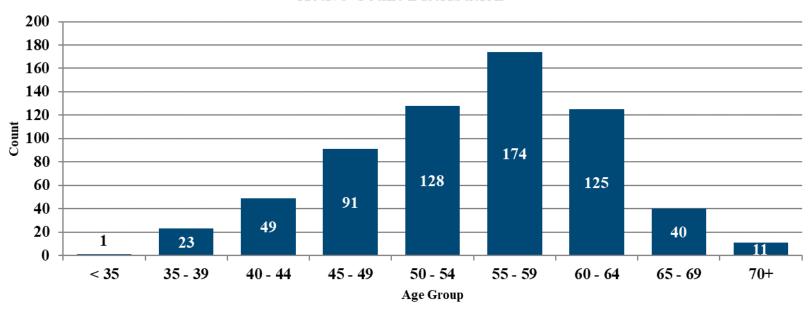




Table A-6

	Retirees, Disabled, Beneficiaries and Alternate Payees									
b	y Attai	ned Ag	e and l	Benefit	Effect	ive Dat	te as of	June 3	30, 2024	4
FYE										
Benefit										
Effective	Under 55	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 to 89	90 and up	Total
Prior to										
1997	0	0	1	3	2	0	6	5	25	42
1997	0	0	0	0	0	1	5	5	4	15
1998	0	0	0	1	1	0	2	5	2	11
1999	0	0	1	0	0	0	4	11	1	17
2000	0	0	0	1	0	3	2	12	1	19
2001	0	1	0	0	0	1	7	10	0	19
2002	0	0	0	1	1	6	10	7	0	25
2003	0	0	1	2	2	3	21	4	0	33
2004 2005	0	0	1 2	3	4	12 18	20 21	4	1	43 50
2005	0	1	2	1	11	25	22	3	0	65
2007	0	1	2	0	7	40	22	3	0	75
2007	0	0	2	3	12	49	14	2	1	83
2009	0	1	3	6	27	40	8	2	0	87
2010	0	1	2	6	14	48	10	1	0	82
2011	0	3	3	6	28	37	13	1	0	91
2012	0	3	1	9	52	37	10	3	0	115
2013	0	1	3	17	43	21	3	2	0	90
2014	0	0	4	25	53	19	3	2	0	106
2015	2	1	6	19	44	18	2	1	0	93
2016	0	0	7	22	74	19	2	0	1	125
2017	1	3	15	48	38	15	0	0	1	121
2018	1	3	15	53	39	24	0	1	0	136
2019	2	1	34	54	33	14	2	0	0	140
2020	0	10	35	56	35	4	7	0	1	148
2021	2	5	31	51	20	3	3	0	1	116
2022	1	9	53	45	11	4	0	1	0	124
2023	2	13	39	31	14	3	2	2	0	106
2024	2	12	36	26	7	3	1	0	0	87
Total	13	69	299	490	574	467	222	91	39	2,264
Average (Current Ag	e		72.0						
Average A	nnual Pen	nnual Pension \$ 25,279								



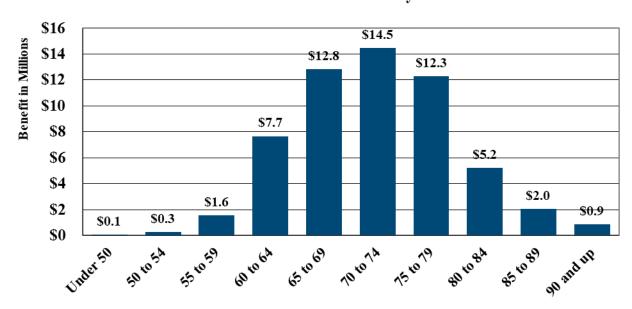
APPENDIX A – MEMBERSHIP INFORMATION

Chart A-2

Distribution of Members Receiving Benefits 65 to 69 50 10 54 60 to 64 70 10 74 go to ga 85 to 89 and 119

Chart A-3

Distribution of Annual Benefit Payments





APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

Actuarial Assumptions

The trustees adopted the inflation, salary increase, and return on assets assumptions at their June 13, 2022 meeting based on our recommendations. The mortality assumptions were adopted by the trustees at their September 23, 2021 meeting based on Cheiron's ATU mortality experience study and our recommendations. The trustees adopted the other actuarial assumptions at their May 6, 2020 meeting based upon an experience study and our recommendations. Please refer to the experience study report and the presentations at the September 23, 2021 and June 13, 2022 trustee meetings for the rationale for each assumption.

1. Long-Term Expected Return on Assets (effective June 30, 2022)

6.25% compounded annually net of investment management and custodial fees.

2. Low-Default-Risk Obligation Measure Discount Rate (effective June 30, 2024)

The discount rate used to calculate the Low-Default-Risk Obligation Measure (LDROM) is calculated as the single equivalent rate (rounded to the nearest 10 basis points) from matching projected future benefit cash flows to the FTSE Pension Discount Curve as of June 30th. This curve was selected because it reflects the types of fixed-income securities the Plan would likely invest in if the Trustees wanted to match cash flows. The single equivalent rate for this valuation is 5.30%

3. Salary Increases (effective June 30, 2022)

3.25%, compounded annually.

4. Pre-Retirement Benefit Rate Increases

The benefit rates used to calculate retirement and temporary disability benefits are assumed to increase with salary increases (3.25%) until benefit commencement.

5. Price Inflation (effective June 30, 2022)

2.75%, compounded annually.

6. Post-Retirement Benefit Increases

Benefit payments for members who retired prior to August 1, 2012 are assumed to increase with price inflation (2.75%), and benefit payments for members who retire on or after August 1, 2012 are assumed to increase with 90% of price inflation (2.475%).

After commencement, temporary disability benefit payments are assumed to increase with price inflation (2.75%).



APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

7. Administrative Expenses (effective July 1, 2020)

\$330,000 per year beginning FYE 2021 and increasing with price inflation thereafter. Expenses are assumed to be paid midyear.

8. Base Mortality Rates (effective July 1, 2021)

2016 Cheiron ATU mortality tables. Separate tables by sex for employees, healthy retirees, and disabled retirees. Sample Rates are shown in the table below.

	2016 Cheiron ATU Mortality Tables						
	Active En	ployees	Service F	Retirees	Disabled Retirees		
Age	Male	Female	Male	Female	Male	Female	
30	0.0485%	0.0380%			0.9632%	0.3098%	
35	0.0562%	0.0513%			1.1224%	0.4766%	
40	0.0640%	0.0723%			1.2844%	0.6769%	
45	0.0793%	0.1008%			1.8315%	0.9686%	
50	0.1134%	0.1514%	0.6846%	0.3411%	2.1187%	1.4759%	
55	0.1735%	0.2387%	0.8977%	0.5195%	2.4130%	1.8518%	
60	0.2724%	0.3645%	1.1230%	0.7617%	2.7997%	2.0617%	
65	0.4082%	0.5243%	1.3088%	1.1026%	3.3476%	2.2110%	
70	0.7245%	0.8362%	1.9829%	1.6328%	4.1983%	2.7203%	
75	1.3403%	1.3785%	3.2716%	2.6310%	5.7023%	3.8567%	
80	2.5212%	2.2850%	5.5953%	4.4327%	8.1570%	5.9047%	
85			9.6469%	7.6908%	12.1627%	9.2619%	
90			15.7074%	13.4105%	18.6161%	13.5816%	

9. Mortality Improvement Scale (effective July 1, 2021)

Mortality rates are applied on a generational basis using the MP-2020 mortality improvement scale to adjust base mortality rates beginning in 2016.



APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

10. Rates of Retirement (effective July 1, 2020)

All active members and management transfers are assumed to retire by age 70. For those eligible to retire, the assumed rates of retirement prior to age 70 vary by sex and years of service as follows:

		Active Rates	of Retirement		
	Ma	les	Females		
Age	Under 20 Years	20+ Years	Under 20 Years	20+ Years	
55	3.0%	4.0%	4.0%	6.0%	
56	3.0	4.0	6.0	6.0	
57	3.0	7.5	8.0	8.0	
58	4.0	15.0	15.0	20.0	
59	6.0	7.0	15.0	15.0	
60	8.0	11.0	15.0	15.0	
61	10.0	15.0	25.0	25.0	
62	20.0	35.0	35.0	35.0	
63	17.5	20.0	25.0	25.0	
64	22.5	25.0	20.0	25.0	
65	27.5	30.0	35.0	35.0	
66 – 69	35.0	35.0	40.0	40.0	
70+	100.0	100.0	100.0	100.0	

Terminated vested members are assumed to retire at their earliest unreduced retirement age. Disabled members are assumed to retire at age 62.

11. Form of Benefit (effective July 1, 2014)

Upon retirement, members who are married or have a domestic partner are assumed to elect the following form of payment:

Form of Payment	Election Rate
Single Life Annuity	33 1/3%
66 2/3% Joint & Survivor Annuity	66 2/3%



APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

12. Rates of Disability (effective July 1, 2020)

CalPERS 2017 Industrial Disability Table for County Peace Officers multiplied by 83.1 percent. Sample rates of disability are shown below.

Age	Rate of Disability
30	0.2069%
35	0.3075
40	0.4263
45	0.5584
50	0.7637
55	1.2507
60	1.4459

85% of disabled members are assumed to qualify for Social Security disability benefits.

13. Rates of Termination (effective July 1, 2020)

Assumed termination rates are shown below:

Years of Vesting	Rates of Te	rmination
Service	Males	Females
Less than 10	2.00%	3.00%
10	5.00	5.00
11	3.50	3.50
12	3.00	3.00
13	2.50	2.75
14	2.25	2.60
15	2.00	2.50
16	1.90	2.40
17	1.80	2.30
18	1.70	2.20
19	1.60	2.10
20+	1.50	2.00

14. Unused Sick Leave Benefits (effective July 1, 2020)

Active members are assumed to increase their accumulated sick leave hours -30.0 hours each year.

Active Management Transfers are not assumed to return to the Union Plan following their transfer date and are not assumed to receive the unused sick leave benefit. (effective July 1, 2012)



APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

15. Probability of Marriage/Domestic Partner (effective July 1, 2014)

66 2/3% of members are assumed to be married or have a domestic partner.

16. Age of Spouse/Domestic Partner (effective July 1, 2020)

Spouses and domestic partners of male retirees are assumed to be female and three years younger than the retiree. Spouses and domestic partners of female retirees are assumed to be male and two years older than the retiree. Actual spouse demographic data is reflected following benefit commencement.

17. Future Service Credits

Active and disabled members are assumed to earn one year of vesting service and one year of benefit service each future year. Transfers to Management are assumed to earn one year of vesting service and no benefit service each future year.

18. Mini-Run to Full Time (effective July 1, 2020)

Active mini-run members are assumed to transfer to full time at the following rates:

Years of Credited	
Service	Annual Probability
Less than 4	25.0%
4 or more	3.5%

19. Active Management Transfers (effective July 1, 2020)

Demographic assumptions for active members who transfer to Management are the same as those adopted for the TriMet Defined Benefit Retirement Plan for Management and Staff Employees.

20. Changes Since the Last Valuation

The LDROM discount rate assumption was updated to 5.30%.



APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

Contribution Allocation Procedure (effective for FYE 2024 contributions)

The contribution allocation procedure determines a range of actuarially determined contribution amounts, including a Minimum contribution, a Maximum contribution, a Recommended contribution, and a Reasonable Actuarially Determined Contribution. Because the Plan has been closed to new entrants since August 1, 2012, and the Actuarial Liability is projected to begin declining as benefits are paid out, the Plan's funding policy differs significantly from what would be used for an ongoing pension plan. The objective of the funding policy is to maintain a well-funded pension plan without developing a surplus that could not be used efficiently until all benefits have been paid. Consequently, the funding policy targets maintaining a funded ratio between 80% and 90% rather than the normal target of 100%. The Recommended contribution is designed to target and maintain a funded ratio of 80%. Because the Actuarial Liability for the closed plan is expected to decline, the dollar amount of the UAL is also expected to decline as the funded ratio remains at 80%. Because a component of the Recommended contribution is to contribute the unfunded portion of the next year's benefit payments, contributing the Recommended contribution ensures that sufficient assets will accumulate to pay benefits when due. However, the UAL is not expected to be completely paid off until just before the last benefit is paid. Please refer to the GASB 67/68 crossover test in Appendix D for the full projection of benefits, contributions, and asset levels.

The contribution allocation procedure uses various components as described below. The Trustees adopted all components of the Plan's Funding Policy on August 11, 2023.

1. Actuarial Cost Method

The Entry Age Actuarial Cost Method was used for active employees, whereby the normal cost is computed as the level annual percentage of pay required to fund all benefits between each member's date of hire and last assumed date of employment. The Actuarial Liability is the difference between the present value of future benefits and the present value of future normal costs. Or, equivalently, it is the accumulation of normal costs for all periods prior to the valuation date. The normal cost and Actuarial Liability are calculated on an individual basis. The sum of the individual amounts is the normal cost and Actuarial Liability for the Plan. The Actuarial Liability for the Plan represents the target amount of assets the Plan should have as of the valuation date according to the actuarial cost method.

2. Asset Valuation Method

The Actuarial Value of Assets is equal to the Market Value of Assets.

3. Amortization Method

Amortization payments are developed separately for amounts needed to reach an 80% funded ratio. If the Plan is less than 80% funded, the difference between 80% of the Actuarial Liability and the Market Value of Assets is amortized using a 10-year layered amortization as a level dollar amount. Once the Plan reaches 80% funded, all amortization layers are eliminated.



APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

If the Plan is more than 80% funded, the Minimum contribution is based on amortizing the entire UAL as a level percentage of payroll over a rolling 40-year period.

4. Payment to Maintain Funded Status

For any UAL amount between 80% and 100% funding levels, a payment to maintain the funding status is calculated equal to the greater of (1) interest on this portion of the UAL and (2) the benefit payments expected to be made during the year multiplied by one minus the funded percentage.

5. Adjustments to Outputs

Funding Level	Less than 80%	80% to 90%	90% or More		
Minimum Contribution	 Normal cost, plus Administrative expenses, plus 10-year layered amortization payment to reach 80%, plus The payment to maintain the funded status. 	 Normal cost, plus Administrative expenses, plus 40-year rolling amortization payment. 	 Normal cost, plus Administrative expenses, plus 40-year rolling amortization payment. 		
Maximum Contribution	• The amount necessary to reach 80% funded in one year if all assumptions are met.	 Normal cost, plus Administrative expenses, plus The payment to maintain the funded status. 	 Normal cost, plus Administrative expenses, plus 40-year rolling amortization payment. 		
Recommended Contribution	• The greater of the Minimum Contribution or TriMet's budget for pension and OPEB trust contributions, but no greater than the Maximum Contribution.	• Prorated based on funded percentage between Maximum contribution at 80% funded and Minimum Contribution at 90% funded.	 Normal cost, plus Administrative expenses, plus 40-year rolling amortization payment. 		

As noted above, these methods are not designed to fund the Plan completely to 100% until just before the final benefits are paid. As such, the payments on the UAL under the Plan's Funding Policy may not always comply with Section 3.14 of Actuarial Standard of Practice No. 4.



APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

6. Reasonable Actuarially Determined Contribution

The Reasonable Actuarially Determined Contribution equals the Recommended contribution but cannot be less than normal cost plus administrative expenses plus an amortization payment on the UAL based on a 25-year amortization as a level real dollar amount. The 25-year period will decrease by one year in each future valuation until the period reaches 20 years.

7. Changes Since the Last Valuation

The minimum Reasonable ADC was increased from the Minimum contribution to the Recommended contribution and the amortization payment growth rate was reduced to assumed inflation. In addition, future amortization periods for the Reasonable ADC were scheduled to decrease until the period reaches 20 years.



APPENDIX C – SUMMARY OF PLAN PROVISIONS

1. Eligibility

All ATU 757 bargaining unit employees of TriMet (TriMet Union employees) hired before August 1, 2012. TriMet Union employees who transfer to a management position continue to earn service for vesting purposes and retirement eligibility. However, no additional benefits are earned for continuous service as a management employee.

TriMet Union employees hired on or after August 1, 2012 are not eligible to participate in this Plan.

Members who are re-employed as an eligible employee on or after August 1, 2012 may recommence participation if the rehire date is before the earlier of (1) 36 months following termination or (2) the date their break in service exceeds their continuous service before the break in service.

Members who transfer from an eligible employee to an ineligible employee may recommence participation if they transfer back to an eligible employee on or after August 1, 2012 and they did not have a termination date between transfers.

2. Credited Service

All periods of service during which the employee is a member of the bargaining unit represented by ATU 757, working either as a full-time employee or mini-run operator, is entitled to payment for services rendered to TriMet and is eligible to participate in this Plan. Continuous service includes periods of layoff due to reduction in force of less than five years, authorized leave of absences if certain requirements are met, and time while serving as an officer of the ATU 757.

Continuous service is measured using elapsed time. Each 12-month period of continuous service equals one year of continuous service and partial years are based on the number of days worked divided by 365.25.

3. Vesting Service

All continuous service plus any period of service (not already counted as continuous service) when an employee is entitled to payment for services rendered to TriMet, excluding service preceding a permanent break in service.



APPENDIX C – SUMMARY OF PLAN PROVISIONS

4. Normal Retirement

Eligibility

For participants who earn at least 10 years of vesting service, the Normal Retirement Age is determined from the following schedule:

Severance from Service Date	Normal Retirement Age
December 1, 1994 to November 30, 1998	62
December 1, 1998 to November 30, 2000	61
December 1, 2000 to November 30, 2002	60
December 1, 2002 to November 30, 2004	59
On or after December 1, 2004	58

Benefit

The normal retirement benefit for participants retiring or terminating after February 1, 1992 is determined by multiplying continuous service times the benefit rate in effect on the date of retirement or termination of employment, whichever is earlier. Mini-run operators receive 75% of the benefit rate shown below.

Effective Beginning	Benefit Rate	Effective Beginning	Benefit Rate
February 1, 1992	\$42.00	September 1, 2008	\$70.84
September 1, 1992	43.26	September 1, 2009	72.96
September 1, 1993	44.13	February 1, 2010	72.96
September 1, 1994	44.57	February 1, 2011	75.52
September 1, 1995	47.02	February 1, 2012	78.97
September 1, 1996	48.43	February 1, 2013	78.97
September 1, 1997	50.27	February 1, 2014	78.97
September 1, 1998	51.93	February 1, 2015	81.34
September 1, 1999	53.49	February 1, 2016	83.78
September 1, 2000	55.49	February 1, 2017	86.29
September 1, 2001	57.15	February 1, 2018	89.10
September 1, 2002	58.87	February 1, 2019	92.00
September 1, 2003	60.64	February 1, 2020	94.76
September 1, 2004	62.45	February 1, 2021	97.13
September 1, 2005	64.33	February 1, 2022	99.32
September 1, 2006	66.26	February 1, 2023	106.77
September 1, 2007	68.25	February 1, 2024	111.04

Beginning December 1, 2009, benefit rates are adjusted on February 1 each year by the amount of any specified general wage adjustment under the Working and Wage Agreement during the preceding 12 months.



APPENDIX C – SUMMARY OF PLAN PROVISIONS

A benefit derived from unused sick leave is added to the above benefit as described below.

Unused Sick Leave

Vested participants who terminate after becoming eligible for early retirement will have unused accumulated sick leave up to the maximum accumulated sick leave converted to a monthly benefit at a rate of \$.30 per hour for each hour of unused accrued sick leave. The maximum accumulated sick leave is 1,700 hours for terminations on or after December 1, 2008.

5. Early Retirement

Eligibility

A participant may retire prior to his normal retirement date if he has 10 years of vesting service and is at least 55 years of age.

From December 1, 2003 to December 1, 2009, an active participant may retire with unreduced benefits after he has earned 30 years of continuous service, regardless of age.

Benefit

The early retirement benefit will be reduced to be actuarially equivalent to the normal retirement benefit.

6. Forms of Payment

The following forms of payment are available:

- Single Life Annuity
- 66 2/3% Joint and Survivor Annuity

7. Disability Retirement

Eligibility

An active participant who becomes disabled after 10 years of continuous service may receive a disability benefit if he becomes permanently disabled from performing the participant's occupation while employed with TriMet prior to reaching Social Security retirement age (62). Disability benefits are paid from the Plan until the participant reaches age 62.

Benefit

A benefit payable during the period of disability is determined from the table below. If the participant is entitled to disability benefits under Social Security, the benefits shown below are doubled. Participants who are mini-run operators on the date they become permanently



APPENDIX C – SUMMARY OF PLAN PROVISIONS

disabled will receive 75% of the amounts below.

T-664:	10 Years of	15 Years of	20 Years of	
Effective	Continuous Service	Continuous Service \$ 468.38	Continuous Service	
	ebruary 1, 1992 \$ 388.60		\$ 544.07	
February 1, 1993	400.26	482.43	560.39	
February 1, 1994	408.27	492.08	571.60	
February 1, 1995	434.80	524.06	608.75	
February 1, 1996	441.76	532.45	618.49	
February 1, 1997	457.22	551.08	640.14	
February 1, 1998	472.31	569.27	661.26	
February 1, 1999	481.76	580.66	674.49	
February 1, 2000	502.72	605.92	703.83	
February 1, 2001	519.71	626.40	727.62	
February 1, 2002	533.90	643.50	747.48	
February 1, 2003	545.01	656.88	763.03	
February 1, 2004	569.92	686.90	797.90	
February 1, 2005	586.50	706.89	821.12	
February 1, 2006	602.28	725.91	843.21	
February 1, 2007	620.47	747.83	868.67	
February 1, 2008	643.37	775.42	900.72	
February 1, 2009	669.62	807.06	937.47	
February 1, 2010	674.51	812.95	944.31	
February 1, 2011	698.19	841.49	977.46	
February 1, 2012	730.10	879.95	1,022.13	
May 1, 2013	745.43	898.43	1,043.59	
May 1, 2014	755.64	910.74	1,057.89	
May 1, 2015	766.98	924.40	1,073.76	
May 1, 2016	766.98	924.40	1,073.76	
May 1, 2017	774.50	933.46	1084.28	
May 1, 2018	793.32	956.14	1,110.63	
May 1, 2019	817.12	984.82	1,143.95	
May 1, 2020	836.49	1,008.16	1,171.06	
May 1, 2021	850.87	1,025.50	1,191.20	
May 1, 2022	897.67	1,081.90	1,256.72	
May 1, 2023	960.51	1,157.64	1,344.69	
May 1, 2024	1,001.43	1,206.96	1,401.97	

Disability benefits increase at the same time and percentage as post-retirement benefit increases for participants who retired before August 1, 2012.

The disabled participant's retirement benefit at age 62 is calculated using service that includes



APPENDIX C – SUMMARY OF PLAN PROVISIONS

continuous service during disability as if the participant remained in active employment from the date of disability to age 62, and the benefit rate in effect at age 62.

8. Vesting

A participant who terminates employment with at least ten years of vesting service as of the date of termination will be 100% vested.

9. Contributions

Contributions are made to the Trust Fund by TriMet. There are no member contributions. The Working and Wage Agreement between the ATU and TriMet establishes a minimum amortization period of 40 years. The necessary amount will be determined in accordance with accepted actuarial principles.

10. Pre-Retirement Death Benefit

Married Employee or Domestic Partner

If a vested participant, the participant's spouse or domestic partner will receive 50% of the accrued benefit. The benefit is paid to the spouse when the spouse attains age 62 (or, if later, the date of the participant's death). The payment to the domestic partner must commence no later than the December 31 of the calendar year following the participant's death. If the domestic partner is younger than age 62, the benefit is actuarially reduced to reflect the age of the domestic partner on the date of benefit commencement.

Disability

If a participant receiving disability benefits dies on or after age 55 but prior to age 62, the surviving spouse or domestic partner may elect to receive either the benefits described in the paragraph immediately above or the survivor portion of the 66 2/3% joint and survivor annuity.

11. Post-retirement Cost-of-Living Benefit

Prior to August 1, 2012, post-retirement benefits were increased each February 1 by the aggregate amount of any specified general wage adjustment under the Working and Wage Agreement during the preceding 12 months.

Effective August 1, 2012, post-retirement benefits are increased each May 1 during the period of the agreement as follows:

• For participants who retired before August 1, 2012, the post-retirement benefit increase is 100% of the percentage increase in the U.S. Urban Wage Earners and Clerical Workers Consumer Price Index (CPI-W West – Size Class B/C) (annual average) for the previous calendar year. Annual increases will not be more than 7% per year.



APPENDIX C – SUMMARY OF PLAN PROVISIONS

• For participants who retire on or after August 1, 2012, the post-retirement benefit increase is 90% of the percentage increase in the U.S. Urban Wage Earners and Clerical Workers Consumer Price Index (CPI-W West - Size Class B/C) (annual average) for the previous calendar year. Annual increases will not be more than 7% per year.

12. Changes Since the Last Valuation

The Benefit Rate and the temporary disability benefits were increased.

Note: The summary of major plan provisions is designed to outline principal plan benefits. If TriMet should find the plan summary not in accordance with the actual provisions, the actuary should immediately be alerted so the proper provisions are valued.



APPENDIX D – GASB 67/68 CROSSOVER TEST

FYE	Projected Beginning Fiduciary Net Position	Projected Contribution	Projected Admin Expenses	Projected Benefit Payments	Projected Investment Earnings	Projected Ending Fiduciary Net Position	"Funded" Portion of Benefit Payments	"Unfunded" Portion of Benefit Payments
2025	748,227,706	18,559,788	364,254	58,241,034	45,531,775	753,713,982	58,241,034	0
2026	753,713,982	18,222,360	374,271	60,308,378	45,800,349	757,054,041	60,308,378	0
2027	757,054,041	17,935,788	384,563	62,145,726	45,943,419	758,402,958	62,145,726	0
2028	758,402,958	17,654,028	395,139	63,904,067	45,964,614	757,722,395	63,904,067	0
2029	757,722,395	17,389,116	406,005	65,620,581	45,860,763	754,945,688	65,620,581	0
2030	754,945,688	17,132,976	417,170	67,254,768	45,628,698	750,035,423	67,254,768	0
2031	750,035,423	16,891,836	428,643	68,674,670	45,270,332	743,094,279	68,674,670	0
2032	743,094,279	16,715,376	440,430	70,146,994	44,785,404	734,007,635	70,146,994	0
2033	734,007,635	16,479,984	452,542	71,300,456	44,174,372	722,908,993	71,300,456	0
2034	722,908,993	16,279,716	464,987	72,128,113	43,448,688	710,044,297	72,128,113	0
2035	710,044,297	16,073,592	477,774	72,781,574	42,617,796	695,476,337	72,781,574	0
2036	695,476,337	15,875,268	490,913	73,173,016	41,688,744	679,376,419	73,173,016	0
2037	679,376,419	15,663,636	504,413	73,310,606	40,671,336	661,896,372	73,310,606	0
2038	661,896,372	15,454,512	503,966	73,245,609	39,574,411	643,175,720	73,245,609	0
2039	643,175,720	15,217,032	501,669	72,911,781	38,407,406	623,386,708	72,911,781	0
2040	623,386,708	14,972,292	498,066	72,388,078	37,179,289	602,652,145	72,388,078	0
2041	602,652,145	14,718,564	493,025	71,655,552	35,898,270	581,120,401	71,655,552	0
2042	581,120,401	14,447,772	486,435	70,697,670	34,573,885	558,957,953	70,697,670	0
2043	558,957,953	14,155,260	478,559	69,553,029	33,215,199	536,296,824	69,553,029	0
2044	536,296,824	13,847,148	469,607	68,251,952	31,829,714	513,252,128	68,251,952	0
2045	513,252,128	13,530,542	459,563	66,792,187	30,424,912	489,955,832	66,792,187	0
2046	489,955,832	13,181,064	448,388	65,168,078	29,008,466	466,528,896	65,168,078	0
2047	466,528,896	12,813,462	436,142	63,388,256	27,588,123	443,106,083	63,388,256	0
2048	443,106,083	12,436,083	423,345	61,528,257	26,170,220	419,760,784	61,528,257	0
2049	419,760,784	12,035,239	409,599	59,530,456	24,760,711	396,616,679	59,530,456	0
2050	396,616,679	11,617,561	395,116	57,425,482	23,366,579	373,780,221	57,425,482	0
2051	373,780,221	11,187,174	379,945	55,220,677	21,994,377	351,361,150	55,220,677	0
2052	351,361,150	10,750,229	364,408	52,962,502	20,649,715	329,434,184	52,962,502	0
2053	329,434,184	10,300,335	348,667	50,674,748	19,336,326	308,047,430	50,674,748	0
2054	308,047,430	9,844,327	332,557	48,333,271	18,058,178	287,284,107	48,333,271	0



APPENDIX D – GASB 67/68 CROSSOVER TEST

FYE	Projected Beginning Fiduciary Net Position	Projected Contribution	Projected Admin Expenses	Projected Benefit Payments	Projected Investment Earnings	Projected Ending Fiduciary Net Position	"Funded" Portion of Benefit Payments	"Unfunded" Portion of Benefit Payments
2055	287,284,107	9,384,571	316,348	45,977,574	16,819,320	267,194,075	45,977,574	0
2056	267,194,075	8,922,171	300,119	43,618,855	15,622,554	247,819,826	43,618,855	0
2057	247,819,826	8,458,947	283,981	41,273,342	14,470,090	229,191,540	41,273,342	0
2058	229,191,540	7,997,011	267,959	38,944,711	13,363,765	211,339,647	38,944,711	0
2059	211,339,647	7,538,449	252,139	36,645,512	12,305,157	194,285,603	36,645,512	0
2060	194,285,603	7,084,942	236,639	34,392,748	11,295,131	178,036,289	34,392,748	0
2061	178,036,289	6,638,240	221,431	32,182,450	10,334,294	162,604,942	32,182,450	0
2062	162,604,942	6,168,517	206,580	30,023,950	9,422,267	147,965,197	30,023,950	0
2063	147,965,197	5,784,664	192,138	27,924,986	8,560,512	134,193,249	27,924,986	0
2064	134,193,249	5,363,461	178,137	25,890,117	7,749,859	121,238,315	25,890,117	0
2065	121,238,315	4,956,293	164,608	23,923,808	6,988,577	109,094,769	23,923,808	0
2066	109,094,769	4,564,161	151,579	22,030,184	6,276,217	97,753,384	22,030,184	0
2067	97,753,384	4,187,767	139,073	20,212,620	5,612,119	87,201,577	20,212,620	0
2068	87,201,577	3,827,735	127,111	18,474,127	4,995,423	77,423,497	18,474,127	0
2069	77,423,497	3,484,579	115,711	16,817,190	4,425,078	68,400,253	16,817,190	0
2070	68,400,253	3,158,689	104,884	15,243,677	3,899,855	60,110,237	15,243,677	0
2071	60,110,237	2,850,396	94,642	13,755,188	3,418,367	52,529,169	13,755,188	0
2072	52,529,169	2,559,897	84,992	12,352,675	2,979,071	45,630,469	12,352,675	0
2073	45,630,469	2,287,260	75,936	11,036,451	2,580,299	39,385,640	11,036,451	0
2074	39,385,640	2,032,477	67,473	9,806,478	2,220,270	33,764,435	9,806,478	0
2075	33,764,435	1,795,425	59,600	8,662,152	1,897,110	28,735,218	8,662,152	0
2076	28,735,218	1,575,885	52,308	7,602,418	1,608,866	24,265,243	7,602,418	0
2077	24,265,243	1,373,617	45,591	6,626,108	1,353,522	20,320,683	6,626,108	0
2078	20,320,683	1,188,341	39,438	5,731,877	1,128,995	16,866,705	5,731,877	0
2079	16,866,705	1,019,732	33,839	4,918,147	933,148	13,867,599	4,918,147	0
2080	13,867,599	867,398	28,781	4,183,013	763,796	11,287,000	4,183,013	0
2081	11,287,000	730,870	24,248	3,524,220	618,722	9,088,124	3,524,220	0
2082	9,088,124	609,574	20,222	2,938,982	495,695	7,234,188	2,938,982	0
2083	7,234,188	502,847	16,679	2,424,092	392,494	5,688,759	2,424,092	0
2084	5,688,759	409,952	13,596	1,975,987	306,932	4,416,061	1,975,987	0



APPENDIX D – GASB 67/68 CROSSOVER TEST

FYE	Projected Beginning Fiduciary Net Position	Projected Contribution	Projected Admin Expenses	Projected Benefit Payments	Projected Investment Earnings	Projected Ending Fiduciary Net Position	"Funded" Portion of Benefit Payments	"Unfunded" Portion of Benefit Payments
2085	4,416,061	330,025	10,943	1,590,491	236,874	3,381,526	1,590,491	0
2086	3,381,526	262,114	8,690	1,262,995	180,274	2,552,230	1,262,995	0
2087	2,552,230	205,202	6,802	988,589	135,195	1,897,236	988,589	0
2088	1,897,236	158,206	5,243	762,024	99,833	1,388,007	762,024	0
2089	1,388,007	120,004	3,976	577,901	72,536	998,669	577,901	0
2090	998,669	89,485	2,964	430,832	51,820	706,178	430,832	0
2091	706,178	65,540	2,171	315,475	36,377	490,450	315,475	0
2092	490,450	47,112	1,560	226,708	25,078	334,372	226,708	0
2093	334,372	33,210	1,099	159,770	16,969	223,681	159,770	0
2094	223,681	22,945	759	110,358	11,266	146,776	110,358	0
2095	146,776	15,531	514	74,675	7,337	94,456	74,675	0
2096	94,456	10,295	340	49,481	4,687	59,617	49,481	0
2097	59,617	6,679	221	32,097	2,937	36,915	32,097	0
2098	36,915	4,245	140	20,388	1,806	22,437	20,388	0
2099	22,437	2,643	87	12,693	1,090	13,390	12,693	0
2100	13,390	1,614	53	7,747	647	7,851	7,747	0
2101	7,851	966	32	4,637	377	4,525	4,637	0
2102	4,525	569	19	2,726	216	2,565	2,726	0
2103	2,565	328	11	1,574	122	1,430	1,574	0
2104	1,430	186	6	893	67	784	893	0
2105	784	104	3	500	37	421	500	0
2106	421	58	2	275	20	222	275	0
2107	222	30	1	148	10	113	148	0
2108	113	17	1	78	5	58	78	0
2109	58	8	0	40	3	28	40	0
2110	28	4	0	20	1	13	20	0
2111	13	2	0	10	1	6	10	0
2112	6	1	0	5	0	2	5	0
2113	2	1	0	2	0	1	2	0
2114	1	0	0	1	0	1	1	0
2115	1	0	0	0	0	0	0	0



APPENDIX E – GLOSSARY OF TERMS

1. Actuarial Liability

The Actuarial Liability is the difference between the present value of future benefits and the present value of total future normal costs. This is also referred to as the "accrued liability" or "actuarial accrued liability." The Actuarial Liability represents the targeted amount of assets a plan should have as of a valuation date according to the actuarial cost method.

2. Actuarial Assumptions

Estimates of future experience with respect to rates of mortality, disability, turnover, retirement rate or rates of investment income, and salary increases. Demographic actuarial assumptions (rates of mortality, disability, turnover, and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (price inflation, wage inflation, and investment income) are generally based on expectations for the future that may differ from the Plan's past experience.

3. Actuarial Cost Method

A mathematical budgeting procedure for allocating the dollar amount of the present value of future benefits between future normal cost and Actuarial Liability.

4. Actuarial Gain (Loss)

The difference between actual experience and the anticipated experience based on the actuarial assumptions during the period between two actuarial valuation dates.

5. Actuarial Present Value

The amount of funds currently required to provide a payment or series of payments in the future. It is determined by discounting future payments at the discount rate and by probabilities of payment.

6. Actuarial Valuation Date

The date as of which an actuarial valuation is performed. For GASB purposes, this date may be up to 24 months prior to the GASB 67/68 measurement date and up to 30 months prior to the employer's financial reporting date.

7. Actuarially Determined Contribution

The payment to the Plan as determined by the actuary using a contribution allocation procedure. It may or may not be the actual amount contributed to the Plan.



APPENDIX E – GLOSSARY OF TERMS

8. Amortization Method

A method for determining the amount, timing, and pattern of payments on the Unfunded Actuarial Liability.

9. Asset Valuation Method

The method used to develop the Actuarial Value of Assets from the Market Value of Assets typically by smoothing investment returns above or below the assumed rate of return over a period of time.

10. Contribution Allocation Procedure

A procedure typically using an actuarial cost method, an asset valuation method, and an amortization method to develop the Actuarially Determined Contribution.

11. Deferred Inflow of Resources

An acquisition of net assets by a government employer that is applicable to a future reporting period. In the context of GASB 68, these are experience gains on the Total Pension Liability, assumption changes reducing the Total Pension Liability, or investment gains that are recognized in future reporting periods.

12. Deferred Outflow of Resources

A consumption of net assets by a government employer that is applicable to a future reporting period. In the context of GASB 68, these are experience losses on the Total Pension Liability, assumption changes increasing the Total Pension Liability, or investment losses that are recognized in future reporting periods.

13. Discount Rate

The rate of interest used to discount future benefit payments to determine the actuarial present value. For purposes of determining an Actuarially Determined Contribution, the discount rate is typically based on the long-term expected return on assets.

14. Entry Age Actuarial Cost Method

The actuarial cost method required for GASB 67 and 68 calculations. Under this method, the actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis over the earnings of the individual between entry age and assumed exit ages. The portion of this actuarial present value allocated to a valuation year is called the service cost. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future service costs is called the Total Pension Liability.



APPENDIX E – GLOSSARY OF TERMS

15. Funded Status or Funding Ratio

The Market or Actuarial Value of Assets divided by the Actuarial Liability. For purposes of this report, the funded status represents the proportion of the actual assets compared to the target established by the actuarial cost method as of the valuation date. These measures are for contribution budgeting purposes and are not appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations.

16. Measurement Date

The date as of which the Total Pension Liability and Plan Fiduciary Net Position are measured. The Total Pension Liability may be projected from the actuarial valuation date to the measurement date. The measurement date must be the same as the reporting date for the plan.

17. Net Pension Liability

The liability of employers and non-employer contributing entities to plan members for benefits provided through a defined benefit pension plan. It is calculated as the Total Pension Liability less the Plan Fiduciary Net Position.

18. Normal Cost

The portion of the present value of future benefits allocated to the current year by the actuarial cost method.

19. Plan Fiduciary Net Position

The fair or Market Value of Assets.

20. Present Value of Future Benefits

The actuarial present value of all benefits both earned as of the valuation date and expected to be earned in the future by current plan members based on current plan provisions and actuarial assumptions.

21. Reporting Date

The last day of the plan or employer's fiscal year.



APPENDIX E – GLOSSARY OF TERMS

22. Service Cost

The portion of the actuarial present value of projected benefit payments that is attributed to the current period of employee service in conformity with the requirements of GASB 67 and 68. The service cost is the normal cost calculated under the Entry Age Actuarial Cost Method.

23. Total Pension Liability

The portion of the actuarial present value of projected benefit payments that is attributed to past periods of employee service in conformity with the requirements of GASB 67 and 68. The Total Pension Liability is the Actuarial Liability calculated under the Entry Age actuarial cost method.

24. Unfunded Actuarial Liability (UAL)

The Unfunded Actuarial Liability is the difference between Actuarial Liability and either the Market or the Actuarial Value of Assets. This value is sometimes referred to as "unfunded actuarial accrued liability." It represents the difference between the actual assets and the amount of assets expected by the actuarial cost method as of the valuation date.





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