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Milliman

Minnesota Legislative Commission on Pensions and Retirement

Replication of the Actuarial Valuation of the Public Employees Retirement Association of Minnesota Local Government Correctional Service Retirement Plan as of July 1, 2013

Prepared by:

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January 31, 2014

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January 31, 2014

Minnesota Legislative Commission
on Pensions and Retirement
State Office Building, Room 55
100 Rev. Dr. Martin Luther King Jr. Boulevard
St. Paul, Minnesota 55155

Attention: Mr. Lawrence A. Martin, Executive Director

Ladies and Gentlemen:

The enclosed report presents the findings and comments resulting from a review and replication of the July 1, 2013 actuarial valuation of the Local Government Correctional Service Retirement Plan (Fund) administered by the Public Employees Retirement Association of Minnesota (PERA). An overview of our major findings is included in the Executive Summary section of the report. More detailed commentary and information is provided in the sections that follow.

We pursued this analysis and review with a constructive mindset. We looked to identify any possible suggestions that might improve understanding of or confidence in the actuarial services being provided. Naturally, some of the comments may be viewed as personal preference or nit-picky in nature. While we are not trying to impose our own preferences or biases on the Fund or the retained actuary, neither did we hesitate to make such comments if we believed that some change, however minor, would improve the actuarial functions.

This report has been prepared for use by the Minnesota Legislative Commission on Pensions and Retirement (LCPR) in their oversight role with regard to the Fund. It has been prepared using Milliman valuation systems in a manner that would be used by Milliman to prepare a full actuarial valuation of the Fund. We recognize that there are hundreds of thousands of complex calculations performed by the actuarial valuation system. For this reason, even the smallest differences between valuation systems can produce noticeable differences in the valuation results between two different actuaries.

In preparing this report, we have relied without audit on the employee data, plan provisions, value of the plan assets and other plan financial information as provided by various involved entities including your office, PERA, Fund actuary and others. We have reviewed this data for reasonableness and for consistency with previously supplied information. If any of this information as summarized in this report is inaccurate or incomplete, the results shown could be materially affected and this report may need to be revised.

Actuarial assumptions, including discount rates, mortality tables, and others identified in this report, and actuarial cost methods are those used by the Fund Actuary and as prescribed by statute or adopted by the applicable Board and approved by the LCPR. These parties are responsible for selecting the plan's funding policy, actuarial valuation methods, asset valuation methods, and assumptions. The policies, methods, and assumptions used in this valuation are those that have been so prescribed and are described in the Actuarial Basis of this report.

This valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits, only the timing of System contributions. While the valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct. Determining results using alternative assumptions is outside the scope of our engagement.

Future actuarial measurements may differ significantly from the current measurements presented in this report 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; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements.

On the basis of the foregoing we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the principles prescribed by the Actuarial Standards Board (ASB) and the Code of Professional Conduct and Qualification Standards for Public Statements of Actuarial Opinion of the American Academy of Actuaries.

Milliman's work is prepared solely for the use and benefit of the LCPR. To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent unless allowed under the Legislative Commission on Pensions and Retirement Contract for Actuarial Review and Auditing Consulting Services dated July 18, 2013. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

Any distribution of the enclosed report must be in its entirety including this cover letter, unless prior written consent is obtained from Milliman, Inc. This report has been prepared in accordance with the terms and provisions of the Legislative Commission on Pensions and Retirement Contract for Actuarial Review and Auditing Consulting Services effective July 18, 2013.

We, William V. Hogan, FSA, and Timothy J. Herman, FSA, are actuaries for Milliman, Inc. We are members of the American Academy of Actuaries and Fellows of the Society of Actuaries, and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

We look forward to making a personal presentation of our findings in briefings to the Minnesota Legislative Commission on Pensions and Retirement and to relevant staff members.

Respectfully submitted,

Milliman, Inc.

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Principal and Consulting Actuary

Timothy J. Herman, FSA, EA, MAAA
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Executive Summary

Purpose and Scope of the Actuarial Replication Audit

In accordance with Minnesota Statutes, Section 356.214, Subdivision 4, the LCPR has engaged Milliman, Inc. to perform a replication of the July 1, 2013 actuarial valuation of the Fund administered by PERA.

In performing the replication of the actuarial valuation, we follow several well defined steps. These steps involve a review and cleansing of the data used in the actuarial valuation, an assessment of the plan provisions to be valued, an analysis of the actuarial assumptions to be applied, a review of the reported value of plan assets as of the valuation date, and preparation of the actuarial calculations using appropriate computer programming and summarizing the results. All of the above steps are to be applied in accordance with the requirements of Minnesota statutes and the Actuarial Standards For Actuarial Work adopted by the LCPR.

In conducting our work, we initially prepared the above steps independently from the work of the Fund Actuary. After completing that work, we conducted a review of some individual benefit trace information in order to identify any key differences in programming or technique. We then prepared a summary of the key valuation results, showing a comparative of our results to those of the Fund Actuary.

It is important to recognize that the actuarial valuation process, while very sophisticated in its calculation methodology, is still an estimate of the financial value of benefits payable on contingent events, most of which occur many years into the future. As such, a considerable amount of uncertainty and variability surrounds those estimates. As actuaries we recognize this fact and are comfortable that small differences (in percentages) in the results do not change the overall financial results portrayed in the valuation. Furthermore, the actuarial software used by different firms has implicit differences that create differences in the valuation numbers. For this reason, we believe the comparison of valuation results should be evaluated in terms of percentage differences. To provide some context to our comments, in a replication audit, where the differences that are identified can also be quantified, we generally expect to be within 1%-2% on the calculation of the present value of future benefits and within 4%-5% on the calculation of the actuarial accrued liability and normal cost. The wider range on the latter items is because there tends to be more variability in how different actuarial software programs allocate the total liability (present value of future benefits) to past and future years of service.

Please note, the actuarially required contribution rate includes a component for the amortization of the unfunded actuarial liability (UAL). For a given level of UAL, annual amortization payments are calculated as increasing by 3.75% per year ("level percent amortization"). If future experience follows the actuarial assumptions, this should result in amortization payments that keep pace with the assumed growth in overall compensation. Please note that with the current amortization period of 18 years, amortization payments in the short term will not be large enough to cover interest on the UAL, which means that as a dollar amount the UAL is expected to grow for several years. This situation is sometimes referred to as "negative amortization". The negative amortization will continue until the amortization period becomes short enough, and the amortization payments become large enough, such that the amortization payments will be enough to cover both interest and principal, and from that point forward the UAL as a dollar amount will start to decline progressively until ultimately reaching zero by the end of the amortization period.

Statement of Findings

In general, we found the actuarial calculations by the Fund Actuary to be reasonably consistent with our own separate calculations to within a reasonable degree of tolerance. Where we saw differences, we attempted to identify the reasons. Overall, we are satisfied that the July 1, 2013 actuarial valuation results for the Fund as prepared by the Fund Actuary present a fair and reasonable representation of the present value of future benefits.

The following commentary provides our main conclusions on the various areas of our review:

- Plan Provisions: We started with the summary of plan provisions for the Fund that Milliman reviewed last year. We then applied any adjustments to these provisions as a result of legislative changes that were identified in the LCPR summaries. After reviewing the actuarial report prepared by the Fund Actuary, we believe that their summary of plan provisions affecting the actuarial calculations is consistent with our understanding of the current plan provisions. We note that the definition of duty disability should be updated consistent with the recent change. This does not affect the actuarial calculations.

- Membership Data: Our raw data counts match up to within a few lives with the counts as summarized by PERA. After applying our own cleansing methods, our valuation data count was modestly different from the count as reported by the Fund Actuary. The difference is in the classification of annuitants between "Service Retirements" and "Survivors". In total, the counts match exactly.

  Given the total counts involved, our conclusion is that the Fund Actuary is reasonably reflecting the data received from PERA to within a reasonable degree of tolerance with our own determinations.

- Actuarial Assumptions and Methods: In general, we believe that the assumptions and methods employed by the Fund Actuary are consistent with statutes and the Standards for Actuarial Work.

- Actuarial Value of Assets: We believe that the Fund Actuary has fairly and correctly presented the actuarial value of assets.

- Valuation System Results: Based upon our own valuation system results, we were able to match the Fund Actuary valuation results within 1.7% on the present value of future benefits, within 3.1% on the actuarial liabilities and within 2.6% on the dollar normal costs. We are about 0.31 percentage points lower on the Normal Cost rate. Looking closer at the individual "pieces", we see that our valuation system has allocated more to the actuarial liability and less to the normal cost when compared to the Fund Actuary. The total annual cost as a percentage of payroll between our two valuations is very close (14.32% for the Fund Actuary versus 14.56% for Milliman). However, we note some differences in how those totals are split by decrement and group. While our calculations with respect to current retired members and active member retirement benefits is very close to the Fund Actuary (almost 75% of the total present value of benefits) we still stray a fair amount in the allocation of cost among the other decrements. We are comfortable that this is a matter of allocation between valuation systems because our totals are so close. Working with the Fund Actuary, we have narrowed the differences to some degree. With more time, it might be possible to narrow the differences a little further.

- Valuation Report: We believe the actuarial valuation report prepared by the Fund Actuary provides all of the information required by the Standards for Actuarial Work. Overall, the work by the Fund Actuary is comprehensive and thorough. We note that the Actuarial Standards call for identification of the Actuarial Gain or Loss related to mortality. The report provides this information for current benefit recipients.

- COLA: As part of legislation enacted in 2013, the annual Cost of Living Adjustment (COLA) applied to the pensions of retired Members was changed. The funding ratio threshold that must be attained to pay a 2.5% postretirement benefit increase to benefit recipients was changed from 90% for one year to 90% for two consecutive years. The funding ratio threshold that determines when a 1.0% postretirement benefit increase must be paid was changed from less than 90% for one year to less than 80% for one year or less than 85% for two consecutive years after reverting to a 2.5% benefit increase. The valuation by the Fund Actuary assumes a 2.5% COLA for all future years. We believe this assumption is reasonable.

Principal Valuation Results

This section provides a summary of the key measurements from the July 1, 2013 Actuarial Valuation. As the numbers show, we were able to reasonably match the primary data totals with those shown by the Fund Actuary in almost all cases.

Principal Valuation Results

	Actuarial Valuation as of	
	July 1, 2013 (Fund Actuary)	July 1, 2013 (Milliman)
Contributions (% of Payroll)		
Normal Cost Rate	12.60%	12.29%
UAAL Amortization Payment	1.60%	2.15%
Expenses	0.12%	0.12%
Total Required Contributions (Chapter 356)	14.32%	14.56%
Statutory Contributions (Chapter 353E)	14.58%	14.58%
Contribution (Deficiency)/Sufficiency	0.26%	0.02%
Unfunded Actuarial Accrued Liability (dollars in thousands)		
Based upon AVA	$34,401	46,130
Based upon MVA	14,429	26,158
Funding Ratios (dollars in thousands)		
Accrued Benefit Funding Ratio		
Current Assets (AVA)	$346,778	346,778
Current Benefit Obligations	344,438	349,220
Funding Ratio	100.68%	99.30%
Accrued Liability Funding Ratio		
Current Assets (AVA)	$346,778	346,778
Current Assets (MVA)	366,750	366,750
Actuarial Accrued Liability	381,179	392,908
Funding Ratio (AVA)	90.98%	88.26%
Funding Ratio (MVA)	96.21%	93.34%
Projected Benefit Funding Ratio		
Current and Expected Future Assets	$551,071	554,964
Current and Expected Future Benefit Obligations	545,494	554,499
Funding Ratio	101.02%	100.08%
Participant Data		
Active Members		
Number	3,493	3,493
Projected Annual Earnings (dollars in thousands)	$174,707	$174,535
Average Projected Annual Earnings	50,016	49,967
Average Age	40.6	40.6
Average Service	7.6	7.5
Additional Members of Leave of Absence	0	0
Service Retirements	503	507
Survivors	156	152
Disability Retirements	31	31
Deferred Retirements	2,232	2,232
Terminated Other Non-vested	1,816	1,816
TOTAL	8,231	8,231

Plan Assets

Statement of Plan Net Assets for Year Ended June 30, 2013
(dollars in thousands)

We received asset information from PERA which provided assets by class as of June 30, 2013. We have reviewed these assets and summarized them below. Our summary exactly matches the summary provided by the Fund actuary in their Actuarial Valuation Report.

	Market Value	
	Fund Actuary	Milliman
Assets in Trust		
Cash, Equivalents, Short-term Securities	$ 10,314	$ 10,314
Fixed Income	84,021	84,021
Equity	219,130	219,130
SBI Alternative	53,048	53,048
Other	0	0
Total Assets in Trust	$366,513	$366,513
Assets Receivable	461	461
Amounts Payable	(224)	(224)
Net Assets Held in Trust for Pension Benefits	$366,750	$366,750

Plan Assets

Reconciliation of Plan Assets
(dollars in thousands)

The following exhibit shows the revenue, expenses and resulting assets of the Fund as reported by PERA for the Plan's Fiscal year July 1, 2012 to June 30, 2013.

We received this information directly from PERA and summarized it below. Our summary matches the summary provided by the Fund actuary.

	Market Value	
	Fund Actuary	Milliman
1. Fund Balance at Market Value at Beginning of Year	**$ 305,408**	**$ 305,408**
2. Contributions		
a. Member	$ 9,609	$ 9,609
b. Employer	14,498	14,498
c. Other Sources	0	0
d. Total Contributions	24,107	24,107
3. Investment Income		
a. Investment Income/(Loss)	$ 44,879	$ 44,879
b. Investment Expenses	(501)	(501)
c. Net Subtotal	44,378	44,378
4. Other	0	0
5. Total Income: *(2.d) + (3.c.) + (4.)*	**68,485**	**68,485**
6. Benefits Paid		
a. Annuity Benefits	$ (5,757)	$ (5,757)
b. Refunds	(1,177)	(1,177)
c. Total Benefits Paid	(6,934)	(6,934)
7. Expenses		
a. Other	0	0
b. Administrative	(209)	(209)
c. Total Expenses	(209)	(209)
8. Total Disbursements: *(6.c.) + (7.c.)*	**(7,143)**	**(7,143)**
9. Fund Balance at Market Value at End of Year	**$366,750**	**$366,750**
10. Approximate Return on Market Value of Assets	14.0%	14.0%

Plan Assets

Actuarial Asset Value
(dollars in thousands)

Based upon the assets reported to us by PERA and prior year actuarial valuation information regarding unrecognized asset returns, we have constructed the Actuarial Value of Assets for the July 1, 2013 Actuarial Valuation. Our calculation matches the Fund actuary.

		June 30, 2013
1.	Market Value of Assets Available for Benefits	$366,750
2.	Determination of Average Balance	
a.	Total Assets Available at Beginning of Year	305,408
b.	Total Assets Available at End of Year	366,750
c.	Net Investment Income for Fiscal Year	44,378
d.	Average Balance *[a. + b. – c.]/2*	313,890
3.	Expected Return *[8.0% * 2.d.] (8.5% in 2012)*	25,111
4.	Actual Return	44,378
5.	Current Year Asset Gain/(Loss) *[4. – 3.]*	19,267

6. Unrecognized Asset Returns

		Original Amount	Unrecognized Amount
a.	Year Ended June 30, 2013	$ 19,267	$ 15,413
b.	Year Ended June 30, 2012	(16,702)	(10,021)
c.	Year Ended June 30, 2011	31,598	12,639
d.	Year Ended June 30, 2010	9,703	1,941
e.	Year Ended June 30, 2009		N/A
f.	Unrecognized Return Adjustment		19,972

7.	**Actuarial Value at End of Year** *(1. – 6.f.)*	**$346,778**
8.	Approximate Return on Actuarial Value of Assets During Fiscal Year	7.3%
9.	Ratio of Actuarial Value of Assets to Market Value of Assets	0.95

Development of Costs

Actuarial Valuation Balance Sheet
(dollars in thousands)

The actuarial balance sheet is based on the fundamental equation that at any given time the present value of benefits to be paid in the future must be equal to the assets on hand plus the present value of future contributions to be received. The total rate of contribution is determined as the amount which will make the total present and potential assets balance with the total present value of future benefits. The members' rate of contribution is fixed at the current schedule. The employer's rate of contribution is the balance required to cover the total rate of contribution.

The contributions made in excess of amounts required for current benefit payments are accumulated as a reserve to help meet benefit payments in later years. It is this reserve system which permits the establishment of a level rate of contribution each year.

		June 30, 2013 (Fund Actuary)	June 30, 2013 (Milliman)
A.	Actuarial Value of Assets	$346,778	$346,778
B.	Expected Future Assets		
	1. Present Value of Expected Future Statutory Supplemental Contributions	39,978	46,595
	2. Present Value of Future Normal Cost Contributions	164,315	161,591
	3. Total Expected Future Assets (1. + 2.)	204,293	208,186
C.	Total Current and Expected Future Assets	$551,071	$554,964
D.	Current Benefit Obligations		
	1. Benefit Recipients	74,683	75,684
	2. Deferred Retirement with Augmentation	58,171	62,562
	3. Former Members without Vested Rights	1,215	2,333
	4. Active Members	210,369	208,641
	5. Total Current Benefit Obligations	344,438	349,220
E.	Expected Future Benefit Obligations	201,056	205,279
F.	Total Current and Expected Future Benefit Obligations	545,494	554,499
G.	Unfunded Current Benefit Obligations (D.5. – A.)	(2,340)	2,442
H.	Unfunded Current and Future Benefit Obligations (F. – C.)	(5,577)	(465)

Development of Costs

Determination of Unfunded Actuarial Accrued Liability and Supplemental Contribution Rate

(dollars in thousands)

In the tables that follow the Commentary in this section, we provide the calculations which ultimately determine the required supplemental contribution rate. From these tables, a critical calculation is the Actuarial Present Value of Projected Benefits. This calculation reflects the actuary's estimate of the total present value cost of all benefits yet to be paid by the Fund to the current members (active and inactive). In replication audits, we typically strive to be within 2% of the actuary's calculation. If that level cannot be achieved, then it is important to identify the differences in more detail. In general, our calculations are within the 2% threshold with the exception of Deferred Members and Former Members without Vested Rights. It is our intent to review this component further in an effort to identify any other differences we may have compared to the Fund Actuary. The table below shows, as a percentage, the ratio of the numbers calculated by Milliman to the numbers reported by the Fund Actuary.

	Actuarial Present Value of Projected Benefits
Active Members	100.61%
Deferred Members	107.55
Former Members without Vested Rights	192.02
Benefit Recipients	101.34
Total	101.65%

The tables that follow the Actuarial Present Value of Projected Benefits are designed to determine how much of the Actuarial Present Value of Projected Benefits is to be funded by the future "normal cost" contributions (Actuarial Present Value of Future Normal Cost) versus how much belongs to past contributions (Actuarial Accrued Liability). This allocation does not change the total costs determined in the Actuarial Present Value of Projected Benefits. It simply allocates cost to past versus future based upon the Entry Age Normal Actuarial Cost Method. In replication audits, we typically look to be within 5% of the actuary's calculations for active member Actuarial Accrued Liability. The larger range recognizes that different valuation systems have different ways of rounding service and ages. In addition, the Entry Age Method requires projection of theoretical past amounts which can be handled somewhat differently between actuarial valuation systems. The table below shows, as a percentage, the ratio of the numbers calculated by Milliman to the numbers reported by the Fund Actuary.

	Actuarial Accrued Liability
Active Members	102.11%
Deferred Members	107.55
Former Members without Vested Rights	192.02
Benefit Recipients	101.34
Total	103.08%

Development of Costs

Determination of Unfunded Actuarial Accrued Liability and Supplemental Contribution Rate

(dollars in thousands)

Once the Actuarial Accrued Liability is determined, it is compared to the Actuarial Value of Assets to determine the unfunded liability. The difference between these numbers is then amortized to the statutory amortization date of June 30, 2031 based upon the present value of future payrolls. Because this calculation is based upon the difference of two relatively close numbers, any change in one of the numbers can have a large impact when viewed as a percentage.

For example, if the Actuarial Accrued Liability is $1,000 and the Actuarial Value of Assets is $900, then unfunded liability is $100. If the Actuarial Accrued Liability is reduced by $25, the unfunded liability becomes $75. In this example, the reduction in the Actuarial Accrued Liability of 2.5% generates a reduction of 25% in both the unfunded liability and the supplemental contribution rate.

Based upon the above, it should be expected that small deviations in the amount of Actuarial Accrued Liability will have a larger impact on the supplemental contribution rate. This is evidenced here where our calculation of the Actuarial Accrued Liability is 3.1% more than the Fund Actuary and our supplemental contribution percentage rate is 34.4% more than the Fund Actuary.

Development of Costs

Determination of Unfunded Actuarial Accrued Liability and Supplemental Contribution Rate

(dollars in thousands)

		Actuarial Present Value of Projected Benefits	
		Fund Actuary	Milliman
1.	Active Members		
	A. Retirement Annuities	$324,669	$324,428
	B. Disability Benefits	42,447	45,232
	C. Survivor's Benefits	6,045	6,830
	D. Deferred Retirements	36,893	35,574
	E. Refunds	1,371	1,856
	F. Total	411,425	413,920
2.	Deferred Retirements with Future Augmentation	58,171	62,562
3.	Former Members without Vested Rights	1,215	2,333
4.	Benefit Recipients	74,683	75,684
5.	Total	545,494	554,499

		Actuarial Present Value of Future Normal Costs	
		Fund Actuary	Milliman
1.	Active Members		
	A. Retirement Annuities	$105,133	$106,547
	B. Disability Benefits	24,284	23,556
	C. Survivor's Benefits	2,305	2,499
	D. Deferred Retirements	25,214	24,954
	E. Refunds	7,379	4,035
	F. Total	164,315	161,591
2.	Deferred Retirements with Future Augmentation	0	0
3.	Former Members without Vested Rights	0	0
4.	Benefit Recipients	0	0
5.	Total	164,315	161,591

Development of Costs

Determination of Unfunded Actuarial Accrued Liability and Supplemental Contribution Rate

(dollars in thousands)

	Actuarial Accrued Liability	
	Fund Actuary	Milliman
A. Determination of Actuarial Accrued Liability (AAL)		
1. Active Members		
A. Retirement Annuities	$219,536	$217,881
B. Disability Benefits	18,163	21,676
C. Survivor's Benefits	3,740	4,331
D. Deferred Retirements	11,679	10,620
E. Refunds	(6,008)	(2,179)
F. Total	247,110	252,329
2. Deferred Retirements with Future Augmentation	58,171	62,562
3. Former Members without Vested Rights	1,215	2,333
4. Benefit Recipients	74,683	75,684
5. Total	381,179	392,908
B. Determination of Unfunded Actuarial Accrued Liability (UAAL)		
1. Actuarial Accrued Liability	$381,179	$392,908
2. Current Assets (AVA)	346,778	346,778
3. Unfunded Actuarial Accrued Liability (AVA)	34,401	46,130
4. Current Assets (MVA)	366,750	366,750
5. Unfunded Actuarial Accrued Liability (MVA)	14,429	26,158
C. Determination of Supplemental Contribution Rate*		
1. Present value of future payrolls through the amortization date of June 30, 2031	2,149,366	2,147,250
2. Supplemental Contribution Rate (AVA) (B.3. / C.1.)	1.60%	2.15%
3. Supplemental Contribution Rate (MVA) (B.5. / C.1.)	0.67%	1.22%

*The amortization of the unfunded actuarial accrued liability (UAAL) using the current amortization method results in initial payments less than the "interest only" payment on the UAAL. Payments less than the interest only amount will result in the UAAL increasing for an initial period of time.

Development of Costs

Determination of Contribution Sufficiency/(Deficiency)

(dollars in thousands)

In this section, we compare the statutory contributions provided under Chapter 353E of Minnesota statutes (353E contributions) to the required contributions under Chapter 356 of Minnesota statutes (356 contributions). The difference between these amounts results in a reported contribution sufficiency or deficiency.

With respect to the 353E contributions, the percentage is set by statute and we agree with the percentages reported by the Fund Actuary. The dollar amount is determined by applying the statutory percentage to the member compensation provided in the data file and projected (and annualized where necessary) with expected pay increases for the upcoming year. While reasonably close, our projection methodology was slightly different from the Fund Actuary resulting in a small dollar difference.

With respect to the 356 contributions, the total is equal to the sum of the Normal Cost (Entry Age Normal method) plus the supplemental contribution calculated earlier in this report plus an allowance for expected administrative expenses. Typically, in a replication audit, it is desirable to be within 5% of the actuary's Normal Cost. In this case, our Normal Cost percentage is 2.5% lower than the Fund Actuary. We further note that our components of Normal Cost are somewhat different from the Fund Actuary. This is not an uncommon result as the treatment of where to categorize certain costs on an "entry age" basis between actuarial valuation systems quite often results in these differences.

As mentioned earlier, the supplemental contributions are highly leveraged to the value of the Actuarial Accrued Liability and on the projected payroll. In this case, our supplemental contribution percentage is higher by 34.4% while based upon an Actuarial Accrued Liability that is higher by 3.1% and a projected payroll that is 0.1% lower.

Similar to the 353E contributions, we arrive at the same expense allowance percentage but our dollar contribution is different due to payroll projection methodology.

As a result of the above, our calculation of the Contribution Sufficiency/Deficiency is a sufficiency of 0.02%. This compares to a sufficiency reported by the Fund Actuary of 0.26%. The difference of 0.24% is primarily the result of the supplemental contribution and Normal Cost difference.

Development of Costs

Determination of Contribution Sufficiency/(Deficiency)

(dollars in thousands)

	Fund Actuary July 1, 2013		Milliman July 1, 2013	
	Percent of Payroll	Dollar Amount	Percent of Payroll	Dollar Amount
A. Statutory Contributions – Chapter 353E				
1. Employee Contributions	5.83%	$ 10,185	5.83%	$ 10,175
2. Employer Contributions	8.75	15,287	8.75	15,272
3. Total	14.58	25,472	14.58	25,447
B. Required Contributions – Chapter 356				
1. Normal Cost				
A. Retirement Benefits	8.27	14,449	8.23	14,364
B. Disability Benefits	2.02	3,529	1.91	3,334
C. Survivor Benefits	0.18	314	0.19	332
D. Deferred Retirement Benefits	1.60	2,795	1.66	2,897
E. Refunds	0.53	926	0.30	524
F. Total	12.60	22,013	12.29	21,450
2. Supplemental Contribution Amortization by June 30, 2031 of Unfunded Actuarial Accrued Liability	1.60	2,795	2.15	3,753
3. Allowance for Expenses	0.12	210	0.12	209
4. Total	14.32	25,018	14.56	25,412
C. Contribution Sufficiency/(Deficiency) (A.4. – B.4.)	0.26%	$ 454	0.02%	$ 35

Note: Projected annual payroll for fiscal year beginning on the valuation date:
$174,707 for Fund actuary and $174,535 for Milliman.

Actuarial Cost Method

Liabilities and contributions in this report are computed using the Individual Entry Age Normal Cost Method. This method is prescribed by Minnesota Statutes.

The objective under this method is to fund each member's benefits under the Plan as payments which are level as a percentage of salary, starting at original participation date (or employment date), and continuing until the assumed date of retirement, termination, disability or death. For valuation purposes, entry age for each member is determined as the age at valuation minus years of service as of the valuation date.

At any given date, a liability is calculated equal to the contributions which would have been accumulated if this method of funding had always been used, the current plan provisions had always been in place, and all assumptions had been precisely accurate. The difference between this liability and the assets (if any) which are held in the fund is the unfunded liability. The unfunded liability is typically funded over a chosen period in accordance with the amortization schedule.

A detailed description of the calculation follows:

The normal cost for each active member under the assumed retirement age is determined by applying to earnings the level percentage of salary which, if contributed each year from date of entry into the Plan until the assumed retirement (termination, disability or death) date, is sufficient to provide the full value of the benefits expected to be payable.

- The present value of future normal costs is the total of the discounted values of all active members' normal cost, assuming these to be paid in each case from the valuation date until retirement (termination, disability or death) date.
- The present value of projected benefits is calculated as the value of all benefit payments expected to be paid to the Plan's current members, including active and retired members, beneficiaries, and terminated members with vested rights.
- The accrued liability is the excess of the present value of projected benefits over the present value of future normal costs.
- The unfunded liability is the excess of the accrued liability over the assets of the fund, and represents that part of the accrued liability which has not been funded by accumulated past contributions.

Change in Actuarial Cost Method

None

Asset Valuation Method

The assets are valued based on a five-year moving average of expected and market values (five-year average actuarial value) determined as follows:

At the end of each plan year, an average asset value is calculated as the average of the market asset value at the beginning and end of the fiscal year net of investment income for the fiscal year;

The investment gain or (loss) is taken as the excess of actual investment income over the expected investment income based on the average asset value as calculated above;

The investment gain or (loss) so determined is recognized over five years at 20% per year;

The asset value is, the sum of the market asset value plus the scheduled recognition of investment gains or (losses) during the current and the preceding four fiscal years.

Summary of Actuarial Assumptions

The following assumptions were used in valuing the liabilities and benefits under the plan. All assumptions are prescribed by Statutes, the LCPR, or the Board of Trustees.

Investment Return	Pre-retirement - 8.00% per annum for the time period after June 30, 2013 through June 30, 2017, and 8.50% per annum thereafter. Post-retirement - 5.50% per annum for the time period after June 30, 2013 through June 30, 2017, and 6.00% per annum thereafter.
Benefit Increases After Retirement	Payment of 2.50% annual benefit increases after retirement are accounted for by using the 6.00% post-retirement assumption (5.5% during 4-year select period), as required by Minnesota Statute.
Payroll Growth	3.75% per year compounded annually
Salary Increases	Reported salary for prior fiscal year, with new hires annualized, increased to current fiscal year and annually for each future year according to the ultimate rates in the rate table based upon age.
Mortality	
Healthy Pre-retirement	RP 2000 non-annuitant generational mortality table projected with scale AA, white collar adjustment.
Healthy Post-retirement	RP 2000 annuitant generational mortality table projected with scale AA, white collar adjustment.
Disabled	RP 2000 disabled mortality table.
Retirement	Members retiring from active status are assumed to retire according to the age related rates as shown in rate table. Members who have attained the highest assumed retirement age will retire in one year.
Withdrawal	Select and ultimate rates based on actual plan experience. Ultimate rates after the third year are shown in the rate table. Select rates are as follows: First Year / Second Year / Third Year 25% / 20% / 15%
Disability	Age-related rates based on actual experience; see table of sample rates. All incidences are assumed to be duty-related.
Allowance for Combined Service Annuity	Liabilities for former members are increased by 30.00% to account for the effect of some members having eligibility for a Combined Service Annuity.
Administrative Expenses	Prior year administrative expenses expressed as percentage of prior year projected payroll.
Return of Contributions	All employees withdrawing after becoming eligible for a deferred benefit are assumed to take the larger of their contributions accumulated with interest or the value of their deferred benefit.
Commencement of Deferred Benefits	Members receiving deferred annuities (including current terminated deferred members) are assumed to begin receiving benefits at age 55.
Percentage Married	85% of active members are assumed to be married. Actual marital status is provided for members in payment status.
Age of Spouse	Females are assumed to be three years younger than their male spouses. For members in payment status, actual spouse date of birth is used, if provided.
Eligible Children	Retiring members are assumed to have no dependent children.

Summary of Actuarial Assumptions (continued)

Form of Payment	Married members retiring from active status are assumed to elect subsidized joint and survivor form of annuity as follows: Males: 40% elect Straight Life option 5% elect 25% J&S option 10% elect 50% J&S option 10% elect 75% J&S option 35% elect 100% J&S option Females: 80% elect Straight Life option 5% elect 25% J&S option 5% elect 50% J&S option 5% elect 75% J&S option 5% elect 100% J&S option Members receiving deferred annuities (including current terminated deferred members) are assumed to elect a straight life annuity.
Eligibility Testing	Eligibility for benefits is determined based upon the age and service on the date the decrement is assumed to occur. Age is calculated as the age nearest birthday at the valuation date. Service at the valuation date is as reported by the fund. For mid-year decrements, 0.5 is added to each calculated age and service.
Decrement Operation	Withdrawal decrements do not operate during retirement eligibility.
Service Credit Accruals	It is assumed that members accrue one year of service credit per year.
Changes in Actuarial Assumptions	None.
Unknown Data for Members	Where data reported by PERA was missing or incomplete, the following assumptions were applied: Age: 47 Gender: Male Salary: Prior year salary if available, otherwise high five salary with a 10% load to account for salary increases. If neither prior year salary nor high five salary was available, $35,000 was assumed.

Summary of Actuarial Assumptions (continued)

Summary of Rates

	Mortality Rates (%)					
	Healthy Pre-Decrement *		Healthy Post-Decrement*		Disabled	
Age	Male	Female	Male	Female	Male	Female
20	0.03%	0.02%	0.10%	0.03%	2.26%	0.75%
25	0.04	0.02	0.11	0.03	2.26	0.75
30	0.04	0.03	0.11	0.04	2.26	0.75
35	0.06	0.05	0.18	0.07	2.26	0.75
40	0.09	0.06	0.27	0.10	2.26	0.75
45	0.13	0.10	0.41	0.16	2.26	0.75
50	0.20	0.16	0.60	0.24	2.90	1.15
55	0.33	0.26	0.54	0.35	3.54	1.65
60	0.56	0.47	0.66	0.56	4.20	2.18
65	1.11	0.87	1.16	0.91	5.02	2.80
70	1.93	1.52	1.93	1.52	6.26	3.76

* The rates shown above are further adjusted in the valuation to apply generational mortality improvement using projection scale AA.

	Ultimate Withdrawal		Disability	
Age	Male	Female	Male	Female
20	14.70%	14.20%	0.04%	0.04%
25	14.70	14.20	0.06	0.06
30	9.10	11.40	0.10	0.08
35	6.00	8.60	0.18	0.11
40	4.40	6.90	0.23	0.18
45	3.40	4.30	0.34	0.39
50	2.40	3.10	0.55	0.70
55	1.40	2.20	0.88	1.18
60	0.00	0.00	1.41	2.41
65	0.00	0.00	1.67	2.67

Summary of Actuarial Assumptions (concluded)

Summary of Rates

Age	Retirement
50	3%
51	2
52	2
53	2
54	5
55	20
56	8
57	8
58	8
59	8
60	15
61	15
62	30
63	30
64	30
65	40
66	40
67	40
68	40
69	40
70+	100

Salary Scale	
Age	Increase
20	9.00%
25	7.75
30	6.75
35	6.25
40	5.75
45	5.00
50	5.00
55	4.75
60	4.25
65	4.00
70+	4.00

Summary of Plan Provisions

This summary of provisions reflects the interpretation of applicable Statutes for purposes of preparing this valuation. This interpretation is not intended to create or rescind any benefit rights in conflict with any Minnesota Statutes.

Plan Year	July 1 through June 30
Eligibility	Local government employees in covered correctional service for a county administered jail or correctional facility or in a regional correctional facility administered by multiple counties, who are directly responsible for security, custody and control of persons confined in jail or facility, who are expected to respond to incidents within the jail or facility, and who are not members of the Public Employees Police and Fire Fund.
Contributions	Shown as a percent of salary: Member: 5.83% of salary; Employer: 8.75% of salary. Member contributions are "picked up" according to the provisions of Internal Revenue Code 414(h).
Allowable Service	Local Government Correctional Service during which member contributions were made (effective July 1, 1999). May also include certain leaves of absence, military service and periods while temporary Worker's Compensation is paid.
Average Salary	Average of the five highest successive years of annual salary. Average salary is based on all Allowable Service if less than five years.
Salary	Includes amounts deducted for deferred compensation or supplemental retirement plans, net income from fees and sick leave payments funded by the employer. Excludes unused annual leaves and sick leave payments, severance payments, Workers' Compensation benefits and employer-paid flexible spending accounts, cafeteria plans, healthcare expense accounts, day-care expenses, fringe benefits and the cost of insurance coverage.
Vesting	Hired before July 1, 2010: 100% vested after 3 years of Allowable Service. Hired after June 30, 2010: 50% vested after 5 years of Allowable Service; 60% vested after 6 years of Allowable Service; 70% vested after 7 years of Allowable Service; 80% vested after 8 years of Allowable Service; 90% vested after 9 years of Allowable Service; 100% vested after 10 years of Allowable Service

Summary of Plan Provisions (continued)

Retirement	
Normal Retirement Benefit	
Age/Service Requirements	Age 55 and vested. Proportionate retirement annuity is available at age 65 and one year of allowable Service.
Amount	1.9% of Average Salary for each year of Allowable Service, pro-rata for completed months.
Early Retirement	
Age/Service Requirements	Age 50 and vested.
Amount	Normal Retirement Benefit based on Allowable Service and Average Salary at retirement date with actuarial reduction to commencement age assuming 3% augmentation to age 55 (2.50% if hired after June 30, 2006).
Form of Payment	Life annuity. Actuarially equivalent options are: 25%, 50%, 75% or 100% Joint and Survivor with bounce back feature without additional reduction.
Benefit Increases	Because the accrued liability funding ratio (on a Market Value of Assets basis) as of July 1, 2012 was less than 90%, benefit recipients received a post-retirement benefit increase of 1.0% on January 1, 2013. If the funding ratio reaches 90% for two consecutive years, the benefit increase will revert to 2.5%. If, after reverting to a 2.5% benefit increase, the funding ratio declines to less than 80% for one year or less than 85% for two consecutive years, the benefit increase will decrease to 1.0%. A benefit recipient who has been receiving a benefit for at least 12 full months as of June 30 will receive a full increase. Members receiving benefits for at least one month but less than 12 full months as of June 30 will receive a pro rata increase.

Summary of Plan Provisions (continued)

Disability	
Duty Disability	
Age/Service Requirement	Member who cannot perform his duties as a direct result of a disability relating to an act of duty that is inherently dangerous and specific to protecting the property and personal safety of others.
Amount	47.50% of Average Salary plus 1.90% of Average Salary for each year in excess of 25 years of Allowable Service (pro rata for completed months). Payment begins at disability and ends at age 65 or earlier if disability ceases or death occurs. Benefits may be paid upon re-employment but salary plus benefit cannot exceed current salary of position held at time of disability.
Regular Disability	
Age/Service Requirement	At least one year of Allowable Service and a disability preventing member from performing normal duties that arise out of activities not related to covered employment or while at work, activities related to duties that do not present inherent dangers specific to occupation.
Amount	Normal Retirement Benefit based on Allowable Service (minimum of 10 years) and Average Salary at disability. Payment begins at disability and ends at age 65 or earlier if disability ceases or death occurs. Benefits may be paid upon re-employment but salary plus benefit cannot exceed current salary of position held at time of disability.
Retirement Benefit	
Age/Service Requirement	Age 65 with continued disability.
Amount	Any optional annuity continues. Otherwise, the larger of the disability benefit paid before age 65 or the normal retirement benefit available at age 65, or an actuarially equivalent optional annuity.
Form of Payment	Same as for retirement.
Benefit Increases	Same as for retirement.

Summary of Plan Provisions (continued)

Death	
Surviving Spouse Benefit	
Age/Service Requirement	Vested active member at any age or vested former member age 50 or older who dies before retirement or disability benefit commences. If an active member dies, benefits may commence immediately, regardless of age.
Amount	Surviving spouse receives the 100% joint and survivor benefit using the Normal Retirement formula above. If commencement is prior to age 55, the appropriate early retirement formula described above applies except that one-half the monthly reduction factor is used from age 50 to the commencement age. In lieu of this benefit, the surviving spouse may elect a refund of contributions with interest or an actuarially equivalent term certain annuity (lump sum payable to estate at death).
Benefit Increases	Same as for retirement.
Surviving Dependent Children's Benefit	
Age/Service Requirement	If no surviving spouse, all dependent children (biological or adopted) below age 20 who are dependent for more than half of their support on deceased member.
Amount	Actuarially equivalent to surviving spouse 100% joint and survivor annuity payable to the later of age 20 or five years. The amount is to be proportionally divided among surviving children.
Refund of Contributions	
Age/Service Requirement	Active employee dies and survivor benefits paid are less than member's contributions or a former employee dies before annuity begins.
Amount	If no survivor benefits are paid, the member's contributions with 6.00% interest until June 30, 2011; 4.00% interest thereafter. If survivor benefits are paid and accumulated contributions exceed total payments to the surviving spouse and children, then the remaining contributions are paid out.

Summary of Plan Provisions (continued)

Termination	
Refund of Contributions	
Age/Service Requirements	Termination of local government service.
Amount	If member terminated before July 1, 2011, member's contributions credited with 6% interest compounded annually prior to July 1, 2011 and 4% interest thereafter. If member terminated after June 30, 2011, member's contributions credited with 4% interest compounded annually.
Deferred Benefit	
Age/Service Requirements	A deferred annuity may be elected in lieu of a refund if vested. Partial or fully vested.
Amount	Benefit computed under law in effect at termination and increased by the following "augmentation" percentage compounded annually for terminations prior to 2012: 3.00% (2.50% if hired after June 30, 2006) thereafter until the earlier of January 1 of the year following attainment of age 55 and January 1, 2012; 5.00% (2.50% if hired after June 30, 2006) thereafter until the earlier of the date the annuity begins and January 1, 2012; and 1.00% from January 1, 2012 thereafter. Members who terminate after 2011 will receive no future augmentation.
Form of Payment	Same as for retirement.
Optional Form Conversion Factors	Actuarially equivalent factors based on RP-2000 for healthy annuitants, white collar adjustment, projected to 2026 using scale AA, no setbacks, blended 65% males and 6.0% interest.

Summary of Plan Provisions (concluded)

Combined Service Annuity	Members are eligible for combined service benefits if they: Meet minimum retirement age for each plan participated in and total public service meets the vesting requirements of each plan; or Have three or more years of service under PERA and the covered fund(s) (if hired prior to July 1, 2010). Other requirements for combined service include: (a) Member must have at least six months of allowable service credit in each plan worked under. (b) Member may not be in receipt of a benefit from another plan. Members who meet the above requirements must have their benefit based on the following: (a) Allowable service in all covered plans is combined in order to determine eligibility for early retirement. (b) Average salary is based on the high five consecutive years during their entire service in all covered plans.
Changes in Plan Provisions	The funding ratio threshold that must be attained to pay a 2.5% postretirement benefit increase to benefit recipients was changed from 90% for one year to 90% for two consecutive years. The funding ratio threshold that determines when a 1.0% postretirement benefit increase must be paid was changed from less than 90% for one year to less than 80% for one year or less than 85% for two consecutive years after reverting to a 2.5% benefit increase. The definition of Duty Disability was changed to add a requirement that an act of duty "that is inherently dangerous".

Local Government Correctional Service Retirement Plan

Active Members as of June 30, 2013

	Years of Service								
Age	<1	1-4	5-9	10-14	15-19	20-24	25-29	30+	ALL
<25	122	56	0	0	0	0	0	0	178
25-29	127	268	103	1	0	0	0	0	499
30-34	69	173	280	47	0	0	0	0	569
35-39	37	83	160	159	0	0	0	0	439
40-44	22	89	144	255	0	0	0	0	510
45-49	33	44	102	262	0	0	0	0	441
50-54	23	37	85	257	0	0	0	0	402
55-59	12	19	53	199	0	0	0	0	283
60-64	6	6	31	100	1	0	0	0	144
65+	3	4	5	16	0	0	0	0	28
ALL	454	779	963	1,296	1	0	0	0	3,493

Average Annual Earnings

	Years of Service								
Age	<1	1-4	5-9	10-14	15-19	20-24	25-29	30+	ALL
<25	18,396	32,176	0	0	0	0	0	0	22,731
25-29	21,523	38,584	45,328	48,490	0	0	0	0	35,653
30-34	19,518	39,637	49,140	53,276	0	0	0	0	43,000
35-39	25,183	40,802	50,508	57,404	0	0	0	0	49,036
40-44	20,798	38,630	50,911	59,531	0	0	0	0	51,778
45-49	34,961	41,350	53,269	61,227	0	0	0	0	55,437
50-54	22,230	38,445	49,168	60,854	0	0	0	0	54,110
55-59	32,233	32,514	50,222	61,165	0	0	0	0	55,965
60-64	55,425	33,074	45,375	58,243	71,509	0	0	0	54,398
65+	6,159	20,977	35,179	57,539	0	0	0	0	42,818
ALL	22,283	38,467	49,530	59,766	71,509	0	0	0	47,325

Local Government Correctional Service Retirement Plan

Service Retirements as of June 30, 2013

	Years Retired							
Age	<1	1-4	5-9	10-14	15-19	20-24	25+	ALL
<50	0	0	0	0	0	0	0	0
50-54	4	9	0	0	0	0	0	13
55-59	28	52	9	0	0	0	0	89
60-64	29	88	38	1	0	0	0	156
65-69	14	65	55	15	0	0	0	149
70-74	1	16	36	23	0	0	0	76
75-79	0	2	7	12	0	0	0	21
80-84	0	0	0	3	0	0	0	3
85+	0	0	0	0	0	0	0	0
ALL	76	232	145	54	0	0	0	507

Average Annual Benefit

	Years Retired							
Age	<1	1-4	5-9	10-14	15-19	20-24	25+	ALL
<50	0	0	0	0	0	0	0	0
50-54	9,263	7,421	0	0	0	0	0	7,988
55-59	11,560	8,905	5,973	0	0	0	0	9,444
60-64	10,320	9,503	5,242	3,274	0	0	0	8,577
65-69	10,803	8,319	5,332	2,399	0	0	0	6,854
70-74	696	5,620	4,886	1,839	0	0	0	4,063
75-79	0	2,877	3,585	920	0	0	0	1,995
80-84	0	0	0	1,220	0	0	0	1,220
85+	0	0	0	0	0	0	0	0
ALL	10,684	8,631	5,153	1,783	0	0	0	7,215

Local Government Correctional Service Retirement Plan

Survivors as of June 30, 2013

	Years Since Death							
Age	<1	1-4	5-9	10-14	15-19	20-24	25+	ALL
<50	1	3	0	1	0	0	0	5
50-54	1	2	3	0	0	0	0	6
55-59	0	1	0	1	0	0	0	2
60-64	2	3	4	1	0	0	0	10
65-69	1	0	1	2	0	0	0	4
70-74	1	1	1	0	0	0	0	3
75-79	0	0	1	0	0	0	0	1
80-84	0	0	0	0	0	0	0	0
85+	0	0	0	0	0	0	0	0
ALL	6	10	10	5	0	0	0	31

Average Annual Benefit

	Years Since Death							
Age	<1	1-4	5-9	10-14	15-19	20-24	25+	ALL
<50	10,292	6,958	0	211	0	0	0	6,275
50-54	19,590	9,877	4,653	0	0	0	0	8,884
55-59	0	6,693	0	1,004	0	0	0	3,849
60-64	14,050	7,433	4,526	20,740	0	0	0	8,925
65-69	4,015	0	8,919	4,720	0	0	0	5,593
70-74	8,788	2,122	7,026	0	0	0	0	5,979
75-79	0	0	502	0	0	0	0	502
80-84	0	0	0	0	0	0	0	0
85+	0	0	0	0	0	0	0	0
ALL	11,798	7,174	4,851	6,279	0	0	0	7,175

Local Government Correctional Service Retirement Plan

Disability Retirements as of June 30, 2013

	Years Disabled							
Age	<1	1-4	5-9	10-14	15-19	20-24	25+	ALL
<50	4	19	9	1	0	0	0	33
50-54	0	6	10	4	0	0	0	20
55-59	0	13	12	7	0	0	0	32
60-64	0	12	20	6	0	0	0	38
65-69	1	13	3	3	0	0	0	20
70-74	0	1	6	0	0	0	0	7
75-79	0	0	1	1	0	0	0	2
80-84	0	0	0	0	0	0	0	0
85+	0	0	0	0	0	0	0	0
ALL	5	64	61	22	0	0	0	152

Average Annual Benefit

	Years Disabled							
Age	<1	1-4	5-9	10-14	15-19	20-24	25+	ALL
<50	12,809	13,741	17,596	24,886	0	0	0	15,017
50-54	0	9,248	17,156	26,996	0	0	0	16,752
55-59	0	15,940	17,773	17,371	0	0	0	16,940
60-64	0	13,374	15,355	17,249	0	0	0	15,028
65-69	6,642	15,468	20,937	21,853	0	0	0	16,805
70-74	0	7,689	12,620	0	0	0	0	11,915
75-79	0	0	13,007	510	0	0	0	6,759
80-84	0	0	0	0	0	0	0	0
85+	0	0	0	0	0	0	0	0
ALL	11,575	13,954	16,424	19,274	0	0	0	15,637

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