Lauterbach & Amen, LLP
668 N. River Road
Naperville, IL 60563

Actuarial Valuation
as of May 1, 2019

VILLAGE OF ALSIP, ILLINOIS

Utilizing Data as of April 30, 2019
For the Contribution Year May 1, 2019 to April 30, 2020

LAUTERBACH & AMEN, LLP

Actuarial Valuation – OPEB Funding Recommendation

Lauterbach & Amen, LLP

CERTIFIED PUBLIC ACCOUNTANTS

VILLAGE OF ALSIP, ILLINOIS

Contribution Year Ending: April 30, 2020
Actuarial Valuation Date: May 1, 2019
Utilizing Data as of April 30, 2019

Submitted by:

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August 28, 2019

LAUTERBACH & AMEN, LLP

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ACTUARIAL CERTIFICATION

This report documents the results of the actuarial valuation of Village of Alsip, Illinois's Other Postemployment Benefits (OPEB) Plan. The purpose is to report the actuarial contribution requirement for the contribution year May 1, 2019 to April 30, 2020. Determinations for purposes other than meeting the employer's actuarial contribution requirements may be significantly different from the results herein. The results shown throughout this report are based on the intentions and structure of the Village and Village reserves. Note that GASB does not require funding and does not provide any mandates on funding if it is elected.

The results in this report are based on information and data submitted by the Village of Alsip, Illinois. This is the first year we have prepared the OPEB funding actuarial valuation as this is the first year the OPEB Plan is funded by a designated OPEB Trust. An audit of the information was not performed, but high-level reviews were performed for general reasonableness, as appropriate, based on the purpose of the valuation. The accuracy of the results is dependent upon the accuracy and completeness of the underlying information. The results of the actuarial valuation and these supplemental disclosures rely on the information provided.

The valuation results summarized in this report involve actuarial calculations that require assumptions about future events. The Village of Alsip, Illinois selected certain assumptions, while others were the result of guidance and/or judgment. We believe that the assumptions used in this valuation are reasonable and appropriate for the purposes for which they have been used.

To the best of our knowledge, all calculations are in accordance with the applicable funding requirements, and the procedures followed and presentation of results conform to generally accepted actuarial principles and practices. The undersigned of Lauterbach & Amen, LLP, with actuarial credentials, meets the Qualification Standards of the American Academy of Actuaries to render this Actuarial Opinion. There is no relationship between the Village of Alsip, Illinois and Lauterbach & Amen, LLP that impairs our objectivity.

The information contained in this report was prepared for the use of the Village of Alsip, Illinois in connection with our actuarial valuation. It is not intended or necessarily suitable for other purposes. It is intended to be used in its entirety to avoid misrepresentations.

Respectfully Submitted,

LAUTERBACH & AMEN, LLP

Todd A. Schroeder

Todd A. Schroeder, EA

MANAGEMENT SUMMARY

Contribution Recommendation
Funded Status
Management Summary
Actuarial Recommended Contribution – Reclassification

CONTRIBUTION RECOMMENDATION

	Prior Valuation	Current Valuation
OPEB Contribution Recommendation^	$2,942,824	$2,211,986
Annual Covered Payroll	$8,573,319	$8,839,089
Contribution Recommendation as a Percent of Annual Covered Payroll	34.33%	25.03%

The Recommended Contribution has Decreased by $730,838 from the Prior Valuation.

^The Contribution Recommendation for the current valuation includes $0 for administrative expenses. In future years, the contribution will include an administrative cost based upon the three-year average of administrative expenses.

FUNDED STATUS

	Prior Valuation	Current Valuation
Normal Cost	$680,590	$647,999
Administrative Expenses	$0	$0
Market Value of Trust Assets	$8,910,891	$11,850,193
Actuarial Value of Assets	$8,910,891	$12,242,272
Actuarial Accrued Liability	$33,646,876	$34,659,557
Unfunded Actuarial Accrued Liability	$24,735,985	$22,417,285
Percent Funded		
Market Value of Assets	26.48%	35.32%
Actuarial Value of Assets	26.48%	34.19%

The Percent Funded has Increased by 8.84% on an Actuarial Value of Assets Basis.

Management Summary – Comments and Analysis

This is the second funding report for the Village of Alsip, Illinois. The Village is currently in the process of setting up a Trust dedicated to the payment of OPEB benefits. The results shown throughout this report are based on the intentions and structure of the Village and Village reserves. Note that GASB does not require funding and does not provide any mandates on funding if it is elected.

Contribution Results

The contribution recommendation is based on the funding policies and procedures that are outlined in the “Actuarial Funding Policies” section of this report.

OPEB Plan Risks

Asset Growth:

OPEB funding involves preparing plan assets to pay benefits for the members when they retire. During their working careers, assets need to build with contributions and investment earnings, and then the OPEB plan distributes assets during retirement. As the Village is currently in the process of setting up an OPEB Trust, there are no plan assets in existence to evaluate for the current year.

Asset growth is important long-term. Long-term cash flow out of the OPEB Trust is primarily benefit payments. Expenses make up a smaller portion. The plan should monitor the impact of expected benefit payments and the impact on asset growth in the future. In the next 5 years, benefit payments are anticipated to increase 15-20%, or approximately $190,000. In the next 10 years, the expected increase in benefit payments is 35-40%, or approximately $450,000.

Unfunded Liability:

Unfunded liability represents dollars we expect to be in the OPEB Trust already for the plan members based on funding policy. To the extent dollars are not in the plan, the plan is losing investment returns on those dollars going forward. Payments to unfunded liability pay for the lost investment earnings, as well as the outstanding unfunded amount. If payment is not made, the unfunded liability will grow.

The current contribution includes a payment to unfunded liability that is approximately $65,000 greater than the interest on the unfunded liability. All else being equal and contributions being made, unfunded liability would still be expected to decrease. The Village and the plan should anticipate currently that improvement in the funded percent will be mitigated in the short-term. The Village and the plan should understand this impact as we progress forward to manage expectations.

Actuarial Value of Assets:

The OPEB plan smooths asset returns that vary from expectations over a five-year period. The intention over time is that asset returns for purposes of funding recommendations are a combination of several years. The impact is intended to smooth out the volatility of contribution recommendations over time, but not necessarily increase or decrease the level of contributions over the long-term.

When asset returns are smoothed, there are always gains or losses on the Market Value of Assets that are going to be deferred for current funding purposes and recognized in future years. Currently, the Fund is deferring approximately $390,000 in losses on the Market Value of Assets. These are asset losses that will be recognized in upcoming periods, independent of future performance of the Market Value of Assets.

Plan Assets

The results in this report are based on the assets held in the OPEB plan. Assets consist of funds held for investment and for benefit payments as of the valuation date. In addition, assets may be adjusted for other events representing dollars that are reasonably expected to be paid out from the OPEB plan or deposited into the OPEB plan after the actuarial valuation date as well.

The current Fund assets are unaudited. The Village is in the process of setting up a Trust dedicated to the payment of OPEB benefits. The current Fund assets are based upon monies set aside for the Trust.

The Fund Assets Used in this Report are Unaudited

The actuarial value of assets under the funding policy is equal to the fair market value of assets, with unexpected gains and losses smoothed over 5 years. More detail on the Actuarial Value of Assets can be found in the funding policy section of the report.

Demographic Data

Demographic factors can change from year to year within an OPEB plan. Changes in this category include hiring new employees who are eligible for OPEB benefits, employees retiring and continuing or waiving OPEB benefits, retirees receiving OPEB benefits passing away, and other changes. Demographic changes can cause an actuarial gain (contribution that is less than expected compared to the prior year) or an actuarial loss (contribution that is greater than expected compared to the prior year).

Demographic gains and losses occur when the assumptions over the one-year period for employee changes do not meet our long-term expectation. For example, if all retiring participants waive OPEB benefits during the year, we would expect a liability gain. If more retiring participants elect spousal coverage than anticipated last year, we would expect a liability loss. Generally, we expect short-term fluctuations in demographic experience to create 1%-3% gains or losses in any given year, but to balance out in the long-term.

In the current report, the key demographic changes were as follows:

New Hires: There are 32 new active participants in the current census. Since these new participants will not be eligible for Village-paid coverage once Medicare-eligible, this caused a decrease in the actuarial liability in the current year.

Retirement: There was 1 active participant who retired since the prior valuation and did not continue coverage. Since we assume 100% participation at retirement, this caused a decrease in the actuarial liability in the current year.

Mortality: There were 3 retirees who passed since the prior valuation. They passed away sooner than expected which caused a decrease in the actuarial liability in the current year.

Changes

The current valuation includes explicit liability based on the 40% Excise Tax. The tax is assumed to be applied for annual health plan costs that exceed $11,850 for single coverage and $30,950 for non-single coverage. This threshold is assumed to increase by the CPI-U plus 1% in 2019 and just by the CPI-U thereafter. The CPI-U is assumed to be 2.50%.

Funding Policy Changes

The Funding Policy was not changed from the prior year.

ACTUARIAL RECOMMENDED CONTRIBUTION – RECONCILIATION

Actuarial Accrued Liability is expected to increase each year for both interest for the year and as active employees earn additional service years towards retirement. Similarly, Actuarial Accrued Liability is expected to decrease when the Plan pays benefits to inactive participants.

	Actuarial Liability	Recommended Contribution
Prior Valuation	$33,646,876	$ 2,942,824
Expected Changes	1,394,591	88,285
Initial Expected Current Valuation	$ 35,041,467	$ 3,031,109

Other increases or decreases in Actuarial Accrued Liability (key changes noted below) will increase or decrease the amount of Unfunded Liability in the plan. To the extent Unfunded Liability increases or decreases unexpectedly, the contribution towards Unfunded Liability will also change unexpectedly.

	Actuarial Liability	Recommended Contribution
Demographic Changes	(1,074,287)	(175,521)
Differences Between Expected and Actual Experience ^	692,377	95,479
Seed Funding		(749,622)
Asset Return Less than Expected *	-	5,419
Contributions Less than Expected	-	5,122
Total Actuarial Experience	$ (381,910)	$ (819,123)
Current Valuation	$ 34,659,557	$ 2,211,986

^The differences between expected and actual experience is based on the inclusion of the Excise Tax in the current valuation.

*The impact on contribution due to asset performance is based on the Actuarial Value of Assets.

Key demographic changes were discussed in the *Demographic Data* section of this report.

Changes in assumptions were discussed in the *Assumption Changes* section of this report.

VALUATION OF PLAN ASSETS

Fair Market Value of Assets
Actuarial Value of Assets

FAIR MARKET VALUE OF ASSETS

Statement of Assets

	Prior Valuation	Current Valuation
Cash and Cash Equivalents	$ 8,910,000	$ 9,000,000
Fixed Income	-	-
Mutual Funds	-	-
Receivables (Net of Payables) ^	-	2,850,193
Net Assets Available for OPEB Benefits	$ 8,910,000	$ 11,850,193

The Total Value of Assets has Increased Approximately $2,940,000 from Prior Valuation.

Statement of Changes in Assets

Total Market Value - Prior Year	$ 8,910,891
Plus - Employer Contributions ^	2,850,193
Plus - Employee Contributions	-
Plus - Return on Investments	89,109
Less - Benefit and Related Payments	-
Less - Other Expenses	-
Total Market Value - Current Valuation	$ 11,850,193

The Return on Investment on the Market Value of Assets for the Plan was Approximately 0.9% Net of Administrative Expenses.

^The above shown receivable is our recommended contribution for the fiscal year ended April 30, 2018 of $2,942,824, discounted by half a years' worth of interest.

The return on investments will be determined as the Return on Assets from the statement of changes in assets, as a percent of the average of the beginning and ending Market Value of Assets. Return on Investment will not be net of the Other Expenses as shown, as the Village will explicitly handle the cost of the administrative expense for the OPEB plan. The Return on Investments will be excluded from the Total Fair Market Value of Assets at the end of the year for future calculation. The assets will be reviewed for reasonableness, but we will make no representation as to the accuracy of the measurement of the fair market value of the investments or the designation as an irrevocable Trust used solely for the purpose of paying OPEB benefits.

MARKET VALUE OF ASSETS (GAIN)/LOSS

Current Year (Gain)/Loss on Market Value of Assets

Total Market Value - Prior Year	$	8,910,891
Contributions		2,850,193
Benefit Payments		-
Expected Return on Investments		579,208
Expected Total Market Value - Current Valuation		12,340,292
Actual Total Market Value - Current Valuation		11,850,193
Current Market Value (Gain)/Loss	$	490,099
Expected Return on Investments	$	579,208
Actual Return on Investments (Net of Expenses)		89,109
Current Market Value (Gain)/Loss	$	490,099

The Return on the Market Value of Assets was Lower than Expected Over the Most Recent Year.

The (Gain)/Loss on the Market Value of Assets has been determined based on the Expected Return on Investments as shown in the *Actuarial Assumptions* section of this report.

DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS

Total Market Value - Current Valuation		$ 11,850,193
Adjustment for Prior (Gains)/Losses		
	Full Amount	
First Preceding Year	$ 490,099	392,079
Second Preceding Year	-	-
Third Preceding Year	-	-
Fourth Preceding Year	-	-
Total Deferred (Gain)/Loss		392,079
Initial Actuarial Value of Assets - Current Valuation		$ 12,242,272
Less Contributions for the Current Year and Interest		-
Less Adjustment for the Corridor		-
Actuarial Value of Assets - Current Valuation		$ 12,242,272

The Actuarial Value of Assets is Equal to the Fair Market Value of Assets with Unanticipated Gains/Losses Recognized over 5 Years. The Actuarial Value of Assets is Currently 103% of the Market Value.

(GAIN)/LOSS ON THE ACTUARIAL VALUE OF ASSETS

Total Actuarial Value - Prior Valuation	$ 8,910,891
Plus - Employer Contributions	2,850,193
Plus - Employee Contributions	-
Plus - Return on Investments	481,188
Less - Benefit and Related Payments	-
Less - Other Expenses	-
Total Actuarial Value - Current Valuation	$ 12,242,272

The Return on Investment on the Actuarial Value of Assets for the Plan was Approximately 4.7% Net of Administrative Expenses.

The Actuarial Value of Assets incorporates portions of gains and losses over multiple years.

HISTORICAL ASSET PERFORMANCE

The chart below shows the historical rates of return on plan assets for both Market Value of Assets and Actuarial Value of Assets.

	Market Value	Actuarial Value
First Preceding Year	0.9%	4.7%
Second Preceding Year	N/A	N/A

The historical Rates of Return on Investments shown above were calculated based on the annual Return on Investment for the year, as a percentage of the average value of the assets for the year.

For purposes of determining the average value of assets during the year, the ending Market Value of Assets has been adjusted to net out to the portion related to the investment returns themselves. All other cash flows are included.

For purposes of determining the annual Return on Investment we have adjusted the figures shown on the preceding pages. The figures shown on the preceding pages are net of Investment Expenses. We have made an additional adjustment to net out Administrative Expenses. Netting out Administrative Expenses allows us to capture returns for the year that can be used to make benefit payments as part of the ongoing actuarial process.

The adjustment we make is for actuarial reporting purposes only. By netting out Administrative Expenses and capturing investment returns that are available to pay benefits, it provides us a comparison to the Expected Return on Investments, but does not provide a figure that would be consistent with the return rates that are determined by other parties. Therefore, this calculated rate of return should not be used to analyze investment performance of the Fund or the performance of the investment professionals.

RECOMMENDED CONTRIBUTION DETAIL

Actuarial Accrued Liability
Funded Status
Contribution Recommendation
Normal Cost as a Percentage of Expected Payroll
Schedule of Amortization – Unfunded Actuarial Liability
Actuarial Methods – Recommended Contribution

ACTUARIAL ACCRUED LIABILITY

	Prior Valuation	Current Valuation
Total Active Employees	$ 13,108,075	$ 13,143,761
Inactive Employees		
Currently Receiving Benefit Payments	20,538,801	21,515,796
Entitled to But Not Yet Receiving Benefit Payments	-	-
Total Inactive Employees	20,538,801	21,515,796
Total Actuarial Accrued Liability	$ 33,646,876	$ 34,659,557

The Total Actuarial Liability has Increased $1,012,681 from Prior Year.

FUNDED STATUS

	Prior Valuation	Current Valuation
Total Actuarial Accrued Liability	$ 33,646,876	$ 34,659,557
Total Actuarial Value of Assets	8,910,891	12,242,272
Unfunded Actuarial Accrued Liability	$ 24,735,985	$ 22,417,285
Total Market Value of Assets	$ 8,910,891	$ 11,850,193
Percent Funded		
Actuarial Value of Assets	26.48%	35.32%
Market Value of Assets	26.48%	34.19%

Funded Percentage as of the Valuation Date is Subject to Volatility on Assets and Liability in the Short-Term.

RECOMMENDED CONTRIBUTION DETAIL

Contribution Recommendation

	Prior Valuation	Current Valuation
Employer Normal Cost*	$ 680,590	$ 690,119
Adminstrative Expenses	-	-
Amortization of Unfunded Accrued Liability/(Surplus)	2,262,234	1,521,867
Funding Requirement	$ 2,942,824	$ 2,211,986

The Recommended Contribution has Decreased 24.83% from the Prior Year.

*Employer Normal Cost Contribution includes interest through the end of the year.

Normal Cost as a Percentage of Expected Payroll

	Prior Valuation	Current Valuation
Expected Payroll	$ 8,787,652	$ 9,104,261
Employer Normal Cost Rate	7.27%	7.12%

Ideally, the Employer Normal Cost Rate will Remain Stable.

Schedule of Amortization – Unfunded Actuarial Liability

Below is the schedule of remaining amortization balances for the unfunded liability.

Unfunded Liability Base	Initial Balance	Date Established	Current Balance	Years Remaining	Payment
Initial Unfunded Liability	$ 33,646,876	4/30/2018	$ 24,174,222	21	1,677,853
New Unfunded Liability	$ (1,756,936)	4/30/2019	$ (1,756,936)	15	(155,986)
Total			**$ 22,417,285**		**$ 1,521,867**

ACTUARIAL METHODS – RECOMMENDED CONTRIBUTION

Actuarial Valuation Date	May 1, 2019
Data Collection Date	April 30, 2019
Actuarial Cost Method	Entry Age Normal (Level % of Pay)
Amortization Method	Level % of Pay (Closed)
Amortization Target	Layered - See Page 15
Asset Valuation Method	5- Year Smoothed Market Value

The contribution and benefit values of the plan are calculated by applying actuarial assumptions to the benefit provisions and census information furnished, using the actuarial cost methods described. The actuarial cost and amortization method allocates the projected obligations of the plan over the working lifetimes of the plan participants.

The recommended contribution amount shown in this report is based on the methods summarized on the previous page. The Actuarial Funding Policies section of the report will include a more detailed description of the funding methods being used.

The Actuarial Funding Methods are meant to provide a systematic process for determining contributions on an annual basis. The methods do not impact the expectation of future benefit payments. The methods only impact the way dollars are contributed towards future benefit payments.

Different Actuarial Funding Methods may achieve funding goals with differing levels of success. Certain methods are more efficient and more stable on an annual basis.

ACTUARIAL VALUATION DATA

Active Employees
Inactive Employees
Summary of Average Age and Service
Actuarial Numbers by Group

ACTUARIAL VALUATION DATA

ACTIVE EMPLOYEES

	Prior Valuation	Current Valuation
Not Yet Fully Eligible	113	111
Fully Eligible	9	7
Total Active Employees	122	118
Total Payroll	$ 8,573,319	$ 8,839,089

Participant count is shown as of the fiscal year end date. Pay is the total covered payroll as of the fiscal year end date. The above active census counts include 6 IMRF participants, 3 firefighter participants, and 2 police participants who have waived medical coverage. If an employee has waived active medical coverage, it is assumed they will elect coverage in the retiree medical plan at 1/3 the rate of active employees currently with coverage.

INACTIVE EMPLOYEES

	Prior Valuation	Current Valuation
Retired Employees	68	73
Disabled Employees	15	14
Total Inactive Employees	83	87

SUMMARY OF AVERAGE AGE AND SERVICE

	Prior Valuation	Current Valuation
Actives Not Yet Fully Eligible		
Average Age (in Years)	38	38
Average Service (in Years)	8	9
Actives Fully Eligible		
Average Age (in Years)	55	54
Average Service (in Years)	26	23
Retired Employees		
Average Age (in Years)	66	67
Disabled Employees		
Average Age (in Years)	61	62

ACTUARIAL NUMBERS BY GROUP

Division	Fire	Police	General Fund - IMRF	Road and Bridge Fund	Water Department	Total
Actuarial Accrued Liability						
Active Employees	$ 5,297,883	$ 5,114,736	$ 1,012,069	$ 1,037,587	$ 681,485	$ 13,143,761
Retired Employees	5,184,032	7,131,517	2,163,585	874,227	681,360	16,034,721
Disabled Employees	3,614,291	1,866,784	-	-	-	5,481,075
Total Actuarial Accrued Liability	$ 14,096,207	$ 14,113,037	$ 3,175,654	$ 1,911,814	$ 1,362,845	$ 34,659,557
Contribution Recommendation						
Employer Normal Cost*	$ 281,787	$ 290,601	$ 37,552	$ 50,460	$ 29,720	$ 690,119
Administrative Expense	-	-	-	-	-	-
Amortization of Unfunded Accrued Liability/(Surplus)	621,236	618,166	128,158	91,727	62,580	1,521,867
Funding Recommendation	$ 903,023	$ 908,767	$ 165,710	$ 142,187	$ 92,300	$ 2,211,986
Participant Counts						
Active Employees	40	43	14	13	8	118
Retired Employees	22	29	18	2	2	73
Disabled Employees	11	3	0	0	0	14
Total Participants	73	75	32	15	10	205
Active Employee Statistics						
Average Age (in Years)	39	35	0	39	43	39
Average Service (in Years)	10	9	0	10	11	10

*Employer Normal Cost Contribution includes interest through the end of the year.

ACTUARIAL FUNDING POLICIES

Actuarial Cost Method
Financing Unfunded Accrued Liability
Actuarial Value of Assets

ACTUARIAL FUNDING POLICIES

ACTUARIAL COST METHOD

The actuarial cost method allocates the projected obligations of the plan over the working lifetimes of the plan participants.

In accordance with the OPEB Plan's funding policy, the actuarial cost method for the recommended contribution basis is Entry Age Normal (Level Percent of Pay). The Entry Age Normal Cost Method is a method under which 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 or service of the individual between entry age and assumed exit age. The portion of this actuarial present value allocated to a valuation year is called normal cost. The portion of the actuarial present value not provided at a valuation date by the actuarial present value of future normal costs is called the actuarial liability.

FINANCING UNFUNDED ACTUARIAL ACCRUED LIABILITY

The Unfunded Actuarial Accrued Liability may be amortized over a period either in level dollar amounts or as a level percentage of projected payroll.

In accordance with the OPEB Plan's Funding Policy for the recommended contribution, the unfunded actuarial accrued liabilities are amortized by level percent of payroll contributions to a 100% funding target over a layered amortization target. See page 15 for further details.

ACTUARIAL VALUE OF ASSETS

The OPEB plan is an ongoing plan. The employer wishes to smooth the effect of volatility in the market value of assets on the annual contribution. The Actuarial Value of Assets is equal to the Market Value of Assets with unanticipated gains/losses recognized over five years.

The asset valuation method is intended to create an Actuarial Value of Assets that remains reasonable in relation to the Market Value of Assets over time. The method produces results that can fall above and below the Market Value of Assets. The period of recognition is short.

It is intended that the period of recognition is short enough to keep the Actuarial Value of Assets within a decent range of the Market Value. The employer has placed a corridor around the Market Value of Assets of 90% - 110%.

ACTUARIAL ASSUMPTIONS

Nature of Actuarial Calculations
Actuarial Assumptions in the Valuation Process
Actuarial Assumptions Utilized

ACTUARIAL ASSUMPTIONS

NATURE OF ACTUARIAL CALCULATIONS

The results documented in this report are estimates based on data that may be imperfect and on assumptions about future events. Certain plan provisions may be approximated or deemed immaterial, and, therefore, are not valued. Assumptions may be made about participant data or other factors. Reasonable efforts were made in this valuation to ensure that significant items in the context of the actuarial liabilities or costs are treated appropriately, and not excluded or included inappropriately.

Actual future experience will differ from the assumptions used in the calculations. As these differences arise, the expense for accounting purposes will be adjusted in future valuations to reflect such actual experience.

A range of results different from those presented in this report could be considered reasonable. The numbers are not rounded, but this is for convenience only and should not imply precision which is not inherent in actuarial calculations.

ACTUARIAL ASSUMPTIONS IN THE VALUATION PROCESS

The contribution and benefit values of the OPEB plan are calculated by applying actuarial assumptions to the benefit provisions and census information furnished, using the actuarial cost methods described in the previous section.

The principal areas of financial risk which require assumptions about future experience are:

- Long-term Rates of Investment Return
- Patterns of Pay Increases for Members
- Rates of Mortality Among Members and Beneficiaries
- Rates of Election of Coverage upon Retirement
- Rates of Disability Among Members
- Age Patterns of Actual Retirement

Actual experience of the OPEB plan will not coincide exactly with assumed experience. Each valuation provides a complete recalculation of assumed future experience and takes into account all past differences between assumed and actual experience. The result is a continual series of adjustments to the computed contribution requirement.

From time to time it becomes appropriate to modify one or more of the assumptions, to reflect experience trends (but not random year-to-year fluctuations).

ACTUARIAL ASSUMPTIONS UTILIZED

Assumptions (Economic)

Long-Term Expected Rate of Return on Plan Assets	6.50%
Total Payroll Increases	3.00%
Claims and Premiums	See Accompanying Tables
Healthcare Cost Trend Rates	See Accompanying Tables
Retiree Contribution Rates	Same as Healthcare Cost Trend Rates

Claims See accompanying tables for the HCA and HDHP with H.S.A. Plan data:

HCA				
	Retiree		**Spouse**	
Age	Male	Female	Male	Female
50	$10,240	$12,252	$17,625	$17,818
55	$12,999	$13,969	$17,599	$16,918
60	$16,267	$16,810	$18,668	$17,853
64	$19,250	$20,114	$20,185	$20,596
65	N/A	N/A	N/A	N/A
70	N/A	N/A	N/A	N/A
75	N/A	N/A	N/A	N/A
80	N/A	N/A	N/A	N/A
85	N/A	N/A	N/A	N/A
90+	N/A	N/A	N/A	N/A

ACTUARIAL ASSUMPTIONS UTILIZED – CONTINUED

Claims – Continued

HDHP with H.S.A.				
	Retiree		Spouse	
Age	Male	Female	Male	Female
50	$9,270	$11,092	$15,955	$16,130
55	$11,767	$12,646	$15,932	$15,316
60	$14,726	$15,218	$16,900	$16,162
64	$17,426	$18,208	$18,273	$18,645
65	N/A	N/A	N/A	N/A
70	N/A	N/A	N/A	N/A
75	N/A	N/A	N/A	N/A
80	N/A	N/A	N/A	N/A
85	N/A	N/A	N/A	N/A
90+	N/A	N/A	N/A	N/A

Blended Premium Rates See accompanying table for premiums charged for coverage:

Annual Blended Premiums				
	Under Age 65		Age 65-&-Over	
	Retiree	Spouse	Retiree	Spouse
HCA	$10,312	$9,991	N/A	N/A
HDHP with H.S.A.	$9,364	$9,060	N/A	N/A
Benistar	N/A	N/A	$5,782	$5,782

ACTUARIAL ASSUMPTIONS UTILIZED – CONTINUED

Health Care Trend Rates

Healthcare Trend
(FY = Fiscal Year)

Period	Medical U65	Medical 65+
FY 18 to FY 19	8.00%	5.00%
FY 19 to FY 20	7.50%	5.00%
FY 20 to FY 21	7.50%	5.00%
FY 21 to FY 22	7.00%	5.00%
FY 22 to FY 23	7.00%	5.00%
FY 23 to FY 24	6.50%	5.00%
FY 24 to FY 25	6.50%	5.00%
FY 25 to FY 26	6.00%	5.00%
FY 26 to FY 27	6.00%	5.00%
FY 27 to FY 28	5.50%	5.00%
FY 28 to FY 29	5.50%	5.00%
FY 29 to FY 30	5.00%	5.00%
Ultimate	5.00%	5.00%

Assumptions (Demographic)

Election at Retirement Rates

Election at retirement is assumed at the following rates:

IMRF	100%
Firefighters	100%
Police	100%
IMRF - Waiving Coverage	33%
Firefighters - Waiving Coverage	33%
Police - Waiving Coverage	33%

If an employee has waived active medical coverage, it is assumed they will elect coverage in the retiree medical plan at 1/3 the rate of active employees currently with coverage.

Spousal Election

Of those employees assumed to elect coverage in retirement, 75% are assumed to elect spousal coverage. Female spouses are assumed to be 3 years younger than male spouses.

ACTUARIAL ASSUMPTIONS UTILIZED – CONTINUED

Plan Participation Rate

Of those employees assumed to elect coverage in retirement, it is assumed they will elect coverage in the available medical plans at the following rates:

	IMRF	Firefighters	Police
HCA	100%	100%	100%
HDHP with H.S.A.	0%	0%	0%

Retiree Lapse Rates

Retirees receiving medical coverage are expected to lapse all coverages at age 65 at the following rates:

IMRF	0%
Firefighters	0%
Police	0%

Retirement Rates

IMRF 2017 for IMRF Employees

100% of the L&A Assumption Study Cap Age 65 for Firefighters 2016. Sample Rates as Follows:

Age	Rate	Age	Rate
50	0.068	53	0.111
51	0.080	54	0.132
52	0.094	55	0.155

100% of the L&A Assumption Study Cap Age 65 for Police 2016. Sample Rates as Follows:

Age	Rate	Age	Rate
50	0.117	53	0.139
51	0.124	54	0.147
52	0.131	55	0.156

ACTUARIAL ASSUMPTIONS UTILIZED – CONTINUED

Termination Rates

IMRF 2017 for IMRF Employees

100% of the L&A Assumption Study for Firefighters 2016. Sample Rates as Follows:

Age	Rate	Age	Rate
25	0.046	40	0.010
30	0.034	45	0.002
35	0.022	50	0.000

100% of the L&A Assumption Study for Police 2016. Sample Rates as Follows:

Age	Rate	Age	Rate
25	0.041	40	0.027
30	0.039	45	0.014
35	0.036	50	0.003

Disability Rates

IMRF 2017 for IMRF Employees

100% of the L&A Assumption Study for Firefighters 2016. Sample Rates as Follows:

Age	Rate	Age	Rate
25	0.0001	40	0.0030
30	0.0003	45	0.0055
35	0.0013	50	0.0092

100% of the L&A Assumption Study for Police 2016. Sample Rates as Follows:

Age	Rate	Age	Rate
25	0.0005	40	0.0028
30	0.0010	45	0.0043
35	0.0018	50	0.0064

ACTUARIAL ASSUMPTIONS UTILIZED – CONTINUED

Mortality Rates

Active IMRF Mortality follows the Sex Distinct Raw Rates as Developed in the RP-2014 Study. These Rates are Improved Generationally using MP-2017 Improvement Rates and Weighted Based on the IMRF December 31, 2017 Actuarial Valuation.

Retiree and Spousal IMRF Mortality follows the Sex Distinct Raw Rates as Developed in the RP-2014 Study, with Blue Collar Adjustment. These Rates are Improved Generationally using MP-2017 Improvement Rates.

Active Firefighter Mortality follows the Sex Distinct Raw Rates as Developed in the RP-2014 Study, with Blue Collar Adjustment. These Rates are Improved Generationally using MP-2016 Improvement Rates.

Retiree Firefighter Mortality follows the L&A Assumption Study for Firefighters 2016. These Rates are Experience Weighted with the Raw Rates as Developed in the RP-2014 Study, with Blue Collar Adjustment and Improved Generationally using MP-2016 Improvement Rates.

Active Police Mortality follows the Sex Distinct Raw Rates as Developed in the RP-2014 Study, with Blue Collar Adjustment. These Rates are Improved Generationally using MP-2016 Improvement Rates.

Retiree Police Mortality follows the L&A Assumption Study for Police 2016. These Rates are Experience Weighted with the Raw Rates as Developed in the RP-2014 Study, with Blue Collar Adjustment and Improved Generationally using MP-2016 Improvement Rates.

Disabled Mortality follows the Sex Distinct Raw Rates as Developed in the RP-2014 Study for Disabled Participants, with Blue Collar Adjustment. These Rates are Improved Generationally using MP-2016 Improvement Rates.

Spouse Mortality follows the Sex Distinct Raw Rates as developed in the RP-2014 Study. These rates are improved generationally using MP-2016 Improvement Rates.

SUMMARY OF PRINCIPAL PLAN PROVISIONS

Summary of Eligibility and Coverage
Medical/Prescription Coverage Provisions
Dental and Vision Coverage Provisions

SUMMARY OF ELIGIBILITY AND COVERAGE

Eligibility Provisions – To Retire with Applicable Pension

Full-Time Employees- IMRF, Police, and Fire

Tier I Full-Time IMRF employees:
Age 55 with at least 8 years of service (Reduced Pension)
Age 55 with at least 30 years of service (Reduced Pension)
Age 55 with at least 35 years of service (Full Pension)
Age 60 with at least 8 years of service (Full Pension)

Tier II Full-Time IMRF employees:
Age 62 with at least 10 years of service (Reduced Pension)
Age 62 with at least 30 years of service (Reduced Pension)
Age 62 with at least 35 years of service (Full Pension)
Age 67 with at least 10 years of service (Full Pension)

Tier I Full-Time Police Officers:
Age 50 with at least 20 years of service

Tier II Full-Time Police Officers:
Age 55 with at least 10 years of service

Tier I Full-Time Firefighters:
Age 50 with at least 20 years of service

Tier II Full-Time Firefighters:
Age 55 with at least 10 years of service

Eligibility Provisions – To Receive an OPEB Benefit

In order to receive the OPEB benefit from the Village, full-time employees must meet the applicable pension requirements detailed above and have a least 20 years of service.

Medical/Prescription Coverage

Types of Coverage:

Blue Cross Blue Shield HCA Medical Plan (No Post-Medicare Coverage)

Blue Cross Blue Shield HDHP with H.S.A. Medical Plan (No Post-Medicare Coverage)

Benistar Medical Plan (Post-Medicare Coverage Only)

Coverage Provisions

Note: There are current Retirees who have been grandfathered into a previous system based on the contract they retired under.

Retiree:

If an Employee meets the minimum statutory requirements for receipt of the full retirement pension benefits under the Illinois Pension Code at the time of retirement, the Employee will pay a % of the cost for whichever covered plan (Single, Family, etc.) they elect based on the graduated scale shown detailed at the end of this document. The Village pays the remaining applicable %.

Deferred Retiree:

Eligible employees who leave employment prior to retirement age and for whom the State of Illinois requires continued coverage, will be required to pay 100% of the current COBRA rates (Police and Fire) or 100% of the current premium rates (IMRF) until they are eligible to receive a pension. If a deferred retiree has met the 20 years of service requirement necessary to receive an OPEB benefit, upon obtaining pension eligibility age they will be subject to the same provisions as a typical retiree.

Duty-Disabled:

OPEB Tier I (hired before 4/19/2016):

For a non-PSEBA, the Employee will pay the Village employee rate for whichever covered plan they elect as dictated by State statue. Upon reaching normal retirement age, the appropriate Village ordinance stated above will apply.

For a PSEBA Employee, the Village pays for 100% of the cost of coverage for the

Duty-Disabled:

OPEB Tier II (hired after 4/18/2016):

For a non-PSEBA, the Employee will pay the Village employee rate for whichever covered plan they elect as dictated by State statue. Upon reaching normal retirement age, the appropriate Village ordinance stated above will apply.

For a PSEBA Employee, the Village pays for 100% of the cost of coverage for the Employee and all applicable dependents for life. They are permitted to remain on insurance past Medicare eligibility.

Dependents:

Dependent coverage may continue should the Retiree pass away, with the Dependent paying for the applicable percent of the premium they would be paying if the Retiree were alive.

OPEB Tier I (hired before 4/19/2016):

Should a Retiree become Medicare eligible while their eligible spouse is not, the Retiree would pay 10% of the Medicare plan rate with the Spouse continuing to pay the applicable % of the non-Medicare plan rate. Once the Spouse is Medicare eligible, they would then pay 10% of the Medicare plan rate as well. The rates for Dependent Children are not impacted by the Retiree and/or Spouse becoming Medicare eligible with continuation being based restrictions further detailed in the ACA.

OPEB Tier II (hired after 4/18/2016):

Should a Retiree become Medicare eligible while their eligible spouse is not, the Retiree would no longer be allowed to continue Village insurance with the Spouse continuing to pay the applicable % of the non-Medicare plan rate. Once the Spouse is Medicare eligible, they too would no longer be allowed to continue Village insurance. The rates for Dependent Children are not impacted by the Retiree and/or Spouse becoming Medicare eligible with continuation being based restrictions further detailed in the ACA.

		% of COBRA Rate (Police and Fire) or Premium (IMRF) Retiree Pays			
		Tier I Tier II Hired before 4/19/2016		Tier II Hired after 4/18/2016	
Age at Retirement	**Years of Service**	**Retiree Coverage**	**Dependent Coverage**	**Retiree Coverage**	**Dependent Coverage**
50 – 54	20	50%	50%	75%	100%
55 - 65	20	25%	25%	75%	100%
	21	24%	24%	75%	100%
	22	23%	23%	75%	100%
	23	22%	22%	75%	100%
	24	21%	21%	75%	100%
	25	20%	20%	75%	100%
	26	19%	19%	75%	100%
	27	18%	18%	75%	100%
	28	17%	17%	75%	100%
	29	16%	16%	75%	100%
	30+	15%	15%	75%	100%
65+	20	10%	10%	N/A	N/A

Dental and Vision Coverage

Types of Coverage:

Dental

Vision

Coverage Provisions

OPEB Tier I:

OPEB Tier I Retirees can continue Dental and/or Vision insurance, paying 100% of the COBRA rate. Coverage may continue past Medicare eligibility.

OPEB Tier II:

OPEB Tier II Retirees cannot continue Dental and/or Vision insurance.

Note: Unlike with medical, PSEBA recipients do not receive Dental and Vision coverage paid by the Village for life. Instead, they are subject to the normal restrictions for participants detailed above.

GLOSSARY OF TERMS

GLOSSARY OF TERMS

***Actuarial Accrued Liability* –**The actuarial present value of future benefits based on employees' service rendered to the measurement date using the selected actuarial cost method. It is that portion of the Actuarial Present Value of plan benefits and expenses allocated to prior years of employment. It is not provided for by future Normal Costs.

***Actuarial Cost Method* –** The method used to allocate the projected obligations of the plan over the working lifetimes of the plan participants.

***Actuarial Value of Assets* –** The value of the assets used in the determination of the Unfunded Actuarial Accrued Liability. The Actuarial Value of Assets is related to Market Value of Assets, with adjustments made to spread unanticipated gains and losses for a given year over a period of several years. Actuarial Value of Assets is generally equally likely to fall above or below the Market Value of Assets, and generally does not experience as much volatility over time as the Market Value of Assets.

***Asset Valuation Method* –** A valuation method designed to smooth random fluctuations in asset values. The objective underlying the use of an asset valuation method is to provide for the long-term stability of employer contributions.

***Funding Policy* –** A set of procedures for a Plan that outlines the "best practices" for funding the OPEB benefits based on the goals of the plan sponsor. A Funding Policy discusses items such as assumptions, Actuarial Cost Method, assets, and other parameters that will best help the sponsor meet their goal of working in the best interest of the plan participant.

***Market Value of Assets* –** The value of the cash, bonds, securities and other assets held in the OPEB trust as of the measurement date.

***Normal Cost* –**The present value of future benefits earned by employees during the current fiscal year. It is that portion of the Actuarial Present Value of benefits and expenses which is allocated to a valuation year by the Actuarial Cost Method.

***Unfunded Actuarial Accrued Liability* –** The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. The Unfunded Actuarial Accrued Liability is amortized over a period either in level dollar amounts or as a level percentage of projected payroll.