

# **TriMet Defined Benefit Retirement Plan for Management and Staff Employees**

**Actuarial Valuation Report  
as of July 1, 2021**

**Produced by Cheiron**

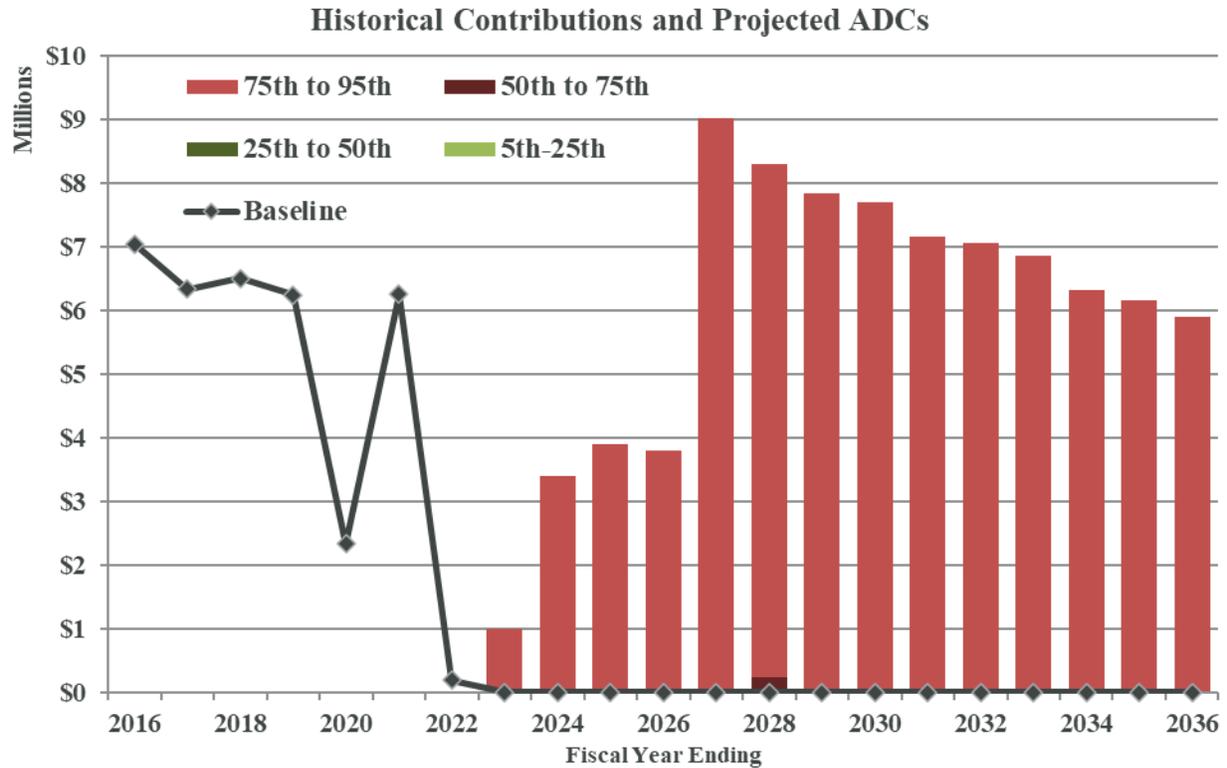
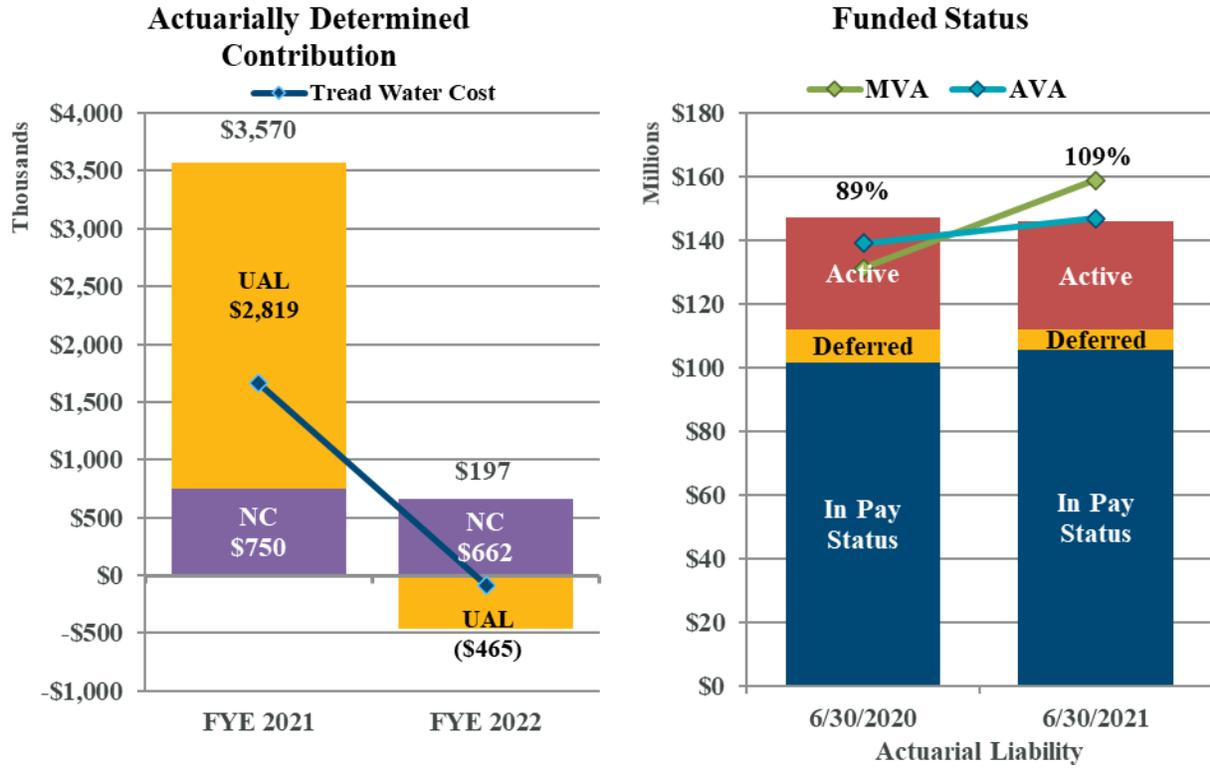
**September 2021**

## TABLE OF CONTENTS

<i>Section</i>		<i>Page</i>
Section I	Board Summary .....	1
Section II	Assessment and Disclosure of Risk .....	8
Section III	Certification .....	17
Section IV	Assets .....	19
Section V	Measures of Liability .....	23
Section VI	Contributions.....	27
Section VII	GASB 67 and 68 Disclosures .....	29
 <i>Appendices</i>		
Appendix A	Membership Information .....	40
Appendix B	Actuarial Assumptions and Methods .....	49
Appendix C	Summary of Plan Provisions.....	53
Appendix D	Glossary of Terms.....	58

**TRIMET DEFINED BENEFIT RETIREMENT PLAN FOR MANAGEMENT AND STAFF EMPLOYEES  
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2021**

**SECTION I – BOARD SUMMARY**



**TRIMET DEFINED BENEFIT RETIREMENT PLAN FOR MANAGEMENT AND STAFF EMPLOYEES  
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2021**

**SECTION I – BOARD SUMMARY**

**Contributions and Pension Expense**

The chart in the upper left corner of the dashboard on the prior page shows the Actuarially Determined Contribution (ADC) assuming it is paid monthly throughout the year compared to the Tread Water Cost (blue line) for the fiscal years ending June 30, 2021, and 2022, respectively. The ADC is composed of the normal cost plus an amortization payment on the Unfunded Actuarial Liability (UAL) or an amortization credit on the surplus.

The Tread Water Cost is the normal cost plus interest on the UAL or surplus based on the Market Value of Assets. 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 or surplus at the same dollar amount if all assumptions are met. To the extent actual contributions exceed the Tread Water Cost, the UAL is expected to decline, or the surplus is expected to increase. For FYE 2021, actual contributions were approximately \$6.3 million, significantly greater than the ADC and paying off approximately \$4.7 million of the UAL. Investment earnings exceeded the expected return by approximately \$22.0 million, erasing the UAL and building a surplus of about \$12.8 million. The Actuarial Value of Assets only recognized a portion of this investment gain, but still erased the UAL and established a surplus of approximately \$0.9 million. Based on TriMet’s funding policy, the surplus based on the Actuarial Value of Assets is amortized over two years. As a result, the ADC for FYE 2022 is approximately \$0.2 million if paid throughout the year, about 95% lower than the \$3.6 million for FYE 2021.

Under GASB 68, the annual pension expense or income 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-1 below compares the ADC to actual contributions amounts and pension expense for the fiscal years ending in 2020 and 2021. The pension expense decreased between FYE 2020 and FYE 2021 and became pension income. The ADC increased by about 50% and actual contributions increased even more significantly.

**Table I-1**

<b>Annual Contributions and Pension Expense</b>			
	<b>FYE 2021</b>	<b>FYE 2020</b>	<b>% Change</b>
Pension Expense (\$ Amount)	\$ (2,570,607)	\$ 4,621,570	-155.6%
Actuarially Determined Contribution	\$ 3,569,676	\$ 2,327,160	53.4%
Actual Contribution	<u>6,250,264</u>	<u>2,327,160</u>	168.6%
Contribution Deficiency/(Excess)	\$ (2,680,588)	\$ 0	

**TRIMET DEFINED BENEFIT RETIREMENT PLAN FOR MANAGEMENT AND STAFF EMPLOYEES  
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2021**

**SECTION I – BOARD SUMMARY**

As shown by the chart at the bottom of the dashboard, actual contributions have exceeded \$6 million for five of the last six years, which has been significantly more than the ADC. For FYE 2022 and in the future, the projections in the chart assume that the ADC is contributed. The baseline represents the projected ADC if all assumptions are met, and it shows the ADC declining to \$0 for FYE 2023 and thereafter. The range of the bars represents the range of the ADC based on the potential range of actual investment returns. For these projections, we used an expected return of 6.0% and a standard deviation of 7.95%<sup>1</sup>. Given the exceptional investment performance in the last year, these projections indicate that there is a 75% chance the ADC will remain at \$0 for almost all years in the projection. Even in most poor investment scenarios, the asset smoothing and the unrecognized investment gains limit the ADC to be under \$4 million for the next four years. After those four years, the immediate amortization of any UAL exposes TriMet to significant volatility in potential Actuarially Determined Contributions. We encourage TriMet to consider alternative amortization policies for the future that would help stabilize contribution requirements while ensuring the adequate funding of the plan.

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

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<sup>1</sup> Calculated based on Meketa's 2020 capital market assumptions and the Plan's long-term asset class targets.

**TRIMET DEFINED BENEFIT RETIREMENT PLAN FOR MANAGEMENT AND STAFF EMPLOYEES  
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2021**

**SECTION I – BOARD SUMMARY**

**Funded Status**

The chart in the upper right corner of the dashboard shows the measures of assets, Actuarial Liability, and funded status for the current and prior valuations. These measures are for the purpose of assessing funding progress in a budgeting context, and 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 measures for financial reporting under GASB 67 and 68 are different, but for TriMet, they are the same.

The bars represent the Actuarial Liability (or Total Pension Liability), which is used as a funding target, and are separated between the liability for members currently receiving benefits (dark blue), inactive members entitled to future benefits (gold), and active members (red). The portion of the liability attributable to members currently receiving benefits increased from about 69% to about 72%. The green line shows the Market Value of Assets (or Fiduciary Net Position), and the blue line is the Actuarial Value of Assets that recognizes investment gains and losses over five years. The percentage on the top of the bar represents the funded status based on the Market Value of Assets, which increased from 89% to 109%.

Table I-2 below summarizes the Actuarial Liability, assets, and funded status as of July 1, 2020 and 2021.

**Table I-2**

<b>Summary of Funded Status</b>			
	<b>July 1, 2021</b>	<b>July 1, 2020</b>	<b>% Change</b>
<b>Actuarial Liability</b>			
Actives	\$ 34,184,464	\$ 35,044,328	-2.5%
Deferred Vested	6,166,589	10,505,617	-41.3%
In Pay Status	<u>105,597,098</u>	<u>101,402,961</u>	<u>4.1%</u>
<b>Total</b>	<b>\$ 145,948,151</b>	<b>\$ 146,952,906</b>	<b>-0.7%</b>
<b>Market Value of Assets (MVA)</b>	<b>\$ 158,721,106</b>	<b>\$ 131,292,101</b>	<b>20.9%</b>
Unfunded Actuarial Liability - MVA Basis	\$ (12,772,955)	\$ 15,660,805	-181.6%
Funding Ratio - MVA Basis	108.8%	89.3%	21.7%
<b>Actuarial Value of Assets (AVA)</b>	<b>\$ 146,836,624</b>	<b>\$ 139,023,310</b>	<b>5.6%</b>
Unfunded Actuarial Liability - AVA Basis	\$ (888,473)	\$ 7,929,596	-111.2%
Funding Ratio - AVA Basis	100.6%	94.6%	6.3%

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

**TRIMET DEFINED BENEFIT RETIREMENT PLAN FOR MANAGEMENT AND STAFF EMPLOYEES  
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2021**

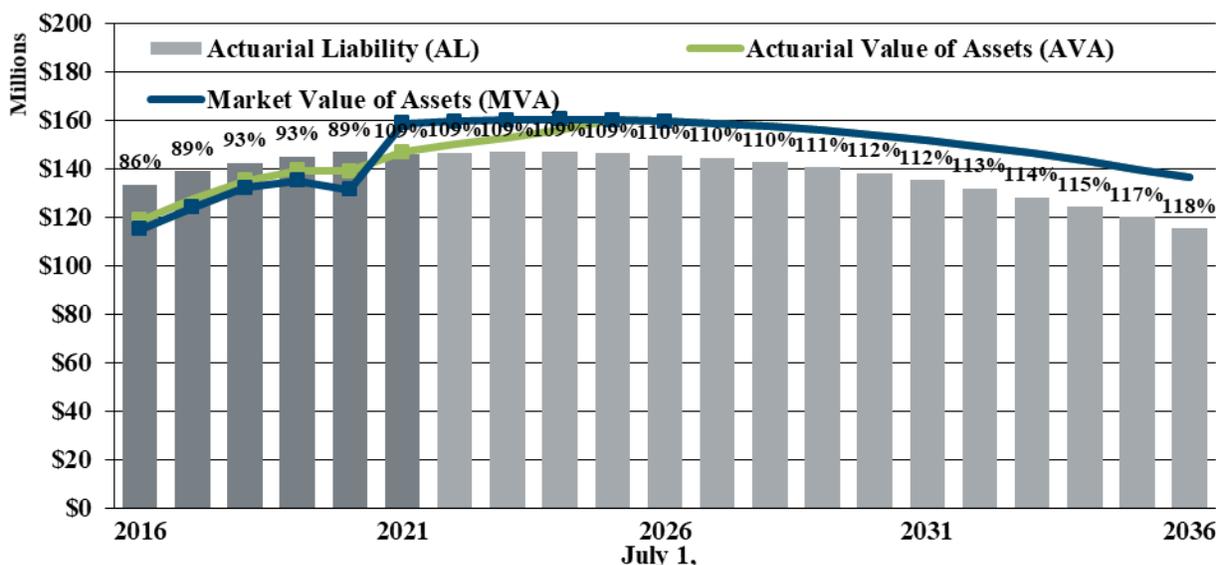
**SECTION I – BOARD SUMMARY**

decreased 0.7% primarily reflecting benefit payments offset by the interest and the accrual of benefits by active members. The Market Value of Assets increased 20.9% due to contributions and investment returns offset by benefit payments and expenses. As a result, the Unfunded Actuarial Liability (UAL) measured on the Market Value of Assets (MVA) decreased from \$15.7 million to a surplus of approximately \$12.8 million, and the funding ratio on an MVA basis increased from 89.3% to 108.8%.

The asset smoothing method deferred 80% of the current year’s investment gain while recognizing 20% of the prior four years’ gains and losses, resulting in a 5.6% increase in the total Actuarial Value of Assets. The UAL measured on the Actuarial Value of Assets decreased from \$7.9 million to a surplus of approximately \$0.9 million and the funding ratio increased from 94.6% to 100.6%. The Market Value of Assets is larger than the actuarial value, so if assumptions are met in the future, we expect a decrease in the ADC as the deferred asset gains are recognized in the Actuarial Value of Assets.

The chart below shows the historical and projected trends for assets (both market and actuarial) versus the Actuarial Liability, and also shows the progress of the funding ratios (based on the Market Value of Assets). The historical Actuarial Liability is shown in dark gray while the projected Actuarial Liability is shown in a lighter gray. The Actuarial Liability is projected to reach its peak in 2023.

**Historical and Projected Assets and Actuarial Liability**



More detail on the assets can be found in section IV of this report, and more detail on the measures of liability can be found in section V of this report.

**TRIMET DEFINED BENEFIT RETIREMENT PLAN FOR MANAGEMENT AND STAFF EMPLOYEES  
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2021**

**SECTION I – BOARD SUMMARY**

**Changes**

During FYE 2021, the UAL based on the Market Value of Assets (or Net Pension Liability in GASB 67/68) decreased by \$28.4 million. Table I-3 below shows the breakdown of the changes in the UAL in the last year by source.

**Table I-3**

<b>Changes in UAL or NPL</b>	
	<b>Amount</b>
UAL/NPL, July 1, 2021	\$ (12,772,955)
UAL/NPL, July 1, 2020	<u>15,660,805</u>
<b>Change in UAL/NPL</b>	<b>\$ (28,433,760)</b>
<b><u>Sources of Changes</u></b>	
Plan Changes	\$ (32,015)
Assumption Changes	0
Contributions vs. Tread Water Cost	(4,710,820)
Investment (gain) or loss	(21,993,929)
Liability (gain) or loss	
Salary increases	\$ (187,263)
COLA	(702,979)
Mortality	(759,665)
Retirement	(207,128)
Termination	(158,737)
Other experience	<u>318,775</u>
Total Liability (gain) or loss	<u>\$ (1,696,997)</u>
<b>Total Changes</b>	<b>\$ (28,433,760)</b>

The most significant source of the reduction in the UAL is that investment returns on the Market Value of Assets exceeded assumed returns by about \$22.0 million. Actual contributions exceeded the Tread Water Cost, reducing the UAL by \$4.7 million, and demographic and COLA experience reduced the UAL about \$1.7 million. The plan changes shown are the updates to the definition of actuarial equivalence, which had a minimal effect.

**TRIMET DEFINED BENEFIT RETIREMENT PLAN FOR MANAGEMENT AND STAFF EMPLOYEES  
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2021**

**SECTION I – BOARD SUMMARY**

Table I-4 below provides a summary of the results of this valuation compared to the prior valuation.

**Table I-4**

<b>Summary of Valuation Results</b>			
	<b>July 1, 2021</b>	<b>July 1, 2020</b>	<b>% Change</b>
<b>Membership</b>			
Actives	64	71	-9.9%
Deferred	64	74	-13.5%
In Pay Status	<u>346</u>	<u>335</u>	3.3%
Total	474	480	-1.3%
Active Member Payroll	\$ 5,922,415	\$ 6,479,135	-8.6%
Actuarial Liability/Total Pension Liability	\$ 145,948,151	\$ 146,952,906	-0.7%
Market Value of Assets/Fiduciary Net Position	<u>158,721,106</u>	<u>131,292,101</u>	20.9%
Unfunded Actuarial Liability/Net Pension Liability	\$ (12,772,955)	\$ 15,660,805	-181.6%
Deferred Outflows of Resources	0	(7,815,557)	-100.0%
Deferred Inflows of Resources	<u>11,884,482</u>	<u>87,150</u>	13536.8%
Net Impact on Statement of Net Position	\$ (888,473)	\$ 7,932,398	-111.2%
Funding Ratio - MVA Basis	108.8%	89.3%	19.4%
Actuarially Determined Contribution	\$ 197,340	\$ 3,569,676	-94.5%

## SECTION II – ASSESSMENT AND DISCLOSURE OF RISK

Actuarial valuations are based on a set of 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 provide an assessment of those risks.

### Identification of Risks

The fundamental risk to a pension plan is that the contributions needed to pay the benefits become unaffordable. Given the size of the Plan compared to TriMet as a whole, we believe it is unlikely that the Plan by itself would become unaffordable. Nevertheless, the contributions needed to support the Plan may differ significantly from expectations. While there are a number of 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 there are other gains that 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. Expected future investment returns and their potential volatility are determined by the Plan's asset allocation.

*Inflation risk* is the potential for actual inflation to be different than expected. Retirement benefits under the plan are increased each year by 90% of inflation (CPI-W) 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 actuarially determined contributions to deviate from expected future contributions to an extent that they become unaffordable. TriMet's policy is to treat the Actuarially Determined Contribution (ADC) as a minimum. The closed amortization method with only two years remaining creates significant potential contribution volatility.

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

**TRIMET DEFINED BENEFIT RETIREMENT PLAN FOR MANAGEMENT AND STAFF EMPLOYEES  
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2021**

**SECTION II – ASSESSMENT AND DISCLOSURE OF RISK**

**Table II-1**

FYE	UAL Change by Source						Total UAL Change
	Plan Changes	Assumption Changes	Contributions vs. Tread Water	Investment Experience	Liability Experience		
2012	\$ 0	\$ 264	\$ 269	\$ 5,429	\$ 2,405	\$ 8,367	
2013	1,711	1,015	(6,338)	(4,728)	152	(8,188)	
2014	0	(531)	(2,709)	(7,720)	(3,002)	(13,963)	
2015	0	(2,178)	(5,022)	5,018	3,592	1,411	
2016	0	474	(4,668)	5,819	(1,293)	334	
2017	0	0	(4,051)	(724)	1,441	(3,333)	
2018	0	0	(4,674)	(293)	(29)	(4,996)	
2019	0	0	(4,932)	4,511	397	(24)	
2020	0	(959)	(928)	6,608	928	5,649	
2021	(32)	0	(4,711)	(21,994)	(1,697)	(28,434)	
<b>Total</b>	<b>\$ 1,679</b>	<b>\$ (1,915)</b>	<b>\$ (37,764)</b>	<b>\$ (8,073)</b>	<b>\$ 2,894</b>	<b>\$ (43,178)</b>	

*Amounts in Thousands*

Over the last 10 years, the UAL has been reduced by approximately \$43.2 million. Contributions, investment experience, and assumption changes reduced the UAL by \$37.8 million, \$8.1 million and \$1.9 million respectively, while liability experience and plan changes increased the UAL by \$2.9 million and \$1.7 million respectively.

**Plan Maturity Measures**

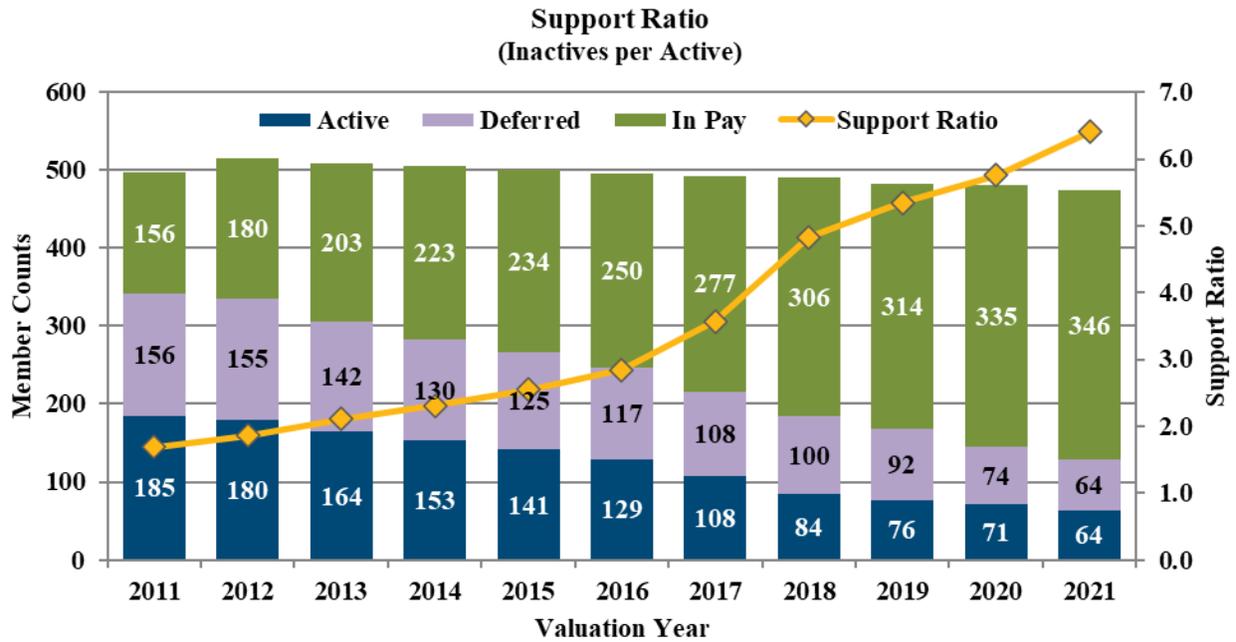
Plan maturity can be measured in a variety of ways, but there is one very important dynamic – the larger the plan is compared to the contribution or revenue base that supports it; the more sensitive the plan will be to risk. Given that the Plan has been closed to new entrants since 2003, maturity measures isolated on the Plan show significant increases in maturity.

**TRIMET DEFINED BENEFIT RETIREMENT PLAN FOR MANAGEMENT AND STAFF EMPLOYEES  
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2021**

**SECTION II – ASSESSMENT AND DISCLOSURE OF RISK**

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

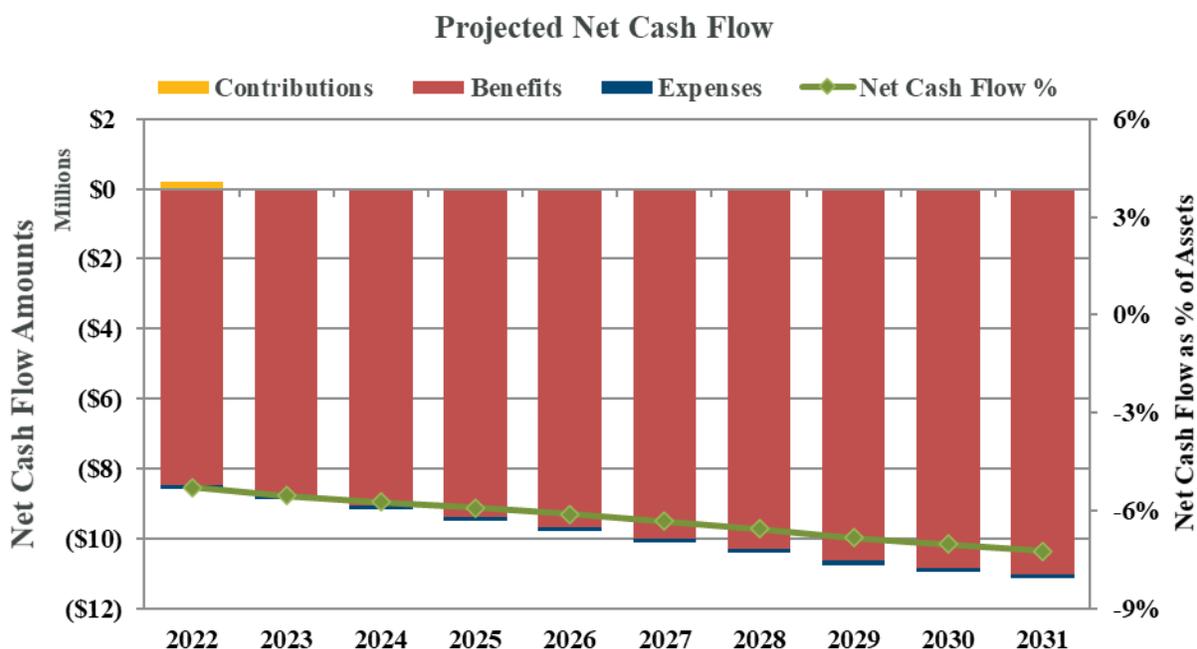


SECTION II – ASSESSMENT AND DISCLOSURE OF RISK

Net Cash Flow

The net cash flow of the plan as a percentage of the beginning of year assets indicates 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 below shows the projected net cash flow for the next 10 fiscal years. 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.



While TriMet was contributing amounts significantly greater than the ADC to improve the funded status of the Plan, the net cash flow was positive. Now that the Plan is over 100% funded and there are essentially no future contributions projected, the net cash flow is negative. To the extent benefit payments exceed the cash income generated by the investment portfolio, investments will need to be liquidated. Benefit payments are expected to grow, further increasing the need for liquidity. The negative cash flow can be exacerbated in any given year by lump sum payments, and the volatility in contributions due to the one-year amortization period can cause significant variation in net cash flow from year to year. Managing the varying liquidity requirements may become challenging.

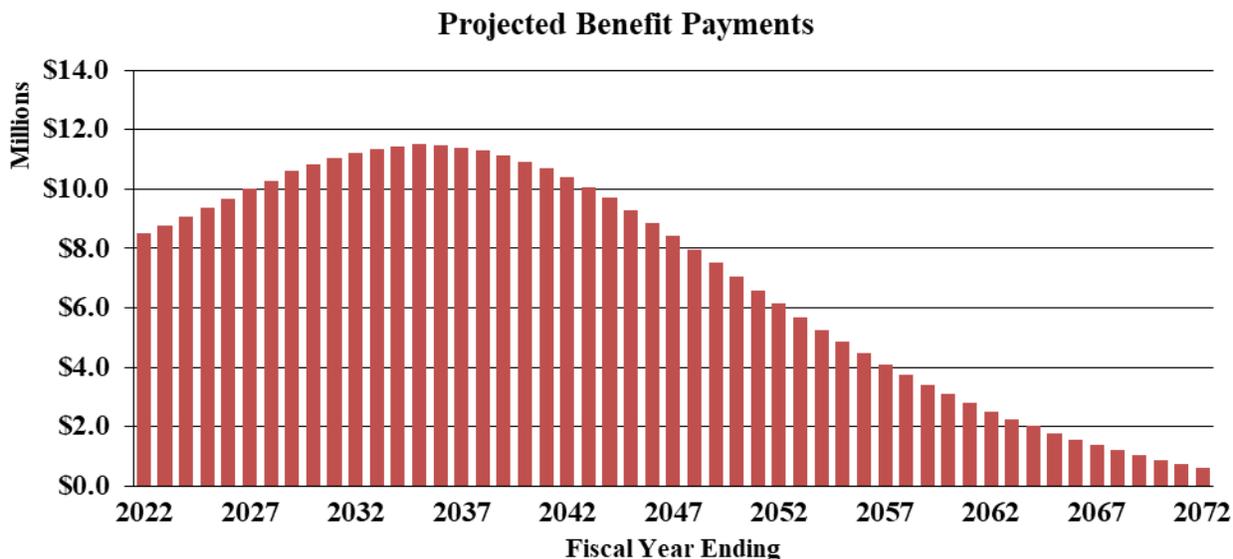
The other potential issue related to large negative net cash flow is the sensitivity to short-term investment returns. Investment losses in the short term are compounded by the net withdrawal from the plan leaving a smaller asset base to try to recover from the investment losses. On the other hand, large 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.

SECTION II – ASSESSMENT AND DISCLOSURE OF RISK

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 needed to purchase annuities or immunize the portfolio, it is not clear how they could be used until after all benefits have been paid.

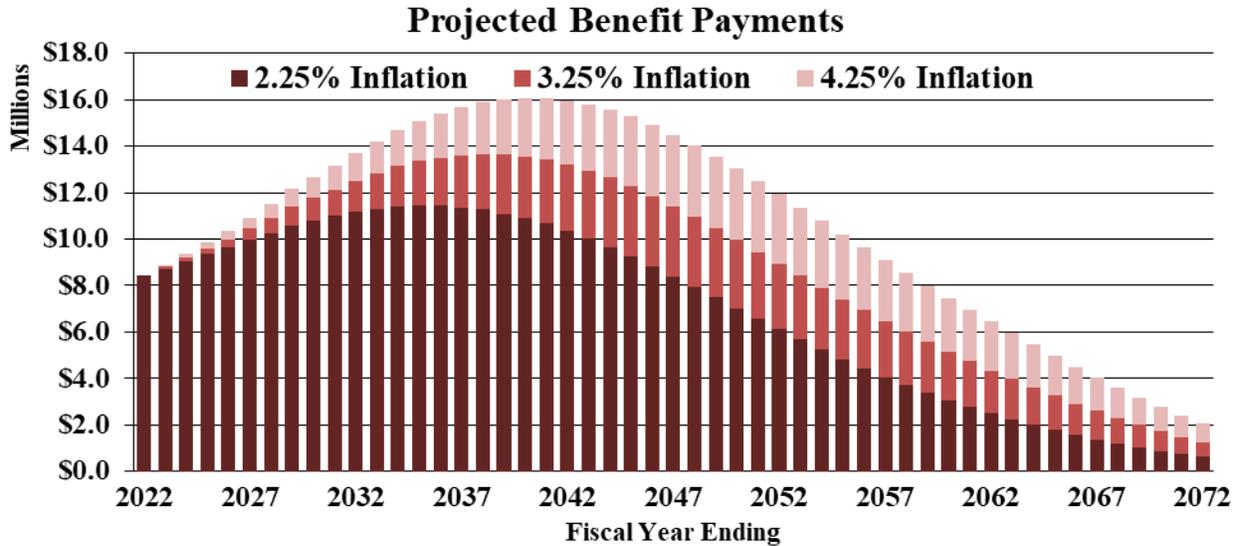
If the Plan, on the other hand, were to run out of assets, TriMet would be forced to pay benefits directly on a pay-as-you-go basis. As long as TriMet can afford the pay-as-you-go costs, benefits would remain unchanged. The chart below shows a projection of expected benefit payments for the closed plan. The peak level of benefit payments is not expected to be reached until 2035.



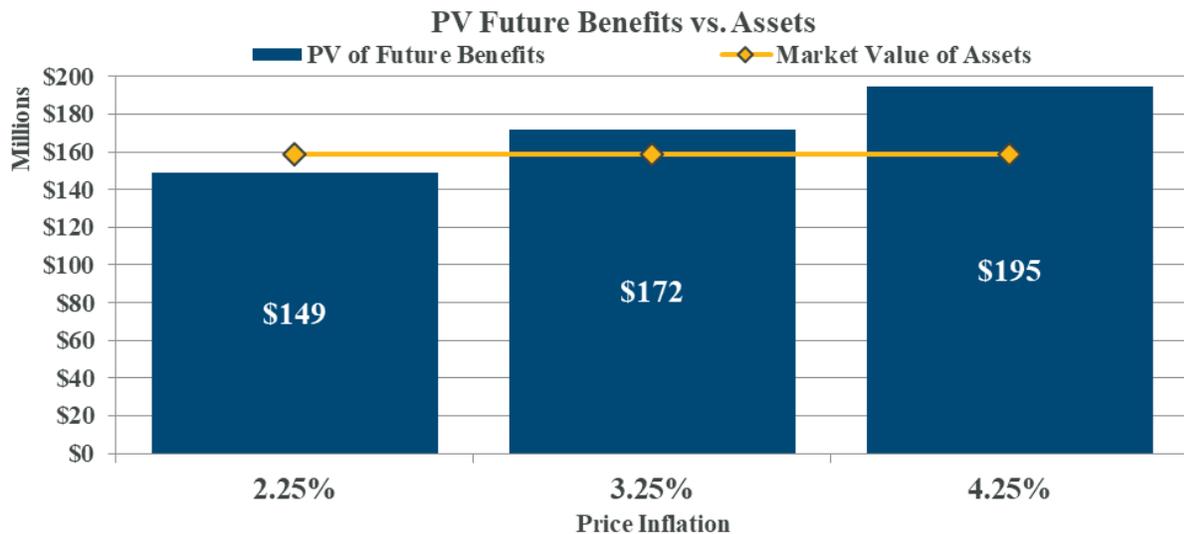
SECTION II – ASSESSMENT AND DISCLOSURE OF RISK

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 2.25%; the medium bars show the additional benefit payments if inflation is 3.25% each year; and the lightest bars show the additional benefit payments if inflation is 4.25% each year.



Higher inflation could result in materially higher benefit payments that would require a greater amount of assets in the plan. The chart on the next page compares assets to the present value of all projected future benefit payments assuming inflation of 2.25%, 3.25%, and 4.25%. The present value of future benefits is shown as a dark blue bar. The Market Value of Assets is shown by the gold line.



**TRIMET DEFINED BENEFIT RETIREMENT PLAN FOR MANAGEMENT AND STAFF EMPLOYEES  
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2021**

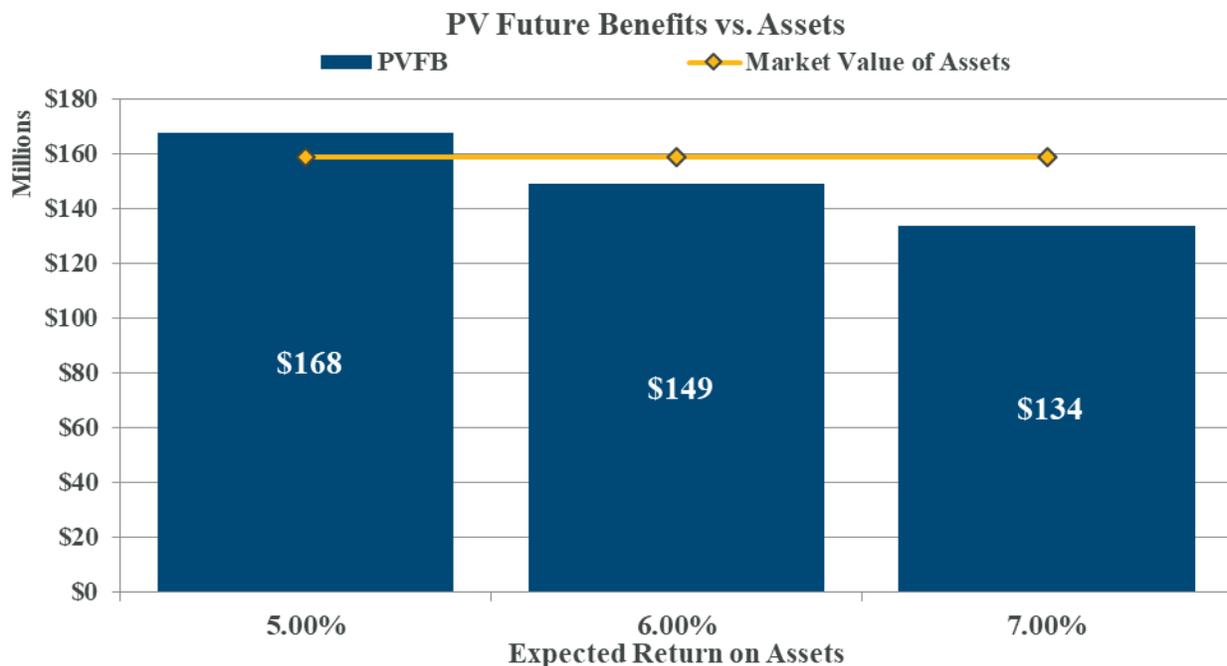
**SECTION II – ASSESSMENT AND DISCLOSURE OF RISK**

The COLA granted to retirees and beneficiaries receiving benefits is equal to 90 percent of the rate of inflation. If inflation is 2.25%, annual COLAs would be 2.025% and the Plan would need approximately \$149 million in assets today to pay all projected benefits compared to current assets of \$159 million. If inflation is 3.25%, annual COLAs would be 2.925%, and the Plan would need approximately \$172 million in assets today. Finally, if inflation is 4.25%, annual COLAs would be 3.825% and the Plan would need \$195 million in assets to pay all projected benefits. These estimates assume that all other assumptions are met.

SECTION II – ASSESSMENT AND DISCLOSURE OF RISK

Sensitivity to Investment Returns

The chart below compares assets to the present value of all projected future benefits discounted at the current expected rate of return and at investment returns 100 basis points above and below the expected rate of return. The present value of future benefits is shown as a dark blue bar. The Market Value of Assets is shown by the gold line.



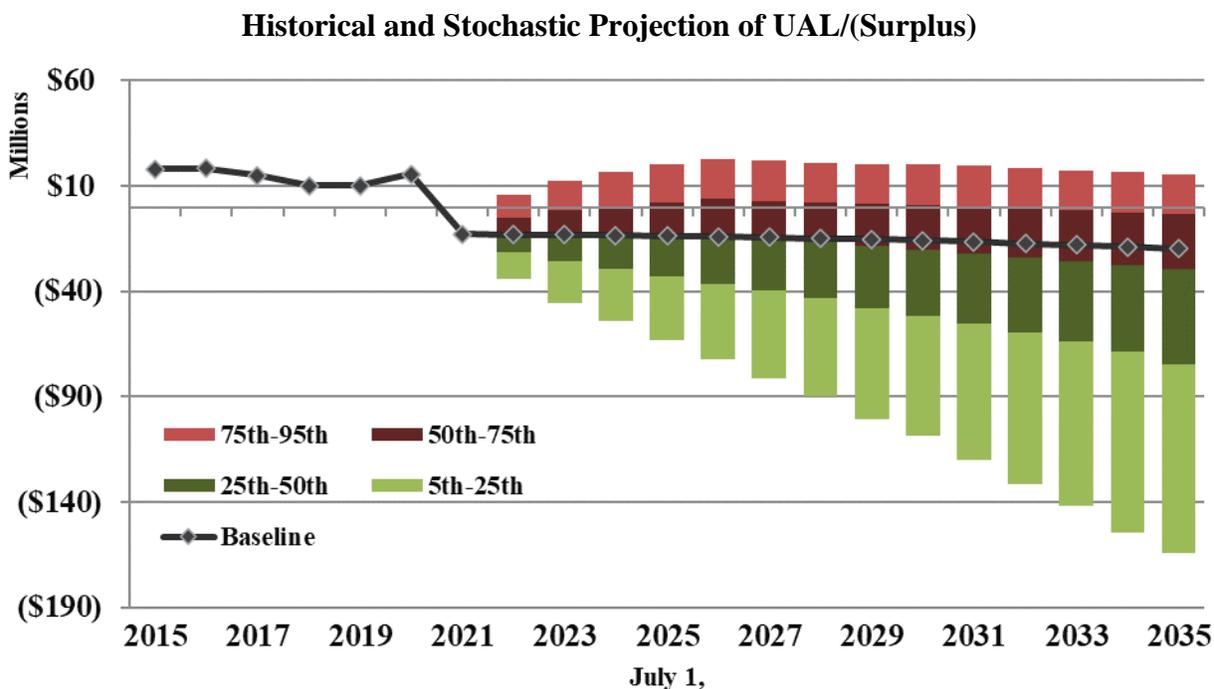
If investments return 6.0% annually, the Plan would need approximately \$149 million in assets today to pay all projected benefits compared to current assets of \$159 million. If investment returns are only 5.0%, the Plan would need approximately \$168 million in assets today, and if investment returns are 7.0%, the Plan would only need \$134 million in assets to pay all projected benefits.

The present value of future benefits shown above, however, assumes annual inflation of 2.25%. As noted above, 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 think of the sensitivity based on the investment return in excess of inflation. The assumption of 6.0% nominal investment returns and 2.25% inflation equates to a real investment return assumption of 3.75%. If the real investment return is actually 3.75%, assets are likely to be sufficient, but if the real investment return is only 2.75%, more contributions will be required.

SECTION II – ASSESSMENT AND DISCLOSURE OF RISK

Stochastic Projections

The stochastic projections of contributions shown at the bottom of the dashboard (page 1) shows a range in future ADC’s. This range is driven by the volatility of investment returns and the current TriMet funding policy. The chart below shows the projected range of the UAL or surplus on the same basis. Surplus amounts are shown as negative numbers.



The surplus is projected to increase from \$12.8 million to \$19.8 million in 2035 if all assumptions are met. However, there is a range of potential outcomes depending on actual investment returns. Poor investment returns could increase the UAL, but the funding policy increases contributions to pay for investment losses as they are recognized over five years. Good investment returns, however, can grow the surplus unrestrained because the minimum contribution is \$0. In 2035, 90% of the projections range from a UAL of \$15.7 million in the worst case to a surplus of \$163.8 million in the best case. The range of projected outcomes may be managed by changes in funding policy and by changes in investment policy.

More Detailed Assessment

While a more detailed assessment of risk is always valuable to enhance the understanding of the risks identified above, given the small size of the plan compared to TriMet and the recently completed asset-liability study, the advantages of a more detailed assessment may not justify its costs at this time.

**TRIMET DEFINED BENEFIT RETIREMENT PLAN FOR MANAGEMENT AND STAFF EMPLOYEES  
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2021**

**SECTION III – CERTIFICATION**

The purpose of this report is to present the July 1, 2021, Actuarial Valuation of the TriMet Defined Benefit Retirement Plan for Management and Staff Employees (“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.

The actuarial assumptions were selected by the Plan trustees based on our analysis and recommendations at the May 6, 2020 trustee meeting.

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 presentation 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 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.

**TRIMET DEFINED BENEFIT RETIREMENT PLAN FOR MANAGEMENT AND STAFF EMPLOYEES  
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2021**

**SECTION III – CERTIFICATION**

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.



William R. Hallmark, ASA, EA, FCA, MAAA  
Consulting Actuary



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Consulting Actuary

**TRIMET DEFINED BENEFIT RETIREMENT PLAN FOR MANAGEMENT AND STAFF EMPLOYEES  
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2021**

**SECTION IV – ASSETS**

The Plan uses two different asset measurements: the Market Value and Actuarial Value of Assets. The market value represents the value of the assets if they were liquidated on the valuation date. The actuarial value smooths annual investment returns over five years to reduce the impact of short-term investment volatility on contributions. The Market Value of Assets is used primarily for reporting and disclosure, and the Actuarial Value of Assets is used primarily to calculate Actuarially Determined Contributions.

This section shows the changes in the Market Value of Assets, calculates the money-weighted investment return for GASB 67 and 68, and develops the Actuarial 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**

<b>Change in Market Value of Assets</b>		
	<b>FYE 2021</b>	<b>FYE 2020</b>
Market Value, Beginning of Year	\$ 131,292,101	\$ 134,945,765
Contributions	6,250,264	2,327,160
Net Investment Earnings	29,801,322	1,726,906
Benefit Payments	(8,512,730)	(7,563,462)
Administrative Expenses	(109,851)	(144,268)
<b>Market Value, End of Year</b>	<b>\$ 158,721,106</b>	<b>\$ 131,292,101</b>

The Market Value of Assets increased from approximately \$131.3 million as of June 30, 2020 to \$158.7 million as of June 30, 2021. Actual contributions were less than benefit payments and administrative expenses by approximately \$2.4 million, but the investment earnings exceeded the net cash flow and expectations to increase the market value.

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 of 22.95% 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.

**TRIMET DEFINED BENEFIT RETIREMENT PLAN FOR MANAGEMENT AND STAFF EMPLOYEES  
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2021**

**SECTION IV – ASSETS**

**Table IV-2**

<b>Money-Weighted Rate of Return Fiscal Year Ending June 30, 2021</b>			
	<b>Net External Cash Flows</b>	<b>Months Invested</b>	<b>Net External Cash Flows With Interest</b>
Beginning Value, July 1, 2020	\$ 131,292,101	12	\$ 161,419,573
<u>Monthly Net External Cash Flows</u>			
July	(260,852)	11	(315,235)
August	(130,927)	10	(155,522)
September	(153,800)	9	(179,575)
October	(197,316)	8	(226,451)
November	(131,855)	7	(148,742)
December	(160,885)	6	(178,392)
January	(134,132)	5	(146,190)
February	(144,291)	4	(154,578)
March	(170,952)	3	(180,013)
April	(146,775)	2	(151,917)
May	(660,587)	1	(672,058)
June	(189,796)	0	(189,796)
Ending Value, June 30, 2021			\$ 158,721,106
Money-Weighted Rate of Return	22.95%		

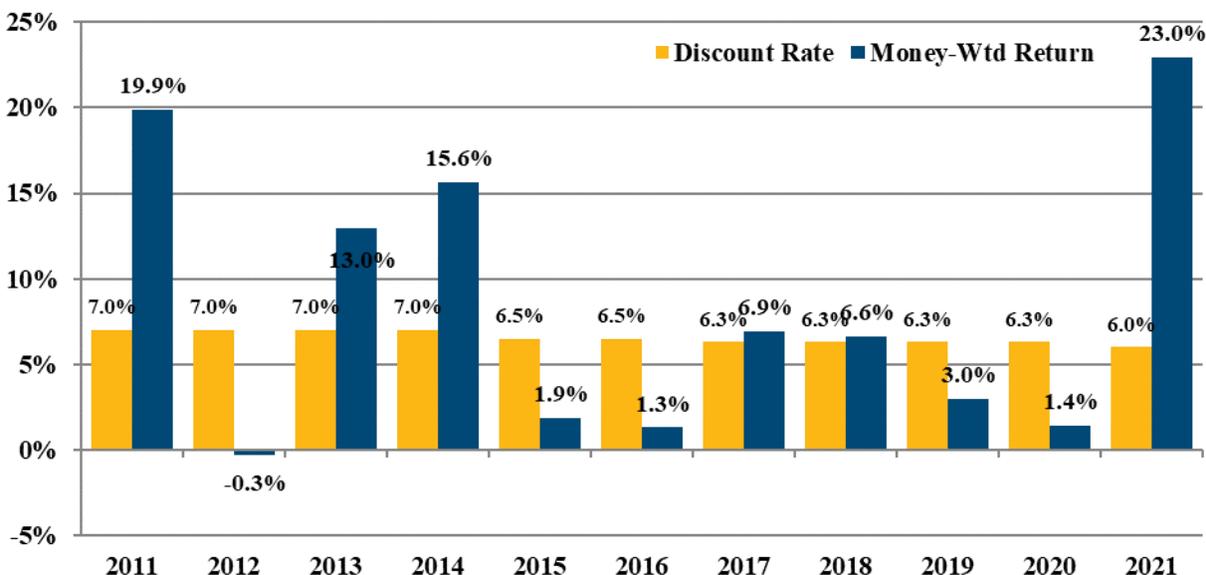
The money-weighted rate of return for the year ended June 30, 2021 was 22.95% compared to an expected return of 6.00%. As shown in the chart on the following page, over the last 10 years, the money-weighted rate of return<sup>2</sup> has varied significantly from 22.95% in 2021 to negative 0.3% in 2012.

<sup>2</sup> Money-weighted returns prior to FYE 2014 were not calculated based on actual monthly external cash flows, but estimated the timing of external cash flows throughout the year.

**TRIMET DEFINED BENEFIT RETIREMENT PLAN FOR MANAGEMENT AND STAFF EMPLOYEES  
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2021**

**SECTION IV – ASSETS**

**Historical Rates of Return**



**Actuarial Value of Assets**

To determine on-going contributions, most pension plans utilize an Actuarial Value of Assets that smooths year-to-year market value returns in order to reduce the volatility of contributions.

The Actuarial Value of Assets is calculated by recognizing the deviation of actual investment returns compared to the expected return over a five-year period. The dollar amount of the expected return on the Market Value of Assets is determined using actual contributions, benefit payments, and administrative expenses during the year. Any difference between this amount and the actual net investment earnings is considered a gain or loss. For FYE 2021, the 22.95% return compared to the expected return of 6.00% produced an investment gain of approximately \$22.0 million.

Table IV-3 on the next page shows the calculation of the Actuarial Value of Assets. For each of the last four years, it shows the actual earnings, the expected earnings, the gain or loss, and the portion of the gain or loss that is not recognized in the current Actuarial Value of Assets. These deferred amounts will be recognized in future years.

**TRIMET DEFINED BENEFIT RETIREMENT PLAN FOR MANAGEMENT AND STAFF EMPLOYEES  
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2021**

**SECTION IV – ASSETS**

**Table IV-3**

<b>Development of Actuarial Value of Assets</b>					
	<b>FYE 2018</b>	<b>FYE 2019</b>	<b>FYE 2020</b>	<b>FYE 2021</b>	<b>Total</b>
Market Value of Assets (MVA)					\$ 158,721,106
Actual Earnings	\$ 8,108,016	\$ 3,786,540	\$ 1,726,906	\$ 29,801,322	
Expected Earnings	<u>7,815,073</u>	<u>8,297,998</u>	<u>8,334,684</u>	<u>7,807,393</u>	
Investment Gain or (Loss)	292,943	(4,511,458)	(6,607,778)	21,993,929	
Percentage Deferred	20%	40%	60%	80%	
Deferred Gain or (Loss)	\$ 58,589	\$ (1,804,583)	\$ (3,964,667)	\$ 17,595,143	\$ 11,884,482
Preliminary Actuarial Value of Assets (MVA less Deferred Gain or (Loss))					\$ 146,836,624
Minimum Actuarial Value of Assets (80% of Market Value)					126,976,884
Maximum Actuarial Value of Assets (120% of Market Value)					190,465,327
<b>Actuarial Value of Assets (AVA)</b>					<b>\$146,836,624</b>
Ratio of Actuarial to Market					92.5%
Estimated Rate of Return					7.4%

On an Actuarial Value of Assets basis, the aggregate return for the year ending June 30, 2021 was 7.4%, greater than the assumed return of 6.0%. This return on the Actuarial Value of Assets produced an investment gain of about \$1.9 million for the year ending June 30, 2021.

TRIMET DEFINED BENEFIT RETIREMENT PLAN FOR MANAGEMENT AND STAFF EMPLOYEES  
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2021

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 both 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 July 1, 2021 and July 1, 2020.

Table V-1

Present Value of Future Benefits			
	July 1, 2021	July 1, 2020	% Change
Actives	\$ 37,294,965	\$ 38,651,636	-3.5%
Deferred	6,166,589	10,505,617	-41.3%
In Pay Status	<u>105,597,098</u>	<u>101,402,961</u>	<u>4.1%</u>
<b>Total</b>	<b>\$ 149,058,652</b>	<b>\$ 150,560,214</b>	<b>-1.0%</b>

**TRIMET DEFINED BENEFIT RETIREMENT PLAN FOR MANAGEMENT AND STAFF EMPLOYEES  
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2021**

**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 prior to 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 July 1, 2021 and July 1, 2020.

**Table V-2**

<b>Actuarial Liability</b>			
	<b>July 1, 2021</b>	<b>July 1, 2020</b>	<b>% Change</b>
Actives			
Retirement	\$ 34,243,444	\$ 35,100,177	-2.4%
Termination	(58,980)	(55,849)	5.6%
Death	0	0	
Disability	0	0	
Total Actives	<u>\$ 34,184,464</u>	<u>\$ 35,044,328</u>	-2.5%
Deferred			
Vested Terminated	\$ 5,091,523	\$ 9,124,581	-44.2%
Transfers	1,013,126	940,612	7.7%
Leaves and Disabled	<u>61,940</u>	<u>440,424</u>	-85.9%
Total Deferred	<u>\$ 6,166,589</u>	<u>\$ 10,505,617</u>	-41.3%
In Pay Status	\$ 105,597,098	\$ 101,402,961	4.1%
<b>Total</b>	<b>\$ 145,948,151</b>	<b>\$ 146,952,906</b>	<b>-0.7%</b>

**TRIMET DEFINED BENEFIT RETIREMENT PLAN FOR MANAGEMENT AND STAFF EMPLOYEES  
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2021**

**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 provides a history of the experience gains and losses attributable to each of the primary demographic assumptions. Consistent patterns of gains or of losses provide an indication that an assumption may need to be updated.

**Table V-3**

<b>History of Demographic (Gains) and Losses</b>				
	<b>Fiscal Year Ending</b>			
	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
Salary Increases	\$ 1,025,947	\$ 957,060	\$ 565,704	\$ (187,263)
Retirement	176,430	(82,660)	(389,591)	\$ (207,128)
Termination	(969,736)	(624,206)	41,255	\$ (158,737)
Mortality	(131,936)	375,551	515,435	\$ (759,665)
COLAs	(187,498)	(578,726)	(159,486)	\$ (702,979)
Other	58,019	349,880	354,498	\$ 318,775
<b>Total</b>	<b>\$ (28,774)</b>	<b>\$ 396,899</b>	<b>\$ 927,815</b>	<b>\$ (1,696,997)</b>

**TRIMET DEFINED BENEFIT RETIREMENT PLAN FOR MANAGEMENT AND STAFF EMPLOYEES  
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2021**

**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 the each member’s expected future salary. The normal cost rate is multiplied by 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 of money 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 referred to as the service cost. Table V-4 below shows the total normal cost as of July 1, 2021 and July 1, 2020.

**Table V-4**

<b>Normal Cost</b>			
	<b>July 1, 2021</b>	<b>July 1, 2020</b>	<b>% Change</b>
Retirement	\$ 496,483	\$ 575,297	-13.7%
Termination	51,339	58,169	-11.7%
Death	0	0	
Disability	0	0	
<b>Total Normal Cost</b>	<b>\$ 547,822</b>	<b>\$ 633,466</b>	<b>-13.5%</b>

**TRIMET DEFINED BENEFIT RETIREMENT PLAN FOR MANAGEMENT AND STAFF EMPLOYEES  
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2021**

**SECTION VI – CONTRIBUTIONS**

This section of the report develops the Actuarially Determined Contribution in accordance with the Plan’s Pension Funding Policy and Objectives (Funding Policy).

**Amortization of the Unfunded Actuarial Liability**

Under the Funding Policy, there are two components to the Actuarially Determined Contribution: the normal cost (including administrative expenses) and an amortization payment on the Unfunded Actuarial Liability (UAL) or an amortization credit on the surplus. The normal cost was developed in Section V. This section develops the UAL payment or credit.

The difference between the Actuarial Liability and the Actuarial Value of Assets is the UAL. In accordance with the TriMet Board’s Funding Policy, the UAL is amortized over the period ending June 30, 2023. This policy results in a 2-year amortization of the UAL based on the Actuarial Value of Assets. Table VI-1 provides the payment schedule over the next 2 years to amortize the UAL based on the Actuarial Value of Assets assuming payments are made at the beginning of each year. Future payments will differ from this schedule as any gains or losses recognized in future years and any assumption or plan changes will be added to the schedule.

**Table VI-1**

<b>UAL Amortization</b>				
<b>Valuation Year</b>	<b>Outstanding Balance</b>	<b>Remaining Period</b>	<b>Payment Amount</b>	
2021	\$ (888,473)	2	\$ (452,779)	
2022	(461,835)	1	(461,835)	
2023	(0)	0		

It should be noted that the amortization period specified by the TriMet Board’s Funding Policy is extremely short and will result in a very volatile pattern of contributions. We recommend that the TriMet Board revisit its amortization policy in order to develop a less volatile Actuarially Determined Contribution.

**TRIMET DEFINED BENEFIT RETIREMENT PLAN FOR MANAGEMENT AND STAFF EMPLOYEES  
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2021**

**SECTION VI – CONTRIBUTIONS**

**Actuarially Determined Contribution**

Table VI-2 shows the components of the Actuarially Determined Contribution (ADC) for FYE 2022 and 2021. The ADC amounts are shown assuming contributions are made at the beginning of the fiscal year or at the beginning of each month.

**Table VI-2**

<b>Actuarially Determined Contribution Amounts</b>				
	<b>FYE 2022</b>	<b>FYE 2021</b>	<b>% Change</b>	
Total Normal Cost	\$ 547,822	\$ 633,466	-13.5%	
Administrative Expenses	97,129	97,129	0.0%	
UAL Payment	<u>(452,779)</u>	<u>2,745,499</u>	-116.5%	
<b>Total ADC (Beginning of Year)</b>	<b>\$ 192,172</b>	<b>\$ 3,476,094</b>	<b>-94.5%</b>	
<b>Equivalent Monthly Contribution</b>	<b>\$ 16,445</b>	<b>\$ 297,473</b>	<b>-94.5%</b>	
<b>Annual Amount</b>	<b>\$ 197,340</b>	<b>\$ 3,569,676</b>	<b>-94.5%</b>	
<b>(Equivalent Monthly Contribution x 12)</b>				

Based on the TriMet Board’s Funding Policy, we understand that the Actuarially Determined Contribution is treated as a minimum contribution unless the plan is at least 93% funded. Since the plan is more than 93% funded, we understand that there is no minimum contribution under the Funding Policy.

**TRIMET DEFINED BENEFIT RETIREMENT PLAN FOR MANAGEMENT AND STAFF EMPLOYEES  
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2021**

**SECTION VII – GASB 67 AND 68 DISCLOSURES**

This section of the report provides accounting and financial reporting information under Governmental Accounting Standards Board Statements 67 and 68 for the Plan and TriMet. 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 6.0%.

We have assumed that contributions to the Plan will follow the Plan’s Funding Policy, which requires contributions equal to normal cost (including assumed administrative expenses) and an amortization payment on the remaining UAL over a 2-year period.

We have not performed a formal cash flow projection as described under Paragraph 41 of GASB Statement 67. However, Paragraph 43 allows for alternative methods to confirm the sufficiency of the Net Position if the evaluations “can be made with sufficient reliability without a separate projection of cash flows into and out of the pension plan...” In our professional judgment, adherence to the contribution policy described above will result in the pension plan’s projected fiduciary net position being greater than or equal to the benefit payments projected for each future period.

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.

**TRIMET DEFINED BENEFIT RETIREMENT PLAN FOR MANAGEMENT AND STAFF EMPLOYEES  
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2021**

**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**

	<b>Change in Net Pension Liability</b>		
	<b>Increase (Decrease)</b>		
	<b>Total Pension Liability</b>	<b>Plan Fiduciary Net Position</b>	<b>Net Pension Liability</b>
	<b>(a)</b>	<b>(b)</b>	<b>(a) - (b)</b>
<b>Balances at 6/30/2020</b>	\$ 146,952,906	\$ 131,292,101	\$ 15,660,805
<b>Changes for the year:</b>			
Service cost	633,466		633,466
Interest	8,603,520		8,603,520
Changes of benefits	(32,015)		(32,015)
Differences between expected and actual experience	(1,696,996)		(1,696,996)
Changes of assumptions	0		0
Contributions - employer		6,250,264	(6,250,264)
Contributions - member		0	0
Net investment income		29,801,322	(29,801,322)
Benefit payments	(8,512,730)	(8,512,730)	0
Administrative expense		(109,851)	109,851
<b>Net changes</b>	<u>(1,004,755)</u>	<u>27,429,005</u>	<u>(28,433,760)</u>
<b>Balances at 6/30/2021</b>	<u>\$ 145,948,151</u>	<u>\$ 158,721,106</u>	<u>\$ (12,772,955)</u>

During the measurement year, the NPL decreased by approximately \$28.4 million. The service cost and interest cost increased the NPL by approximately \$9.2 million while contributions and investment returns offset by administrative expenses decreased the NPL by approximately \$35.9 million. In addition, there was an experience gain that decreased the NPL by approximately \$1.7 million and changes in the definition of actuarial equivalence that decreased the NPL by approximately \$32,000.

There were no changes in assumptions during the year.

**TRIMET DEFINED BENEFIT RETIREMENT PLAN FOR MANAGEMENT AND STAFF EMPLOYEES  
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2021**

**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**

<b>Sensitivity of Net Pension Liability to Changes in Discount Rate</b>			
	<b>1% Decrease 5.00%</b>	<b>Discount Rate 6.00%</b>	<b>1% Increase 7.00%</b>
Total Pension Liability	\$ 163,243,568	\$ 145,948,151	\$ 131,444,562
Plan Fiduciary Net Position	<u>158,721,106</u>	<u>158,721,106</u>	<u>158,721,106</u>
Net Pension Liability	<u>\$ 4,522,462</u>	<u>\$ (12,772,955)</u>	<u>\$ (27,276,544)</u>
 Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	 97.2%	 108.8%	 120.8%

A one percent decrease in the discount rate increases the TPL by approximately 11.9%. A one percent increase in the discount rate decreases the TPL by approximately 9.9%.

**TRIMET DEFINED BENEFIT RETIREMENT PLAN FOR MANAGEMENT AND STAFF EMPLOYEES  
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2021**

**SECTION VII – GASB 67 AND 68 DISCLOSURES**

**Required Supplementary Information**

The schedule below and on the following page shows the changes in NPL and related ratios for the last 10 years.

**Table VII-3a**

<b>Schedule of Changes in Net Pension Liability and Related Ratios</b>					
	<b>FYE 2021</b>	<b>FYE 2020</b>	<b>FYE 2019</b>	<b>FYE 2018</b>	<b>FYE 2017</b>
<b><u>Total Pension Liability</u></b>					
Service cost (BOY)	\$ 633,466	\$ 650,713	\$ 685,276	\$ 919,497	\$ 1,161,815
Interest	8,603,520	8,938,724	8,784,109	8,621,492	8,308,518
Changes of benefit terms	(32,015)	0	0	0	0
Differences between expected and actual experience	(1,696,996)	927,815	396,899	(28,774)	1,441,063
Changes of assumptions	0	(958,655)	0	0	0
Benefit payments, including refunds	(8,512,730)	(7,563,462)	(7,197,158)	(6,211,442)	(5,285,890)
<b>Net change in total pension liability</b>	<b>\$ (1,004,755)</b>	<b>\$ 1,995,135</b>	<b>\$ 2,669,126</b>	<b>\$ 3,300,773</b>	<b>\$ 5,625,506</b>
<b>Total pension liability - beginning</b>	<b><u>146,952,906</u></b>	<b><u>144,957,771</u></b>	<b><u>142,288,645</u></b>	<b><u>138,987,872</u></b>	<b><u>133,362,366</u></b>
<b>Total pension liability - ending</b>	<b><u>\$ 145,948,151</u></b>	<b><u>\$ 146,952,906</u></b>	<b><u>\$ 144,957,771</u></b>	<b><u>\$ 142,288,645</u></b>	<b><u>\$ 138,987,872</u></b>
<b><u>Plan fiduciary net position</u></b>					
Contributions - employer	\$ 6,250,264	\$ 2,327,160	\$ 6,240,470	\$ 6,496,842	\$ 6,330,108
Contributions - member	0	0	0	0	0
Net investment income	29,801,322	1,726,906	3,786,540	8,108,016	7,990,589
Benefit payments, including refunds	(8,512,730)	(7,563,462)	(7,197,158)	(6,211,442)	(5,285,890)
Administrative expense	(109,851)	(144,268)	(136,675)	(96,686)	(76,230)
<b>Net change in plan fiduciary net position</b>	<b>\$ 27,429,005</b>	<b>\$ (3,653,664)</b>	<b>\$ 2,693,177</b>	<b>\$ 8,296,730</b>	<b>\$ 8,958,577</b>
<b>Plan fiduciary net position - beginning</b>	<b><u>131,292,101</u></b>	<b><u>134,945,765</u></b>	<b><u>132,252,588</u></b>	<b><u>123,955,858</u></b>	<b><u>114,997,281</u></b>
<b>Plan fiduciary net position - ending</b>	<b><u>\$ 158,721,106</u></b>	<b><u>\$ 131,292,101</u></b>	<b><u>\$ 134,945,765</u></b>	<b><u>\$ 132,252,588</u></b>	<b><u>\$ 123,955,858</u></b>
<b>Net pension liability - ending</b>	<b><u>\$ (12,772,955)</u></b>	<b><u>\$ 15,660,805</u></b>	<b><u>\$ 10,012,006</u></b>	<b><u>\$ 10,036,057</u></b>	<b><u>\$ 15,032,014</u></b>
<b>Plan fiduciary net position as a percentage of the total pension liability</b>	108.75%	89.34%	93.09%	92.95%	89.18%
<b>Covered payroll</b>	\$ 7,964,901	\$ 8,104,672	\$ 8,279,708	\$ 9,445,518	\$ 10,592,830
<b>Net pension liability as a percentage of covered payroll</b>	-160.37%	193.23%	120.92%	106.25%	141.91%

**TRIMET DEFINED BENEFIT RETIREMENT PLAN FOR MANAGEMENT AND STAFF EMPLOYEES  
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2021**

**SECTION VII – GASB 67 AND 68 DISCLOSURES**

**Table VII-3b**

<b>Schedule of Changes in Net Pension Liability and Related Ratios</b>					
	<b>FYE 2016</b>	<b>FYE 2015</b>	<b>FYE 2014</b>	<b>FYE 2013</b>	<b>FYE 2012</b>
<b><u>Total Pension Liability</u></b>					
Service cost (BOY)	\$ 1,224,152	\$ 505,463	\$ 793,111	\$ 906,565	\$ 1,095,477
Interest	8,326,815	7,931,015	8,453,556	7,902,778	7,369,518
Changes of benefit terms	0	0	0	1,711,031	0
Differences between expected and actual experience	(1,292,524)	3,591,955	(3,002,079)	151,873	2,405,026
Changes of assumptions	474,280	(2,177,859)	(531,299)	1,015,215	263,570
Benefit payments, including refunds of member contributions	<u>(4,502,096)</u>	<u>(4,457,981)</u>	<u>(3,892,235)</u>	<u>(3,519,261)</u>	<u>(3,134,099)</u>
<b>Net change in total pension liability</b>	<b>\$ 4,230,627</b>	<b>\$ 5,392,593</b>	<b>\$ 1,821,054</b>	<b>\$ 8,168,201</b>	<b>\$ 7,999,492</b>
<b>Total pension liability - beginning</b>	<b><u>129,131,739</u></b>	<b><u>123,739,146</u></b>	<b><u>121,918,092</u></b>	<b><u>113,749,891</u></b>	<b><u>105,750,399</u></b>
<b>Total pension liability - ending</b>	<b><u>\$ 133,362,366</u></b>	<b><u>\$ 129,131,739</u></b>	<b><u>\$ 123,739,146</u></b>	<b><u>\$ 121,918,092</u></b>	<b><u>\$ 113,749,891</u></b>
<b><u>Plan fiduciary net position</u></b>					
Contributions - employer	\$ 7,036,203	\$ 6,559,317	\$ 5,601,963	\$ 9,775,840	\$ 3,007,677
Contributions - member	0	0	0	0	0
Net investment income	1,459,796	2,003,914	14,073,839	10,099,943	(240,623)
Benefit payments, including refunds of member contributions	(4,502,096)	(4,457,981)	(3,892,235)	(3,519,261)	(3,134,099)
Administrative expense	<u>(96,799)</u>	<u>(123,346)</u>	<u>0</u>	<u>0</u>	<u>0</u>
<b>Net change in plan fiduciary net position</b>	<b>\$ 3,897,104</b>	<b>\$ 3,981,904</b>	<b>\$ 15,783,567</b>	<b>\$ 16,356,522</b>	<b>\$ (367,045)</b>
<b>Plan fiduciary net position - beginning</b>	<b><u>111,100,177</u></b>	<b><u>107,118,273</u></b>	<b><u>91,334,706</u></b>	<b><u>74,978,184</u></b>	<b><u>75,345,229</u></b>
<b>Plan fiduciary net position - ending</b>	<b><u>\$ 114,997,281</u></b>	<b><u>\$ 111,100,177</u></b>	<b><u>\$ 107,118,273</u></b>	<b><u>\$ 91,334,706</u></b>	<b><u>\$ 74,978,184</u></b>
<b>Net pension liability - ending</b>	<b><u>\$ 18,365,085</u></b>	<b><u>\$ 18,031,562</u></b>	<b><u>\$ 16,620,873</u></b>	<b><u>\$ 30,583,386</u></b>	<b><u>\$ 38,771,707</u></b>
<b>Plan fiduciary net position as a percentage of the total pension liability</b>	86.23%	86.04%	86.57%	74.91%	65.91%
<b>Covered payroll</b>	\$ 12,722,153	\$ 12,751,216	\$ 13,141,852	\$ 14,199,937	\$ 14,868,526
<b>Net pension liability as a percentage of covered payroll</b>	144.36%	141.41%	126.47%	215.38%	260.76%

**TRIMET DEFINED BENEFIT RETIREMENT PLAN FOR MANAGEMENT AND STAFF EMPLOYEES  
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2021**

**SECTION VII – GASB 67 AND 68 DISCLOSURES**

The schedule below compares the Actuarially Determined Contribution (ADC) to actual contributions.

**Table VII-4**

<b>Schedule of Employer Contributions</b>					
	<b>FYE 2021</b>	<b>FYE 2020</b>	<b>FYE 2019</b>	<b>FYE 2018</b>	<b>FYE 2017</b>
ADC	\$ 3,569,676	\$ 2,327,160	\$ 2,442,684	\$ 3,252,729	\$ 3,734,975
Contributions in Relation to the ADC	<u>6,250,264</u>	<u>2,327,160</u>	<u>6,240,470</u>	<u>6,496,842</u>	<u>6,330,108</u>
Contribution Deficiency/(Excess)	<u>\$ (2,680,588)</u>	<u>\$ 0</u>	<u>\$ (3,797,786)</u>	<u>\$ (3,244,113)</u>	<u>\$ (2,595,133)</u>
Covered Payroll	\$ 7,964,901	\$ 8,104,672	\$ 8,279,708	\$ 9,445,518	\$ 10,592,830
Contributions as a Percentage of Covered Payroll	78.47%	28.71%	75.37%	68.78%	59.76%
	<b>FYE 2016</b>	<b>FYE 2015</b>	<b>FYE 2014</b>	<b>FYE 2013</b>	<b>FYE 2012</b>
ADC	\$ 4,242,000	\$ 4,219,000	\$ 4,957,000	\$ 5,135,000	\$ 4,834,000
Contributions in Relation to the ADC	<u>7,036,203</u>	<u>6,559,317</u>	<u>5,601,963</u>	<u>9,775,840</u>	<u>3,007,677</u>
Contribution Deficiency/(Excess)	<u>\$ (2,794,203)</u>	<u>\$ (2,340,317)</u>	<u>\$ (644,963)</u>	<u>\$ (4,640,840)</u>	<u>\$ 1,826,323</u>
Covered Payroll	\$ 12,722,153	\$ 12,751,216	\$ 13,141,852	\$ 14,199,937	\$ 14,868,526
Contributions as a Percentage of Covered Payroll	55.31%	51.44%	42.63%	68.84%	20.23%

Key methods and assumptions used to determine the ADC for FYE 2021

Actuarial Cost Method	Individual Entry Age as a level percent of pay
Asset Valuation Method	Investment gains and losses are smoothed over 5 years with the resulting actuarial value restricted to be between 80% and 120% of the market value
Amortization Method	Closed 10-year period commencing FYE 2014 with payments increasing 2.0% annually (July 1, 2013)
Discount Rate	6.00% (July 1, 2020)
Salary Increases	2.75% (July 1, 2015)
Inflation	2.25% (July 1, 2020)

**TRIMET DEFINED BENEFIT RETIREMENT PLAN FOR MANAGEMENT AND STAFF EMPLOYEES  
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2021**

**SECTION VII – GASB 67 AND 68 DISCLOSURES**

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Healthy Mortality	PubG-2010(A) Mortality Table with generational mortality projection using MP-2019 (July 1, 2020)
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**TRIMET DEFINED BENEFIT RETIREMENT PLAN FOR MANAGEMENT AND STAFF EMPLOYEES  
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2021**

**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 2021. These schedules develop the annual pension expense, including the amounts of deferred inflows and outflows.

The impact of experience gains or losses and assumption changes on the TPL are recognized in expense over the average expected remaining service life of all active and inactive members of the Plan. For this measurement period, the recognition period is 1.0 years.

During the year, there was an experience gain of approximately 1,697,000, all of which was recognized as a decrease in pension expense in the current year. Approximately \$84,000 was recognized as an increase in pension expense in the current year due to experience losses from prior periods.

There were no assumption changes in the current year. A remaining reduction of approximately \$87,000 from prior assumption changes was recognized as a decrease in pension expense in the current year.

The impact of investment gains or losses is recognized over a period of five years. During the measurement year, there was an investment gain of approximately \$21,994,000. Approximately \$4,399,000 of that gain was recognized in the current year and an identical amount will be recognized in each of the next four years. Unrecognized net investment losses from prior periods were approximately \$7,731,000 of which \$2,021,000 was recognized as an increase in pension expense in the current year. The combination of unrecognized investment gains and losses from this year and prior periods results in a deferred inflow of resources as of June 30, 2021, of approximately \$11,884,000.

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

**TRIMET DEFINED BENEFIT RETIREMENT PLAN FOR MANAGEMENT AND STAFF EMPLOYEES  
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2021**

**SECTION VII – GASB 67 AND 68 DISCLOSURES**

**Table VII-5**

<b>Schedule of Deferred Inflows and Outflows of Resources</b>														
	<b>Deferred Outflows of Resources</b>	<b>Deferred Inflows of Resources</b>												
Differences between expected and actual experience	\$ 0	\$ 0												
Changes in assumptions	0	0												
Net difference between projected and actual earnings on pension plan investments	0	11,884,482												
<b>Total</b>	<b><u>\$ 0</u></b>	<b><u>\$ 11,884,482</u></b>												
<p>Amounts reported as deferred outflows and deferred inflows of resources will be recognized in pension expense as follows:</p> <p style="text-align: center;"><b>Measurement year ended June 30:</b></p> <table style="margin-left: auto; margin-right: auto;"> <tr> <td style="padding-right: 20px;">2022</td> <td style="text-align: right;">(2,233,525)</td> </tr> <tr> <td>2023</td> <td style="text-align: right;">(2,174,940)</td> </tr> <tr> <td>2024</td> <td style="text-align: right;">(3,077,232)</td> </tr> <tr> <td>2025</td> <td style="text-align: right;">(4,398,785)</td> </tr> <tr> <td>2026</td> <td style="text-align: right;">0</td> </tr> <tr> <td>Thereafter</td> <td style="text-align: right;">\$ 0</td> </tr> </table>			2022	(2,233,525)	2023	(2,174,940)	2024	(3,077,232)	2025	(4,398,785)	2026	0	Thereafter	\$ 0
2022	(2,233,525)													
2023	(2,174,940)													
2024	(3,077,232)													
2025	(4,398,785)													
2026	0													
Thereafter	\$ 0													

The annual pension expense recognized by TriMet can be calculated 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 the organization of the individual components shown in the table on the next page, we believe it helps to understand the level and volatility of pension expense.

**TRIMET DEFINED BENEFIT RETIREMENT PLAN FOR MANAGEMENT AND STAFF EMPLOYEES  
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2021**

**SECTION VII – GASB 67 AND 68 DISCLOSURES**

**Table VII-6**

<b>Calculation of Pension Expense</b>			
	<b>Measurement Year Ending</b>		
	<b>2022</b>	<b>2021</b>	<b>2020</b>
Change in Net Pension Liability	\$ (285,903)	\$ (28,433,760)	\$ 5,648,799
Change in Deferred Outflows	0	7,815,557	(3,441,539)
Change in Deferred Inflows	(2,233,525)	11,797,332	87,150
Employer Contributions	<u>197,340</u>	<u>6,250,264</u>	<u>2,327,160</u>
<b>Pension Expense</b>	<b>\$ (2,322,088)</b>	<b>\$ (2,570,607)</b>	<b>\$ 4,621,570</b>
<b>Operating Expenses</b>			
Service cost	\$ 547,822	\$ 633,466	\$ 650,713
Employee contributions	0	0	0
Administrative expenses	<u>100,000</u>	<u>109,851</u>	<u>144,268</u>
Total	\$ 647,822	\$ 743,317	\$ 794,981
<b>Financing Expenses</b>			
Interest cost	\$ 8,539,587	\$ 8,603,520	\$ 8,938,724
Expected return on assets	<u>(9,275,972)</u>	<u>(7,807,393)</u>	<u>(8,334,684)</u>
Total	\$ (736,385)	\$ 796,127	\$ 604,040
<b>Changes</b>			
Benefit changes	\$ 0	\$ (32,015)	\$ 0
Recognition of assumption changes	0	(87,150)	(871,505)
Recognition of liability gains and losses	0	(1,612,649)	909,618
Recognition of investment gains and losses	<u>(2,233,525)</u>	<u>(2,378,237)</u>	<u>3,184,436</u>
Total	\$ (2,233,525)	\$ (4,110,051)	\$ 3,222,549
<b>Pension Expense</b>	<b>\$ (2,322,088)</b>	<b>\$ (2,570,607)</b>	<b>\$ 4,621,570</b>

*Figures for the 2022 measurement year are projected*

The components referred to as operating expenses are items directly attributable to the operation of the plan 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 are 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 interest on the service cost and contributions.

Finally, the recognition of changes will drive 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.

**TRIMET DEFINED BENEFIT RETIREMENT PLAN FOR MANAGEMENT AND STAFF EMPLOYEES  
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2021**

**SECTION VII – GASB 67 AND 68 DISCLOSURES**

The total pension expense decreased by about \$7,192,000. The recognition of changes decreased by approximately \$7,333,000, operating expenses decreased about \$52,000, and financing expenses increased approximately \$192,000.

**TRIMET DEFINED BENEFIT RETIREMENT PLAN FOR MANAGEMENT AND STAFF EMPLOYEES  
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2021**

**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 upon 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 to be “Hourly Rate” multiplied by 2,080.
- The annual benefit for inactives is set to be the accrued benefit provided. If an accrued benefit is not provided, then the annual benefit is calculated to be 1.75% of final compensation per year of credited service, plus one half of the hours in their Sick Leave Bank, divided by 101.9, multiplied by their “Hourly Rate.” The final compensation is adjusted for a three-year average.

**Table A-1**

<b>Active Member Data</b>			
	<b>July 1, 2021</b>	<b>July 1, 2020</b>	<b>% Change</b>
<b>Count</b>			
Accruing Service	51	58	-12.1%
Frozen Service	<u>13</u>	<u>13</u>	0.0%
Total	64	71	-9.9%
Average Current Age	56.8	56.4	0.7%
Average Eligibility Service	26.2	25.2	4.0%
Average Benefit Service	19.6	19.2	2.1%
Annual Expected Pensionable Earnings	\$ 7,082,275	\$ 7,529,999	-5.9%
Average Expected Pensionable Earnings	\$ 110,661	\$ 106,056	4.3%

**TRIMET DEFINED BENEFIT RETIREMENT PLAN FOR MANAGEMENT AND STAFF EMPLOYEES  
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2021**

**APPENDIX A – MEMBERSHIP INFORMATION**

**Table A-2**

<b>In Pay Status Member Data</b>			
	<b>July 1, 2021</b>	<b>July 1, 2020</b>	<b>% Change</b>
<b>Retired &amp; Disabled</b>			
Count	320	311	2.9%
Average Age	71.4	70.9	0.7%
Total Annualized Benefits	\$ 7,738,330	\$ 7,310,253	5.9%
Average Annual Benefit	\$ 24,182	\$ 23,506	2.9%
<b>Beneficiaries &amp; Alternate Payees</b>			
Count	26	24	8.3%
Average Age	72.6	72.4	0.3%
Total Annualized Benefits	\$ 291,415	\$ 283,010	3.0%
Average Annual Benefit	\$ 11,208	\$ 11,792	- 5.0%
<b>Total</b>			
Count	346	335	3.3%
Average Age	71.5	71.0	0.7%
Total Annualized Benefits	\$ 8,029,746	\$ 7,593,263	5.7%
Average Annual Benefit	\$ 23,207	\$ 22,666	2.4%

**TRIMET DEFINED BENEFIT RETIREMENT PLAN FOR MANAGEMENT AND STAFF EMPLOYEES  
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2021**

**APPENDIX A – MEMBERSHIP INFORMATION**

**Table A-3**

<b>Deferred Member Data</b>			
	<b>July 1, 2021</b>	<b>July 1, 2020</b>	<b>% Change</b>
<b>Vested Terminated Members</b>			
Count	50	58	-13.8%
Average Age	58.0	57.5	0.8%
Total Annualized Benefits	\$ 451,022	\$ 739,491	-39.0%
Average Annual Benefit	\$ 9,020	\$ 12,750	-29.3%
<b>Transfers to Union</b>			
Count	14	14	0.0%
Average Age	55.5	54.5	1.8%
<b>Disability</b>			
Count	0	1	-100.0%
Average Age		61.9	N/A
<b>Deferred Beneficiaries</b>			
Count	0	1	-100.0%
Average Age		59.0	N/A

**TRIMET DEFINED BENEFIT RETIREMENT PLAN FOR MANAGEMENT AND STAFF EMPLOYEES  
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2021**

**APPENDIX A – MEMBERSHIP INFORMATION**

**Table A-4**

<b>Change in Plan Membership</b>											
	<b>Active</b>	<b>Active Frozen</b>	<b>Terminated Vested</b>	<b>Transfer to Union</b>	<b>Terminated Vested - Disabled</b>	<b>Transfer to Union - Disabled</b>	<b>Deferred Beneficiary</b>	<b>Retiree</b>	<b>Beneficiary</b>	<b>Alternate Payee</b>	<b>Totals</b>
<b>July 1, 2020</b>	<b>58</b>	<b>13</b>	<b>58</b>	<b>12</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>311</b>	<b>20</b>	<b>4</b>	<b>480</b>
New Entrants	0	0	0	0	0	0	0	0	0	0	0
Rehires	0	0	0	0	0	0	0	0	0	0	0
Vested Terminations	0	0	0	0	0	0	0	0	0	0	0
Disabilities	0	0	0	0	0	0	0	0	0	0	0
Retirements	(6)	0	(7)	0	0	0	0	13	0	0	0
Deaths	0	0	(1)	0	0	0	0	(5)	0	0	(6)
New Beneficiaries	0	0	0	0	0	0	(1)	0	2	0	1
Benefit Ceased/Lump Sum	(1)	0	0	0	0	0	0	0	0	0	(1)
Transfers to Union	0	0	0	0	0	0	0	0	0	0	0
Adjustments	0	0	0	0	(1)	0	0	1	0	0	0
<b>July 1, 2021</b>	<b>51</b>	<b>13</b>	<b>50</b>	<b>12</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>320</b>	<b>22</b>	<b>4</b>	<b>474</b>

**TRIMET DEFINED BENEFIT RETIREMENT PLAN FOR MANAGEMENT AND STAFF EMPLOYEES  
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2021**

**APPENDIX A – MEMBERSHIP INFORMATION**

**Table A-5**

<b>Distribution of Active Members as of July 1, 2021</b>												
<b>Age</b>	<b>Years of Service</b>										<b>Total</b>	
	<b>Under 1</b>	<b>1 to 4</b>	<b>5 to 9</b>	<b>10 to 14</b>	<b>15 to 19</b>	<b>20 to 24</b>	<b>25 to 29</b>	<b>30 to 34</b>	<b>35 to 39</b>	<b>40 and up</b>		
<b>Under 45</b>	0	0	0	0	0	0	0	0	0	0	0	0
<b>45 to 49</b>	1	3	0	2	0	0	1	0	0	0	0	7
<b>50 to 54</b>	0	4	3	1	1	3	2	1	0	0	0	15
<b>55 to 59</b>	0	1	1	1	2	10	4	6	0	0	0	25
<b>60 to 64</b>	0	0	0	2	1	4	2	0	1	0	0	10
<b>65 to 69</b>	0	0	0	1	1	3	0	0	0	1	0	6
<b>70 and up</b>	0	0	0	0	0	1	0	0	0	0	0	1
<b>Total Count</b>	1	8	4	7	5	21	9	7	1	1	1	64

**Table A-6**

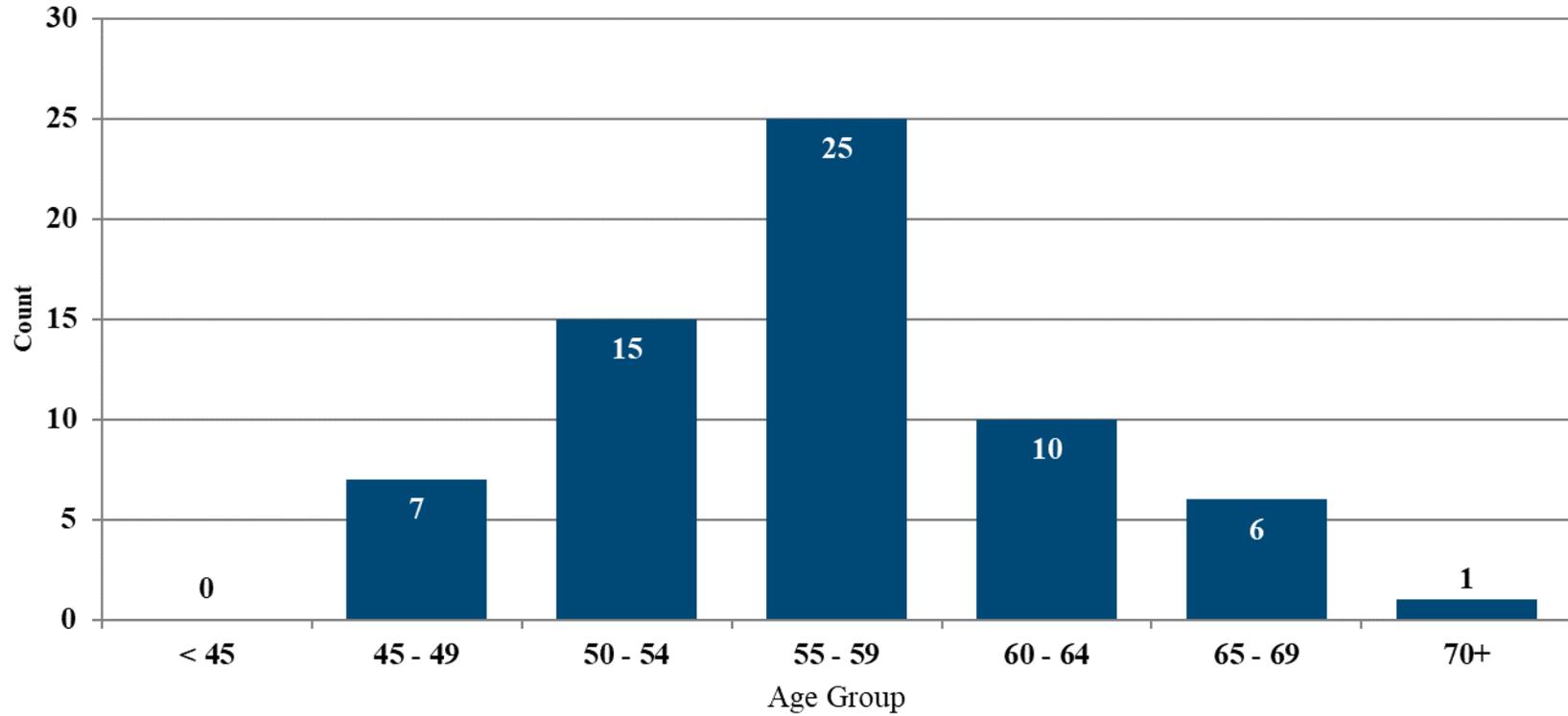
<b>Distribution of Active Members Average Expected Salary as of July 1, 2021</b>												
<b>Age</b>	<b>Years of Service</b>										<b>Total</b>	
	<b>Under 1</b>	<b>1 to 4</b>	<b>5 to 9</b>	<b>10 to 14</b>	<b>15 to 19</b>	<b>20 to 24</b>	<b>25 to 29</b>	<b>30 to 34</b>	<b>35 to 39</b>	<b>40 and up</b>		
<b>Under 45</b>	0	0	0	0	0	0	0	0	0	0	0	0
<b>45 to 49</b>	98,275	118,790	0	91,525	0	0	170,993	0	0	0	0	115,527
<b>50 to 54</b>	0	119,980	115,705	83,582	210,222	101,021	86,307	108,062	0	0	0	113,638
<b>55 to 59</b>	0	94,631	124,945	105,393	89,343	108,423	115,733	122,244	0	0	0	111,371
<b>60 to 64</b>	0	0	0	95,579	99,121	92,394	117,649	0	128,033	0	0	102,319
<b>65 to 69</b>	0	0	0	106,842	116,206	98,945	0	0	0	125,355	0	107,540
<b>70 and up</b>	0	0	0	0	0	116,303	0	0	0	0	0	116,303
<b>Avg. Salary</b>	\$ 98,275	\$ 116,365	\$ 118,015	\$ 95,718	\$ 120,847	\$ 103,334	\$ 115,760	\$ 120,218	\$ 128,033	\$ 125,355	\$ 125,355	\$ 110,661

TRIMET DEFINED BENEFIT RETIREMENT PLAN FOR MANAGEMENT AND STAFF EMPLOYEES  
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2021

APPENDIX A – MEMBERSHIP INFORMATION

Chart A-1

Active Count Distribution



**TRIMET DEFINED BENEFIT RETIREMENT PLAN FOR MANAGEMENT AND STAFF EMPLOYEES  
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2021**

**APPENDIX A – MEMBERSHIP INFORMATION**

**Table A-7**

<b>Retirees and Beneficiaries by Attained Age and Benefit Effective Date as of July 1, 2021</b>										
<b>FYE Benefit Effective</b>	<b>Under 55</b>	<b>55 to 59</b>	<b>60 to 64</b>	<b>65 to 69</b>	<b>70 to 74</b>	<b>75 to 79</b>	<b>80 to 84</b>	<b>85 to 89</b>	<b>90 and up</b>	<b>Total</b>
<b>Prior to 1995</b>	0	0	0	0	0	0	4	2	5	<b>11</b>
<b>1996</b>	0	0	0	1	0	0	0	1	0	<b>2</b>
<b>1997</b>	0	0	0	0	0	1	3	0	1	<b>5</b>
<b>1998</b>	0	0	0	0	0	1	0	1	0	<b>2</b>
<b>1999</b>	0	0	0	0	0	1	2	1	0	<b>4</b>
<b>2000</b>	0	0	0	0	0	0	1	0	0	<b>1</b>
<b>2001</b>	0	0	0	0	0	0	1	0	0	<b>1</b>
<b>2002</b>	0	0	0	0	0	2	1	0	0	<b>3</b>
<b>2003</b>	0	0	0	1	0	4	5	0	0	<b>10</b>
<b>2004</b>	0	0	0	0	0	11	2	2	0	<b>15</b>
<b>2005</b>	0	0	0	0	1	3	1	0	0	<b>5</b>
<b>2006</b>	0	0	0	1	3	6	0	0	0	<b>10</b>
<b>2007</b>	0	0	0	1	2	2	0	0	0	<b>5</b>
<b>2008</b>	0	0	0	1	5	10	0	0	0	<b>16</b>
<b>2009</b>	0	0	0	4	10	3	0	0	0	<b>17</b>
<b>2010</b>	0	0	0	2	9	1	0	0	0	<b>12</b>
<b>2011</b>	0	1	0	0	5	2	0	0	0	<b>8</b>
<b>2012</b>	0	0	0	9	12	2	0	0	0	<b>23</b>
<b>2013</b>	0	0	0	5	16	1	0	0	0	<b>22</b>
<b>2014</b>	0	0	0	15	8	1	0	0	0	<b>24</b>
<b>2015</b>	0	0	2	12	5	0	0	0	0	<b>19</b>
<b>2016</b>	0	0	0	13	3	0	1	0	0	<b>17</b>
<b>2017</b>	0	0	5	20	10	0	0	1	0	<b>36</b>
<b>2018</b>	0	2	8	15	7	0	0	0	0	<b>32</b>
<b>2019</b>	0	0	7	8	0	1	0	0	0	<b>16</b>
<b>2020</b>	0	1	10	4	0	0	1	0	0	<b>16</b>
<b>2021</b>	0	0	9	5	0	0	0	0	0	<b>14</b>
<b>Total</b>	<b>0</b>	<b>4</b>	<b>41</b>	<b>117</b>	<b>96</b>	<b>52</b>	<b>22</b>	<b>8</b>	<b>6</b>	<b>346</b>
<b>Average Age at Retirement</b>				62.0						
<b>Average Current Age</b>				71.5						
<b>Average Annual Pension</b>	\$			23,207						

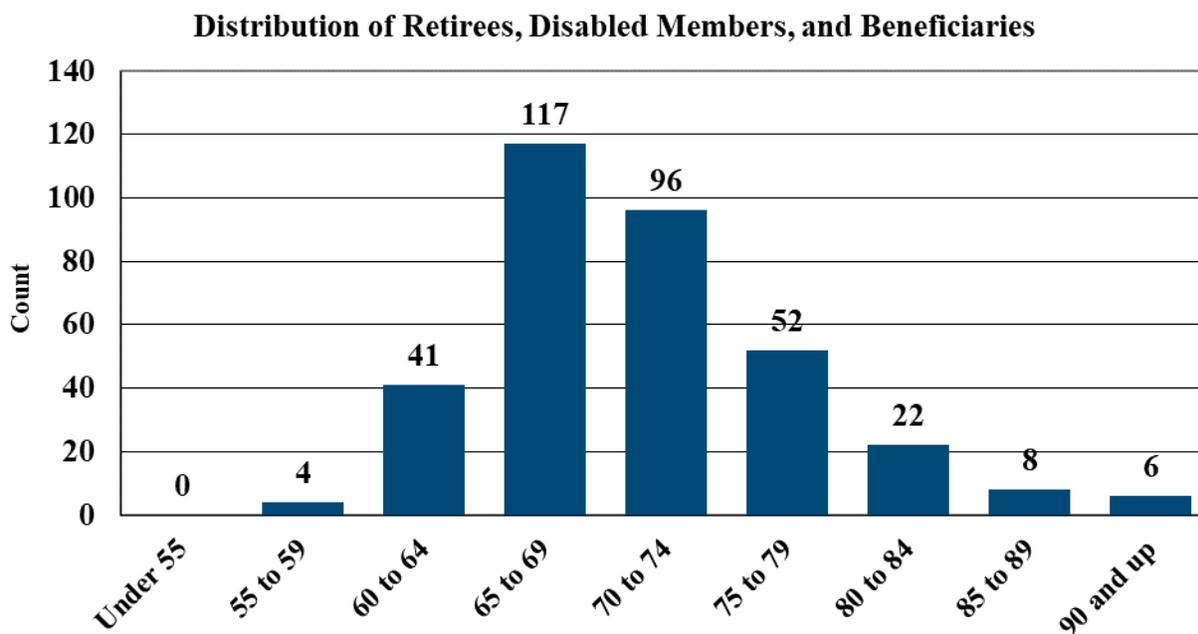
**TRIMET DEFINED BENEFIT RETIREMENT PLAN FOR MANAGEMENT AND STAFF EMPLOYEES  
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2021**

**APPENDIX A – MEMBERSHIP INFORMATION**

**Table A-8**

<b>Distribution of Retirees, Disabled Members, and Beneficiaries as of July 1, 2021</b>		
<b>Age</b>	<b>Count</b>	<b>Annual Benefit</b>
Under 55	0	\$ 0
55 to 59	4	79,573
60 to 64	41	1,129,514
65 to 69	117	3,009,403
70 to 74	96	2,033,227
75 to 79	52	1,136,788
80 to 84	22	441,374
85 to 89	8	129,831
90 and up	<u>6</u>	<u>70,035</u>
<b>Total</b>	<b>346</b>	<b>\$ 8,029,746</b>

**Chart A-2**

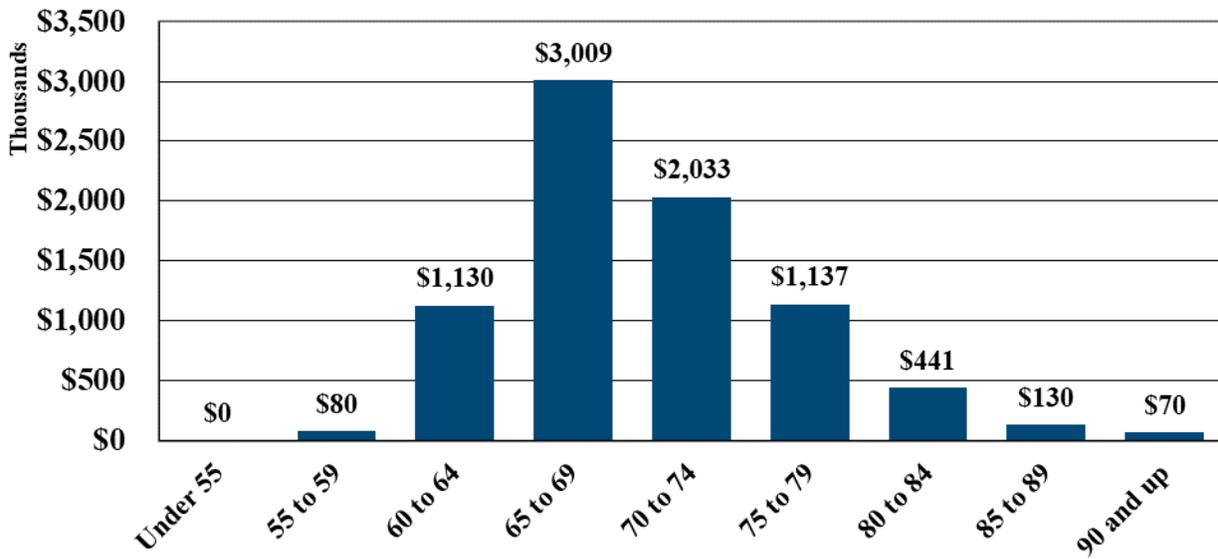


TRIMET DEFINED BENEFIT RETIREMENT PLAN FOR MANAGEMENT AND STAFF EMPLOYEES  
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2021

APPENDIX A – MEMBERSHIP INFORMATION

Chart A-3

Distribution of Annual Benefit Payments



**APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS**

**Actuarial Assumptions**

The actuarial assumptions were selected by the Plan trustees based on our analysis, review and recommendations at the May 6, 2020 trustee meeting. Please refer to our presentation for the rationale for each assumption. More detail on the rationale for assumptions that were not changed can be found in the analyses performed by the prior actuary and communicated in letters dated May 14, 2015, February 18, 2016, and May 31, 2017.

**1. Long-Term Expected Return on Assets (effective July 1, 2020)**

6.00% compounded annually net of investment management and custodial fees.

**2. Salary Increases (effective July 1, 2016)**

2.75%, compounded annually.

**3. Amortization Payment Growth**

2.00%, compounded annually.

**4. Price Inflation (effective July 1, 2020)**

2.25%, compounded annually.

**5. Post-Retirement Benefit Increases (effective July 1, 2020)**

2.025% (90% of price inflation), compounded annually and effective each April 1.

**6. Administrative Expenses (effective July 1, 2016)**

\$100,000 per year payable midyear.

**7. Mortality (effective July 1, 2020)**

Pre-Retirement and Pre-Disability:       None.

Post-Retirement:       PubG-2010(A) with generational projection using MP-2019.

**TRIMET DEFINED BENEFIT RETIREMENT PLAN FOR MANAGEMENT AND STAFF EMPLOYEES  
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2021**

**APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS**

**8. Rates of Retirement (effective July 1, 2015)**

All active and disabled participants are assumed to retire by age 67. The assumed annual rates of retirement from active status are as follows:

Active Rates of Retirement			
Age	Rate	Age	Rate
55 – 57	2.0%	62	35.0%
58 – 60	7.0	63 – 66	30.0
61	15.0	67	100.0

Terminated vested members are assumed to retire at age 62, or present age if greater.

**9. Form of Benefit (effective July 1, 2015)**

Upon retirement, participants are assumed to elect the following form of payment:

Form of Payment	Election Rate
Single Life Annuity	50.0%
66 2/3% Joint & Survivor Annuity	50.0

**10. Rates of Disability (effective July 1, 2015)**

None.

**11. Rates of Termination (effective July 1, 2015)**

Participants are assumed to leave active employment for reasons other than retirement and death. Assumed termination rates are shown below:

Rates of Termination	
Years of Vesting Service	Rate
2 or less	12.0%
3 – 4	9.0
5 – 6	5.0
7 – 10	3.5
11 – 15	2.5
16 or more	1.0

**APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS**

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

Active participants are assumed to increase their current bank of sick leave by 45 hours per year in future years. The schedule of maximum accumulated sick leave hours is shown in Appendix C. At retirement, active members are assumed to elect to convert their unused sick leave into a monthly annuity supplement.

**13. Probability of Marriage/Domestic Partner (effective July 1, 2015)**

85% of non-retired participants are assumed to be married or have a domestic partner.

**14. Age of Spouse/Domestic Partner (effective July 1, 2015)**

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.

**15. Changes Since the Last Valuation**

None.

## APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

### Contribution Allocation Procedure

The contribution allocation procedure primarily consists of an actuarial cost method, an asset smoothing method, and an amortization method as described below. All components of the contribution allocation procedure were adopted as part of the Plan's Pension Funding Policy and Objectives on February 26, 2014.

#### 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

For the purpose of determining contribution amounts, an Actuarial Value of Assets is used that dampens the volatility in the Market Value of Assets, resulting in a smoother pattern of contributions.

The Actuarial Value of Assets is calculated by recognizing 20% of the difference in each of the prior four years of actual investment returns compared to the expected return on the Market Value of Assets. The Actuarial Value of Assets is further limited to be not less than 80% nor greater than 120% of the Market Value of Assets.

#### 3. Amortization Method

The Unfunded Actuarial Liability is the difference between the Actuarial Liability and the Actuarial Value of Assets. The Unfunded Actuarial Liability is amortized over a closed 10-year period commencing July 1, 2013 with payments increasing 2.0% each year.

#### 4. Changes Since the Last Valuation

None.

**APPENDIX C – SUMMARY OF PLAN PROVISIONS**

**1. Eligibility**

Prior to April 27, 2003: an employee became a participant upon being employed as an eligible employee and was regularly scheduled to work at least 20 hours per week.

On and after April 27, 2003: Employees hired on or after April 27, 2003 are not eligible to participate in this Plan. Active participants on April 27, 2003 with credited service prior to that date made an irrevocable election to either (1) continue earning benefits under this Plan after April 26, 2003 and not earn benefits under the Defined Contribution Plan, or (2) cease earning benefits under this Plan as of April 27, 2003 and earn future benefits under the Defined Contribution Plan.

Inactive participants who are rehired after April 26, 2003 may resume participation in the Plan if certain requirements are met. Employees hired prior to April 27, 2003 who are participants in the Pension Plan for Bargaining Unit Employees of TriMet (“Union Plan”) may become participants in this Plan if they transfer to a management position.

An eligible employee is any management or staff (non-bargaining) common-law employee except those covered by a collective bargaining agreement that does not provide for participation in this Plan, leased employees, employees classified to work less than half time, employees hired on or after April 27, 2003, and employees who transferred their accrued benefit to the Defined Contribution Plan.

**2. Credited Service**

Credited service includes all periods of service while a participant in the Plan, including military service, authorized vacation, periods of disability (if entitled to benefits under the TriMet Long-Term Disability Policy), periods of service in the Oregon State Legislative Assembly, authorized leave of absence (subject to return to work rules), part time work (i.e., at least 20 but less than 40 hours per week), and work for predecessor employers.

Credited service does not include periods in which TriMet is required to make contributions to Oregon PERS or to any other state mandated retirement program, periods in which the employee is covered by another TriMet retirement plan (including the Defined Contribution Plan and the Union Plan), and service prior to a break in service.

Periods of service are measured in years and whole months. Each twelve month period of credited service equals one year of credited service and partial years are based on the number of complete months worked divided by 12. Part-time employees earn partial credited service based on the percentage of full-time employment.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

**3. Vesting Service**

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

Periods of service are measured in years and whole months. Each twelve month period of vesting service equals one year of vesting service and partial years are based on the number of complete months worked divided by 12.

**4. Contributions**

Member

There are no member contributions.

Employer

TriMet makes contributions in accordance with its funding policy which is to be determined in accordance with accepted actuarial principles.

**5. Normal Retirement**

Eligibility

Age 62

Basic Benefit

The basic benefit is a monthly benefit payable for life equal to 1/12 of 1.75% of final average salary multiplied by credited service. Certain executives who became participants on or before July 1, 2008 receive a different percentage of final average earnings.

Final average salary means 1/3 of the 36 highest consecutive months of base earnings. If the employee is totally disabled, final average salary includes only base earnings paid prior to the onset of disability. Final average salary during a period when an employee is part-time is the employee's salary during the period divided by the percentage of time the part-time employee worked relative to a full time employee.

Sick Leave Supplement

For participants who retire on or after July 1, 2000, hours of unused sick leave are converted to either a monthly annuity supplement or a lump sum distribution.

**TRIMET DEFINED BENEFIT RETIREMENT PLAN FOR MANAGEMENT AND STAFF EMPLOYEES  
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2021**

**APPENDIX C – SUMMARY OF PLAN PROVISIONS**

- The monthly annuity supplement is equal to 50% of hours of sick leave multiplied by the final average hourly rate, divided by 101.9.
- The lump sum distribution is equal to 50% of hours of sick leave multiplied by the final average hourly rate, multiplied by 1.107.

The final average hourly rate is the participant’s final average salary divided by 2,080.

Hours of sick leave are the lesser of the participant’s hours of unused sick leave or the maximum hours of sick leave from the table below.

<b>Effective</b>	<b>Maximum Hours of Sick Leave</b>
July 1, 2000	1,400 hours
March 22, 2005	1,500 hours
December 1, 2005	1,550 hours
December 1, 2006	1,600 hours
December 1, 2007	1,650 hours
December 1, 2008	1,700 hours

**6. Early Retirement**

Eligibility

Age 55 and 5 years of vesting service.

Benefit

The normal retirement benefit is actuarially reduced based on the UP 1984 mortality table, adjusted to reflect a population that is 50% male and 50% female, and 7.5% interest.

**7. Disability Retirement**

The Plan does not provide for a disability benefit. However, participants who become entitled to receive disability benefits under the TriMet Long-Term Disability Policy continue to earn credited service toward their normal retirement benefit while disabled.

**8. Termination Benefit**

Eligibility

5 Years of vesting service.

## APPENDIX C – SUMMARY OF PLAN PROVISIONS

### Benefit

Normal retirement benefit commencing at age 62 or early retirement benefit commencing as early as age 55.

### 9. Forms of Payment

The following forms of payment are available:

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

### 10. Pre-Retirement Death Benefit

The monthly payment payable to the surviving spouse or domestic partner of a vested participant is equal to the survivor portion of the 66 2/3% joint and survivor annuity which the spouse or domestic partner would have received had the participant retired at the time of his or her death (if eligible for retirement), otherwise as if the participant terminated employment on his or her date of death (if not already terminated), survived to the earliest age at which he or she could have elected to retire, retired with a 66 2/3% joint and survivor annuity, and died the following day.

The payment to the surviving spouse commences on the later of the participant's normal retirement date, or the participant's date of death. However, the spouse may commence actuarially reduced benefits following the earliest date the participant could have elected early retirement.

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 commencement date is earlier than the participant's age 55, the survivor benefit will be actuarial reduced to the commencement date.

### 11. Post-retirement Cost-of-Living Benefit

Post-retirement benefits for participants who retire after May 31, 1984 are increased each April 1 by 90% of the percentage increase in the U.S. Urban Wage Earners and Clerical Workers Consumer Price Index (CPI-W) (annual average) for the previous calendar year. Annual increases will not be more than 7% per year and benefits will not be decreased if the annual CPI decreases.

### 12. Changes Since the Last Valuation

The Plan's definition of actuarial equivalence was updated.

**TRIMET DEFINED BENEFIT RETIREMENT PLAN FOR MANAGEMENT AND STAFF EMPLOYEES  
ACTUARIAL VALUATION REPORT AS OF JULY 1, 2021**

**APPENDIX C – SUMMARY OF PLAN PROVISIONS**

**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 – 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 D – 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. 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.

### 13. 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.

### 14. 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

## APPENDIX D – GLOSSARY OF TERMS

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.

### 15. 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.

### 16. Net Pension Liability

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

### 17. Normal Cost

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

### 18. Plan Fiduciary Net Position

The fair or Market Value of Assets.

### 19. 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.

### 20. Reporting Date

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

### 21. 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.

### 22. 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.

**APPENDIX D – GLOSSARY OF TERMS**

The Total Pension Liability is the Actuarial Liability calculated under the Entry Age actuarial cost method.

**23. 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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