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Bensenville, IL 60006

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[www.bensenville.il.us](http://www.bensenville.il.us)

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Evan K. Summers

March 26, 2019

Ms. Amanda Kass

412 South Peoria Street (MC 349)

324B

Chicago, Illinois 60607

Re: March 20, 2019 FOIA Request

Dear Ms. Kass:

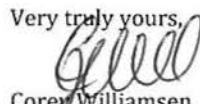
I am pleased to help you with your March 20, 2019 Freedom of Information Act ("FOIA"). The Village of Bensenville received your request on March 20, 2019. You requested copies of the items indicated below:

*"The annual actuarial study reports and/or any other relevant documents related to the determination of Bensenville's statutorily required contributions and actual payments to its police pension fund for fiscal years 2005 through 2018."*

Your FOIA request is hereby granted in full.

Do not hesitate to contact me if you have any questions or concerns in connection with this response.

Very truly yours,

  
Corey Williamsen  
Freedom of Information Officer  
Village of Bensenville

BENSENVILLE POLICE PENSION FUND  
VALUATION BALANCE SHEET  
11/18/2005 04:30:11

SHOWING ASSETS AND LIABILITIES OF THE FUND IN  
ACCORDANCE WITH ACTUARIAL RESERVE REQUIREMENTS

AS OF APRIL 30, 2005

NET PRESENT ASSETS.....	\$	11,852,306
DEFERRED ASSET (UNFUNDED ACCRUED LIABILITY).....		6,156,737
TOTAL ASSETS.....	\$	18,009,043

LIABILITIES

RESERVES FOR ANNUITIES AND BENEFITS IN FORCE

PRESENT VALUE OF -			
SERVICE RETIREMENT ANNUITIES.....	15	INDIVIDUALS	\$ 7,443,859
DISABILITY ANNUITIES.....	4	INDIVIDUALS	2,367,406
WIDOWS AND PARENTS ANNUITIES.....	2	INDIVIDUALS	447,349
CHILDRENS ANNUITIES.....	0	INDIVIDUALS	0
DEFERRED ANNUITIES.....	6	INDIVIDUALS	1,082,233
HANDICAPPED ANNUITIES.....	0	INDIVIDUALS	0
TOTAL.....			\$ 11,340,847
ACCRUED LIABILITIES FOR ACTIVE PARTICIPANTS.....	35	INDIVIDUALS	\$ 6,668,196
SURPLUS.....			0
TOTAL LIABILITIES AND SURPLUS.....			\$ 18,009,043

THIS REPORT IS PROVIDED TO YOU AS PART OF THE PUBLIC PENSION DIVISION  
ADVISORY SERVICES UNDER SECTION 1A-106 OF THE ILLINOIS PENSION CODE.

SCOTT J. BRANDT  
STATISTICAL SERVICES, PUBLIC PENSION DIVISION  
ILLINOIS DEPARTMENT OF FINANCIAL AND PROFESSIONAL REGULATION  
DIVISION OF INSURANCE

BENSENVILLE POLICE PENSION FUND  
ACTUARIALLY DETERMINED TAX LEVY  
11/18/2005 04:30:11

ACTUARIALLY DETERMINED AMOUNT TO PROVIDE THE EMPLOYER  
NORMAL COST BASED ON THE ANNUAL PAYROLL OF ACTIVE  
PARTICIPANTS AS OF APRIL 30, 2005. \$ 351,046

PERCENT OF EMPLOYER NORMAL COSTS TO TOTAL ANNUAL  
SALARIES OF \$ 2,217,633 IS 15.820%.

PERCENT OF TOTAL NORMAL COSTS TO TOTAL ANNUAL  
SALARIES OF \$ 2,217,633 IS 25.730%.

AMOUNT NECESSARY TO AMORTIZE THE UNFUNDED ACCRUED  
LIABILITY OF \$ 6,156,737 AS DETERMINED  
BY THE STATE OF ILLINOIS DEPARTMENT OF FINANCIAL AND  
PROFESSIONAL REGULATION OVER THE REMAINING 28.1699  
YEARS AS CONTEMPLATED BY SECTION 3-127 OF THE ILLINOIS  
PENSION CODE. 266,777

CREDIT FOR SURPLUS 0

TOTAL SUGGESTED AMOUNT OF TAX LEVY TO ARRIVE AT  
THE ANNUAL REQUIREMENTS OF THE FUND AS CONTEMPLATED  
BY SECTION 3-125 OF THE ILLINOIS PENSION CODE. \*\$ 617,823

\*THE ABOVE FIGURE IS THE SUGGESTED AMOUNT WHICH SHOULD BE OBTAINED BY  
THE FUND FROM THE MUNICIPALITY EXCLUSIVE OF ANY OTHER ITEMS OF INCOME,  
SUCH AS, INTEREST ON INVESTMENTS, CONTRIBUTIONS FROM PARTICIPANTS, ETC.  
THESE ITEMS HAVE ALREADY BEEN TAKEN INTO CONSIDERATION IN ARRIVING AT  
THIS AMOUNT.

ACTUARIAL INFORMATION

FUNDING METHOD USED	ENTRY AGE NORMAL COST
AMORTIZATION METHOD USED	LEVEL PERCENTAGE OF PAYROLL IN ACCORDANCE WITH SEC 3-127 OF THE IL PENSION CODE.
INTEREST RATE ASSUMPTION	7.0%
MORTALITY RATE ASSUMPTION	1971 GROUP ANNUITY
DECREMENT ASSUMPTION OTHER THAN MORTALITY	EXPERIENCE TABLES
SALARY PROGRESSION ASSUMPTION	5.5%
STATUS OF SOCIAL SECURITY IN ASSUMPTION	NONE

THE ATTAINED AGE AT TIME OF DISABILITY OR RETIREMENT, SEX, ANNUAL  
SALARY OR PENSION, AND COMPLETED YEARS OF SERVICE OF EACH INDIVIDUAL  
PARTICIPANT AS OF THE DATE OF THE VALUATION BALANCE SHEET IS USED IN  
CALCULATING THE LIABILITIES OF THE FUND. THE ACTUARIAL ASSUMPTIONS  
USED IN DETERMINING THE ABOVE AMOUNTS ARE BASED ON ALL OF THE ARTICLE  
3 FUNDS IN THE STATE OF ILLINOIS IN AGGREGATE, NOT ON EACH FUND  
INDIVIDUALLY. THE FUND SPECIFIC INFORMATION USED IN THE PRODUCTION OF  
THIS DOCUMENT WAS PROVIDED TO THE ILLINOIS DEPARTMENT OF FINANCIAL AND  
PROFESSIONAL REGULATION BY YOUR PENSION FUND BOARD OF TRUSTEES THROUGH  
THE FUND'S ANNUAL STATEMENT FILING.

BENSENVILLE POLICE PENSION FUND  
VALUATION BALANCE SHEET  
02/21/2007 04:30:08

SHOWING ASSETS AND LIABILITIES OF THE FUND IN  
ACCORDANCE WITH ACTUARIAL RESERVE REQUIREMENTS

AS OF APRIL 30, 2006

NET PRESENT ASSETS.....	\$	12,621,256
DEFERRED ASSET (UNFUNDED ACCRUED LIABILITY).....		6,456,981
TOTAL ASSETS.....	\$	19,078,237

LIABILITIES

RESERVES FOR ANNUITIES AND BENEFITS IN FORCE

PRESENT VALUE OF -			
SERVICE RETIREMENT ANNUITIES.....	14	INDIVIDUALS	\$ 7,259,500
DISABILITY ANNUITIES.....	5	INDIVIDUALS	3,153,676
WIDOWS AND PARENTS ANNUITIES.....	3	INDIVIDUALS	638,515
CHILDRENS ANNUITIES.....	0	INDIVIDUALS	0
DEFERRED ANNUITIES.....	6	INDIVIDUALS	1,157,019
HANDICAPPED ANNUITIES.....	0	INDIVIDUALS	0
TOTAL.....			\$ 12,208,710
ACCRUED LIABILITIES FOR ACTIVE PARTICIPANTS.....	34	INDIVIDUALS	\$ 6,869,527
SURPLUS.....			0
TOTAL LIABILITIES AND SURPLUS.....			\$ 19,078,237

THIS REPORT IS PROVIDED TO YOU AS PART OF THE PUBLIC PENSION DIVISION  
ADVISORY SERVICES UNDER SECTION 1A-106 OF THE ILLINOIS PENSION CODE.

SCOTT J. BRANDT  
STATISTICAL SERVICES, PUBLIC PENSION DIVISION  
ILLINOIS DEPARTMENT OF FINANCIAL AND PROFESSIONAL REGULATION  
DIVISION OF INSURANCE

BENSENVILLE POLICE PENSION FUND  
ACTUARIALLY DETERMINED TAX LEVY  
02/21/2007 04:30:08

ACTUARIALLY DETERMINED AMOUNT TO PROVIDE THE EMPLOYER  
NORMAL COST BASED ON THE ANNUAL PAYROLL OF ACTIVE  
PARTICIPANTS AS OF APRIL 30, 2006. \$ 330,146

PERCENT OF EMPLOYER NORMAL COSTS TO TOTAL ANNUAL  
SALARIES OF \$ 2,091,172 IS 15.780%.

PERCENT OF TOTAL NORMAL COSTS TO TOTAL ANNUAL  
SALARIES OF \$ 2,091,172 IS 25.690%.

AMOUNT NECESSARY TO AMORTIZE THE UNFUNDED ACCRUED  
LIABILITY OF \$ 6,456,981 AS DETERMINED  
BY THE STATE OF ILLINOIS DEPARTMENT OF FINANCIAL AND  
PROFESSIONAL REGULATION OVER THE REMAINING 27.1699  
YEARS AS CONTEMPLATED BY SECTION 3-127 OF THE ILLINOIS  
PENSION CODE. 288,177

CREDIT FOR SURPLUS 0

TOTAL SUGGESTED AMOUNT OF TAX LEVY TO ARRIVE AT  
THE ANNUAL REQUIREMENTS OF THE FUND AS CONTEMPLATED  
BY SECTION 3-125 OF THE ILLINOIS PENSION CODE. \*\$ 618,323

\*THE ABOVE FIGURE IS THE SUGGESTED AMOUNT WHICH SHOULD BE OBTAINED BY  
THE FUND FROM THE MUNICIPALITY EXCLUSIVE OF ANY OTHER ITEMS OF INCOME,  
SUCH AS, INTEREST ON INVESTMENTS, CONTRIBUTIONS FROM PARTICIPANTS, ETC.  
THESE ITEMS HAVE ALREADY BEEN TAKEN INTO CONSIDERATION IN ARRIVING AT  
THIS AMOUNT.

ACTUARIAL INFORMATION

FUNDING METHOD USED	ENTRY AGE NORMAL COST
AMORTIZATION METHOD USED	LEVEL PERCENTAGE OF PAYROLL IN ACCORDANCE WITH SEC 3-127 OF THE IL PENSION CODE.
INTEREST RATE ASSUMPTION	7.0%
MORTALITY RATE ASSUMPTION	1971 GROUP ANNUITY
DECREMENT ASSUMPTION OTHER THAN MORTALITY	EXPERIENCE TABLES
SALARY PROGRESSION ASSUMPTION	5.5%
STATUS OF SOCIAL SECURITY IN ASSUMPTION	NONE

THE ATTAINED AGE AT TIME OF DISABILITY OR RETIREMENT, SEX, ANNUAL  
SALARY OR PENSION, AND COMPLETED YEARS OF SERVICE OF EACH INDIVIDUAL  
PARTICIPANT AS OF THE DATE OF THE VALUATION BALANCE SHEET IS USED IN  
CALCULATING THE LIABILITIES OF THE FUND. THE ACTUARIAL ASSUMPTIONS  
USED IN DETERMINING THE ABOVE AMOUNTS ARE BASED ON ALL OF THE ARTICLE  
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INDIVIDUALLY. THE FUND SPECIFIC INFORMATION USED IN THE PRODUCTION OF  
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PROFESSIONAL REGULATION BY YOUR PENSION FUND BOARD OF TRUSTEES THROUGH  
THE FUND'S ANNUAL STATEMENT FILING.



**VILLAGE OF BENSENVILLE**  
**BENSENVILLE POLICE PENSION FUND**

Actuarial Valuation Report

For the Year

Beginning May 1, 2006

And Ending April 30, 2007

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*Timothy W. Sharpe, Actuary, Geneva, IL (630) 262-0600*

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## INTRODUCTION

Police-sworn personnel of the Village of Bensenville are covered by the Police Pension Plan that is a defined-benefit, single-employer pension plan. The purpose of this report is to disclose the Tax Levy Requirement and GASB Statements No. 25 & 27 financial information and related actuarial information for the year beginning May 1, 2006, and ending April 30, 2007.

The valuation results reported herein are based on plan provisions in effect as of May 1, 2006, the employee data furnished by the Village, the financial data provided by the Fund's trustee and the actuarial methods and assumptions described later in this report. I hereby certify that this report is complete and accurate and fairly presents the actuarial position of the Fund as of April 30, 2006, in accordance with generally accepted actuarial principles and procedures. In my opinion, the assumptions used are reasonably related to the experience of the Plan and to reasonable expectations.

Respectfully submitted,

Timothy W. Sharpe, EA, MAAA  
Enrolled Actuary No. 05-4384

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Date



## SUMMARY OF RESULTS

There were no changes with respect to Plan Provisions, Actuarial Methods or Actuarial Assumptions from the prior year. The last actuarial valuation was completed two years ago (2004).

There were no unexpected changes with respect to the participants included in this actuarial valuation (4 new members, 4 terminations, 1 retirement, 2 incidents of disability, 2-year annual payroll increase -3.4%, 2-year average salary increase 7.3%).

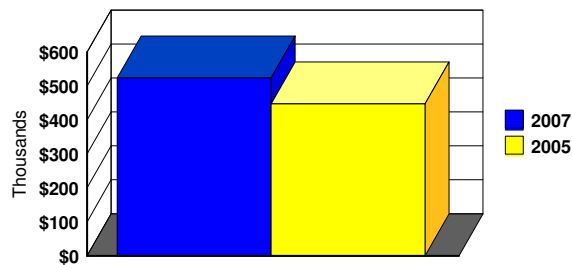
There were no unexpected changes with respect to the Fund's investments from the prior year (annual investment return 11.67%).

The Village's Tax Levy Requirement has increased from \$449,216 (2004) to \$528,565 this year (17.6%). The increase in the Tax Levy is due to the increase in salaries and the new incidents of disability. The Percent Funded has decreased from 77.1% last year to 71.9% this year.

## SUMMARY OF RESULTS (Continued)

	For Year Ending April 30	
	<u>2007</u>	<u>2005</u>
Tax Levy Requirement	\$ 528,565	\$ 449,216
	as of May 1	
	<u>2006</u>	<u>2004</u>
Village Normal Cost	248,383	255,645
Anticipated Employee Contributions	207,235	214,462
Accrued Liability	17,538,690	15,067,945
Actuarial Value of Assets	12,619,030	11,617,747
Unfunded Accrued Liability/(Surplus)	4,919,660	3,450,198
Amortization of Unfunded Accrued Liability/(Surplus)	243,305	162,230
Percent Funded	71.9%	77.1%
Annual Payroll	\$ 2,091,172	\$ 2,164,096

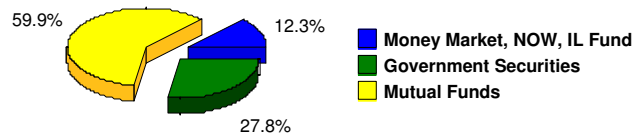
### TAX LEVY REQUIREMENT



## ACTUARIAL VALUATION OF ASSETS

		as of May 1	
	<u>2006</u>		<u>2004</u>
Money Market, NOW, IL Fund	\$ 918,034	\$	584,004
Government Securities	2,065,189		1,008,445
Insurance Contracts	5,176,244		5,213,069
Mutual Funds	4,452,666		4,526,143
Miscellaneous Receivable/(Payable)	<u>6,898</u>		<u>286,086</u>
Actuarial Value of Assets	\$ <u>12,619,030</u>	\$	<u>11,617,747</u>

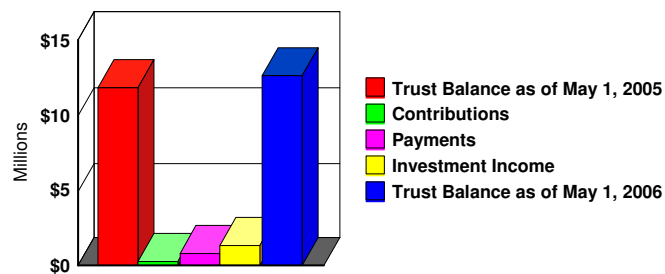
## SUMMARY OF ASSETS



## ASSET CHANGES DURING PRIOR YEAR

Trust Balance as of May 1, 2005		\$	11,844,646
Contributions			
Village	89,041		
Employee	<u>199,096</u>		
Total			288,137
Payments			
Benefit Payments	829,286		
Expenses	<u>33,433</u>		
Total			862,719
Investment Income			<u>1,348,965</u>
Trust Balance as of May 1, 2006		\$	<u>12,619,030</u>
Approximate Annual Rate of Return			11.67%

## ASSET CHANGES DURING PRIOR YEAR



## NORMAL COST

The Normal Cost is the actuarial present value of the portion of the projected benefits that are expected to accrue during the year based upon the actuarial valuation method and actuarial assumptions employed in the valuation.

		as of May 1	
		<u>2006</u>	<u>2004</u>
Total Normal Cost	\$	455,618	\$ 470,107
Anticipated Employee Contributions		<u>207,235</u>	<u>214,462</u>
Village Normal Cost		<u>248,383</u>	<u>255,645</u>
Normal Cost Payroll	\$	2,091,172	\$ 2,164,096
Village Normal Cost Rate		11.88%	11.81%
Total Normal Cost Rate		21.79%	21.72%

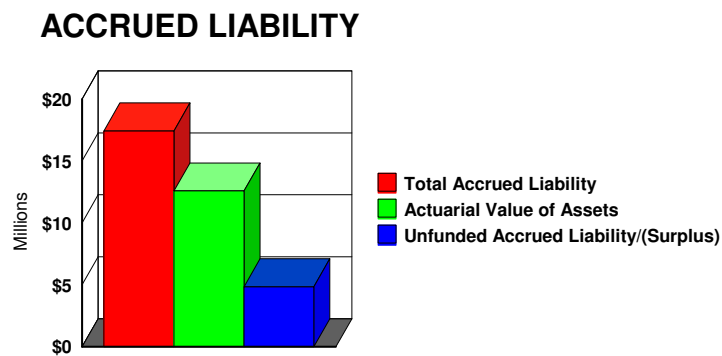
## NORMAL COST



## ACCRUED LIABILITY

The Accrued Liability is the actuarial present value of the portion of the projected benefits that has been accrued as of the valuation date based upon the actuarial valuation method and actuarial assumptions employed in the valuation. The Unfunded Accrued Liability is the excess of the Accrued Liability over the Actuarial Value of Assets.

	as of May 1	
Accrued Liability	<u>2006</u>	<u>2004</u>
Active Employees	\$ 6,729,425	\$ 6,372,896
Children Annuities	0	0
Disability Annuities	2,914,864	1,566,513
Retirement Annuities	6,284,835	5,744,602
Surviving Spouse Annuities	528,084	386,047
Terminated Vested Annuities	<u>1,081,482</u>	<u>997,887</u>
Total Annuities	10,809,265	8,695,049
Total Accrued Liability	17,538,690	15,067,945
Actuarial Value of Assets	<u>12,619,030</u>	<u>11,617,747</u>
Unfunded Accrued Liability/(Surplus)	\$ <u>4,919,660</u>	\$ <u>3,450,198</u>
Percent Funded	71.9%	77.1%

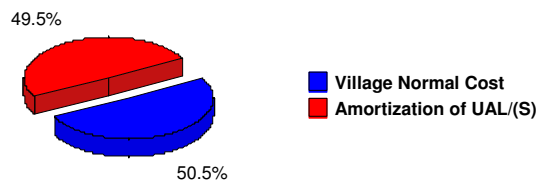


## TAX LEVY REQUIREMENT

The Tax Levy Requirement is determined as the annual contribution necessary to fund the normal cost, plus the amount to amortize the unfunded accrued liability as a level percentage of payroll over a forty (40) year period which commenced in 1993, plus an adjustment for interest.

	For Year Ending April 30	
	<u>2007</u>	<u>2005</u>
Village Normal Cost as of Beginning of Year	\$ 248,383	\$ 255,645
Amortization of Unfunded Accrued Liability/(Surplus)	243,305	162,230
Interest for One Year	<u>36,877</u>	<u>31,341</u>
Tax Levy Requirement as of End of Year	\$ <u>528,565</u>	\$ <u>449,216</u>

## TAX LEVY REQUIREMENT



## SUMMARY OF PLAN PARTICIPANTS

The actuarial valuation of the Plan is based upon the employee data furnished by the Village.  
The information provided for Active participants included:

Name  
Sex  
Date of Birth  
Date of Hire  
Compensation  
Employee Contributions

The information provided for Inactive participants included:

Name  
Sex  
Date of Birth  
Date of Pension Commencement  
Monthly Pension Benefit  
Form of Payment

Membership	<u>2006</u>	<u>2006</u>	<u>2004</u>	<u>2004</u>
Current Employees				
Vested	10		12	
Nonvested	<u>24</u>		<u>25</u>	
Total	<u>34</u>		<u>37</u>	
Inactive Participants		<u>Annual Benefits</u>		<u>Annual Benefits</u>
Children	0 \$	0	0 \$	0
Disabled Employees	5	185,132	3	100,440
Retired Employees	14	474,740	14	429,403
Surviving Spouses	3	69,642	2	45,762
Terminated Vesteds	<u>6</u>	<u>171,933</u>	<u>6</u>	<u>171,933</u>
Total	<u>28</u>	<u>901,447</u>	<u>25</u>	<u>747,538</u>
Annual Payroll	\$	2,091,172	\$	2,164,096



## SUMMARY OF PLAN PARTICIPANTS (Continued)

### Age and Service Distribution

Service Age	0-4	5-9	10-14	15-19	20-24	25-29	30+	Total	Salary
20-24	1							1	50,119
25-29	6	1						7	50,012
30-34	3	6						9	58,347
35-39	1	2	1					4	64,547
40-44		1		2	1			4	74,858
45-49		1		1	2			4	70,601
50-54				1		1		2	70,572
55-59	1	1				1		3	61,558
Total	<u>12</u>	<u>12</u>	<u>1</u>	<u>4</u>	<u>3</u>	<u>2</u>	<u>0</u>	<u>34</u>	<u>61,505</u>
Salary	50,747	63,031	76,289	72,715	76,327	64,855			

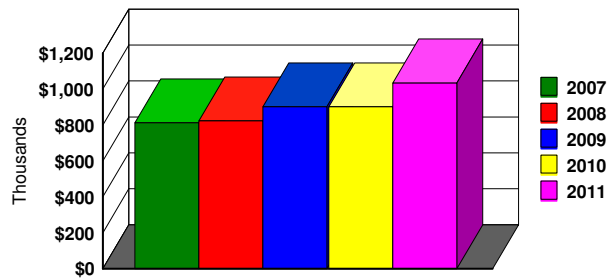
Average Age: 37.3      Average Service: 8.5

DURATION (years)    Active Members: 17.9    Retired Members: 11.2    All Members: 13.8

### PROJECTED PENSION PAYMENTS

<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>
\$813,825	\$822,609	\$901,433	\$905,349	\$1,039,814

### PROJECTED PENSION PAYMENTS



## SUMMARY OF PLAN PROVISIONS

The Plan Provisions have not been changed from the prior year.

The Village of Bensenville Police Pension Fund was created and is administered as prescribed by "Article 3. Police Pension Fund - Municipalities 500,000 and Under" of the Illinois Pension Code (Illinois Compiled Statutes, 1992, Chapter 40). A brief summary of the plan provisions is provided below.

Employees attaining the age of (50) or more with (20) or more years of creditable service are entitled to receive an annual retirement benefit of (2.5%) of final salary for each year of service up to (30) years, to a maximum of (75%) of such salary.

Employees with at least (8) years but less than (20) years of credited service may retire at or after age (60) and receive a reduced benefit of (2.5%) of final salary for each year of service.

Surviving spouses receive (100%) of final salary for fatalities resulting from an act of duty, or otherwise the greater of (50%) of final salary or the employee's retirement benefit.

Employees disabled in the line of duty receive (65%) of final salary.

The monthly pension of a covered employee who retired with (20) or more years of service after January 1, 1977, shall be increased annually, following the first anniversary date of retirement and be paid upon reaching the age of at least (55) years, by (3%) of the originally granted pension. Beginning with increases granted on or after July 1, 1993, the second and subsequent automatic annual increases shall be calculated as (3%) of the amount of the pension payable at the time of the increase.

Employees are required to contribute (9.91%) of their base salary to the Police Pension Plan. If an employee leaves covered employment with less than (20) years of service, accumulated employee contributions may be refunded without accumulated interest.

## ACTUARIAL METHODS

The Actuarial Methods used for determining the Tax Levy and GASB Statements No. 25 & 27 financial disclosure have not been changed from the prior year. The Actuarial Method employed for this valuation is as follows:

### Entry Age Normal Cost Method

Under the Entry Age Normal Cost Method the Normal Cost for each participant is computed as the level percentage of pay which, if paid from the earliest age the participant is eligible to enter the plan until retirement or termination, will accumulate with interest to sufficiently fund all benefits under the plan. The Normal Cost for the plan is determined as the sum of the Normal Costs for all active participants.

The Accrued Liability is the theoretical amount that would have accumulated had annual contributions equal to the Normal Cost been paid. The Unfunded Accrued Liability is the excess of the Accrued Liability over the plan's assets. Experience gains or losses adjust the Unfunded Accrued Liability.

## ACTUARIAL ASSUMPTIONS

The Actuarial Assumptions used for determining the Tax Levy Requirement and GASB Statements No. 25 & 27 Disclosure Information are the same and have not been changed from the prior year. The Actuarial Assumptions employed for this valuation are as follows:

Valuation Date	May 1, 2006
Asset Valuation Method	Market Value
Investment Return	7.50%
Salary Scale	5.00%
Mortality	1971 Group Annuity Mortality Table
Withdrawal	State of Illinois DOI Experience Rates
Disability	State of Illinois DOI Experience Rates
Retirement	State of Illinois DOI Experience Rates (100% by Age 62)
Marital Status	80% Married, Spouse Same Age
Plan Expenses	None

<u>Sample Annual Rates Per 100 Participants</u>				
<u>Age</u>	<u>Mortality</u>	<u>Withdrawal</u>	<u>Disability</u>	<u>Retirement</u>
20	0.05	6.00	0.07	
30	0.81	5.10	0.10	
40	0.16	2.85	0.20	
50	0.53		0.52	20.00
60	1.31		0.60	83.33
62	1.59			100.00

## GASB STATEMENTS NO. 25 & 27 DISCLOSURE INFORMATION

The Governmental Accounting Standards Board (GASB) issued Statements No. 25 & 27 that established generally accepted accounting principles for the annual financial statements for defined benefit pension plans. The required information is as follows:

Membership in the plan consisted of the following as of:

	<u>April 30, 2006</u>	<u>April 30, 2004</u>
Retirees and beneficiaries receiving benefits	22	19
Terminated plan members entitled to but not yet receiving benefits	6	6
Active vested plan members	10	12
Active nonvested plan members	<u>24</u>	<u>25</u>
Total	<u>62</u>	<u>62</u>
Number of participating employers	1	1

## SCHEDULE OF FUNDING PROGRESS

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) -Entry Age (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)
04/30/02	11,824,080	12,113,359	289,279	97.6%	1,675,479	17.3%
04/30/04	11,617,747	15,067,945	3,450,198	77.1%	2,164,096	159.4%
04/30/06	12,619,030	17,538,690	4,919,660	71.9%	2,091,172	235.3%

GASB STATEMENTS NO. 25 & 27 DISCLOSURE INFORMATION (Continued)

ANNUAL PENSION COST AND NET PENSION OBLIGATION

	<u>April 30, 2006</u>	<u>April 30, 2004</u>
Annual required contribution	226,485	57,897
Interest on net pension obligation	124,648	123,298
Adjustment to annual required contribution	<u>(82,002)</u>	<u>(77,304)</u>
Annual pension cost	269,131	103,891
Contributions made	<u>89,041</u>	<u>85,902</u>
Increase (decrease) in net pension obligation	180,090	17,989
Net pension obligation beginning of year	<u>1,661,968</u>	<u>1,643,979</u>
Net pension obligation end of year	<u>1,842,058</u>	<u>1,661,968</u>

THREE-YEAR TREND INFORMATION

<u>Fiscal</u> <u>Year</u> <u>Ending</u>	<u>Annual</u> <u>Pension</u> <u>Cost (APC)</u>	<u>Percentage</u> <u>of APC</u> <u>Contributed</u>	<u>Net</u> <u>Pension</u> <u>Obligation</u>
04/30/02	126,380	62.2%	1,643,979
04/30/04	103,891	82.7%	1,661,968
04/30/06	269,131	33.1%	1,842,058

GASB STATEMENTS NO. 25 & 27 DISCLOSURE INFORMATION (Continued)

FUNDING POLICY AND ANNUAL PENSION COST

Contribution rates:

Village	4.26%	3.97%
Plan members	9.91%	Same

Annual pension cost	269,131	103,891
---------------------	---------	---------

Contributions made	89,041	85,902
--------------------	--------	--------

Actuarial valuation date	04/30/2006	04/30/2004
--------------------------	------------	------------

Actuarial cost method	Entry age	Same
-----------------------	-----------	------

Amortization period	Level percentage of pay, closed	Same
---------------------	---------------------------------	------

Remaining amortization period	27 years	28 years
-------------------------------	----------	----------

Asset valuation method	Market	Same
------------------------	--------	------

Actuarial assumptions:

Investment rate of return*	7.50%	Same
Projected salary increases*	5.00%	Same

*Includes inflation at	3.00%	Same
------------------------	-------	------

Cost-of-living adjustments	3.00% per year	Same
----------------------------	----------------	------

BENSENVILLE POLICE PENSION FUND  
VALUATION BALANCE SHEET  
12/04/2007 14:42:51

SHOWING ASSETS AND LIABILITIES OF THE FUND IN  
ACCORDANCE WITH ACTUARIAL RESERVE REQUIREMENTS

AS OF APRIL 30, 2007

NET PRESENT ASSETS.....	\$	13,147,625
DEFERRED ASSET (UNFUNDED ACCRUED LIABILITY).....		6,662,738
TOTAL ASSETS.....	\$	19,810,363

LIABILITIES

RESERVES FOR ANNUITIES AND BENEFITS IN FORCE

PRESENT VALUE OF -			
SERVICE RETIREMENT ANNUITIES.....	14	INDIVIDUALS	\$ 7,318,716
DISABILITY ANNUITIES.....	6	INDIVIDUALS	4,079,634
WIDOWS AND PARENTS ANNUITIES.....	3	INDIVIDUALS	620,715
CHILDRENS ANNUITIES.....	0	INDIVIDUALS	0
DEFERRED ANNUITIES.....	6	INDIVIDUALS	1,237,222
HANDICAPPED ANNUITIES.....	0	INDIVIDUALS	0
TOTAL.....			\$ 13,256,287
ACCRUED LIABILITIES FOR ACTIVE PARTICIPANTS.....	35	INDIVIDUALS	\$ 6,554,076
SURPLUS.....			0
TOTAL LIABILITIES AND SURPLUS.....			\$ 19,810,363

THIS REPORT IS PROVIDED TO YOU AS PART OF THE PUBLIC PENSION DIVISION  
ADVISORY SERVICES UNDER SECTION 1A-106 OF THE ILLINOIS PENSION CODE.

SCOTT J. BRANDT  
STATISTICAL SERVICES, PUBLIC PENSION DIVISION  
ILLINOIS DEPARTMENT OF FINANCIAL AND PROFESSIONAL REGULATION  
DIVISION OF INSURANCE



BENSENVILLE POLICE PENSION FUND  
ACTUARIALLY DETERMINED TAX LEVY  
12/04/2007 14:42:51

ACTUARIALLY DETERMINED AMOUNT TO PROVIDE THE EMPLOYER  
NORMAL COST BASED ON THE ANNUAL PAYROLL OF ACTIVE  
PARTICIPANTS AS OF APRIL 30, 2007. \$ 330,214

PERCENT OF EMPLOYER NORMAL COSTS TO TOTAL ANNUAL  
SALARIES OF \$ 2,094,854 IS 15.760%.

PERCENT OF TOTAL NORMAL COSTS TO TOTAL ANNUAL  
SALARIES OF \$ 2,094,854 IS 25.670%.

AMOUNT NECESSARY TO AMORTIZE THE UNFUNDED ACCRUED  
LIABILITY OF \$ 6,662,738 AS DETERMINED  
BY THE STATE OF ILLINOIS DEPARTMENT OF FINANCIAL AND  
PROFESSIONAL REGULATION OVER THE REMAINING 26.1699  
YEARS AS CONTEMPLATED BY SECTION 3-127 OF THE ILLINOIS  
PENSION CODE. 306,687

CREDIT FOR SURPLUS 0

TOTAL SUGGESTED AMOUNT OF TAX LEVY TO ARRIVE AT  
THE ANNUAL REQUIREMENTS OF THE FUND AS CONTEMPLATED  
BY SECTION 3-125 OF THE ILLINOIS PENSION CODE. \*\$ 636,901

\*THE ABOVE FIGURE IS THE SUGGESTED AMOUNT WHICH SHOULD BE OBTAINED BY  
THE FUND FROM THE MUNICIPALITY EXCLUSIVE OF ANY OTHER ITEMS OF INCOME,  
SUCH AS, INTEREST ON INVESTMENTS, CONTRIBUTIONS FROM PARTICIPANTS, ETC.  
THESE ITEMS HAVE ALREADY BEEN TAKEN INTO CONSIDERATION IN ARRIVING AT  
THIS AMOUNT.

ACTUARIAL INFORMATION

FUNDING METHOD USED	ENTRY AGE NORMAL COST
AMORTIZATION METHOD USED	LEVEL PERCENTAGE OF PAYROLL IN ACCORDANCE WITH SEC 3-127 OF THE IL PENSION CODE.
INTEREST RATE ASSUMPTION	7.0%
MORTALITY RATE ASSUMPTION	1971 GROUP ANNUITY
DECREMENT ASSUMPTION OTHER THAN MORTALITY	EXPERIENCE TABLES
SALARY PROGRESSION ASSUMPTION	5.5%
STATUS OF SOCIAL SECURITY IN ASSUMPTION	NONE

THE ATTAINED AGE AT TIME OF DISABILITY OR RETIREMENT, SEX, ANNUAL  
SALARY OR PENSION, AND COMPLETED YEARS OF SERVICE OF EACH INDIVIDUAL  
PARTICIPANT AS OF THE DATE OF THE VALUATION BALANCE SHEET IS USED IN  
CALCULATING THE LIABILITIES OF THE FUND. THE ACTUARIAL ASSUMPTIONS  
USED IN DETERMINING THE ABOVE AMOUNTS ARE BASED ON ALL OF THE ARTICLE  
3 FUNDS IN THE STATE OF ILLINOIS IN AGGREGATE, NOT ON EACH FUND  
INDIVIDUALLY. THE FUND SPECIFIC INFORMATION USED IN THE PRODUCTION OF  
THIS DOCUMENT WAS PROVIDED TO THE ILLINOIS DEPARTMENT OF FINANCIAL AND  
PROFESSIONAL REGULATION BY YOUR PENSION FUND BOARD OF TRUSTEES THROUGH  
THE FUND'S ANNUAL STATEMENT FILING.

BENSENVILLE POLICE PENSION FUND  
VALUATION BALANCE SHEET  
12/22/2008 04:30:09

SHOWING ASSETS AND LIABILITIES OF THE FUND IN  
ACCORDANCE WITH ACTUARIAL RESERVE REQUIREMENTS

AS OF APRIL 30, 2008

NET PRESENT ASSETS.....	\$	13,021,118
DEFERRED ASSET (UNFUNDED ACCRUED LIABILITY).....		9,236,575
TOTAL ASSETS.....	\$	22,257,693

LIABILITIES

RESERVES FOR ANNUITIES AND BENEFITS IN FORCE

PRESENT VALUE OF -			
SERVICE RETIREMENT ANNUITIES.....	17 INDIVIDUALS	\$ 9,259,738	
DISABILITY ANNUITIES.....	6 INDIVIDUALS	3,928,953	
WIDOWS AND PARENTS ANNUITIES.....	3 INDIVIDUALS	602,664	
CHILDRENS ANNUITIES.....	0 INDIVIDUALS	0	
DEFERRED ANNUITIES.....	5 INDIVIDUALS	807,822	
HANDICAPPED ANNUITIES.....	0 INDIVIDUALS	0	
TOTAL.....		\$	14,599,177
ACCRUED LIABILITIES FOR ACTIVE PARTICIPANTS.....	29 INDIVIDUALS	\$	7,658,516
SURPLUS.....			0
TOTAL LIABILITIES AND SURPLUS.....		\$	22,257,693

THIS REPORT IS PROVIDED TO YOU AS PART OF THE PUBLIC PENSION DIVISION  
ADVISORY SERVICES UNDER SECTION 1A-106 OF THE ILLINOIS PENSION CODE.

SCOTT J. BRANDT  
STATISTICAL SERVICES, PUBLIC PENSION DIVISION  
ILLINOIS DEPARTMENT OF FINANCIAL AND PROFESSIONAL REGULATION  
DIVISION OF INSURANCE

BENSENVILLE POLICE PENSION FUND  
ACTUARIALLY DETERMINED TAX LEVY  
12/22/2008 04:30:09

ACTUARIALLY DETERMINED AMOUNT TO PROVIDE THE EMPLOYER  
NORMAL COST BASED ON THE ANNUAL PAYROLL OF ACTIVE  
PARTICIPANTS AS OF APRIL 30, 2008. \$ 339,941

PERCENT OF EMPLOYER NORMAL COSTS TO TOTAL ANNUAL  
SALARIES OF \$ 2,166,492 IS 15.690%.

PERCENT OF TOTAL NORMAL COSTS TO TOTAL ANNUAL  
SALARIES OF \$ 2,166,492 IS 25.600%.

AMOUNT NECESSARY TO AMORTIZE THE UNFUNDED ACCRUED  
LIABILITY OF \$ 9,236,575 AS DETERMINED  
BY THE STATE OF ILLINOIS DEPARTMENT OF FINANCIAL AND  
PROFESSIONAL REGULATION OVER THE REMAINING 25.1699  
YEARS AS CONTEMPLATED BY SECTION 3-127 OF THE ILLINOIS  
PENSION CODE. 439,130

CREDIT FOR SURPLUS 0

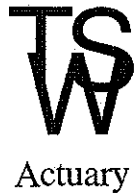
TOTAL SUGGESTED AMOUNT OF TAX LEVY TO ARRIVE AT  
THE ANNUAL REQUIREMENTS OF THE FUND AS CONTEMPLATED  
BY SECTION 3-125 OF THE ILLINOIS PENSION CODE. \*\$ 779,071

\*THE ABOVE FIGURE IS THE SUGGESTED AMOUNT WHICH SHOULD BE OBTAINED BY  
THE FUND FROM THE MUNICIPALITY EXCLUSIVE OF ANY OTHER ITEMS OF INCOME,  
SUCH AS, INTEREST ON INVESTMENTS, CONTRIBUTIONS FROM PARTICIPANTS, ETC.  
THESE ITEMS HAVE ALREADY BEEN TAKEN INTO CONSIDERATION IN ARRIVING AT  
THIS AMOUNT.

ACTUARIAL INFORMATION

FUNDING METHOD USED	ENTRY AGE NORMAL COST
AMORTIZATION METHOD USED	LEVEL PERCENTAGE OF PAYROLL IN ACCORDANCE WITH SEC 3-127 OF THE IL PENSION CODE.
INTEREST RATE ASSUMPTION	7.0%
MORTALITY RATE ASSUMPTION	1971 GROUP ANNUITY
DECREMENT ASSUMPTION OTHER THAN MORTALITY	EXPERIENCE TABLES
SALARY PROGRESSION ASSUMPTION	5.5%
STATUS OF SOCIAL SECURITY IN ASSUMPTION	NONE

THE ATTAINED AGE AT TIME OF DISABILITY OR RETIREMENT, SEX, ANNUAL  
SALARY OR PENSION, AND COMPLETED YEARS OF SERVICE OF EACH INDIVIDUAL  
PARTICIPANT AS OF THE DATE OF THE VALUATION BALANCE SHEET IS USED IN  
CALCULATING THE LIABILITIES OF THE FUND. THE ACTUARIAL ASSUMPTIONS  
USED IN DETERMINING THE ABOVE AMOUNTS ARE BASED ON ALL OF THE ARTICLE  
3 FUNDS IN THE STATE OF ILLINOIS IN AGGREGATE, NOT ON EACH FUND  
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**VILLAGE OF BENSENVILLE**  
**BENSENVILLE POLICE PENSION FUND**

Actuarial Valuation Report

For the Year

Beginning May 1, 2008

And Ending April 30, 2009

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*Timothy W. Sharpe, Actuary, Geneva, IL (630) 262-0600*

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## INTRODUCTION

Police-sworn personnel of the Village of Bensenville are covered by the Police Pension Plan that is a defined-benefit, single-employer pension plan. The purpose of this report is to disclose the Tax Levy Requirement and GASB Statements No. 25 & 27 financial information and related actuarial information for the year beginning May 1, 2008, and ending April 30, 2009.

The valuation results reported herein are based on plan provisions in effect as of May 1, 2008, the employee data furnished by the Village, the financial data provided by the Fund's trustee and the actuarial methods and assumptions described later in this report. I hereby certify that this report is complete and accurate and fairly presents the actuarial position of the Fund as of April 30, 2008, in accordance with generally accepted actuarial principles and procedures. In my opinion, the assumptions used are reasonably related to the experience of the Plan and to reasonable expectations.

Respectfully submitted,

Timothy W. Sharpe, EA, MAAA  
Enrolled Actuary No. 08-4384

---

Date

## SUMMARY OF RESULTS

There were no changes with respect to Plan Provisions, Actuarial Methods or Actuarial Assumptions from the prior year. The last actuarial valuation was completed two years ago (2006).

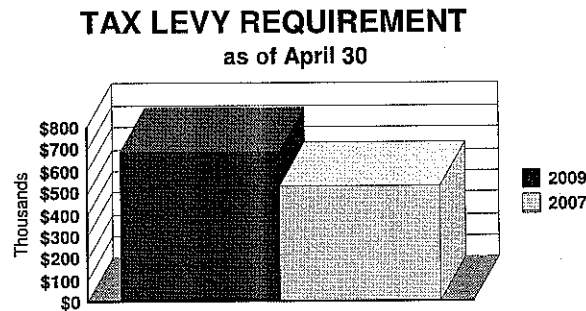
There were no unexpected changes with respect to the participants included in this actuarial valuation (3 new members, 5 terminations, 2 retirements, 1 incident of disability, 2-year annual payroll increase 3.6%, 2-year average salary increase 24.9%).

There were no unexpected changes with respect to the Fund's investments from the prior year (annual investment return 2.48%).

The Village's Tax Levy Requirement has increased from \$528,565 (2006) to \$690,236 this year (30.6%). The increase in the Tax Levy is due to the increase in salaries and the Village contributions were less than the Tax Levy Requirements. The Percent Funded has decreased from 71.9% (2006) to 63.3% this year.

# SUMMARY OF RESULTS (Continued)

	For Year Ending April 30	
	<u>2009</u>	<u>2007</u>
Tax Levy Requirement	\$ 690,236	\$ 528,565
	as of May 1	
	<u>2008</u>	<u>2006</u>
Village Normal Cost	245,757	248,383
Anticipated Employee Contributions	214,699	207,235
Accrued Liability	20,643,852	17,538,690
Actuarial Value of Assets	13,065,169	12,619,030
Unfunded Accrued Liability/(Surplus)	7,578,683	4,919,660
Amortization of Unfunded Accrued Liability/(Surplus)	396,323	243,305
Percent Funded	63.3%	71.9%
Annual Payroll	\$ 2,166,492	\$ 2,091,172



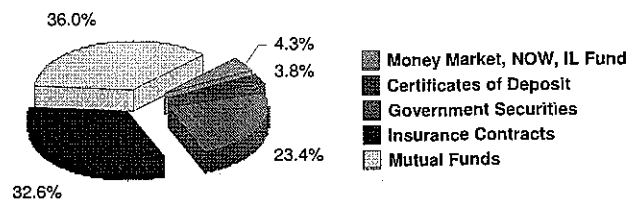


## ACTUARIAL VALUATION OF ASSETS

		as of May 1	
	<u>2008</u>		<u>2006</u>
Money Market, NOW, IL Fund	\$ 555,989	\$	918,034
Certificates of Deposit	500,000		0
Government Securities	3,048,126		2,065,189
Insurance Contracts	4,250,036		5,176,244
Mutual Funds	4,693,387		4,452,666
Interest Receivable	2,540		0
Miscellaneous Receivable/(Payable)	<u>15,092</u>		<u>6,898</u>
Actuarial Value of Assets	\$ <u>13,065,169</u>	\$	<u>12,619,030</u>

## SUMMARY OF ASSETS

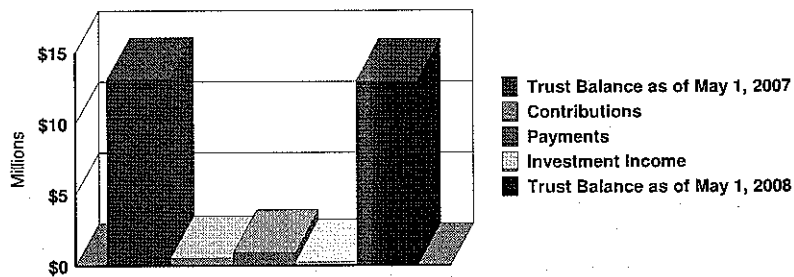
As Of May 1, 2008



## ASSET CHANGES DURING PRIOR YEAR

Trust Balance as of May 1, 2007		\$	13,160,332
Contributions			
Village	109,367		
Employee	<u>463,875</u>		
Total			573,241
Payments			
Benefit Payments	948,890		
Expenses	<u>40,836</u>		
Total			989,726
Investment Income			<u>321,322</u>
Trust Balance as of May 1, 2008		\$	<u>13,065,169</u>
Approximate Annual Rate of Return			2.48%

## ASSET CHANGES DURING PRIOR YEAR



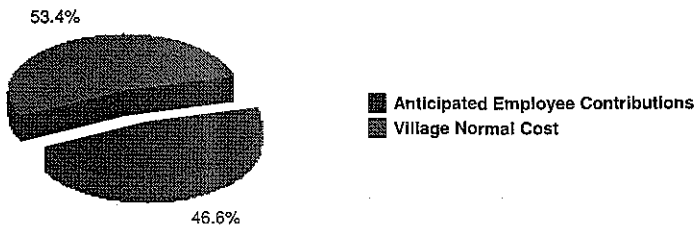
## NORMAL COST

The Normal Cost is the actuarial present value of the portion of the projected benefits that are expected to accrue during the year based upon the actuarial valuation method and actuarial assumptions employed in the valuation.

		as of May 1	
	<u>2008</u>		<u>2006</u>
Total Normal Cost	\$ 460,456	\$	455,618
Anticipated Employee Contributions	<u>214,699</u>		<u>207,235</u>
Village Normal Cost	<u>245,757</u>		<u>248,383</u>
Normal Cost Payroll	\$ 2,166,492	\$	2,091,172
Village Normal Cost Rate	11.34%		11.88%
Total Normal Cost Rate	21.25%		21.79%

### NORMAL COST

As Of May 1, 2008



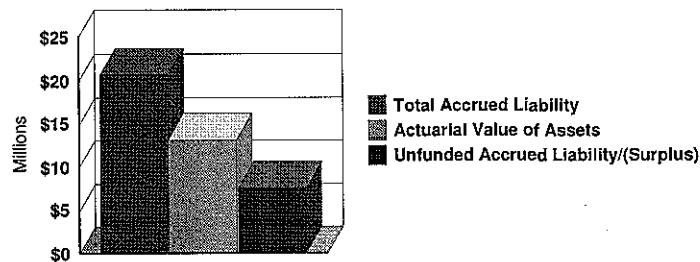
## ACCRUED LIABILITY

The Accrued Liability is the actuarial present value of the portion of the projected benefits that has been accrued as of the valuation date based upon the actuarial valuation method and actuarial assumptions employed in the valuation. The Unfunded Accrued Liability is the excess of the Accrued Liability over the Actuarial Value of Assets.

	as of May 1	
Accrued Liability	<u>2008</u>	<u>2006</u>
Active Employees	\$ 7,744,714	\$ 6,729,425
Children Annuities	0	0
Disability Annuities	3,802,813	2,914,864
Retirement Annuities	7,928,966	6,284,835
Surviving Spouse Annuities	496,690	528,084
Terminated Vested Annuities	<u>670,669</u>	<u>1,081,482</u>
Total Annuities	12,899,138	10,809,265
Total Accrued Liability	20,643,852	17,538,690
Actuarial Value of Assets	<u>13,065,169</u>	<u>12,619,030</u>
Unfunded Accrued Liability/(Surplus)	\$ <u>7,578,683</u>	\$ <u>4,919,660</u>
Percent Funded	63.3%	71.9%

## ACCRUED LIABILITY

As Of May 1, 2008



## TAX LEVY REQUIREMENT

The Tax Levy Requirement is determined as the annual contribution necessary to fund the normal cost, plus the amount to amortize the unfunded accrued liability as a level percentage of payroll over a forty (40) year period which commenced in 1993, plus an adjustment for interest.

	For Year Ending April 30	
	<u>2009</u>	<u>2007</u>
Village Normal Cost as of Beginning of Year	\$ 245,757	\$ 248,383
Amortization of Unfunded Accrued Liability/(Surplus)	396,323	243,305
Interest for One Year	<u>48,156</u>	<u>36,877</u>
Tax Levy Requirement as of End of Year	\$ <u>690,236</u>	\$ <u>528,565</u>

## TAX LEVY REQUIREMENT

For Fiscal Year Ending April 30, 2009



## SUMMARY OF PLAN PARTICIPANTS

The actuarial valuation of the Plan is based upon the employee data furnished by the Village.  
The information provided for Active participants included:

Name  
Sex  
Date of Birth  
Date of Hire  
Compensation  
Employee Contributions

The information provided for Inactive participants included:

Name  
Sex  
Date of Birth  
Date of Pension Commencement  
Monthly Pension Benefit  
Form of Payment

Membership	<u>2008</u>	<u>2008</u>	<u>2006</u>	<u>2006</u>
Current Employees				
Vested	15		10	
Nonvested	<u>14</u>		<u>24</u>	
Total	<u>29</u>		<u>34</u>	
Inactive Participants		<u>Annual Benefits</u>		<u>Annual Benefits</u>
Children	0 \$	0	0 \$	0
Disabled Employees	6	247,701	5	185,132
Retired Employees	17	617,933	14	474,740
Surviving Spouses	3	69,642	3	69,642
Terminated Vesteds	<u>5</u>	<u>141,322</u>	<u>6</u>	<u>171,933</u>
Total	<u>31</u>	<u>1,076,598</u>	<u>28</u>	<u>901,447</u>
Annual Payroll	\$	2,166,492	\$	2,091,172

# SUMMARY OF PLAN PARTICIPANTS (Continued)

## Age and Service Distribution

Service Age	0-4	5-9	10-14	15-19	20-24	25-29	30+	Total	Salary
20-24									
25-29	4	2						6	64,158
30-34		5						5	77,734
35-39		5						5	74,095
40-44		1	2	2	1			6	76,567
45-49		2			3			5	80,778
50-54						1		1	81,788
55-59		1						1	77,319
60+									
Total	<u>4</u>	<u>16</u>	<u>2</u>	<u>2</u>	<u>4</u>	<u>1</u>	<u>0</u>	<u>29</u>	<u>74,707</u>
Salary	60,035	76,638	61,625	82,423	82,565	81,788			

Average Age: 38.2      Average Service: 10.1

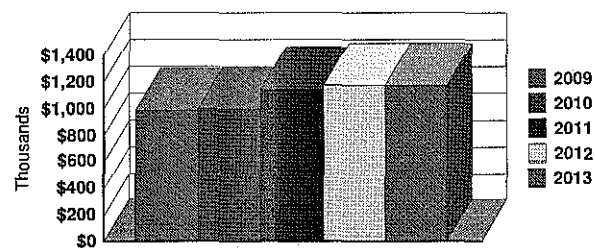
DURATION (years)    Active Members: 18.2    Retired Members: 10.9    All Members: 13.7

## PROJECTED PENSION PAYMENTS

<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>
\$992,527	\$995,990	\$1,140,820	\$1,181,879	\$1,181,573

## PROJECTED PENSION PAYMENTS

2009-2013



## SUMMARY OF PLAN PROVISIONS

The Plan Provisions have not been changed from the prior year.

The Village of Bensenville Police Pension Fund was created and is administered as prescribed by "Article 3. Police Pension Fund - Municipalities 500,000 and Under" of the Illinois Pension Code (Illinois Compiled Statutes, 1992, Chapter 40). A brief summary of the plan provisions is provided below.

Employees attaining the age of (50) or more with (20) or more years of creditable service are entitled to receive an annual retirement benefit of (2.5%) of final salary for each year of service up to (30) years, to a maximum of (75%) of such salary.

Employees with at least (8) years but less than (20) years of credited service may retire at or after age (60) and receive a reduced benefit of (2.5%) of final salary for each year of service.

Surviving spouses receive (100%) of final salary for fatalities resulting from an act of duty, or otherwise the greater of (50%) of final salary or the employee's retirement benefit.

Employees disabled in the line of duty receive (65%) of final salary.

The monthly pension of a covered employee who retired with (20) or more years of service after January 1, 1977, shall be increased annually, following the first anniversary date of retirement and be paid upon reaching the age of at least (55) years, by (3%) of the originally granted pension. Beginning with increases granted on or after July 1, 1993, the second and subsequent automatic annual increases shall be calculated as (3%) of the amount of the pension payable at the time of the increase.

Employees are required to contribute (9.91%) of their base salary to the Police Pension Plan. If an employee leaves covered employment with less than (20) years of service, accumulated employee contributions may be refunded without accumulated interest.



## ACTUARIAL METHODS

The Actuarial Methods used for determining the Tax Levy and GASB Statements No. 25 & 27 financial disclosure have not been changed from the prior year. The Actuarial Method employed for this valuation is as follows:

### Entry Age Normal Cost Method

Under the Entry Age Normal Cost Method the Normal Cost for each participant is computed as the level percentage of pay which, if paid from the earliest age the participant is eligible to enter the plan until retirement or termination, will accumulate with interest to sufficiently fund all benefits under the plan. The Normal Cost for the plan is determined as the sum of the Normal Costs for all active participants.

The Accrued Liability is the theoretical amount that would have accumulated had annual contributions equal to the Normal Cost been paid. The Unfunded Accrued Liability is the excess of the Accrued Liability over the plan's assets. Experience gains or losses adjust the Unfunded Accrued Liability.

## ACTUARIAL ASSUMPTIONS

The Actuarial Assumptions used for determining the Tax Levy Requirement and GASB Statements No. 25 & 27 Disclosure Information are the same and have not been changed from the prior year. The Actuarial Assumptions employed for this valuation are as follows:

Valuation Date	May 1, 2008
Asset Valuation Method	Market Value
Investment Return	7.50%
Salary Scale	5.00%
Mortality	1971 Group Annuity Mortality Table
Withdrawal	State of Illinois DOI Experience Rates
Disability	State of Illinois DOI Experience Rates
Retirement	State of Illinois DOI Experience Rates (100% by Age 62)
Marital Status	80% Married, Spouse Same Age
Plan Expenses	None

### Sample Annual Rates Per 100 Participants

<u>Age</u>	<u>Mortality</u>	<u>Withdrawal</u>	<u>Disability</u>	<u>Retirement</u>
20	0.05	6.00	0.07	
30	0.81	5.10	0.10	
40	0.16	2.85	0.20	
50	0.53		0.52	20.00
60	1.31		0.60	83.33
62	1.59			100.00

## GASB STATEMENTS NO. 25 & 27 DISCLOSURE INFORMATION

The Governmental Accounting Standards Board (GASB) issued Statements No. 25 & 27 that established generally accepted accounting principles for the annual financial statements for defined benefit pension plans. The required information is as follows:

Membership in the plan consisted of the following as of:

	<u>April 30, 2008</u>	<u>April 30, 2006</u>
Retirees and beneficiaries receiving benefits	26	22
Terminated plan members entitled to but not yet receiving benefits	5	6
Active vested plan members	15	10
Active nonvested plan members	<u>14</u>	<u>24</u>
Total	<u>60</u>	<u>62</u>
Number of participating employers	1	1

## SCHEDULE OF FUNDING PROGRESS

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) -Entry Age (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)
04/30/04	11,617,747	15,067,945	3,450,198	77.1%	2,164,096	159.4%
04/30/06	12,619,030	17,538,690	4,919,660	71.9%	2,091,172	235.3%
04/30/08	13,065,169	20,643,852	7,578,683	63.3%	2,166,492	349.8%

GASB STATEMENTS NO. 25 & 27 DISCLOSURE INFORMATION (Continued)

ANNUAL PENSION COST AND NET PENSION OBLIGATION

	<u>April 30, 2008</u>	<u>April 30, 2006</u>
Annual required contribution	528,565	226,485
Interest on net pension obligation	167,432	124,648
Adjustment to annual required contribution	<u>(116,151)</u>	<u>(82,002)</u>
Annual pension cost	579,846	269,131
Contributions made	<u>109,367</u>	<u>89,041</u>
Increase (decrease) in net pension obligation	470,479	180,090
Net pension obligation beginning of year	<u>2,232,433</u>	<u>1,661,968</u>
Net pension obligation end of year	<u>2,702,912</u>	<u>1,842,058</u>

THREE-YEAR TREND INFORMATION

<u>Fiscal Year Ending</u>	<u>Annual Pension Cost (APC)</u>	<u>Percentage of APC Contributed</u>	<u>Net Pension Obligation</u>
04/30/04	103,891	82.7%	1,661,968
04/30/06	269,131	33.1%	1,842,058
04/30/08	579,846	18.9%	2,702,912

GASB STATEMENTS NO. 25 & 27 DISCLOSURE INFORMATION (Continued)

FUNDING POLICY AND ANNUAL PENSION COST

Contribution rates:

Village	5.05%	4.26%
Plan members	9.91%	Same

Annual pension cost	579,846	269,131
---------------------	---------	---------

Contributions made	109,367	89,041
--------------------	---------	--------

Actuarial valuation date	04/30/2008	04/30/2006
--------------------------	------------	------------

Actuarial cost method	Entry age	Same
-----------------------	-----------	------

Amortization period	Level percentage of pay, closed	Same
---------------------	---------------------------------	------

Remaining amortization period	25 years	26 years
-------------------------------	----------	----------

Asset valuation method	Market	Same
------------------------	--------	------

Actuarial assumptions:

Investment rate of return*	7.50%	Same
Projected salary increases*	5.00%	Same

*Includes inflation at	3.00%	Same
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Cost-of-living adjustments	3.00% per year	Same
----------------------------	----------------	------

*VILLAGE OF BENSENVILLE POLICE PENSION FUND*

GASB STATEMENTS NO. 25 & 27 DISCLOSURE INFORMATION

The Governmental Accounting Standards Board (GASB) issued Statements No. 25 & 27 that established generally accepted accounting principles for the annual financial statements for defined benefit pension plans. The required information is as follows:

Membership in the plan consisted of the following as of:

	<u>April 30, 2008</u>	<u>April 30, 2006</u>
Retirees and beneficiaries receiving benefits	26	22
Terminated plan members entitled to but not yet receiving benefits	5	6
Active vested plan members	15	10
Active nonvested plan members	<u>14</u>	<u>24</u>
Total	<u>60</u>	<u>62</u>
Number of participating employers	1	1

SCHEDULE OF FUNDING PROGRESS

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) -Entry Age (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)
04/30/04	11,617,747	15,067,945	3,450,198	77.1%	2,164,096	159.4%
04/30/06	12,619,030	17,538,690	4,919,660	71.9%	2,091,172	235.3%
04/30/08	13,065,169	20,643,852	7,578,683	63.3%	2,166,492	349.8%

*VILLAGE OF BENSENVILLE POLICE PENSION FUND*

GASB STATEMENTS NO. 25 & 27 DISCLOSURE INFORMATION (Continued)

ANNUAL PENSION COST AND NET PENSION OBLIGATION

	<u>April 30, 2008</u>	<u>April 30, 2006</u>
Annual required contribution	528,565	226,485
Interest on net pension obligation	167,432	124,648
Adjustment to annual required contribution	<u>(116,151)</u>	<u>(82,002)</u>
Annual pension cost	579,846	269,131
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Net pension obligation end of year	<u>2,702,912</u>	<u>1,842,058</u>

THREE-YEAR TREND INFORMATION

<u>Fiscal</u> <u>Year</u> <u>Ending</u>	<u>Annual</u> <u>Pension</u> <u>Cost (APC)</u>	<u>Percentage</u> <u>of APC</u> <u>Contributed</u>	<u>Net</u> <u>Pension</u> <u>Obligation</u>
04/30/04	103,891	82.7%	1,661,968
04/30/06	269,131	33.1%	1,842,058
04/30/08	579,846	18.9%	2,702,912

*VILLAGE OF BENSENVILLE POLICE PENSION FUND*

GASB STATEMENTS NO. 25 & 27 DISCLOSURE INFORMATION (Continued)

FUNDING POLICY AND ANNUAL PENSION COST

Contribution rates:

Village	5.05%	4.26%
Plan members	9.91%	Same

Annual pension cost	579,846	269,131
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Contributions made	109,367	89,041
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Actuarial valuation date	04/30/2008	04/30/2006
--------------------------	------------	------------

Actuarial cost method	Entry age	Same
-----------------------	-----------	------

Amortization period	Level percentage of pay, closed	Same
---------------------	---------------------------------	------

Remaining amortization period	25 years	26 years
-------------------------------	----------	----------

Asset valuation method	Market	Same
------------------------	--------	------

Actuarial assumptions:

Investment rate of return*	7.50%	Same
Projected salary increases*	5.00%	Same

*Includes inflation at	3.00%	Same
------------------------	-------	------

Cost-of-living adjustments	3.00% per year	Same
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BENSENVILLE POLICE PENSION FUND  
VALUATION BALANCE SHEET  
11/09/2009 04:30:41

SHOWING ASSETS AND LIABILITIES OF THE FUND IN  
ACCORDANCE WITH ACTUARIAL RESERVE REQUIREMENTS

AS OF APRIL 30, 2009

NET PRESENT ASSETS.....	\$	10,353,568
DEFERRED ASSET (UNFUNDED ACCRUED LIABILITY).....		12,226,276
TOTAL ASSETS.....	\$	22,579,844

LIABILITIES

RESERVES FOR ANNUITIES AND BENEFITS IN FORCE

PRESENT VALUE OF -			
SERVICE RETIREMENT ANNUITIES.....	16	INDIVIDUALS	\$ 9,018,044
DISABILITY ANNUITIES.....	7	INDIVIDUALS	4,524,788
WIDOWS AND PARENTS ANNUITIES.....	4	INDIVIDUALS	849,150
CHILDRENS ANNUITIES.....	0	INDIVIDUALS	0
DEFERRED ANNUITIES.....	5	INDIVIDUALS	862,369
HANDICAPPED ANNUITIES.....	0	INDIVIDUALS	0
TOTAL.....			\$ 15,254,351
ACCRUED LIABILITIES FOR ACTIVE PARTICIPANTS.....	32	INDIVIDUALS	\$ 7,325,493
SURPLUS.....			0
TOTAL LIABILITIES AND SURPLUS.....			\$ 22,579,844

THIS REPORT IS PROVIDED TO YOU AS PART OF THE PUBLIC PENSION DIVISION  
ADVISORY SERVICES UNDER SECTION 1A-106 OF THE ILLINOIS PENSION CODE.

SCOTT J. BRANDT  
STATISTICAL SERVICES, PUBLIC PENSION DIVISION  
ILLINOIS DEPARTMENT OF FINANCIAL AND PROFESSIONAL REGULATION  
DIVISION OF INSURANCE

BENSENVILLE POLICE PENSION FUND  
ACTUARIALLY DETERMINED TAX LEVY  
11/09/2009 04:30:41

ACTUARIALLY DETERMINED AMOUNT TO PROVIDE THE EMPLOYER  
NORMAL COST BASED ON THE ANNUAL PAYROLL OF ACTIVE  
PARTICIPANTS AS OF APRIL 30, 2009. \$ 349,961

PERCENT OF EMPLOYER NORMAL COSTS TO TOTAL ANNUAL  
SALARIES OF \$ 2,254,672 IS 15.520%.

PERCENT OF TOTAL NORMAL COSTS TO TOTAL ANNUAL  
SALARIES OF \$ 2,254,672 IS 25.430%.

AMOUNT NECESSARY TO AMORTIZE THE UNFUNDED ACCRUED  
LIABILITY OF \$ 12,226,276 AS DETERMINED  
BY THE STATE OF ILLINOIS DEPARTMENT OF FINANCIAL AND  
PROFESSIONAL REGULATION OVER THE REMAINING 24.1699  
YEARS AS CONTEMPLATED BY SECTION 3-127 OF THE ILLINOIS  
PENSION CODE. 601,308

CREDIT FOR SURPLUS 0

TOTAL SUGGESTED AMOUNT OF TAX LEVY TO ARRIVE AT  
THE ANNUAL REQUIREMENTS OF THE FUND AS CONTEMPLATED  
BY SECTION 3-125 OF THE ILLINOIS PENSION CODE. \*\$ 951,269

\*THE ABOVE FIGURE IS THE SUGGESTED AMOUNT WHICH SHOULD BE OBTAINED BY  
THE FUND FROM THE MUNICIPALITY EXCLUSIVE OF ANY OTHER ITEMS OF INCOME,  
SUCH AS, INTEREST ON INVESTMENTS, CONTRIBUTIONS FROM PARTICIPANTS, ETC.  
THESE ITEMS HAVE ALREADY BEEN TAKEN INTO CONSIDERATION IN ARRIVING AT  
THIS AMOUNT.

ACTUARIAL INFORMATION

FUNDING METHOD USED	ENTRY AGE NORMAL COST
AMORTIZATION METHOD USED	LEVEL PERCENTAGE OF PAYROLL IN ACCORDANCE WITH SEC 3-127 OF THE IL PENSION CODE.
INTEREST RATE ASSUMPTION	7.0%
MORTALITY RATE ASSUMPTION	1971 GROUP ANNUITY
DECREMENT ASSUMPTION OTHER THAN MORTALITY	EXPERIENCE TABLES
SALARY PROGRESSION ASSUMPTION	5.5%
STATUS OF SOCIAL SECURITY IN ASSUMPTION	NONE

THE ATTAINED AGE AT TIME OF DISABILITY OR RETIREMENT, SEX, ANNUAL  
SALARY OR PENSION, AND COMPLETED YEARS OF SERVICE OF EACH INDIVIDUAL  
PARTICIPANT AS OF THE DATE OF THE VALUATION BALANCE SHEET IS USED IN  
CALCULATING THE LIABILITIES OF THE FUND. THE ACTUARIAL ASSUMPTIONS  
USED IN DETERMINING THE ABOVE AMOUNTS ARE BASED ON ALL OF THE ARTICLE  
3 FUNDS IN THE STATE OF ILLINOIS IN AGGREGATE, NOT ON EACH FUND  
INDIVIDUALLY. THE FUND SPECIFIC INFORMATION USED IN THE PRODUCTION OF  
THIS DOCUMENT WAS PROVIDED TO THE ILLINOIS DEPARTMENT OF FINANCIAL AND  
PROFESSIONAL REGULATION BY YOUR PENSION FUND BOARD OF TRUSTEES THROUGH  
THE FUND'S ANNUAL STATEMENT FILING.



**VILLAGE OF BENSENVILLE**  
**BENSENVILLE POLICE PENSION FUND**

Actuarial Valuation Report

For the Year

Beginning May 1, 2009

And Ending April 30, 2010

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*Timothy W. Sharpe, Actuary, Geneva, IL (630) 262-0600*

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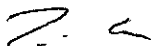
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## INTRODUCTION

Police-sworn personnel of the Village of Bensenville are covered by the Police Pension Plan that is a defined-benefit, single-employer pension plan. The purpose of this report is to disclose the Tax Levy Requirement and GASB Statements No. 25 & 27 financial information and related actuarial information for the year beginning May 1, 2009, and ending April 30, 2010.

The valuation results reported herein are based on plan provisions in effect as of May 1, 2009, the employee data furnished by the Village, the financial data provided by the Fund's trustee and the actuarial methods and assumptions described later in this report. I hereby certify that this report is complete and accurate and fairly presents the actuarial position of the Fund as of April 30, 2009, in accordance with generally accepted actuarial principles and procedures. In my opinion, the assumptions used are reasonably related to the experience of the Plan and to reasonable expectations.

Respectfully submitted,



Timothy W. Sharpe, EA, MAAA  
Enrolled Actuary No. 08-4384



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Date

## SUMMARY OF RESULTS

There were no changes with respect to Plan Provisions, Actuarial Methods or Actuarial Assumptions from the prior year.

There were no unexpected changes with respect to the participants included in this actuarial valuation (6 new members, 0 terminations, 2 retirements, 1 incident of disability, annual payroll increase 8.6%, average salary increase 2.8%).

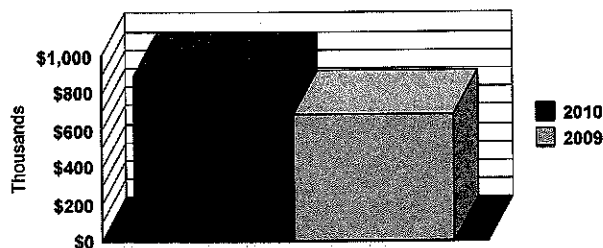
There were no unexpected changes with respect to the Fund's investments from the prior year (annual investment return -14.54%).

The Village's Tax Levy Requirement has increased from \$690,236 last year to \$892,737 this year (29.3%). The increase in the Tax Levy is due to the increase in salaries and the investment return was much less than assumed. The Percent Funded has decreased from 63.3% last year to 50.0% this year.

# SUMMARY OF RESULTS (Continued)

	For Year Ending April 30	
	<u>2010</u>	<u>2009</u>
Tax Levy Requirement	\$ 892,737	\$ 690,236
	as of May 1	
	<u>2009</u>	<u>2008</u>
Village Normal Cost	267,816	245,757
Anticipated Employee Contributions	233,141	214,699
Accrued Liability	20,887,297	20,643,852
Actuarial Value of Assets	10,448,151	13,065,169
Unfunded Accrued Liability/(Surplus)	10,439,146	7,578,683
Amortization of Unfunded Accrued Liability/(Surplus)	562,637	396,323
Percent Funded	50.0%	63.3%
Annual Payroll	\$ 2,352,581	\$ 2,166,492

**TAX LEVY REQUIREMENT**  
as of April 30

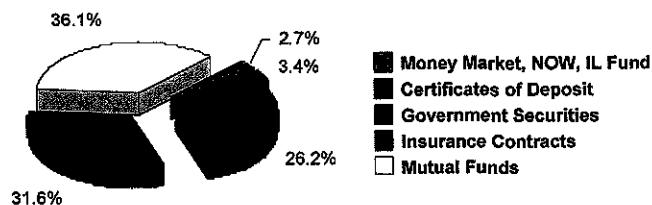


# ACTUARIAL VALUATION OF ASSETS

		as of May 1	
	<u>2009</u>		<u>2008</u>
Money Market, NOW, IL Fund	\$ 282,451	\$	555,989
Certificates of Deposit	358,750		500,000
Government Securities	2,735,625		3,048,126
Insurance Contracts	3,298,844		4,250,036
Mutual Funds	3,773,697		4,693,387
Interest Receivable	0		2,540
Miscellaneous Receivable/(Payable)	<u>(1,215)</u>		<u>15,092</u>
Actuarial Value of Assets	\$ <u>10,448,151</u>	\$	<u>13,065,169</u>

## SUMMARY OF ASSETS

As Of May 1, 2009

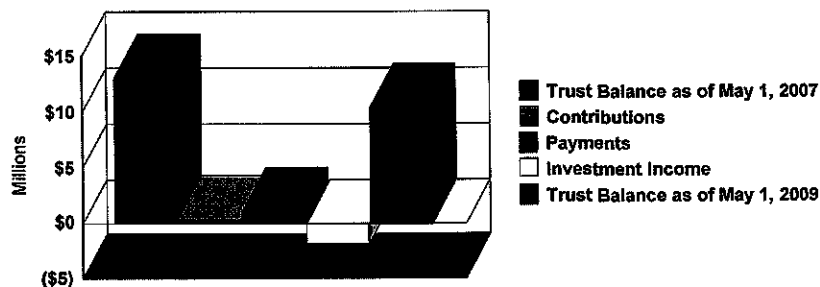




## ASSET CHANGES DURING PRIOR YEAR

Trust Balance as of May 1, 2008		\$ 13,065,169
Contributions		
Village	116,814	
Employee	<u>205,701</u>	
Total		322,516
Payments		
Benefit Payments	1,046,175	
Expenses	<u>49,562</u>	
Total		1,095,737
Investment Income		<u>(1,843,797)</u>
Trust Balance as of May 1, 2009		\$ <u>10,448,151</u>
Approximate Annual Rate of Return		-14.54%

## ASSET CHANGES DURING PRIOR YEAR



## NORMAL COST

The Normal Cost is the actuarial present value of the portion of the projected benefits that are expected to accrue during the year based upon the actuarial valuation method and actuarial assumptions employed in the valuation.

		as of May 1	
	<u>2009</u>		<u>2008</u>
Total Normal Cost	\$ 500,957	\$	460,456
Anticipated Employee Contributions	<u>233,141</u>		<u>214,699</u>
Village Normal Cost	<u>267,816</u>		<u>245,757</u>
Normal Cost Payroll	\$ 2,352,581	\$	2,166,492
Village Normal Cost Rate	11.38%		11.34%
Total Normal Cost Rate	21.29%		21.25%

### NORMAL COST

As Of May 1, 2009

53.5%



46.5%

- Anticipated Employee Contributions
- Village Normal Cost

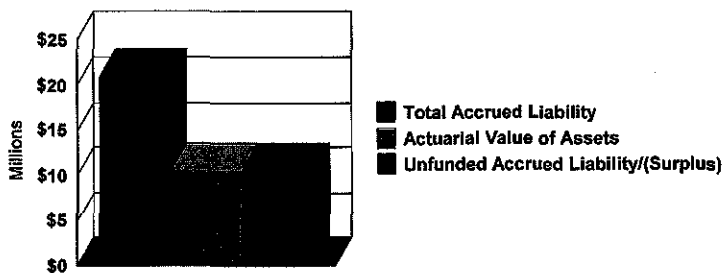
## ACCRUED LIABILITY

The Accrued Liability is the actuarial present value of the portion of the projected benefits that has been accrued as of the valuation date based upon the actuarial valuation method and actuarial assumptions employed in the valuation. The Unfunded Accrued Liability is the excess of the Accrued Liability over the Actuarial Value of Assets.

	as of May 1	
Accrued Liability	<u>2009</u>	<u>2008</u>
Active Employees	\$ 7,274,802	\$ 7,744,714
Children Annuities	0	0
Disability Annuities	4,369,558	3,802,813
Retirement Annuities	7,695,475	7,928,966
Surviving Spouse Annuities	700,824	496,690
Terminated Vested Annuities	<u>846,638</u>	<u>670,669</u>
Total Annuities	13,612,495	12,899,138
Total Accrued Liability	20,887,297	20,643,852
Actuarial Value of Assets	<u>10,448,151</u>	<u>13,065,169</u>
Unfunded Accrued Liability/(Surplus)	\$ <u>10,439,146</u>	\$ <u>7,578,683</u>
Percent Funded	50.0%	63.3%

### ACCRUED LIABILITY

As Of May 1, 2009



## TAX LEVY REQUIREMENT

The Tax Levy Requirement is determined as the annual contribution necessary to fund the normal cost, plus the amount to amortize the unfunded accrued liability as a level percentage of payroll over a forty (40) year period which commenced in 1993, plus an adjustment for interest.

	For Year Ending April 30	
	<u>2010</u>	<u>2009</u>
Village Normal Cost as of Beginning of Year	\$ 267,816	\$ 245,757
Amortization of Unfunded Accrued Liability/(Surplus)	562,637	396,323
Interest for One Year	<u>62,284</u>	<u>48,156</u>
Tax Levy Requirement as of End of Year	\$ <u>892,737</u>	\$ <u>690,236</u>

## TAX LEVY REQUIREMENT

For Fiscal Year Ending April 30, 2010



## SUMMARY OF PLAN PARTICIPANTS

The actuarial valuation of the Plan is based upon the employee data furnished by the Village.  
The information provided for Active participants included:

Name  
Sex  
Date of Birth  
Date of Hire  
Compensation  
Employee Contributions

The information provided for Inactive participants included:

Name  
Sex  
Date of Birth  
Date of Pension Commencement  
Monthly Pension Benefit  
Form of Payment

Membership	<u>2009</u>	<u>2009</u>	<u>2008</u>	<u>2008</u>
Current Employees				
Vested	16		15	
Nonvested	<u>16</u>		<u>14</u>	
Total	<u>32</u>		<u>29</u>	
Inactive Participants		<u>Annual Benefits</u>		<u>Annual Benefits</u>
Children	0 \$	0	0 \$	0
Disabled Employees	7	284,160	6	247,701
Retired Employees	16	608,825	17	617,933
Surviving Spouses	4	101,968	3	69,642
Terminated Vesteds	<u>7</u>	<u>180,199</u>	<u>5</u>	<u>141,322</u>
Total	<u>34</u>	<u>1,175,152</u>	<u>31</u>	<u>1,076,598</u>
Annual Payroll	\$	2,352,581	\$	2,166,492

# SUMMARY OF PLAN PARTICIPANTS (Continued)

## Age and Service Distribution

Service Age	0-4	5-9	10-14	15-19	20-24	25-29	30+	Total	Salary
20-24	2							2	55,089
25-29	6	1						7	61,384
30-34	2	6						8	75,365
35-39		4	1					5	75,760
40-44		1		1	1			3	79,691
45-49		2			3			5	88,081
50-54						1		1	75,760
55-59		1						1	75,760
60+									
Total	<u>10</u>	<u>15</u>	<u>1</u>	<u>1</u>	<u>4</u>	<u>1</u>	<u>0</u>	<u>32</u>	<u>73,518</u>
Salary	58,997	78,046	75,760	75,760	91,161	75,760			

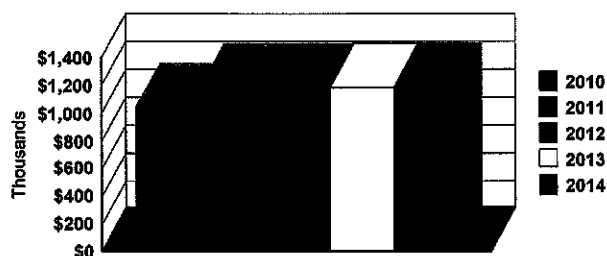
Average Age: 36.2      Average Service: 8.3

DURATION (years)    Active Members: 18.1    Retired Members: 11.0    All Members: 13.4

## PROJECTED PENSION PAYMENTS

<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>
\$1,049,880	\$1,189,827	\$1,186,594	\$1,185,037	\$1,194,515

## PROJECTED PENSION PAYMENTS 2010-2014



## SUMMARY OF PLAN PROVISIONS

The Plan Provisions have not been changed from the prior year.

The Village of Bensenville Police Pension Fund was created and is administered as prescribed by "Article 3. Police Pension Fund - Municipalities 500,000 and Under" of the Illinois Pension Code (Illinois Compiled Statutes, 1992, Chapter 40). A brief summary of the plan provisions is provided below.

Employees attaining the age of (50) or more with (20) or more years of creditable service are entitled to receive an annual retirement benefit of (2.5%) of final salary for each year of service up to (30) years, to a maximum of (75%) of such salary.

Employees with at least (8) years but less than (20) years of credited service may retire at or after age (60) and receive a reduced benefit of (2.5%) of final salary for each year of service.

Surviving spouses receive (100%) of final salary for fatalities resulting from an act of duty, or otherwise the greater of (50%) of final salary or the employee's retirement benefit.

Employees disabled in the line of duty receive (65%) of final salary.

The monthly pension of a covered employee who retired with (20) or more years of service after January 1, 1977, shall be increased annually, following the first anniversary date of retirement and be paid upon reaching the age of at least (55) years, by (3%) of the originally granted pension. Beginning with increases granted on or after July 1, 1993, the second and subsequent automatic annual increases shall be calculated as (3%) of the amount of the pension payable at the time of the increase.

Employees are required to contribute (9.91%) of their base salary to the Police Pension Plan. If an employee leaves covered employment with less than (20) years of service, accumulated employee contributions may be refunded without accumulated interest.

## ACTUARIAL METHODS

The Actuarial Methods used for determining the Tax Levy and GASB Statements No. 25 & 27 financial disclosure have not been changed from the prior year. The Actuarial Method employed for this valuation is as follows:

### Entry Age Normal Cost Method

Under the Entry Age Normal Cost Method the Normal Cost for each participant is computed as the level percentage of pay which, if paid from the earliest age the participant is eligible to enter the plan until retirement or termination, will accumulate with interest to sufficiently fund all benefits under the plan. The Normal Cost for the plan is determined as the sum of the Normal Costs for all active participants.

The Accrued Liability is the theoretical amount that would have accumulated had annual contributions equal to the Normal Cost been paid. The Unfunded Accrued Liability is the excess of the Accrued Liability over the plan's assets. Experience gains or losses adjust the Unfunded Accrued Liability.



## ACTUARIAL ASSUMPTIONS

The Actuarial Assumptions used for determining the Tax Levy Requirement and GASB Statements No. 25 & 27 Disclosure Information are the same and have not been changed from the prior year. The Actuarial Assumptions employed for this valuation are as follows:

Valuation Date	May 1, 2009
Asset Valuation Method	Market Value
Investment Return	7.50%
Salary Scale	5.00%
Mortality	1971 Group Annuity Mortality Table
Withdrawal	State of Illinois DOI Experience Rates
Disability	State of Illinois DOI Experience Rates
Retirement	State of Illinois DOI Experience Rates (100% by Age 62)
Marital Status	80% Married, Spouse Same Age
Plan Expenses	None

### Sample Annual Rates Per 100 Participants

<u>Age</u>	<u>Mortality</u>	<u>Withdrawal</u>	<u>Disability</u>	<u>Retirement</u>
20	0.05	6.00	0.07	
30	0.81	5.10	0.10	
40	0.16	2.85	0.20	
50	0.53		0.52	20.00
60	1.31		0.60	83.33
62	1.59			100.00

GASB STATEMENTS NO. 25 & 27 DISCLOSURE INFORMATION (Continued)

FUNDING POLICY AND ANNUAL PENSION COST

Contribution rates:

Village	4.97%	5.05%
Plan members	9.91%	Same

Annual pension cost	739,672	570,879
---------------------	---------	---------

Contributions made	116,814	109,367
--------------------	---------	---------

Actuarial valuation date	04/30/2009	04/30/2008
--------------------------	------------	------------

Actuarial cost method	Entry age	Same
-----------------------	-----------	------

Amortization period	Level percentage of pay, closed	Same
---------------------	---------------------------------	------

Remaining amortization period	24 years	25 years
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Asset valuation method	Market	Same
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Actuarial assumptions:

Investment rate of return*	7.50%	Same
----------------------------	-------	------

Projected salary increases*	5.00%	Same
-----------------------------	-------	------

*Includes inflation at	3.00%	Same
------------------------	-------	------

Cost-of-living adjustments	3.00% per year	Same
----------------------------	----------------	------

**BENSENVILLE POLICE PENSION FUND**  
**Valuation Balance Sheet**

**Showing Assets and Liabilities of the Fund in  
Accordance with Actuarial Reserve Requirements  
as of April 30, 2010**

Net Present Assets	\$11,450,650
Deferred Assets (Unfunded Accrued Liability)	\$12,452,078
Total Assets	<hr/> \$23,902,728

**Liabilities**

Reserves for Annuities and Benefits in Force

Present Value of:

Retirement Annuities	15	Individuals	\$8,949,597
Disability Annuities	7	Individuals	4,808,736
Surviving Spouse Annuities	4	Individuals	821,773
Minor Dependent Annuities	0	Individuals	0
Deferred Retirement Annuities	5	Individuals	920,735
Handicapped Dependent Annuities	0	Individuals	0
Dependent Parent Annuities	0	Individuals	0
Total:	<hr/> 31	Individuals	<hr/> \$15,500,841

Accrued Liabilities for Active Members	33	Individuals	\$8,401,887
Surplus			\$0
Total Liabilities and Surplus			<hr/> \$23,902,728

This report is provided to you as part of the Public Pension Division advisory services under Section 1A-106 of the Illinois Pension Code.

Scott J. Brandt  
Statistical Services, Public Pension Division  
Illinois Department of Insurance

**BENSENVILLE POLICE PENSION FUND**  
**Actuarially Determined Tax Levy**

Actuarially determined amount to provide the employer normal cost based on the annual payroll of active participants as of Friday, April 30, 2010. \$375,672

Percent of employer normal cost to total annual salaries of \$2,406,640 is 15.610%.

Percent of total normal cost to total annual salaries of \$2,406,640 is 25.520%.

Amount necessary to amortize the unfunded accrued liability of \$12,452,078 as determined by the State of Illinois Department of Insurance over the remaining 23.1699 years as contemplated by Section 3-127 of the Illinois Pension Code. \$634,599

Credit for surplus. \$0

Total suggested amount of Tax Levy to arrive at the annual requirements of the fund as contemplated by Section 3-125 of the Illinois Pension Code. \*\$1,010,271

\*The above figure is the suggested amount which should be obtained by the fund from the municipality exclusive of any other items of income, such as interest on investments, contributions from participants, etc. These items have already been taken into consideration in arriving at this amount.

**Actuarial Information**

Funding method used	Entry age normal cost
Amortization method used	Level percentage of payroll in accordance with Section 3-127 of the Illinois Pension Code
Interest rate assumption	7.0%
Mortality rate assumption	1971 group annuity
Decrement assumption other than mortality	Experience tables
Salary progression assumption	5.5%
Status of Social Security in assumption	None

The attained age at time of disability or retirement, gender, annual salary or pension, and completed years of service of each individual participant as of the date of the Valuation Balance Sheet are used in calculating the liabilities of the fund. The actuarial assumptions used in determining the above amounts are based on all of the Article 3 funds in the State of Illinois in aggregate, not on each fund individually. The fund specific information used in the production of this document was provided to the Illinois Department of Insurance by your pension fund board of trustees through the fund's annual statement filing.



**VILLAGE OF BENSENVILLE**  
**BENSENVILLE POLICE PENSION FUND**

Actuarial Valuation Report

For the Year

Beginning May 1, 2010

And Ending April 30, 2011

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*Timothy W. Sharpe, Actuary, Geneva, IL (630) 262-0600*

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## INTRODUCTION

Police-sworn personnel of the Village of Bensenville are covered by the Police Pension Plan that is a defined-benefit, single-employer pension plan. The purpose of this report is to disclose the Tax Levy Requirement and GASB Statements No. 25 & 27 financial information and related actuarial information for the year beginning May 1, 2010, and ending April 30, 2011.

The valuation results reported herein are based on plan provisions in effect as of May 1, 2010, the employee data furnished by the Village, the financial data provided by the Fund's trustee and the actuarial methods and assumptions described later in this report. I hereby certify that this report is complete and accurate and fairly presents the actuarial position of the Fund as of April 30, 2010, in accordance with generally accepted actuarial principles and procedures. In my opinion, the assumptions used are reasonably related to the experience of the Plan and to reasonable expectations.

Respectfully submitted,

Timothy W. Sharpe, EA, MAAA  
Enrolled Actuary No. 08-4384

---

Date

## SUMMARY OF RESULTS

There were no changes with respect to Plan Provisions, Actuarial Methods or Actuarial Assumptions from the prior year.

There were no unexpected changes with respect to the participants included in this actuarial valuation (1 new member, 0 terminations, 0 retirements, 0 incidents of disability, annual payroll increase 2.3%, average salary increase 0.0%).

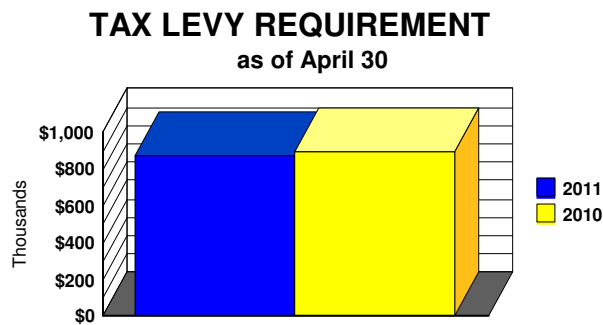
There were no unexpected changes with respect to the Fund's investments from the prior year, however the Village contribution last year was only \$220,942 whereas the Tax Levy Requirement was \$892,737 (annual investment return 16.93%).

The Village's Tax Levy Requirement has decreased slightly from \$892,737 last year to \$879,721 this year (1.5%). The decrease in the Tax Levy is due to the increase in average salaries was less than assumed and the investment return was greater than assumed. The Percent Funded has increased from 50.0% last year to 53.5% this year.



# SUMMARY OF RESULTS (Continued)

	For Year Ending April 30	
	<u>2011</u>	<u>2010</u>
Tax Levy Requirement	\$ 879,721	\$ 892,737
	as of May 1	
	<u>2010</u>	<u>2009</u>
Village Normal Cost	258,924	267,816
Anticipated Employee Contributions	238,498	233,141
Accrued Liability	21,604,610	20,887,297
Actuarial Value of Assets	11,550,751	10,448,151
Unfunded Accrued Liability/(Surplus)	10,053,859	10,439,146
Amortization of Unfunded Accrued Liability/(Surplus)	559,421	562,637
Percent Funded	53.5%	50.0%
Annual Payroll	\$ 2,406,640	\$ 2,352,581

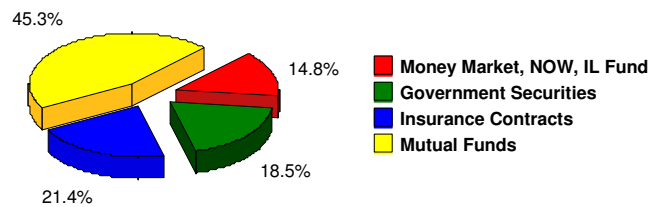


## ACTUARIAL VALUATION OF ASSETS

		as of May 1	
	<u>2010</u>		<u>2009</u>
Money Market, NOW, IL Fund	\$ 1,708,513	\$	282,451
Certificates of Deposit	0		358,750
Government Securities	2,143,200		2,735,625
Insurance Contracts	2,475,758		3,298,844
Mutual Funds	5,231,030		3,773,697
Miscellaneous Receivable/(Payable)	<u>(7,750)</u>		<u>(1,215)</u>
Actuarial Value of Assets	\$ <u>11,550,751</u>	\$	<u>10,448,151</u>

## SUMMARY OF ASSETS

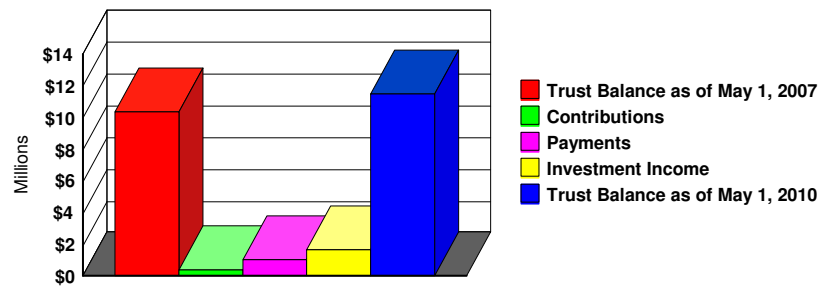
As Of May 1, 2010



## ASSET CHANGES DURING PRIOR YEAR

Trust Balance as of May 1, 2009		\$	10,448,152
Contributions			
Village	220,942		
Employee	<u>235,220</u>		
Total			456,162
Payments			
Benefit Payments	1,038,013		
Expenses	<u>31,994</u>		
Total			1,070,007
Investment Income			<u>1,716,444</u>
Trust Balance as of May 1, 2010		\$	<u>11,550,751</u>
Approximate Annual Rate of Return			16.93%

## ASSET CHANGES DURING PRIOR YEAR



## NORMAL COST

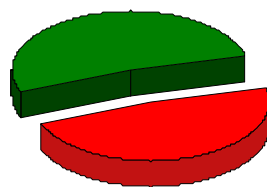
The Normal Cost is the actuarial present value of the portion of the projected benefits that are expected to accrue during the year based upon the actuarial valuation method and actuarial assumptions employed in the valuation.

		as of May 1	
		<u>2010</u>	<u>2009</u>
Total Normal Cost	\$	497,422	\$ 500,957
Anticipated Employee Contributions		<u>238,498</u>	<u>233,141</u>
Village Normal Cost		<u>258,924</u>	<u>267,816</u>
Normal Cost Payroll	\$	2,406,640	\$ 2,352,581
Village Normal Cost Rate		10.76%	11.38%
Total Normal Cost Rate		20.67%	21.29%

### NORMAL COST

As Of May 1, 2010

52.1%



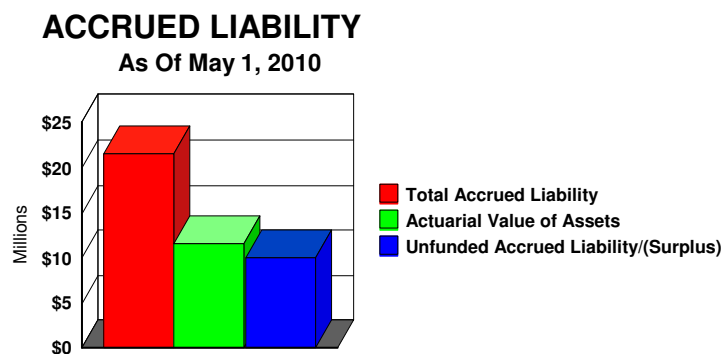
47.9%

■ Anticipated Employee Contributions  
■ Village Normal Cost

## ACCRUED LIABILITY

The Accrued Liability is the actuarial present value of the portion of the projected benefits that has been accrued as of the valuation date based upon the actuarial valuation method and actuarial assumptions employed in the valuation. The Unfunded Accrued Liability is the excess of the Accrued Liability over the Actuarial Value of Assets.

	as of May 1	
Accrued Liability	<u>2010</u>	<u>2009</u>
Active Employees	\$ 8,052,216	\$ 7,274,802
Children Annuities	0	0
Disability Annuities	4,398,968	4,369,558
Retirement Annuities	7,603,402	7,695,475
Surviving Spouse Annuities	677,710	700,824
Terminated Vested Annuities	<u>872,314</u>	<u>846,638</u>
Total Annuities	13,552,394	13,612,495
Total Accrued Liability	21,604,610	20,887,297
Actuarial Value of Assets	<u>11,550,751</u>	<u>10,448,151</u>
Unfunded Accrued Liability/(Surplus)	\$ <u>10,053,859</u>	\$ <u>10,439,146</u>
Percent Funded	53.5%	50.0%

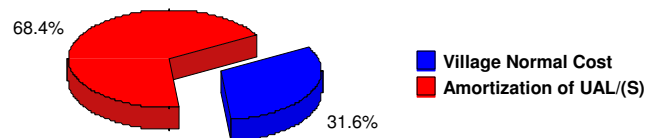


## TAX LEVY REQUIREMENT

The Tax Levy Requirement is determined as the annual contribution necessary to fund the normal cost, plus the amount to amortize the unfunded accrued liability as a level percentage of payroll over a forty (40) year period which commenced in 1993, plus an adjustment for interest.

	For Year Ending April 30	
	<u>2011</u>	<u>2010</u>
Village Normal Cost as of Beginning of Year	\$ 258,924	\$ 267,816
Amortization of Unfunded Accrued Liability/(Surplus)	559,421	562,637
Interest for One Year	<u>61,376</u>	<u>62,284</u>
Tax Levy Requirement as of End of Year	\$ <u>879,721</u>	\$ <u>892,737</u>

### TAX LEVY REQUIREMENT For Fiscal Year Ending April 30, 2011



## SUMMARY OF PLAN PARTICIPANTS

The actuarial valuation of the Plan is based upon the employee data furnished by the Village.  
The information provided for Active participants included:

Name  
Sex  
Date of Birth  
Date of Hire  
Compensation  
Employee Contributions

The information provided for Inactive participants included:

Name  
Sex  
Date of Birth  
Date of Pension Commencement  
Monthly Pension Benefit  
Form of Payment

Membership	<u>2010</u>	<u>2010</u>	<u>2009</u>	<u>2009</u>
Current Employees				
Vested	17		16	
Nonvested	<u>16</u>		<u>16</u>	
Total	<u>33</u>		<u>32</u>	
Inactive Participants		<u>Annual Benefits</u>		<u>Annual Benefits</u>
Children	0 \$	0	0 \$	0
Disabled Employees	7	285,165	7	284,160
Retired Employees	15	608,997	16	608,825
Surviving Spouses	4	101,968	4	101,968
Terminated Vesteds	<u>6</u>	<u>168,146</u>	<u>7</u>	<u>180,199</u>
Total	<u>32</u>	<u>1,164,276</u>	<u>34</u>	<u>1,175,152</u>
Annual Payroll	\$	2,406,640	\$	2,352,581

## SUMMARY OF PLAN PARTICIPANTS (Continued)

### Age and Service Distribution

Service Age	0-4	5-9	10-14	15-19	20-24	25-29	30+	Total	Salary
20-24	1							1	54,064
25-29	5							5	55,293
30-34	4	5	1					10	73,444
35-39	1	5	1					7	72,953
40-44			1	1	1			3	79,691
45-49		1			1			2	90,279
50-54			1			2		3	86,615
55-59							1	1	75,760
60+			1					1	75,760
Total	<u>11</u>	<u>11</u>	<u>5</u>	<u>1</u>	<u>2</u>	<u>2</u>	<u>1</u>	<u>33</u>	<u>72,928</u>
Salary	58,548	78,877	75,760	75,760	90,279	92,042	75,760		

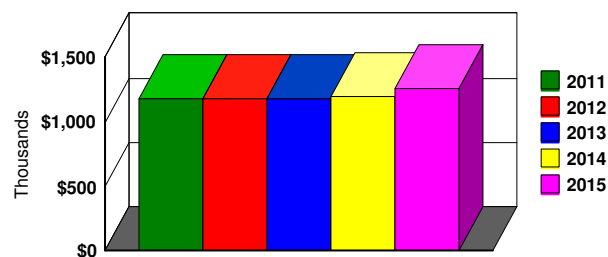
Average Age: 36.9      Average Service: 9.1

DURATION (years)    Active Members: 17.8    Retired Members: 10.7    All Members: 13.4

## PROJECTED PENSION PAYMENTS

<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>
\$1,186,943	\$1,184,992	\$1,184,683	\$1,195,464	\$1,261,842

### PROJECTED PENSION PAYMENTS 2011-2015





## SUMMARY OF PLAN PROVISIONS

The Plan Provisions have not been changed from the prior year.

The Village of Bensenville Police Pension Fund was created and is administered as prescribed by "Article 3. Police Pension Fund - Municipalities 500,000 and Under" of the Illinois Pension Code (Illinois Compiled Statutes, 1992, Chapter 40). A brief summary of the plan provisions is provided below.

Employees attaining the age of (50) or more with (20) or more years of creditable service are entitled to receive an annual retirement benefit of (2.5%) of final salary for each year of service up to (30) years, to a maximum of (75%) of such salary.

Employees with at least (8) years but less than (20) years of credited service may retire at or after age (60) and receive a reduced benefit of (2.5%) of final salary for each year of service.

Surviving spouses receive (100%) of final salary for fatalities resulting from an act of duty, or otherwise the greater of (50%) of final salary or the employee's retirement benefit.

Employees disabled in the line of duty receive (65%) of final salary.

The monthly pension of a covered employee who retired with (20) or more years of service after January 1, 1977, shall be increased annually, following the first anniversary date of retirement and be paid upon reaching the age of at least (55) years, by (3%) of the originally granted pension. Beginning with increases granted on or after July 1, 1993, the second and subsequent automatic annual increases shall be calculated as (3%) of the amount of the pension payable at the time of the increase.

Employees are required to contribute (9.91%) of their base salary to the Police Pension Plan. If an employee leaves covered employment with less than (20) years of service, accumulated employee contributions may be refunded without accumulated interest.

## ACTUARIAL METHODS

The Actuarial Methods used for determining the Tax Levy and GASB Statements No. 25 & 27 financial disclosure have not been changed from the prior year. The Actuarial Method employed for this valuation is as follows:

### Entry Age Normal Cost Method

Under the Entry Age Normal Cost Method the Normal Cost for each participant is computed as the level percentage of pay which, if paid from the earliest age the participant is eligible to enter the plan until retirement or termination, will accumulate with interest to sufficiently fund all benefits under the plan. The Normal Cost for the plan is determined as the sum of the Normal Costs for all active participants.

The Accrued Liability is the theoretical amount that would have accumulated had annual contributions equal to the Normal Cost been paid. The Unfunded Accrued Liability is the excess of the Accrued Liability over the plan's assets. Experience gains or losses adjust the Unfunded Accrued Liability.

## ACTUARIAL ASSUMPTIONS

The Actuarial Assumptions used for determining the Tax Levy Requirement and GASB Statements No. 25 & 27 Disclosure Information are the same and have not been changed from the prior year. The Actuarial Assumptions employed for this valuation are as follows:

Valuation Date	May 1, 2010
Asset Valuation Method	Market Value
Investment Return	7.50%
Salary Scale	5.00%
Mortality	1971 Group Annuity Mortality Table
Withdrawal	State of Illinois DOI Experience Rates
Disability	State of Illinois DOI Experience Rates
Retirement	State of Illinois DOI Experience Rates (100% by Age 62)
Marital Status	80% Married, Spouse Same Age
Plan Expenses	None

<u>Sample Annual Rates Per 100 Participants</u>				
<u>Age</u>	<u>Mortality</u>	<u>Withdrawal</u>	<u>Disability</u>	<u>Retirement</u>
20	0.05	6.00	0.07	
30	0.81	5.10	0.10	
40	0.16	2.85	0.20	
50	0.53		0.52	20.00
60	1.31		0.60	83.33
62	1.59			100.00

## GASB STATEMENTS NO. 25 & 27 DISCLOSURE INFORMATION

The Governmental Accounting Standards Board (GASB) issued Statements No. 25 & 27 that established generally accepted accounting principles for the annual financial statements for defined benefit pension plans. The required information is as follows:

Membership in the plan consisted of the following as of:

	<u>April 30, 2010</u>	<u>April 30, 2009</u>
Retirees and beneficiaries receiving benefits	26	27
Terminated plan members entitled to but not yet receiving benefits	6	7
Active vested plan members	17	16
Active nonvested plan members	<u>16</u>	<u>16</u>
Total	<u>65</u>	<u>66</u>
Number of participating employers	1	1

## SCHEDULE OF FUNDING PROGRESS

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) -Entry Age (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)
04/30/08	13,065,169	20,643,852	7,578,683	63.3%	2,166,492	349.8%
04/30/09	10,448,151	20,887,297	10,439,146	50.0%	2,352,581	443.7%
04/30/10	11,550,751	21,604,610	10,053,859	53.5%	2,406,640	417.8%

GASB STATEMENTS NO. 25 & 27 DISCLOSURE INFORMATION (Continued)

ANNUAL PENSION COST AND NET PENSION OBLIGATION

	<u>April 30, 2010</u>	<u>April 30, 2009</u>
Annual required contribution	892,737	690,236
Interest on net pension obligation	219,482	172,768
Adjustment to annual required contribution	<u>(161,481)</u>	<u>(123,332)</u>
Annual pension cost	950,738	739,672
Contributions made	<u>220,942</u>	<u>116,814</u>
Increase (decrease) in net pension obligation	729,796	622,858
Net pension obligation beginning of year	<u>2,926,428</u>	<u>2,303,570</u>
Net pension obligation end of year	<u>3,656,224</u>	<u>2,926,428</u>

THREE-YEAR TREND INFORMATION

<u>Fiscal</u> <u>Year</u> <u>Ending</u>	<u>Annual</u> <u>Pension</u> <u>Cost (APC)</u>	<u>Percentage</u> <u>of APC</u> <u>Contributed</u>	<u>Net</u> <u>Pension</u> <u>Obligation</u>
04/30/08	570,879	19.2%	2,303,570
04/30/09	739,672	15.8%	2,926,428
04/30/10	950,738	23.2%	3,656,224

GASB STATEMENTS NO. 25 & 27 DISCLOSURE INFORMATION (Continued)

FUNDING POLICY AND ANNUAL PENSION COST

Contribution rates:

Village	9.18%	4.97%
Plan members	9.91%	Same

Annual pension cost	950,738	739,672
---------------------	---------	---------

Contributions made	220,942	116,814
--------------------	---------	---------

Actuarial valuation date	04/30/2010	04/30/2009
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Actuarial cost method	Entry age	Same
-----------------------	-----------	------

Amortization period	Level percentage of pay, closed	Same
---------------------	---------------------------------	------

Remaining amortization period	23 years	24 years
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Asset valuation method	Market	Same
------------------------	--------	------

Actuarial assumptions:

Investment rate of return*	7.50%	Same
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Projected salary increases*	5.00%	Same
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*Includes inflation at	3.00%	Same
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Cost-of-living adjustments	3.00% per year	Same
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**VILLAGE OF BENSENVILLE**  
**BENSENVILLE POLICE PENSION FUND**

Actuarial Valuation Report  
For the Year  
Beginning January 1, 2011  
And Ending December 31, 2011

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*Timothy W. Sharpe, Actuary, Geneva, IL (630) 262-0600*

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## INTRODUCTION

Police-sworn personnel of the Village of Bensenville are covered by the Police Pension Plan that is a defined-benefit, single-employer pension plan. The purpose of this report is to disclose the Tax Levy Requirement and GASB Statements No. 25 & 27 financial information and related actuarial information for the year beginning January 1, 2011, and ending December 31, 2011.

The valuation results reported herein are based on plan provisions in effect as of January 1, 2011, the employee data furnished by the Village, the financial data provided by the Fund's trustee and the actuarial methods and assumptions described later in this report. I hereby certify that this report is complete and accurate and fairly presents the actuarial position of the Fund as of December 31, 2010, in accordance with generally accepted actuarial principles and procedures. In my opinion, the assumptions used are reasonably related to the experience of the Plan and to reasonable expectations.

Respectfully submitted,



Timothy W. Sharpe, EA, MAAA  
Enrolled Actuary No. 11-4384



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Date

## SUMMARY OF RESULTS

The fiscal year has been changed to January 1 - December 31 from May 1 - April 30.

The provisions of Public Act 096-1495 are reflected in this actuarial report, including changes to benefit provisions (page 13), the actuarial methods (page 14), and the amortization period and method (page 10).

There were no changes with respect to Actuarial Assumptions from the prior year.

There were no unexpected changes with respect to the participants included in this actuarial valuation (0 new members, 0 terminations, 0 retirements, 1 incident of disability, annual payroll increase 1.6%, average salary increase 4.9%).

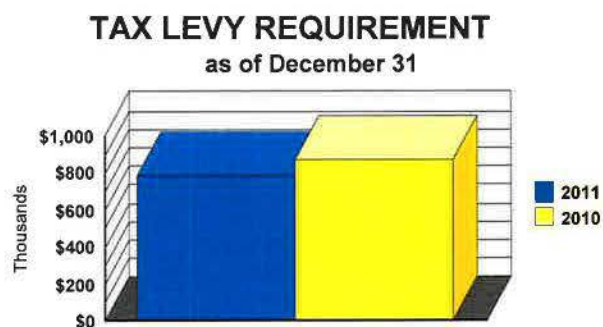
There were no unexpected changes with respect to the Fund's investments from the prior year (annual investment return 8.91%).

The Village's Tax Levy Requirement has decreased from \$879,721 (the last full fiscal year) to \$787,962 this year (10.4%). The decrease in the Tax Levy is due to the change to the amortization period and also due to the investment return was greater than assumed. The Percent Funded has increased from 53.5% last year to 54.8% this year.

# SUMMARY OF RESULTS (Continued)

	For Year Ending December 31	
	<u>2011</u>	<u>2010<sup>1</sup></u>
Tax Levy Requirement	\$ 787,962	\$ 586,481
	as of January 1	
	<u>2011</u>	<u>05/01/2010</u>
Village Normal Cost	258,622	258,924
Anticipated Employee Contributions	242,278	238,498
Accrued Liability	22,868,030	21,604,610
Actuarial Value of Assets	12,539,774	11,550,751
Unfunded Accrued Liability/(Surplus)	10,328,256	10,053,859
Amortization of Unfunded Accrued Liability/(Surplus)	474,366	559,421
Percent Funded	54.8%	53.5%
Annual Payroll	\$ 2,444,783	\$ 2,406,640

<sup>1</sup> Prorated for 8-month fiscal year (12-month \$879,721).

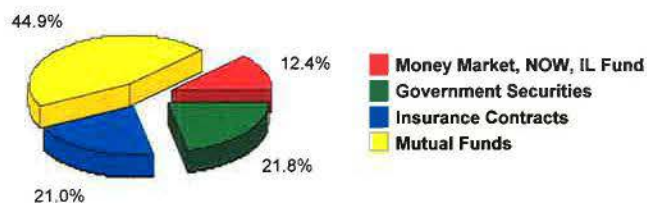


## ACTUARIAL VALUATION OF ASSETS

		as of January 1	
	<u>2011</u>		<u>05/01/2010</u>
Money Market, NOW, IL Fund	\$ 1,553,211	\$	1,708,513
Government Securities	2,730,068		2,143,200
Insurance Contracts	2,634,447		2,475,758
Mutual Funds	5,632,398		5,231,030
Miscellaneous Receivable/(Payable)	<u>(10,351)</u>		<u>(7,750)</u>
Actuarial Value of Assets	\$ <u>12,539,774</u>	\$	<u>11,550,751</u>

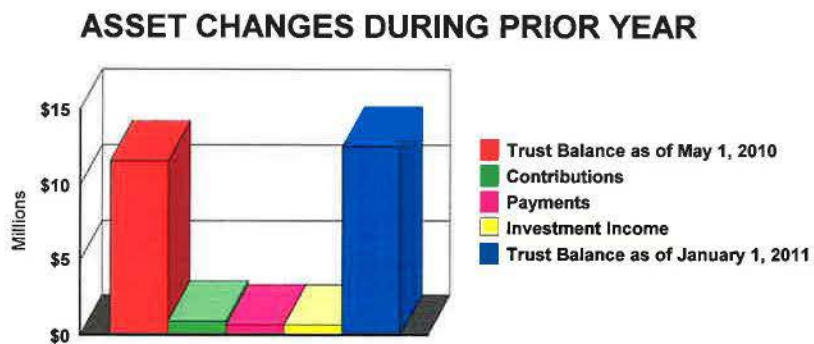
### SUMMARY OF ASSETS

As Of January 1, 2011



## ASSET CHANGES DURING PRIOR YEAR

Trust Balance as of May 1, 2010		\$ 11,550,751
Contributions		
Village	865,812	
Employee	<u>154,303</u>	
Total		1,020,115
Payments		
Benefit Payments	671,029	
Expenses	<u>54,942</u>	
Total		725,971
Investment Income		<u>694,879</u>
Trust Balance as of January 1, 2011		\$ <u>12,539,774</u>
Approximate Annual Rate of Return		8.91%

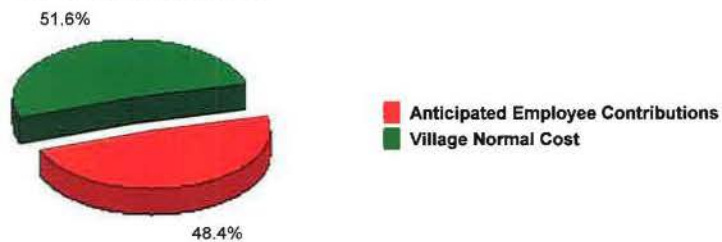


## NORMAL COST

The Normal Cost is the actuarial present value of the portion of the projected benefits that are expected to accrue during the year based upon the actuarial valuation method and actuarial assumptions employed in the valuation.

		as of January 1	
		<u>2011</u>	<u>05/01/2010</u>
Total Normal Cost	\$	500,900	\$ 497,422
Anticipated Employee Contributions		<u>242,278</u>	<u>238,498</u>
Village Normal Cost		<u>258,622</u>	<u>258,924</u>
Normal Cost Payroll	\$	2,444,783	\$ 2,406,640
Village Normal Cost Rate		10.58%	10.76%
Total Normal Cost Rate		20.49%	20.67%

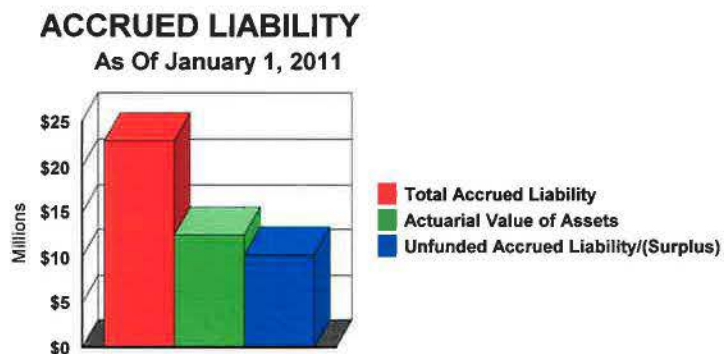
### NORMAL COST As Of January 1, 2011



## ACCRUED LIABILITY

The Accrued Liability is the actuarial present value of the portion of the projected benefits that has been accrued as of the valuation date based upon the actuarial valuation method and actuarial assumptions employed in the valuation. The Unfunded Accrued Liability is the excess of the Accrued Liability over the Actuarial Value of Assets.

	as of January 1	
Accrued Liability	<u>2011</u>	<u>05/01/2010</u>
Active Employees	\$ 8,665,458	\$ 8,052,216
Children Annuities	0	0
Disability Annuities	5,212,886	4,398,968
Retirement Annuities	7,478,516	7,603,402
Surviving Spouse Annuities	579,026	677,710
Terminated Vested Annuities	<u>932,144</u>	<u>872,314</u>
Total Annuities	14,202,572	13,552,394
Total Accrued Liability	22,868,030	21,604,610
Actuarial Value of Assets	<u>12,539,774</u>	<u>11,550,751</u>
Unfunded Accrued Liability/(Surplus)	\$ <u>10,328,256</u>	\$ <u>10,053,859</u>
Percent Funded	54.8%	53.5%



## TAX LEVY REQUIREMENT

The Tax Levy Requirement is determined as the annual contribution necessary to fund the normal cost, plus the amount to amortize the excess (if any) of ninety percent (90%) of the accrued liability over the actuarial value of assets as a level percentage of payroll over a thirty (30) year period which commenced in 2011, plus an adjustment for interest. Prior to 2011, the amortization amount was equal to the amount to amortize the unfunded accrued liability as a level percentage of payroll over a forty (40) year period which commenced in 1993. Beginning in 2011, the amortization period has been reset to 30 years.

	For Year Ending December 31	
	<u>2011</u>	<u>2010<sup>1</sup></u>
Village Normal Cost as of Beginning of Year	\$ 258,622	\$ 258,924
Amortization of Unfunded Accrued Liability/(Surplus)	474,366	559,421
Interest for One Year	<u>54,974</u>	<u>61,376</u>
Tax Levy Requirement as of End of Year	<u>787,962</u>	<u>879,721</u>
Prorated 8-month Tax Levy Requirement	\$	\$ 586,481
Public Act 096-1495 Tax Levy Requirement		
1) Normal Cost (PUC)	265,683	
2) Accrued Liability (PUC)	22,163,156	
3) Amortization Payment	340,199	
4) Interest for One Year	45,441	
5) PA 096-1495 Tax Levy Requirement (1 + 3 + 4)	\$ 651,323	

<sup>1</sup> Prorated for 8-month fiscal year.



## SUMMARY OF PLAN PARTICIPANTS

The actuarial valuation of the Plan is based upon the employee data furnished by the Village.  
The information provided for Active participants included:

Name  
Sex  
Date of Birth  
Date of Hire  
Compensation  
Employee Contributions

The information provided for Inactive participants included:

Name  
Sex  
Date of Birth  
Date of Pension Commencement  
Monthly Pension Benefit  
Form of Payment

Membership	<u>2011</u>	<u>2011</u>	<u>2010</u>	<u>2010</u>
Current Employees				
Vested	21		17	
Nonvested	<u>11</u>		<u>16</u>	
Total	<u>32</u>		<u>33</u>	
Inactive Participants		<u>Annual Benefits</u>		<u>Annual Benefits</u>
Children	0 \$	0	0 \$	0
Disabled Employees	8	336,303	7	285,165
Retired Employees	15	608,997	15	608,997
Surviving Spouses	3	88,253	4	101,968
Terminated Vesteds	<u>6</u>	<u>168,146</u>	<u>6</u>	<u>168,146</u>
Total	<u>32</u>	<u>1,201,699</u>	<u>32</u>	<u>1,164,276</u>
Annual Payroll	\$	2,444,783	\$	2,406,640

## SUMMARY OF PLAN PARTICIPANTS (Continued)

### Age and Service Distribution

Service Age	0-4	5-9	10-14	15-19	20-24	25-29	30+	Total	Salary
20-24	1							1	57,797
25-29	4							4	58,164
30-34	3	4	1					8	74,879
35-39	1	3	4					8	77,416
40-44		1	1	1	1			4	81,070
45-49			1		1			2	93,452
50-54			1			2		3	89,575
55-59							1	1	78,033
60+			1					1	78,033
<b>Total</b>	<u>9</u>	<u>8</u>	<u>9</u>	<u>1</u>	<u>2</u>	<u>2</u>	<u>1</u>	<u>32</u>	<u>76,399</u>
<b>Salary</b>	60,609	79,881	80,732	78,033	93,452	95,345	78,033		

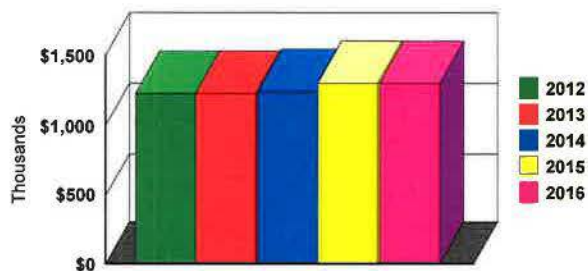
Average Age: 37.7      Average Service: 9.8

DURATION (years)    Active Members: 19.7    Retired Members: 10.9    All Members: 14.0

### PROJECTED PENSION PAYMENTS

<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>
\$1,233,583	\$1,231,241	\$1,246,184	\$1,310,120	\$1,305,147

### PROJECTED PENSION PAYMENTS 2012-2016



## SUMMARY OF PLAN PROVISIONS

The Plan Provisions have been changed from the prior year (discussion at page 4).

The Village of Bensenville Police Pension Fund was created and is administered as prescribed by "Article 3. Police Pension Fund - Municipalities 500,000 and Under" of the Illinois Pension Code (Illinois Compiled Statutes, 1992, Chapter 40). A brief summary of the plan provisions is provided below.

Employees attaining the age of (50) or more with (20) or more years of creditable service are entitled to receive an annual retirement benefit of (2.5%) of final salary for each year of service up to (30) years, to a maximum of (75%) of such salary.

Employees with at least (8) years but less than (20) years of credited service may retire at or after age (60) and receive a reduced benefit of (2.5%) of final salary for each year of service.

Surviving spouses receive (100%) of final salary for fatalities resulting from an act of duty, or otherwise the greater of (50%) of final salary or the employee's retirement benefit.

Employees disabled in the line of duty receive (65%) of final salary.

The monthly pension of a covered employee who retired with (20) or more years of service after January 1, 1977, shall be increased annually, following the first anniversary date of retirement and be paid upon reaching the age of at least (55) years, by (3%) of the originally granted pension. Beginning with increases granted on or after July 1, 1993, the second and subsequent automatic annual increases shall be calculated as (3%) of the amount of the pension payable at the time of the increase.

Employees are required to contribute (9.91%) of their base salary to the Police Pension Plan. If an employee leaves covered employment with less than (20) years of service, accumulated employee contributions may be refunded without accumulated interest.

For Employees hired after January 1, 2011, the Normal Retirement age is attainment of age 55 and completion of 10 years of service; Early Retirement age is attainment of age 50, completion of 10 years of service and the Early Retirement Factor is 6% per year; the Employee's Accrued Benefit is based on the Employee's final 8-year average salary not to exceed \$106,800 (as indexed); Cost-of-living adjustments are simple increases (not compounded) of the lesser of 3% or 50% of CPI beginning the later of the anniversary date and age 60; Surviving Spouse's Benefits are 66 2/3% of the Employee's benefit at the time of death.

## ACTUARIAL METHODS

The Actuarial Methods employed for this valuation are as follows:

### Projected Unit Credit Cost Method (for years beginning on or after 2011 for PA 096-1495)

Under the Projected Unit Credit Cost Method, the Normal Cost is the present value of the projected benefit (including projected salary increases) earned during the year.

The Accrued Liability is the present value of the projected benefit (including projected salary increases) earned as of the actuarial valuation date. The Unfunded Accrued Liability is the excess of the Accrued Liability over the plan's assets. Experience gains or losses adjust the Unfunded Accrued Liability.

### Entry Age Normal Cost Method

Under the Entry Age Normal Cost Method the Normal Cost for each participant is computed as the level percentage of pay which, if paid from the earliest age the participant is eligible to enter the plan until retirement or termination, will accumulate with interest to sufficiently fund all benefits under the plan. The Normal Cost for the plan is determined as the greater of a) the sum of the Normal Costs for all active participants, and b) 17.5% of the total payroll of all active participants.

The Accrued Liability is the theoretical amount that would have accumulated had annual contributions equal to the Normal Cost been paid. The Unfunded Accrued Liability is the excess of the Accrued Liability over the plan's assets. Experience gains or losses adjust the Unfunded Accrued Liability.

## ACTUARIAL ASSUMPTIONS

The Actuarial Assumptions used for determining the Tax Levy Requirement and GASB Statements No. 25 & 27 Disclosure Information are the same and have not been changed from the prior year. The Actuarial Assumptions employed for this valuation are as follows:

Valuation Date	January 1, 2011
Asset Valuation Method	Market Value
Investment Return	7.50%
Salary Scale	5.00%
Mortality	1971 Group Annuity Mortality Table
Withdrawal	State of Illinois DOI Experience Rates
Disability	State of Illinois DOI Experience Rates
Retirement	State of Illinois DOI Experience Rates (100% by Age 62)
Marital Status	80% Married, Spouse Same Age
Plan Expenses	None

<u>Sample Annual Rates Per 100 Participants</u>				
<u>Age</u>	<u>Mortality</u>	<u>Withdrawal</u>	<u>Disability</u>	<u>Retirement</u>
20	0.05	6.00	0.07	
30	0.81	5.10	0.10	
40	0.16	2.85	0.20	
50	0.53		0.52	20.00
60	1.31		0.60	83.33
62	1.59			100.00

## GASB STATEMENTS NO. 25 & 27 DISCLOSURE INFORMATION

The Governmental Accounting Standards Board (GASB) issued Statements No. 25 & 27 that established generally accepted accounting principles for the annual financial statements for defined benefit pension plans. The required information is as follows:

Membership in the plan consisted of the following as of:

	<u>December 31, 2010</u>	<u>April 30, 2010</u>
Retirees and beneficiaries receiving benefits	26	26
Terminated plan members entitled to but not yet receiving benefits	6	6
Active vested plan members	21	17
Active nonvested plan members	<u>11</u>	<u>16</u>
Total	<u>64</u>	<u>65</u>
Number of participating employers	1	1

## SCHEDULE OF FUNDING PROGRESS

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) -Entry Age (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)
04/30/09	10,448,151	20,887,297	10,439,146	50.0%	2,352,581	443.7%
04/30/10	11,550,751	21,604,610	10,053,859	53.5%	2,406,640	417.8%
12/31/10	12,539,774	22,868,030	10,328,256	54.8%	2,444,783	422.5%

GASB STATEMENTS NO. 25 & 27 DISCLOSURE INFORMATION (Continued)

ANNUAL PENSION COST AND NET PENSION OBLIGATION

	<u>December 31, 2010</u>	<u>April 30, 2010</u>
Annual required contribution	586,481	892,737
Interest on net pension obligation	182,811	219,482
Adjustment to annual required contribution	<u>(138,844)</u>	<u>(161,481)</u>
Annual pension cost	630,448	950,738
Contributions made	<u>865,812</u>	<u>220,942</u>
Increase (decrease) in net pension obligation	(235,364)	729,796
Net pension obligation beginning of year	<u>3,656,224</u>	<u>2,926,428</u>
Net pension obligation end of year	<u>3,420,860</u>	<u>3,656,224</u>

THREE-YEAR TREND INFORMATION

<u>Fiscal Year Ending</u>	<u>Annual Pension Cost (APC)</u>	<u>Percentage of APC Contributed</u>	<u>Net Pension Obligation</u>
04/30/09	739,672	15.8%	2,926,428
04/30/10	950,738	23.2%	3,656,224
12/31/10	630,448	137.3%	3,420,860

GASB STATEMENTS NO. 25 & 27 DISCLOSURE INFORMATION (Continued)

FUNDING POLICY AND ANNUAL PENSION COST

Contribution rates:

Village	35.41%	9.18%
Plan members	9.91%	Same

Annual pension cost	630,448	950,738
---------------------	---------	---------

Contributions made	865,812	220,942
--------------------	---------	---------

Actuarial valuation date	12/31/2010	04/30/2010
--------------------------	------------	------------

Actuarial cost method	Entry age	Same
-----------------------	-----------	------

Amortization period	Level percentage of pay, closed	Same
---------------------	---------------------------------	------

Remaining amortization period	30 years	23 years
-------------------------------	----------	----------

Asset valuation method	Market	Same
------------------------	--------	------

Actuarial assumptions:

Investment rate of return*	7.50%	Same
Projected salary increases*	5.00%	Same

*Includes inflation at	3.00%	Same
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Cost-of-living adjustments	3.00% per year	Same
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**BENSENVILLE POLICE PENSION FUND****Actuarial Valuation Report****Showing Assets and Liabilities of the Fund in  
Accordance with Actuarial Reserve Requirements  
as of January 1, 2012****Summary**

Accrued Liability	\$25,141,886
Actuarial Value of Assets	\$13,167,096
Unfunded Accrued Liability	\$11,974,790

Funded Ratio 52%

**Liabilities****Reserves for Annuities and Benefits in Force**

	Head Count:	Present Value:	
Retirement Annuities	16	10,441,569	
Disability Annuities	8	5,298,644	
Surviving Spouse Annuities	3	702,970	
Minor Dependent Annuities	0	0	
Deferred Retirement Annuities	9	314,894	
Handicapped Dependent Annuities	0	0	
Dependent Parent Annuities	0	0	
Terminated Liabilities	0	0	
Total:	36		\$16,758,077

Accrued Liabilities for Active Members	33	\$8,383,809
Total Accrued Liabilities		\$25,141,886
Total Normal Cost for Active Members		\$682,345
Total Normal Cost as a Percentage of Payroll		27%

Total Annual Payroll \$2,530,466

**Amortization of Unfunded Liabilities:**

Total Accrued Liability	\$25,141,886
90% Funded Ratio Target	\$22,627,697
Actuarial Value of Assets	\$13,167,096
Liabilities Subject to Amortization	\$9,460,601
Amortization Period	29 years
Amortization Payment, Beginning of Year	\$432,680

This report is provided to the Board and Municipality as part of the Public Pension Division advisory services under Section 1A-106 of the Illinois Pension Code. This report should not be relied upon for purposes other than determining the current tax levy required under the Illinois Pension Code. The assumptions have been set based on expectations for all Article 3 funds in the State of Illinois. The actuarial methods are prescribed by the Illinois Pension Code and do not necessarily represent the approach recommended by either the actuary or the Department of Insurance. This report was prepared under the direct supervision of the undersigned:

Jason L. Franken  
Enrolled Actuary #11-06888  
Foster & Foster, Inc.

Scott J. Brandt  
Statistical Services, Public Pension Division  
Illinois Department of Insurance

**BENSENVILLE POLICE PENSION FUND**  
**Actuarial Valuation Report**

**Assets**

Actuarial Value of Assets

Current Year Gain/(Loss):

Market value of assets as of December 31, 2010	\$12,539,774
Benefit payments during fiscal year 2011	(1,178,501)
Total contributions during fiscal year 2011	1,074,944
Expected return during fiscal year 2011	874,160
Expected market value of assets as of December 31, 2011	<u>\$13,310,377</u>
Actual market value of assets as of December 31, 2011	\$12,593,974
Investment gain/(loss) during the fiscal year	(\$716,403)

Development of Actuarial Value of Assets (market value less unrecognized amounts):

Market value of assets as of December 31, 2011	\$12,593,974
Unrecognized gain/(loss) from fiscal 2011	(573,122)
Unrecognized gain/(loss) from fiscal 2010	0
Unrecognized gain/(loss) from fiscal 2009	0
Unrecognized gain/(loss) from fiscal 2008	0
Actuarial value of assets as of December 31, 2011	<u>\$13,167,096</u>

**Actuarially Determined Employer Contributions**

Actuarially determined amount to provide the employer normal cost based on the annual payroll of active participants as of January 1, 2012.	\$431,576
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Amount necessary to amortize the unfunded accrued liability as determined by the State of Illinois Department of Insurance over the remaining 29 years as prescribed by Section 3-125 of the Illinois Pension Code.	\$432,680
---	-----------

Interest to the end of the fiscal year.	\$58,337
---	----------

Total suggested amount of employer contributions to arrive at the annual requirements of the fund as prescribed by Section 3-125 of the Illinois Pension Code. *	\$922,593
--	-----------

\*The above figure is the suggested amount which should be obtained by the fund from the municipality exclusive of any other items of income, such as interest on investments, contributions from participants, etc. These items have already been taken into consideration in arriving at this amount.

# BENSENVILLE POLICE PENSION FUND

## Actuarial Valuation Report

### Actuarial Information

The following methods have been prescribed in accordance with Section 3-125 of the Illinois Pension Code.

Funding method	Projected Unit Credit
Amortization method	Normal cost, plus an additional amount (determined as a level percentage of payroll) to bring the plan's funded ratio to 90% by the end of fiscal year 2040.
Asset valuation method	Investment gains and losses are recognized over a 5-year period.

### Actuarial Assumptions

Interest rate	6.75%
Interest rate, prior fiscal year	7.00%
Healthy mortality rates - Male	RP-2000 Combined Healthy Mortality, with Blue Collar Adjustment
Healthy mortality rates - Female	RP-2000 Combined Healthy Mortality, with Blue Collar Adjustment
Disability mortality rates - Male	RP-2000 Disabled Retiree Mortality
Disability mortality rates - Female	RP-2000 Disabled Retiree Mortality
Decrement other than mortality	Experience tables
Rate of service-related deaths	5%
Rate of service-related disabilities	70%
Salary increases	Service-related table with rates grading from 11% to 4% at 30 years of service
Payroll growth	4.50%
Tier 2 cost-of-living adjustment	1.25%
Marital assumptions	80% of members are assumed to be married; male spouses are assumed to be 3 years older than female spouses.

The actuarial assumptions used for determining the above amounts are based on experience for all Article 3 funds for the State of Illinois in aggregate. The Department of Insurance has approved the above actuarial assumptions. Contact the Department of Insurance for complete experience tables.

### Data and Fund Information

The above valuation uses personnel data as reported to the Department of Insurance in the Schedule P. Specifically, the following data items have been determined as of the date of the Actuarial Valuation Report: attained age, annual salary or pension, completed years of service of each individual participant.

The fund specific information used in the production of this document was provided to the Department of Insurance by your pension fund board of trustees through the fund's annual statement filing.



**VILLAGE OF BENSENVILLE**  
**BENSENVILLE POLICE PENSION FUND**

Actuarial Valuation Report  
For the Year  
Beginning January 1, 2012  
And Ending December 31, 2012

---

*Timothy W. Sharpe, Actuary, Geneva, IL (630) 262-0600*

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## INTRODUCTION

Police-sworn personnel of the Village of Bensenville are covered by the Police Pension Plan that is a defined-benefit, single-employer pension plan. The purpose of this report is to disclose the Tax Levy Requirement and GASB Statements No. 25 & 27 financial information and related actuarial information for the year beginning January 1, 2012, and ending December 31, 2012.

The valuation results reported herein are based on plan provisions in effect as of January 1, 2012, the employee data furnished by the Village, the financial data provided by the Fund's trustee and the actuarial methods and assumptions described later in this report. I hereby certify that this report is complete and accurate and fairly presents the actuarial position of the Fund as of December 31, 2011, in accordance with generally accepted actuarial principles and procedures. In my opinion, the assumptions used are reasonably related to the experience of the Plan and to reasonable expectations.

Respectfully submitted,



Timothy W. Sharpe, EA, MAAA  
Enrolled Actuary No. 11-4384

11/12/2012

Date

## SUMMARY OF RESULTS

There were no changes with respect to Plan Provisions, Actuarial Methods or Actuarial Assumptions from the prior year.

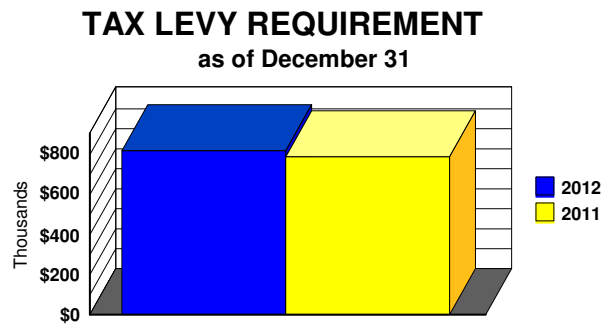
There were no unexpected changes with respect to the participants included in this actuarial valuation (2 new members, 0 terminations, 1 retirement, 0 incidents of disability, annual payroll increase 3.5%, average salary increase 2.2%).

There were no unexpected changes with respect to the Fund's investments from the prior year (annual investment return 1.73%).

The Village's Tax Levy Requirement has increased from \$787,962 last year to \$819,367 this year (4.0%). The increase in the Tax Levy is due to the increase in salaries and the investment return was less than assumed, and was offset due to using 5-year market averaging. The Percent Funded has increased slightly from 54.8% last year to 54.9% this year.

## SUMMARY OF RESULTS (Continued)

	For Year Ending December 31	
	<u>2012</u>	<u>2011</u>
Tax Levy Requirement	\$ 819,367	\$ 787,962
	as of January 1	
	<u>2012</u>	<u>2011</u>
Village Normal Cost	254,291	258,622
Anticipated Employee Contributions	250,769	242,278
Accrued Liability	23,970,987	22,868,030
Actuarial Value of Assets	13,169,074	12,539,774
Unfunded Accrued Liability/(Surplus)	10,801,913	10,328,256
Amortization of Unfunded Accrued Liability/(Surplus)	507,911	474,366
Percent Funded	54.9%	54.8%
Annual Payroll	\$ 2,530,466	\$ 2,444,783



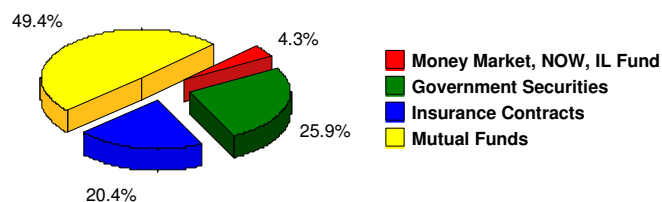


## ACTUARIAL VALUATION OF ASSETS

		as of January 1	
	<u>2012</u>		<u>2011</u>
Money Market, NOW, IL Fund	\$ 517,782	\$	1,553,211
Government Securities	3,136,461		2,730,068
Insurance Contracts	2,472,975		2,634,447
Mutual Funds	5,970,721		5,632,398
Contribution Receivable	489,857		0
Interest Receivable	17,553		0
Miscellaneous Receivable/(Payable)	<u>(11,375)</u>		<u>(10,351)</u>
Market Value of Assets	<u>12,593,974</u>		<u>12,539,774</u>
Actuarial Value of Assets	\$ 13,169,074	\$	

FYE 2012 (Gain)/Loss: \$718,875

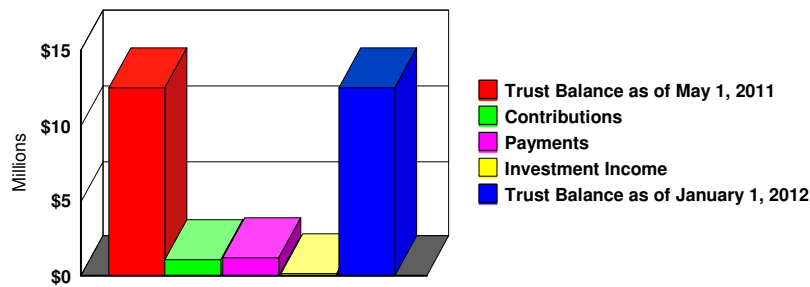
### SUMMARY OF ASSETS As Of January 1, 2012



## ASSET CHANGES DURING PRIOR YEAR

Trust Balance as of January 1, 2011		\$	12,539,774
Contributions			
Village	789,231		
Employee	<u>285,713</u>		
Total			1,074,944
Payments			
Benefit Payments	1,178,501		
Expenses	<u>57,800</u>		
Total			1,236,301
Investment Income			<u>215,557</u>
Trust Balance as of January 1, 2012		\$	<u>12,593,974</u>
Approximate Annual Rate of Return			1.73%

## ASSET CHANGES DURING PRIOR YEAR

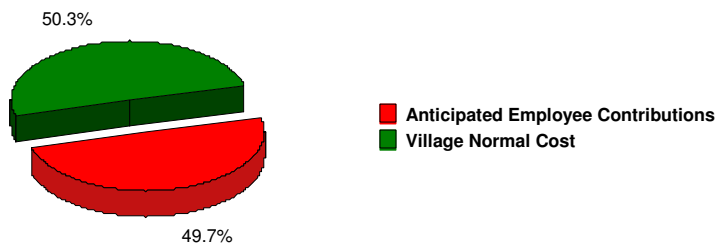


## NORMAL COST

The Normal Cost is the actuarial present value of the portion of the projected benefits that are expected to accrue during the year based upon the actuarial valuation method and actuarial assumptions employed in the valuation.

	as of January 1	
	<u>2012</u>	<u>2011</u>
Total Normal Cost	\$ 505,060	\$ 500,900
Anticipated Employee Contributions	<u>250,769</u>	<u>242,278</u>
Village Normal Cost	<u>254,291</u>	<u>258,622</u>
Normal Cost Payroll	\$ 2,530,466	\$ 2,444,783
Village Normal Cost Rate	10.05%	10.58%
Total Normal Cost Rate	19.96%	20.49%

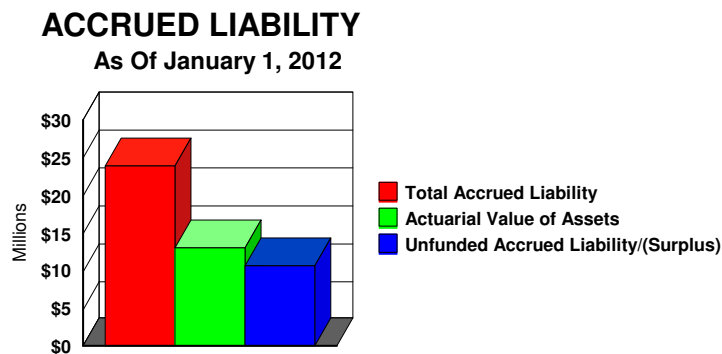
### NORMAL COST As Of January 1, 2012



## ACCRUED LIABILITY

The Accrued Liability is the actuarial present value of the portion of the projected benefits that has been accrued as of the valuation date based upon the actuarial valuation method and actuarial assumptions employed in the valuation. The Unfunded Accrued Liability is the excess of the Accrued Liability over the Actuarial Value of Assets.

	as of January 1	
Accrued Liability	<u>2012</u>	<u>2011</u>
Active Employees	\$ 8,831,381	\$ 8,665,458
Children Annuities	0	0
Disability Annuities	5,253,425	5,212,886
Retirement Annuities	8,325,137	7,478,516
Surviving Spouse Annuities	558,989	579,026
Terminated Vested Annuities	<u>1,002,055</u>	<u>932,144</u>
Total Annuities	15,139,606	14,202,572
Total Accrued Liability	23,970,987	22,868,030
Actuarial Value of Assets	<u>13,169,074</u>	<u>12,539,774</u>
Unfunded Accrued Liability/(Surplus)	\$ <u>10,801,913</u>	\$ <u>10,328,256</u>
Percent Funded	54.9%	54.8%

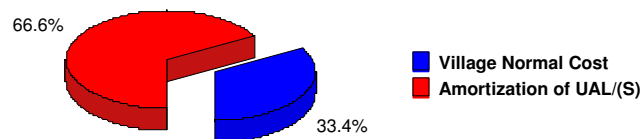


## TAX LEVY REQUIREMENT

The Tax Levy Requirement is determined as the annual contribution necessary to fund the normal cost, plus the amount to amortize the excess (if any) of ninety percent (90%) of the accrued liability over the actuarial value of assets as a level percentage of payroll over a thirty (30) year period which commenced in 2011, plus an adjustment for interest. Prior to 2011, the amortization amount was equal to the amount to amortize the unfunded accrued liability as a level percentage of payroll over a forty (40) year period which commenced in 1993. Beginning in 2011, the amortization period has been reset to 30 years.

	For Year Ending December 31	
	<u>2012</u>	<u>2011</u>
Village Normal Cost as of Beginning of Year	\$ 254,291	\$ 258,622
Amortization of Unfunded Accrued Liability/(Surplus)	507,911	474,366
Interest for One Year	<u>57,165</u>	<u>54,974</u>
Tax Levy Requirement as of End of Year	\$ <u>819,367</u>	\$ <u>787,962</u>
Public Act 096-1495 Tax Levy Requirement		
1) Normal Cost (PUC)	297,617	265,683
2) Accrued Liability (PUC)	23,157,524	22,163,156
3) Amortization Payment	360,774	340,199
4) Interest for One Year	49,379	45,441
5) PA 096-1495 Tax Levy Requirement (1 + 3 + 4)	\$ 707,770	651,323

### TAX LEVY REQUIREMENT For Fiscal Year Ending December 31, 2012



## SUMMARY OF PLAN PARTICIPANTS

The actuarial valuation of the Plan is based upon the employee data furnished by the Village.  
The information provided for Active participants included:

Name  
Sex  
Date of Birth  
Date of Hire  
Compensation  
Employee Contributions

The information provided for Inactive participants included:

Name  
Sex  
Date of Birth  
Date of Pension Commencement  
Monthly Pension Benefit  
Form of Payment

Membership	<u>2012</u>	<u>2012</u>	<u>2011</u>	<u>2011</u>
Current Employees				
Vested	20		21	
Nonvested	<u>13</u>		<u>11</u>	
Total	<u>33</u>		<u>32</u>	
Inactive Participants		<u>Annual Benefits</u>		<u>Annual Benefits</u>
Children	0 \$	0	0 \$	0
Disabled Employees	8	337,307	8	336,303
Retired Employees	16	685,019	15	608,997
Surviving Spouses	3	88,253	3	88,253
Terminated Vesteds	<u>6</u>	<u>168,146</u>	<u>6</u>	<u>168,146</u>
Total	<u>33</u>	<u>1,278,725</u>	<u>32</u>	<u>1,201,699</u>
Annual Payroll	\$	2,530,466	\$	2,444,783

## SUMMARY OF PLAN PARTICIPANTS (Continued)

### Age and Service Distribution

Service Age	0-4	5-9	10-14	15-19	20-24	25-29	30+	Total	Salary
20-24									
25-29	4							4	62,150
30-34	4	6	1					11	72,155
35-39	1	2	5					8	77,724
40-44		1	1	1				3	78,042
45-49			1		2			3	93,655
50-54			1			2		3	91,076
55-59								0	
60+			1					1	78,042
Total	<u>9</u>	<u>9</u>	<u>10</u>	<u>1</u>	<u>2</u>	<u>2</u>	<u>0</u>	<u>33</u>	<u>76,681</u>
Salary	60,831	79,364	80,471	78,042	95,389	97,594			

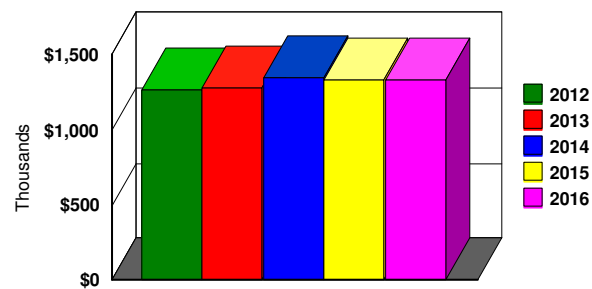
Average Age: 37.7      Average Service: 9.5

DURATION (years)    Active Members: 20.3    Retired Members: 10.6    All Members: 14.0

## PROJECTED PENSION PAYMENTS

<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
\$1,261,840	\$1,277,664	\$1,341,569	\$1,337,113	\$1,330,739

### PROJECTED PENSION PAYMENTS 2012-2016



## SUMMARY OF PLAN PROVISIONS

The Plan Provisions have been changed from the prior year (discussion at page 4).

The Village of Bensenville Police Pension Fund was created and is administered as prescribed by "Article 3. Police Pension Fund - Municipalities 500,000 and Under" of the Illinois Pension Code (Illinois Compiled Statutes, 1992, Chapter 40). A brief summary of the plan provisions is provided below.

Employees attaining the age of (50) or more with (20) or more years of creditable service are entitled to receive an annual retirement benefit of (2.5%) of final salary for each year of service up to (30) years, to a maximum of (75%) of such salary.

Employees with at least (8) years but less than (20) years of credited service may retire at or after age (60) and receive a reduced benefit of (2.5%) of final salary for each year of service.

Surviving spouses receive (100%) of final salary for fatalities resulting from an act of duty, or otherwise the greater of (50%) of final salary or the employee's retirement benefit.

Employees disabled in the line of duty receive (65%) of final salary.

The monthly pension of a covered employee who retired with (20) or more years of service after January 1, 1977, shall be increased annually, following the first anniversary date of retirement and be paid upon reaching the age of at least (55) years, by (3%) of the originally granted pension. Beginning with increases granted on or after July 1, 1993, the second and subsequent automatic annual increases shall be calculated as (3%) of the amount of the pension payable at the time of the increase.

Employees are required to contribute (9.91%) of their base salary to the Police Pension Plan. If an employee leaves covered employment with less than (20) years of service, accumulated employee contributions may be refunded without accumulated interest.

For Employees hired after January 1, 2011, the Normal Retirement age is attainment of age 55 and completion of 10 years of service; Early Retirement age is attainment of age 50, completion of 10 years of service and the Early Retirement Factor is 6% per year; the Employee's Accrued Benefit is based on the Employee's final 8-year average salary not to exceed \$106,800 (as indexed); Cost-of-living adjustments are simple increases (not compounded) of the lesser of 3% or 50% of CPI beginning the later of the anniversary date and age 60; Surviving Spouse's Benefits are 66 2/3% of the Employee's benefit at the time of death.



## ACTUARIAL METHODS

The Actuarial Methods employed for this valuation are as follows:

### Projected Unit Credit Cost Method (for years beginning on or after 2011 for PA 096-1495)

Under the Projected Unit Credit Cost Method, the Normal Cost is the present value of the projected benefit (including projected salary increases) earned during the year.

The Accrued Liability is the present value of the projected benefit (including projected salary increases) earned as of the actuarial valuation date. The Unfunded Accrued Liability is the excess of the Accrued Liability over the plan's assets. Experience gains or losses adjust the Unfunded Accrued Liability.

### Entry Age Normal Cost Method

Under the Entry Age Normal Cost Method the Normal Cost for each participant is computed as the level percentage of pay which, if paid from the earliest age the participant is eligible to enter the plan until retirement or termination, will accumulate with interest to sufficiently fund all benefits under the plan. The Normal Cost for the plan is determined as the greater of a) the sum of the Normal Costs for all active participants, and b) 17.5% of the total payroll of all active participants.

The Accrued Liability is the theoretical amount that would have accumulated had annual contributions equal to the Normal Cost been paid. The Unfunded Accrued Liability is the excess of the Accrued Liability over the plan's assets. Experience gains or losses adjust the Unfunded Accrued Liability.

## ACTUARIAL ASSUMPTIONS

The Actuarial Assumptions used for determining the Tax Levy Requirement and GASB Statements No. 25 & 27 Disclosure Information are the same (except where noted) and have not been changed from the prior year. The Actuarial Assumptions employed for this valuation are as follows:

Valuation Date	January 1, 2012
Asset Valuation Method	5-year Average Market Value
Investment Return	7.50%
Salary Scale	5.00%
Mortality	1971 Group Annuity Mortality Table
Withdrawal	State of Illinois DOI Experience Rates
Disability	State of Illinois DOI Experience Rates
Retirement	State of Illinois DOI Experience Rates (100% by Age 62)
Marital Status	80% Married, Female spouses 3 years younger
Plan Expenses	None

### Sample Annual Rates Per 100 Participants

<u>Age</u>	<u>Mortality</u>	<u>Withdrawal</u>	<u>Disability</u>	<u>Retirement</u>
20	0.05	6.00	0.07	
30	0.81	5.10	0.10	
40	0.16	2.85	0.20	
50	0.53		0.52	20.00
60	1.31		0.60	83.33
62	1.59			100.00

## GASB STATEMENTS NO. 25 & 27 DISCLOSURE INFORMATION

The Governmental Accounting Standards Board (GASB) issued Statements No. 25 & 27 that established generally accepted accounting principles for the annual financial statements for defined benefit pension plans. The required information is as follows:

Membership in the plan consisted of the following as of:

	<u>December 31, 2011</u>	<u>December 31, 2010</u>
Retirees and beneficiaries receiving benefits	27	26
Terminated plan members entitled to but not yet receiving benefits	6	6
Active vested plan members	20	21
Active nonvested plan members	<u>13</u>	<u>11</u>
Total	<u>66</u>	<u>64</u>
Number of participating employers	1	1

## SCHEDULE OF FUNDING PROGRESS

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) -Entry Age (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)
04/30/10	11,550,751	21,604,610	10,053,859	53.5%	2,406,640	417.8%
12/31/10	12,539,774	22,868,030	10,328,256	54.8%	2,444,783	422.5%
12/31/11	12,593,974	23,970,987	11,377,013	52.5%	2,530,466	449.6%

GASB STATEMENTS NO. 25 & 27 DISCLOSURE INFORMATION (Continued)

ANNUAL PENSION COST AND NET PENSION OBLIGATION

	<u>December 31, 2011</u>	<u>December 31, 2010</u>
Annual required contribution	879,721	586,481
Interest on net pension obligation	171,043	182,811
Adjustment to annual required contribution	<u>(107,238)</u>	<u>(138,844)</u>
Annual pension cost	943,526	630,448
Contributions made	<u>789,231</u>	<u>865,812</u>
Increase (decrease) in net pension obligation	154,295	(235,364)
Net pension obligation beginning of year	<u>3,420,860</u>	<u>3,656,224</u>
Net pension obligation end of year	<u><u>3,575,155</u></u>	<u><u>3,420,860</u></u>

THREE-YEAR TREND INFORMATION

<u>Fiscal</u> <u>Year</u> <u>Ending</u>	<u>Annual</u> <u>Pension</u> <u>Cost (APC)</u>	<u>Percentage</u> <u>of APC</u> <u>Contributed</u>	<u>Net</u> <u>Pension</u> <u>Obligation</u>
04/30/10	950,738	23.2%	3,656,224
12/31/10	630,448	137.3%	3,420,860
12/31/11	943,526	83.6%	3,575,155

GASB STATEMENTS NO. 25 & 27 DISCLOSURE INFORMATION (Continued)

FUNDING POLICY AND ANNUAL PENSION COST

Contribution rates:

Village	31.19%	35.41%
Plan members	9.91%	Same

Annual pension cost	943,526	630,448
---------------------	---------	---------

Contributions made	789,231	865,812
--------------------	---------	---------

Actuarial valuation date	12/31/2011	12/31/2010
--------------------------	------------	------------

Actuarial cost method	Entry age	Same
-----------------------	-----------	------

Amortization period	Level percentage of pay, closed	Same
---------------------	---------------------------------	------

Remaining amortization period	29 years	30 years
-------------------------------	----------	----------

Asset valuation method	Market	Same
------------------------	--------	------

Actuarial assumptions:

Investment rate of return*	7.50%	Same
----------------------------	-------	------

Projected salary increases*	5.00%	Same
-----------------------------	-------	------

*Includes inflation at	3.00%	Same
------------------------	-------	------

Cost-of-living adjustments	3.00% per year	Same
----------------------------	----------------	------

# BENSENVILLE POLICE PENSION FUND

## Tax Levy Report

### Showing Assets and Liabilities of the Fund in Accordance with Actuarial Reserve Requirements As of January 1, 2013

#### Summary

Accrued Liability	\$	25,927,058
Actuarial Value of Assets	\$	13,790,442
Unfunded Accrued Liability	\$	12,136,616
Funded Ratio		53%

#### Liabilities

##### Reserves for Annuities and Benefits in Force

	Head Count:	Present Value:	
Retirement Annuities	16	\$ 11,331,319	
Disability Annuities	8	5,047,547	
Surviving Spouse Annuities	3	679,887	
Minor Dependent Annuities	0	0	
Deferred Retirement Annuities	10	351,534	
Handicapped Dependent Annuities	0	0	
Dependent Parent Annuities	0	0	
Total:	37		\$ 17,410,287
Accrued Liabilities for Active Members	32		\$ 8,516,771
Total Accrued Liabilities			\$ 25,927,058
Total Normal Cost for Active Members			\$ 680,196
Total Normal Cost as a Percentage of Payroll			27%

Total Annual Payroll \$ 2,550,031

##### Amortization of Unfunded Liabilities:

Total Accrued Liability	\$	25,927,058
90% Funded Ratio Target	\$	23,334,352
Actuarial Value of Assets	\$	13,790,442
Liabilities Subject to Amortization	\$	9,543,910
Amortization Period		28 years
Amortization Payment, Beginning of Year	\$	447,769

This report is provided to the Board and Municipality as part of the Public Pension Division advisory services under Section 1A-106 of the Illinois Pension Code. This report should not be relied upon for purposes other than determining the current tax levy required under the Illinois Pension Code. The assumptions have been set based expectations for all Article 3 funds in the State of Illinois. The actuarial methods are prescribed by the Illinois Pension Code and do not necessarily represent the approach recommended by either the actuary or the Department of Insurance. This report was prepared under the direct supervision of the undersigned:

Jason L. Franken  
Enrolled Actuary #11-06888  
Foster & Foster, Inc.

Scott J. Brandt  
Statistical Services, Public Pension Division  
Illinois Department of Insurance

# BENSENVILLE POLICE PENSION FUND

## Tax Levy Report

### Assets

#### Actuarial Value of Assets

##### Current Year Gain/(Loss):

Market value of assets as of December 31, 2011	\$ 12,593,974
Benefit payments during fiscal year 2012	(1,283,080)
Total contributions during fiscal year 2012	1,129,581
Expected return during fiscal year 2012	844,913
Expected market value of assets as of December 31, 2012	\$ 13,285,388

Actual market value of assets as of December 31, 2012 \$ 13,661,446

Investment gain/(loss) during the fiscal year \$ 376,058

##### Development of Actuarial Value of Assets (market value less unrecognized amounts):

Market value of assets as of December 31, 2012	\$ 13,661,446
Unrecognized gain/(loss) from fiscal 2012	300,846
Unrecognized gain/(loss) from fiscal 2011	(429,842)
Unrecognized gain/(loss) from fiscal 2010	N/A
Unrecognized gain/(loss) from fiscal 2009	N/A
Actuarial value of assets as of December 31, 2012	\$ 13,790,442

### Actuarially Determined Tax Levy

Actuarially determined amount to provide the employer normal cost based on the annual payroll of active participants as of January 1, 2013 (total normal cost less 9.91% of payroll). \$ 427,488

Amount necessary to amortize the unfunded accrued liability as determined by the State of Illinois Department of Insurance over the remaining 28 years as prescribed by Section 3-125 of the Illinois Pension Code. \$ 447,769

Interest to the end of the fiscal year \$ 59,080

Total suggested amount of Tax Levy to arrive at the annual requirements of the fund as prescribed by Section 3-125 of the Illinois Pension Code. \* \$ 934,337

\*The above figure is the suggested amount which should be obtained by the fund from the municipality exclusive of any other items of income, such as interest on investments, contributions from participants, etc. These items have already been taken into consideration in arriving at this amount.

# **BENSENVILLE POLICE PENSION FUND**

## **Tax Levy Report**

### **Actuarial Methods**

The following methods have been prescribed in accordance with Section 3-125 of the Illinois Pension Code.

Funding method	Projected Unit Credit
Amortization method	Normal cost, plus an additional amount (determined as a level percentage of payroll) to bring the plan's funded ratio to 90% by the end of fiscal year 2040.
Asset valuation method	Investment gains and losses are recognized over a 5-year period.

### **Actuarial Assumptions**

Interest rate	6.75%
Interest rate, prior fiscal year	6.75%
Healthy mortality rates	RP-2000 Combined Healthy Mortality, with Blue Collar Adjustment
Disabled mortality rates	RP-2000 Disabled Retiree Mortality
Decrements other than mortality	Experience tables
Rate of service-related deaths	5%
Rate of service-related disabilities	70%
Salary increases	Service-related table with rates grading from 11% to 4% at 30 years of service
Payroll growth	4.50%
Tier 2 cost-of-living adjustment	1.25%
Marital assumptions	80% of Members are assumed to be married; male spouses are assumed to be 3 years older than female spouses.

The actuarial assumptions used for determining the above amounts are based on experience for all Article 3 funds for the State of Illinois in aggregate, not that of each individual fund. The Department of Insurance has approved the actuarial assumptions based on the results of an experience analysis performed by Foster & Foster, Inc. Contact the Department of Insurance for complete experience tables.

### **Data and Fund Information**

The above valuation uses personnel data as reported to the Department of Insurance in the Schedule P. Specifically, the following data items have been determined as of the date of the Tax Levy Report: attained age, annual salary or pension, completed years of service of each individual participant.

The fund specific information used in the production of this document was provided to the Illinois Department of Insurance by your pension fund board of trustees through the fund's annual statement filing.





**VILLAGE OF BENSENVILLE**  
**BENSENVILLE POLICE PENSION FUND**

Actuarial Valuation Report  
For the Year  
Beginning January 1, 2013  
And Ending December 31, 2013

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*Timothy W. Sharpe, Actuary, Geneva, IL (630) 262-0600*

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## INTRODUCTION

Police-sworn personnel of the Village of Bensenville are covered by the Police Pension Plan that is a defined-benefit, single-employer pension plan. The purpose of this report is to disclose the Tax Levy Requirement and GASB Statements No. 25 & 27 financial information and related actuarial information for the year beginning January 1, 2013, and ending December 31, 2013.

The valuation results reported herein are based on plan provisions in effect as of January 1, 2013, the employee data furnished by the Village, the financial data provided by the Fund's trustee and the actuarial methods and assumptions described later in this report. I hereby certify that to the best of my knowledge this report is complete and accurate and fairly presents the actuarial position of the Fund as of December 31, 2012, in accordance with generally accepted actuarial principles and procedures. In my opinion, the assumptions used are reasonably related to the experience of the Plan and to reasonable expectations. A reasonable request for supplementary information not included in this report should be directed to the undersigned actuary.

I, Timothy W. Sharpe, am an Enrolled Actuary and a member of the American Academy of Actuaries, and I meet the Qualifications Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Respectfully submitted,



Timothy W. Sharpe, EA, MAAA  
Enrolled Actuary No. 11-4384

12/17/2013

Date

## SUMMARY OF RESULTS

There was a change with respect to Actuarial Assumptions from the prior year to reflect revised expectations with respect to mortality rates. The mortality rate assumption has been changed to the RP 2000 Mortality Table from the 1971 GA Mortality Table.

There were no changes with respect to Plan Provisions or Actuarial Methods from the prior year.

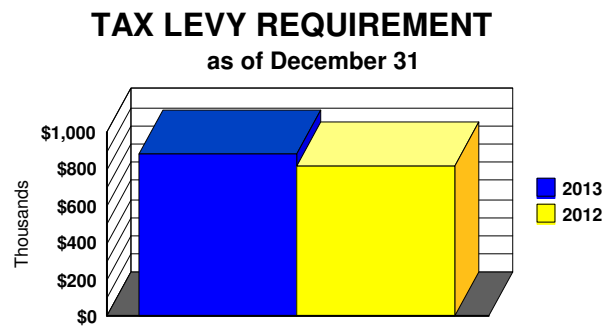
There were no unexpected changes with respect to the participants included in this actuarial valuation (2 new members, 2 terminations, 1 retirement, 0 incidents of disability, annual payroll increase 0.8%, average salary increase 5.0%).

There were no unexpected changes with respect to the Fund's investments from the prior year (annual investment return 10.28%).

The Village's Tax Levy Requirement has increased from \$819,367 last year to \$887,911 this year (8.4%). The increase in the Tax Levy is due to the increase in average salaries and the change to the mortality table, and was offset due to the investment return was greater than assumed. The Percent Funded has decreased slightly from 54.9% last year to 54.3% this year.

# SUMMARY OF RESULTS (Continued)

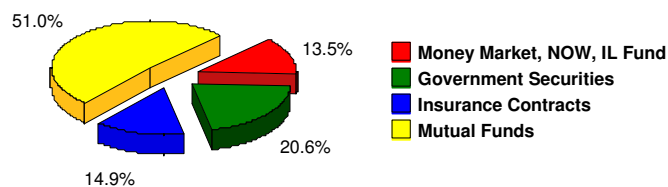
	For Year Ending December 31	
	<u>2013</u>	<u>2012</u>
Tax Levy Requirement	\$ 887,911	\$ 819,367
	as of January 1	
	<u>2013</u>	<u>2012</u>
Village Normal Cost	266,460	254,291
Anticipated Employee Contributions	252,708	250,769
Accrued Liability	25,424,780	23,970,987
Actuarial Value of Assets	13,815,118	13,169,074
Unfunded Accrued Liability/(Surplus)	11,609,662	10,801,913
Amortization of Unfunded Accrued Liability/(Surplus)	559,504	507,911
Percent Funded	54.3%	54.9%
Annual Payroll	\$ 2,550,031	\$ 2,530,466



## ACTUARIAL VALUATION OF ASSETS

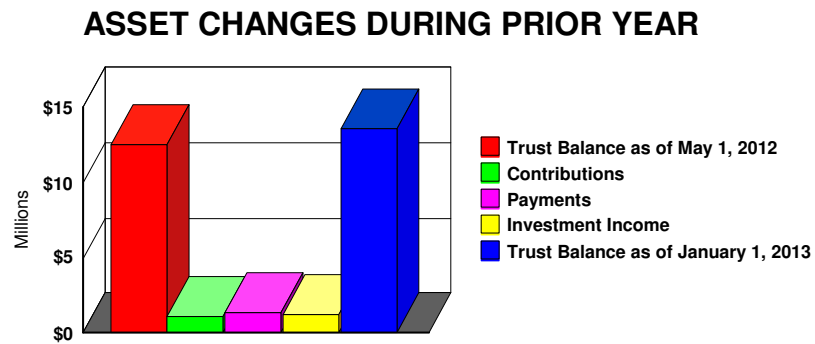
		as of January 1	
	<u>2013</u>		<u>2012</u>
Money Market, NOW, IL Fund	\$ 1,837,652	\$	517,782
Government Securities	2,814,652		3,136,461
Insurance Contracts	2,035,864		2,472,975
Mutual Funds	6,965,463		5,970,721
Contribution Receivable	0		489,857
Interest Receivable	16,642		17,553
Miscellaneous Receivable/(Payable)	<u>(8,828)</u>		<u>(11,375)</u>
Market Value of Assets	<u>13,661,446</u>		<u>12,593,974</u>
Actuarial Value of Assets	\$ 13,815,118	\$	13,169,074
FYE 2012-2013 (Gain)/Loss: \$718,875; (\$347,067)			

### SUMMARY OF ASSETS As Of January 1, 2013



## ASSET CHANGES DURING PRIOR YEAR

Trust Balance as of January 1, 2012		\$	12,593,974
Contributions			
Village	821,067		
Employee	<u>308,514</u>		
Total			1,129,581
Payments			
Benefit Payments	1,283,080		
Expenses	<u>62,542</u>		
Total			1,345,622
Investment Income			<u>1,283,513</u>
Trust Balance as of January 1, 2013		\$	<u>13,661,446</u>
Approximate Annual Rate of Return			10.28%

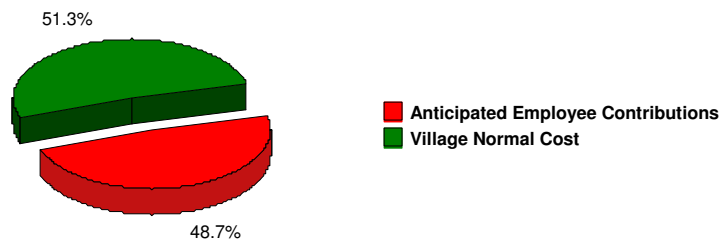


## NORMAL COST

The Normal Cost is the actuarial present value of the portion of the projected benefits that are expected to accrue during the year based upon the actuarial valuation method and actuarial assumptions employed in the valuation.

		as of January 1	
		<u>2013</u>	<u>2012</u>
Total Normal Cost	\$	519,168	\$ 505,060
Anticipated Employee Contributions		<u>252,708</u>	<u>250,769</u>
Village Normal Cost		<u>266,460</u>	<u>254,291</u>
Normal Cost Payroll	\$	2,550,031	\$ 2,530,466
Village Normal Cost Rate		10.45%	10.05%
Total Normal Cost Rate		20.36%	19.96%

### NORMAL COST As Of January 1, 2013

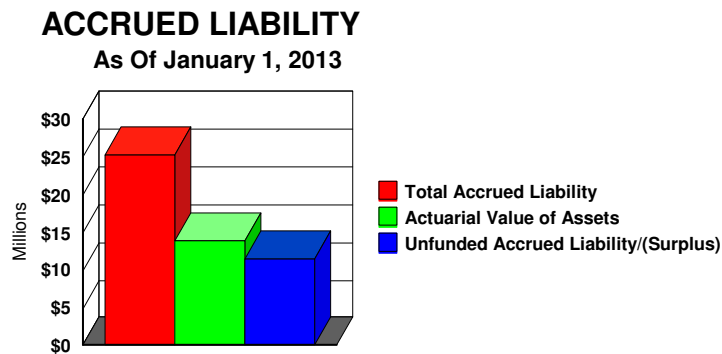




## ACCRUED LIABILITY

The Accrued Liability is the actuarial present value of the portion of the projected benefits that has been accrued as of the valuation date based upon the actuarial valuation method and actuarial assumptions employed in the valuation. The Unfunded Accrued Liability is the excess of the Accrued Liability over the Actuarial Value of Assets.

	as of January 1	
Accrued Liability	<u>2013</u>	<u>2012</u>
Active Employees	\$ 9,372,670	\$ 8,831,381
Children Annuities	0	0
Disability Annuities	5,370,869	5,253,425
Retirement Annuities	9,046,482	8,325,137
Surviving Spouse Annuities	537,323	558,989
Terminated Vested Annuities	<u>1,097,436</u>	<u>1,002,055</u>
Total Annuities	16,052,110	15,139,606
Total Accrued Liability	25,424,780	23,970,987
Actuarial Value of Assets	<u>13,815,118</u>	<u>13,169,074</u>
Unfunded Accrued Liability/(Surplus)	\$ <u>11,609,662</u>	\$ <u>10,801,913</u>
Percent Funded	54.3%	54.9%

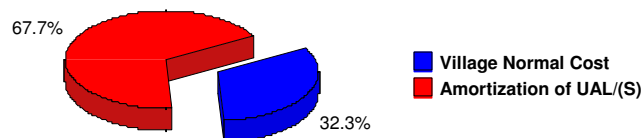


## TAX LEVY REQUIREMENT

The Tax Levy Requirement is determined as the annual contribution necessary to fund the normal cost, plus the amount to amortize the excess (if any) of ninety percent (90%) of the accrued liability over the actuarial value of assets as a level percentage of payroll over a thirty (30) year period which commenced in 2011, plus an adjustment for interest. Prior to 2011, the amortization amount was equal to the amount to amortize the unfunded accrued liability as a level percentage of payroll over a forty (40) year period which commenced in 1993. Beginning in 2011, the amortization period has been reset to 30 years.

	For Year Ending December 31	
	<u>2013</u>	<u>2012</u>
Village Normal Cost as of Beginning of Year	\$ 266,460	\$ 254,291
Amortization of Unfunded Accrued Liability/(Surplus)	559,504	507,911
Interest for One Year	<u>61,947</u>	<u>57,165</u>
Tax Levy Requirement as of End of Year	\$ <u>887,911</u>	\$ <u>819,367</u>
Public Act 096-1495 Tax Levy Requirement		
1) Normal Cost (PUC)	319,775	297,617
2) Accrued Liability (PUC)	24,422,395	23,157,524
3) Amortization Payment	393,498	360,774
4) Interest for One Year	53,495	49,379
5) PA 096-1495 Tax Levy Requirement (1 + 3 + 4)	\$ 766,768	707,770

### TAX LEVY REQUIREMENT For Fiscal Year Ending December 31, 2013



## SUMMARY OF PLAN PARTICIPANTS

The actuarial valuation of the Plan is based upon the employee data furnished by the Village.  
The information provided for Active participants included:

Name  
Sex  
Date of Birth  
Date of Hire  
Compensation  
Employee Contributions

The information provided for Inactive participants included:

Name  
Sex  
Date of Birth  
Date of Pension Commencement  
Monthly Pension Benefit  
Form of Payment

Membership	<u>2013</u>	<u>2013</u>	<u>2012</u>	<u>2012</u>
Current Employees				
Vested	19		20	
Nonvested	<u>13</u>		<u>13</u>	
Total	<u>32</u>		<u>33</u>	
Inactive Participants		<u>Annual Benefits</u>		<u>Annual Benefits</u>
Children	0 \$	0	0 \$	0
Disabled Employees	8	350,594	8	337,307
Retired Employees	16	713,471	16	685,019
Surviving Spouses	3	88,253	3	88,253
Terminated Vesteds	<u>6</u>	<u>168,146</u>	<u>6</u>	<u>168,146</u>
Total	<u>33</u>	<u>1,320,464</u>	<u>33</u>	<u>1,278,725</u>
Annual Payroll	\$	2,550,031	\$	2,530,466

## SUMMARY OF PLAN PARTICIPANTS (Continued)

### Age and Service Distribution

Service Age	0-4	5-9	10-14	15-19	20-24	25-29	30+	Total	Salary
20-24	2							2	57,356
25-29	4							4	66,906
30-34	3	3	2					8	76,198
35-39	1		5					6	83,195
40-44			4	1				5	80,374
45-49			1		2			3	93,245
50-54			2			1		3	98,989
55-59								0	
60+			1					1	80,374
Total	<u>10</u>	<u>3</u>	<u>15</u>	<u>1</u>	<u>2</u>	<u>1</u>	<u>0</u>	<u>32</u>	<u>79,688</u>
Salary	64,424	80,374	84,206	80,374	99,680	121,851			

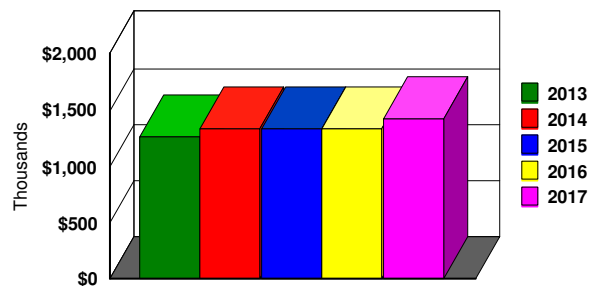
Average Age: 37.6      Average Service: 9.7

DURATION (years)    Active Members: 20.8    Retired Members: 10.6    All Members: 14.1

## PROJECTED PENSION PAYMENTS

<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
\$1,261,725	\$1,330,076	\$1,333,982	\$1,334,436	\$1,431,028

### PROJECTED PENSION PAYMENTS 2013-2017



## SUMMARY OF PLAN PROVISIONS

The Plan Provisions have not been changed from the prior year.

The Village of Bensenville Police Pension Fund was created and is administered as prescribed by "Article 3. Police Pension Fund - Municipalities 500,000 and Under" of the Illinois Pension Code (Illinois Compiled Statutes, 1992, Chapter 40). A brief summary of the plan provisions is provided below.

Employees attaining the age of (50) or more with (20) or more years of creditable service are entitled to receive an annual retirement benefit of (2.5%) of final salary for each year of service up to (30) years, to a maximum of (75%) of such salary.

Employees with at least (8) years but less than (20) years of credited service may retire at or after age (60) and receive a reduced benefit of (2.5%) of final salary for each year of service.

Surviving spouses receive (100%) of final salary for fatalities resulting from an act of duty, or otherwise the greater of (50%) of final salary or the employee's retirement benefit.

Employees disabled in the line of duty receive (65%) of final salary.

The monthly pension of a covered employee who retired with (20) or more years of service after January 1, 1977, shall be increased annually, following the first anniversary date of retirement and be paid upon reaching the age of at least (55) years, by (3%) of the originally granted pension. Beginning with increases granted on or after July 1, 1993, the second and subsequent automatic annual increases shall be calculated as (3%) of the amount of the pension payable at the time of the increase.

Employees are required to contribute (9.91%) of their base salary to the Police Pension Plan. If an employee leaves covered employment with less than (20) years of service, accumulated employee contributions may be refunded without accumulated interest.

For Employees hired after January 1, 2011, the Normal Retirement age is attainment of age 55 and completion of 10 years of service; Early Retirement age is attainment of age 50, completion of 10 years of service and the Early Retirement Factor is 6% per year; the Employee's Accrued Benefit is based on the Employee's final 8-year average salary not to exceed \$106,800 (as indexed); Cost-of-living adjustments are simple increases (not compounded) of the lesser of 3% or 50% of CPI beginning the later of the anniversary date and age 60; Surviving Spouse's Benefits are 66 2/3% of the Employee's benefit at the time of death.

## ACTUARIAL METHODS

The Actuarial Methods employed for this valuation are as follows:

### Projected Unit Credit Cost Method (for years beginning on or after 2011 for PA 096-1495)

Under the Projected Unit Credit Cost Method, the Normal Cost is the present value of the projected benefit (including projected salary increases) earned during the year.

The Accrued Liability is the present value of the projected benefit (including projected salary increases) earned as of the actuarial valuation date. The Unfunded Accrued Liability is the excess of the Accrued Liability over the plan's assets. Experience gains or losses adjust the Unfunded Accrued Liability.

### Entry Age Normal Cost Method

Under the Entry Age Normal Cost Method the Normal Cost for each participant is computed as the level percentage of pay which, if paid from the earliest age the participant is eligible to enter the plan until retirement or termination, will accumulate with interest to sufficiently fund all benefits under the plan. The Normal Cost for the plan is determined as the greater of a) the sum of the Normal Costs for all active participants, and b) 17.5% of the total payroll of all active participants.

The Accrued Liability is the theoretical amount that would have accumulated had annual contributions equal to the Normal Cost been paid. The Unfunded Accrued Liability is the excess of the Accrued Liability over the plan's assets. Experience gains or losses adjust the Unfunded Accrued Liability.

## ACTUARIAL ASSUMPTIONS

The Actuarial Assumptions used for determining the Tax Levy Requirement and GASB Statements No. 25 & 27 Disclosure Information are the same (except where noted) and have been changed from the prior year (discussion on page 4). The methods and assumptions disclosed in this report may reflect statutory requirements and may reflect the responsibility of the Principal and its advisors. In the event a method or assumption conflicts with the actuary's professional judgment, the method or assumption is identified in this report. The Actuarial Assumptions employed for this valuation are as follows:

Valuation Date	January 1, 2013
Asset Valuation Method	5-year Average Market Value (PA 096-1495)
Investment Return	7.50% net of investment expenses.
Salary Scale	5.00%
Mortality	RP 2000 Mortality Table (BCA, +1M, -4F, 2x>105). There is no margin for future mortality improvement beyond the valuation date.
Withdrawal	State of Illinois DOI Experience Rates
Disability	State of Illinois DOI Experience Rates
Retirement	State of Illinois DOI Experience Rates (100% by Age 62)
Marital Status	80% Married, Female spouses 3 years younger
Plan Expenses	None

### Sample Annual Rates Per 100 Participants

<u>Age</u>	<u>Mortality</u>	<u>Withdrawal</u>	<u>Disability</u>	<u>Retirement</u>
20	0.04	6.00	0.07	
30	0.08	5.10	0.10	
40	0.14	2.85	0.20	
50	0.27		0.52	20.00
60	0.94		0.60	83.33
62	1.23			100.00

## GASB STATEMENTS NO. 25 & 27 DISCLOSURE INFORMATION

The Governmental Accounting Standards Board (GASB) issued Statements No. 25 & 27 that established generally accepted accounting principles for the annual financial statements for defined benefit pension plans. The required information is as follows:

Membership in the plan consisted of the following as of:

	<u>December 31, 2012</u>	<u>December 31, 2011</u>
Retirees and beneficiaries receiving benefits	27	27
Terminated plan members entitled to but not yet receiving benefits	6	6
Active vested plan members	19	20
Active nonvested plan members	<u>13</u>	<u>13</u>
Total	<u>65</u>	<u>66</u>
Number of participating employers	1	1

## SCHEDULE OF FUNDING PROGRESS

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) -Entry Age (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)
12/31/10	12,539,774	22,868,030	10,328,256	54.8%	2,444,783	422.5%
12/31/11	12,593,974	23,970,987	11,377,013	52.5%	2,530,466	449.6%
12/31/12	13,661,446	25,424,780	11,763,334	53.7%	2,550,031	461.3%



GASB STATEMENTS NO. 25 & 27 DISCLOSURE INFORMATION (Continued)

ANNUAL PENSION COST AND NET PENSION OBLIGATION

	<u>December 31, 2012</u>	<u>December 31, 2011</u>
Annual required contribution	787,962	879,721
Interest on net pension obligation	178,758	171,043
Adjustment to annual required contribution	<u>(112,075)</u>	<u>(107,238)</u>
Annual pension cost	854,645	943,526
Contributions made	<u>821,067</u>	<u>789,231</u>
Increase (decrease) in net pension obligation	33,578	154,295
Net pension obligation beginning of year	<u>3,575,155</u>	<u>3,420,860</u>
Net pension obligation end of year	<u>3,608,733</u>	<u>3,575,155</u>

THREE-YEAR TREND INFORMATION

<u>Fiscal</u> <u>Year</u> <u>Ending</u>	<u>Annual</u> <u>Pension</u> <u>Cost (APC)</u>	<u>Percentage</u> <u>of APC</u> <u>Contributed</u>	<u>Net</u> <u>Pension</u> <u>Obligation</u>
12/31/10	630,448	137.3%	3,420,860
12/31/11	943,526	83.6%	3,575,155
12/31/12	854,645	96.1%	3,608,733

GASB STATEMENTS NO. 25 & 27 DISCLOSURE INFORMATION (Continued)

FUNDING POLICY AND ANNUAL PENSION COST

Contribution rates:

Village	32.20%	31.19%
Plan members	9.91%	Same

Annual pension cost	854,645	943,526
---------------------	---------	---------

Contributions made	821,067	789,231
--------------------	---------	---------

Actuarial valuation date	12/31/2012	12/31/2011
--------------------------	------------	------------

Actuarial cost method	Entry age	Same
-----------------------	-----------	------

Amortization period	Level percentage of pay, closed	Same
---------------------	---------------------------------	------

Remaining amortization period	28 years	29 years
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Asset valuation method	Market	Same
------------------------	--------	------

Actuarial assumptions:

Investment rate of return*	7.50%	Same
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Projected salary increases*	5.00%	Same
-----------------------------	-------	------

*Includes inflation at	3.00%	Same
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Cost-of-living adjustments	3.00% per year	Same
----------------------------	----------------	------

**BENSENVILLE POLICE PENSION FUND****Actuarial Valuation Report****Showing Assets and Liabilities of the Fund in  
Accordance with Actuarial Reserve Requirements  
as of January 1, 2014****Summary**

Accrued Liability	\$28,184,125
Actuarial Value of Assets	\$14,896,828
Unfunded Accrued Liability	\$13,287,298

Funded Ratio 53%

**Liabilities****Reserves for Annuities and Benefits in Force**

	Head Count:	Present Value:	
Retirement Annuities	16	10,955,063	
Disability Annuities	8	5,427,648	
Surviving Spouse Annuities	3	656,581	
Minor Dependent Annuities	0	0	
Deferred Retirement Annuities	6	1,001,914	
Handicapped Dependent Annuities	0	0	
Dependent Parent Annuities	0	0	
Terminated Liabilities	5	56,393	
Total:	38		\$18,097,598

Accrued Liabilities for Active Members	35	\$10,086,527
Total Accrued Liabilities		\$28,184,125
Total Normal Cost for Active Members		\$721,318
Total Normal Cost as a Percentage of Payroll		25%

Total Annual Payroll \$2,846,306

**Amortization of Unfunded Liabilities:**

Total Accrued Liability	\$28,184,125
90% Funded Ratio Target	\$25,365,713
Actuarial Value of Assets	\$14,896,828
Liabilities Subject to Amortization	\$10,468,885
Amortization Period	27 years
Amortization Payment, Beginning of Year	\$504,482

This report is provided to the Board and Municipality as part of the Public Pension Division advisory services under Section 1A-106 of the Illinois Pension Code. This report should not be relied upon for purposes other than determining the current tax levy required under the Illinois Pension Code. The assumptions have been set based on expectations for all Article 3 funds in the State of Illinois. The actuarial methods are prescribed by the Illinois Pension Code and do not necessarily represent the approach recommended by either the actuary or the Department of Insurance. This report was prepared under the direct supervision of the undersigned:

Jason Franken  
Enrolled Actuary #14-06888  
Foster & Foster

Scott J. Brandt  
Statistical Services, Public Pension Division  
Illinois Department of Insurance

**BENSENVILLE POLICE PENSION FUND**  
**Actuarial Valuation Report**

**Assets**

Actuarial Value of Assets

Current Year Gain/(Loss):

Market value of assets as of December 31, 2012	\$13,661,446
Benefit payments during fiscal year 2013	(1,179,106)
Total contributions during fiscal year 2013	1,148,422
Expected return during fiscal year 2013	921,112
Expected market value of assets as of December 31, 2013	\$14,551,875
Actual market value of assets as of December 31, 2013	\$15,972,011
Investment gain/(loss) during the fiscal year	\$1,420,137

Development of Actuarial Value of Assets (market value less unrecognized amounts):

Market value of assets as of December 31, 2013	\$15,972,011
Unrecognized gain/(loss) from fiscal 2013	1,136,109
Unrecognized gain/(loss) from fiscal 2012	225,635
Unrecognized gain/(loss) from fiscal 2011	(286,561)
Unrecognized gain/(loss) from fiscal 2010	0
Actuarial value of assets as of December 31, 2013	\$14,896,828

**Actuarially Determined Employer Contributions**

Actuarially determined amount to provide the employer normal cost based on the annual payroll of active participants as of January 1, 2014. \$439,249

Amount necessary to amortize the unfunded accrued liability as determined by the State of Illinois Department of Insurance over the remaining 27 years as prescribed by Section 3-125 of the Illinois Pension Code. \$504,482

Interest to the end of the fiscal year. \$63,702

Total suggested amount of employer contributions to arrive at the annual requirements of the fund as prescribed by Section 3-125 of the Illinois Pension Code. \* \$1,007,433

\*The above figure is the suggested amount which should be obtained by the fund from the municipality exclusive of any other items of income, such as interest on investments, contributions from participants, etc. These items have already been taken into consideration in arriving at this amount.

# BENSENVILLE POLICE PENSION FUND

## Actuarial Valuation Report

### Actuarial Information

The following methods have been prescribed in accordance with Section 3-125 of the Illinois Pension Code.

Funding method	Projected Unit Credit
Amortization method	Normal cost, plus an additional amount (determined as a level percentage of payroll) to bring the plan's funded ratio to 90% by the end of fiscal year 2040.
Asset valuation method	Investment gains and losses are recognized over a 5-year period.

### Actuarial Assumptions

Interest rate	6.75%
Interest rate, prior fiscal year	6.75%
Healthy mortality rates - Male	RP-2000 Combined Healthy Mortality, with Blue Collar Adjustment
Healthy mortality rates - Female	RP-2000 Combined Healthy Mortality, with Blue Collar Adjustment
Disability mortality rates - Male	RP-2000 Disabled Retiree Mortality
Disability mortality rates - Female	RP-2000 Disabled Retiree Mortality
Decrement other than mortality	Experience tables
Rate of service-related deaths	5%
Rate of service-related disabilities	70%
Salary increases	Service-related table with rates grading from 11% to 4% at 30 years of service
Payroll growth	4.50%
Tier 2 cost-of-living adjustment	1.25%
Marital assumptions	80% of members are assumed to be married; male spouses are assumed to be 3 years older than female spouses.

The actuarial assumptions used for determining the above amounts are based on experience for all Article 3 funds for the State of Illinois in aggregate. The Department of Insurance has approved the above actuarial assumptions. Contact the Department of Insurance for complete experience tables.

### Data and Fund Information

The above valuation uses personnel data as reported to the Department of Insurance in the Schedule P. Specifically, the following data items have been determined as of the date of the Actuarial Valuation Report: attained age, annual salary or pension, completed years of service of each individual participant.

The fund specific information used in the production of this document was provided to the Department of Insurance by your pension fund board of trustees through the fund's annual statement filing.



**VILLAGE OF BENSENVILLE**  
**BENSENVILLE POLICE PENSION FUND**

Actuarial Valuation Report  
For the Year  
Beginning January 1, 2014  
And Ending December 31, 2014

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*Timothy W. Sharpe, Actuary, Geneva, IL (630) 262-0600*

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## INTRODUCTION

Police-sworn personnel of the Village of Bensenville are covered by the Police Pension Plan that is a defined-benefit, single-employer pension plan. The purpose of this report is to provide to the Intended Users of this report, specifically the Intended Users are the Village Officials, the Pension Board and the Village and Pension Board auditors, the reporting requirements of the Illinois Pension Code, the GASB Statements No. 25 & 27 financial information and related actuarial information for the year stated in this report. This report is not intended for distribution or usage to or by anyone who is not an Intended User and should not be used for any other purpose.

The valuation results reported herein are based on the employee data, plan provisions and the financial data provided by the Village. The actuary has relied on this information and does not assume responsibility for the accuracy or completeness of this information. I hereby certify that to the best of my knowledge this report is complete and accurate and fairly presents the actuarial position of the Fund in accordance with generally accepted actuarial principles and procedures. In my opinion, the assumptions used are reasonably related to the experience of the Plan and to reasonable expectations. A reasonable request for supplementary information not included in this report should be directed to the undersigned actuary.

The actuary cautions the Intended Users of the possibility of uncertainty or risks in any of the results in this report.

I, Timothy W. Sharpe, am an Enrolled Actuary and a member of the American Academy of Actuaries, and I meet the Qualifications Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Respectfully submitted,



Timothy W. Sharpe, EA, MAAA  
Enrolled Actuary No. 14-4384

11/17/2014

Date



## SUMMARY OF RESULTS

There were no material changes with respect to Plan Provisions, Actuarial Methods or Actuarial Assumptions from the prior year.

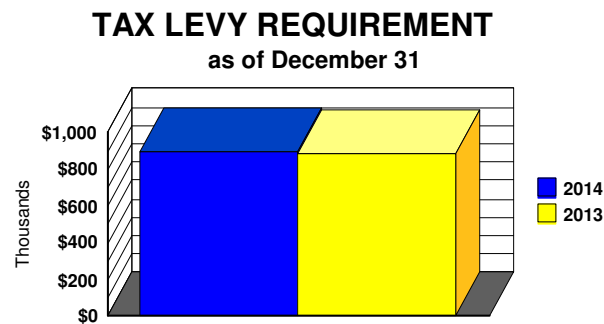
There were no unexpected changes with respect to the participants included in this actuarial valuation (4 new members, 1 termination, 0 retirements, 0 incidents of disability, annual payroll increase 11.6%, average salary increase 4.2%).

There were no unexpected changes with respect to the Fund's investments from the prior year (annual investment return 17.72%).

The Village's Tax Levy Requirement has increased slightly from \$887,911 last year to \$895,119 this year (0.8%). The slight increase in the Tax Levy is due to the increase in the annual payroll, and was offset due to the investment return was greater than assumed. The Percent Funded has increased from 54.3% last year to 56.9% this year.

# SUMMARY OF RESULTS (Continued)

	For Year Ending December 31	
	<u>2014</u>	<u>2013</u>
Tax Levy Requirement	\$ 895,119	\$ 887,911
	as of January 1	
	<u>2014</u>	<u>2013</u>
Village Normal Cost	274,187	266,460
Anticipated Employee Contributions	282,069	252,708
Accrued Liability	26,230,774	25,424,780
Actuarial Value of Assets	14,938,190	13,815,118
Unfunded Accrued Liability/(Surplus)	11,292,584	11,609,662
Amortization of Unfunded Accrued Liability/(Surplus)	558,482	559,504
Percent Funded	56.9%	54.3%
Annual Payroll	\$ 2,846,306	\$ 2,550,031



## ACTUARIAL VALUATION OF ASSETS

		as of January 1	
	<u>2014</u>		<u>2013</u>
Money Market, NOW, IL Fund	\$ 1,809,980	\$	1,837,652
Certificates of Deposit	483,850		0
Government Securities	2,055,199		2,814,652
Insurance Contracts	1,775,030		2,035,864
Mutual Funds	9,261,774		6,965,463
Contribution Receivable	582,348		0
Interest Receivable	3,825		16,642
Miscellaneous Receivable/(Payable)	<u>4</u>		<u>(8,828)</u>
Market Value of Assets	<u>15,972,011</u>		<u>13,661,446</u>
Actuarial Value of Assets	\$ 14,938,190	\$	13,815,118
FYE 2011-2013 (Gain)/Loss: \$718,875; (\$347,067); (\$1,391,413)			

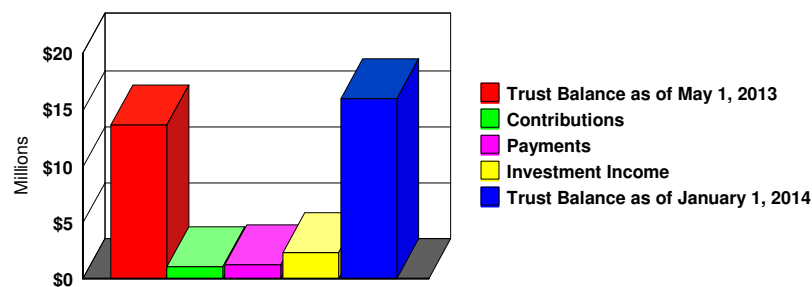
### SUMMARY OF ASSETS As Of January 1, 2014



## ASSET CHANGES DURING PRIOR YEAR

Trust Balance as of January 1, 2013		\$	13,661,446
Contributions			
Village	886,842		
Employee	<u>261,581</u>		
Total			1,148,422
Payments			
Benefit Payments	1,179,106		
Expenses	<u>70,962</u>		
Total			1,250,067
Investment Income			<u>2,412,210</u>
Trust Balance as of January 1, 2014		\$	<u>15,972,011</u>
Approximate Annual Rate of Return			17.72%

## ASSET CHANGES DURING PRIOR YEAR

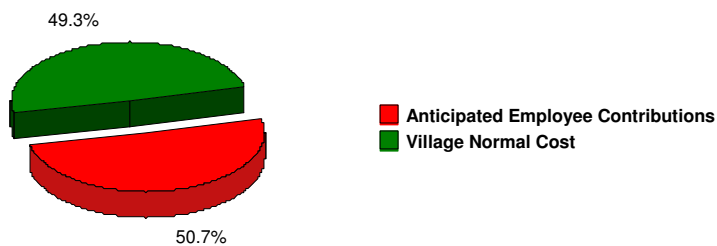


## NORMAL COST

The Normal Cost is the actuarial present value of the portion of the projected benefits that are expected to accrue during the year based upon the actuarial valuation method and actuarial assumptions employed in the valuation.

	as of January 1	
	<u>2014</u>	<u>2013</u>
Total Normal Cost	\$ 556,256	\$ 519,168
Anticipated Employee Contributions	<u>282,069</u>	<u>252,708</u>
Village Normal Cost	<u>274,187</u>	<u>266,460</u>
Normal Cost Payroll	\$ 2,846,306	\$ 2,550,031
Village Normal Cost Rate	9.63%	10.45%
Total Normal Cost Rate	19.54%	20.36%

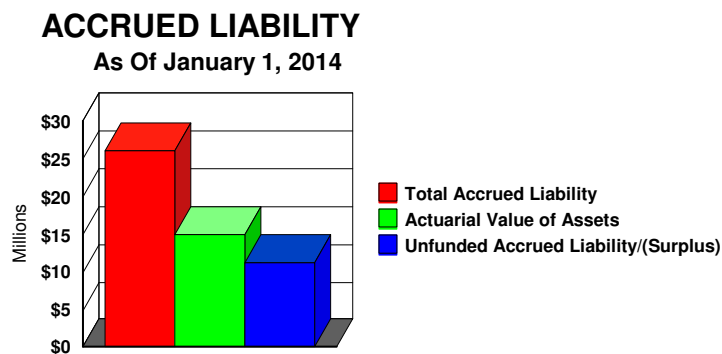
### NORMAL COST As Of January 1, 2014



## ACCRUED LIABILITY

The Accrued Liability is the actuarial present value of the portion of the projected benefits that has been accrued as of the valuation date based upon the actuarial valuation method and actuarial assumptions employed in the valuation. The Unfunded Accrued Liability is the excess of the Accrued Liability over the Actuarial Value of Assets.

	as of January 1	
Accrued Liability	<u>2014</u>	<u>2013</u>
Active Employees	\$ 10,461,711	\$ 9,372,670
Children Annuities	0	0
Disability Annuities	5,399,649	5,370,869
Retirement Annuities	9,040,921	9,046,482
Surviving Spouse Annuities	515,426	537,323
Terminated Vested Annuities	<u>813,067</u>	<u>1,097,436</u>
Total Annuities	15,769,063	16,052,110
Total Accrued Liability	26,230,774	25,424,780
Actuarial Value of Assets	<u>14,938,190</u>	<u>13,815,118</u>
Unfunded Accrued Liability/(Surplus)	\$ <u>11,292,584</u>	\$ <u>11,609,662</u>
Percent Funded	56.9%	54.3%

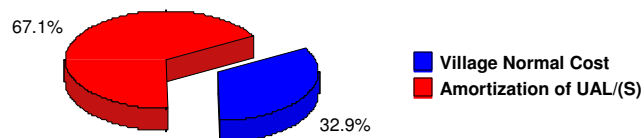


## TAX LEVY REQUIREMENT

The Tax Levy Requirement is determined as the annual contribution necessary to fund the normal cost, plus the amount to amortize the excess (if any) of ninety percent (90%) of the accrued liability over the actuarial value of assets as a level percentage of payroll over a thirty (30) year period which commenced in 2011, plus an adjustment for interest. Prior to 2011, the amortization amount was equal to the amount to amortize the unfunded accrued liability as a level percentage of payroll over a forty (40) year period which commenced in 1993. Beginning in 2011, the amortization period has been reset to 30 years.

	For Year Ending December 31	
	<u>2014</u>	<u>2013</u>
Village Normal Cost as of Beginning of Year	\$ 274,187	\$ 266,460
Amortization of Unfunded Accrued Liability/(Surplus)	558,482	559,504
Interest for One Year	<u>62,450</u>	<u>61,947</u>
Tax Levy Requirement as of End of Year	\$ <u>895,119</u>	\$ <u>887,911</u>
Public Act 096-1495 Tax Levy Requirement		
1) Normal Cost (PUC)	348,143	319,775
2) Accrued Liability (PUC)	25,151,093	24,422,395
3) Amortization Payment	380,699	393,498
4) Interest for One Year	54,663	53,495
5) PA 096-1495 Tax Levy Requirement (1 + 3 + 4)	\$ 783,505	766,768

### TAX LEVY REQUIREMENT For Fiscal Year Ending December 31, 2014



## SUMMARY OF PLAN PARTICIPANTS

The actuarial valuation of the Plan is based upon the employee data furnished by the Village.  
The information provided for Active participants included:

Name  
Sex  
Date of Birth  
Date of Hire  
Compensation  
Employee Contributions

The information provided for Inactive participants included:

Name  
Sex  
Date of Birth  
Date of Pension Commencement  
Monthly Pension Benefit  
Form of Payment

Membership	<u>2014</u>	<u>2014</u>	<u>2013</u>	<u>2013</u>
Current Employees				
Vested	20		19	
Nonvested	<u>15</u>		<u>13</u>	
Total	<u>35</u>		<u>32</u>	
Inactive Participants		<u>Annual Benefits</u>		<u>Annual Benefits</u>
Children	0 \$	0	0 \$	0
Disabled Employees	8	352,780	8	350,594
Retired Employees	16	733,247	16	713,471
Surviving Spouses	3	88,253	3	88,253
Terminated Vesteds	<u>6</u>	<u>118,684</u>	<u>6</u>	<u>168,146</u>
Total	<u>33</u>	<u>1,292,964</u>	<u>33</u>	<u>1,320,464</u>
Annual Payroll	\$	2,846,306	\$	2,550,031



## SUMMARY OF PLAN PARTICIPANTS (Continued)

### Age and Service Distribution

Service Age	0-4	5-9	10-14	15-19	20-24	25-29	30+	Total	Salary
20-24	1							1	59,077
25-29	5	1						6	64,977
30-34	2	6	1					9	77,270
35-39		1	6					7	87,947
40-44			3	1				4	83,071
45-49			1		2			3	87,403
50-54			2		1	1		4	102,257
55-59								0	
60+			1					1	82,785
Total	<u>8</u>	<u>8</u>	<u>14</u>	<u>1</u>	<u>3</u>	<u>1</u>	<u>0</u>	<u>35</u>	<u>81,323</u>
Salary	64,245	77,981	86,825	83,929	95,726	121,851			

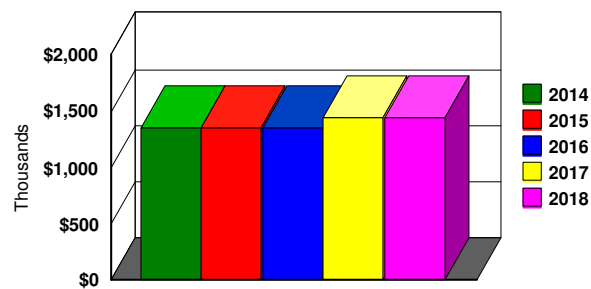
Average Age: 37.5      Average Service: 9.7

DURATION (years)    Active Members: 20.4    Retired Members: 10.2    All Members: 14.0

## PROJECTED PENSION PAYMENTS

<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
\$1,354,180	\$1,357,744	\$1,357,797	\$1,446,168	\$1,443,048

### PROJECTED PENSION PAYMENTS 2014-2018



## SUMMARY OF PLAN PROVISIONS

The Plan Provisions have not been changed from the prior year.

The Village of Bensenville Police Pension Fund was created and is administered as prescribed by "Article 3. Police Pension Fund - Municipalities 500,000 and Under" of the Illinois Pension Code (Illinois Compiled Statutes, 1992, Chapter 40). A brief summary of the plan provisions is provided below.

Employees attaining the age of (50) or more with (20) or more years of creditable service are entitled to receive an annual retirement benefit of (2.5%) of final salary for each year of service up to (30) years, to a maximum of (75%) of such salary.

Employees with at least (8) years but less than (20) years of credited service may retire at or after age (60) and receive a reduced benefit of (2.5%) of final salary for each year of service.

Surviving spouses receive (100%) of final salary for fatalities resulting from an act of duty, or otherwise the greater of (50%) of final salary or the employee's retirement benefit.

Employees disabled in the line of duty receive (65%) of final salary.

The monthly pension of a covered employee who retired with (20) or more years of service after January 1, 1977, shall be increased annually, following the first anniversary date of retirement and be paid upon reaching the age of at least (55) years, by (3%) of the originally granted pension. Beginning with increases granted on or after July 1, 1993, the second and subsequent automatic annual increases shall be calculated as (3%) of the amount of the pension payable at the time of the increase.

Employees are required to contribute (9.91%) of their base salary to the Police Pension Plan. If an employee leaves covered employment with less than (20) years of service, accumulated employee contributions may be refunded without accumulated interest.

For Employees hired after January 1, 2011, the Normal Retirement age is attainment of age 55 and completion of 10 years of service; Early Retirement age is attainment of age 50, completion of 10 years of service and the Early Retirement Factor is 6% per year; the Employee's Accrued Benefit is based on the Employee's final 8-year average salary not to exceed \$106,800 (as indexed); Cost-of-living adjustments are simple increases (not compounded) of the lesser of 3% or 50% of CPI beginning the later of the anniversary date and age 60; Surviving Spouse's Benefits are 66 2/3% of the Employee's benefit at the time of death.

## ACTUARIAL METHODS

The Actuarial Methods employed for this valuation are as follows:

### Projected Unit Credit Cost Method (for years beginning on or after 2011 for PA 096-1495)

Under the Projected Unit Credit Cost Method, the Normal Cost is the present value of the projected benefit (including projected salary increases) earned during the year.

The Accrued Liability is the present value of the projected benefit (including projected salary increases) earned as of the actuarial valuation date. The Unfunded Accrued Liability is the excess of the Accrued Liability over the plan's assets. Experience gains or losses adjust the Unfunded Accrued Liability.

### Entry Age Normal Cost Method

Under the Entry Age Normal Cost Method the Normal Cost for each participant is computed as the level percentage of pay which, if paid from the earliest age the participant is eligible to enter the plan until retirement or termination, will accumulate with interest to sufficiently fund all benefits under the plan. The Normal Cost for the plan is determined as the greater of a) the sum of the Normal Costs for all active participants, and b) 17.5% of the total payroll of all active participants.

The Accrued Liability is the theoretical amount that would have accumulated had annual contributions equal to the Normal Cost been paid. The Unfunded Accrued Liability is the excess of the Accrued Liability over the plan's assets. Experience gains or losses adjust the Unfunded Accrued Liability.

## ACTUARIAL ASSUMPTIONS

The Actuarial Assumptions used for determining the Tax Levy Requirement and GASB Statements No. 25 & 27 Disclosure Information are the same (except where noted) and have not been materially changed from the prior year. The methods and assumptions disclosed in this report may reflect statutory requirements and may reflect the responsibility of the Principal and its advisors. Unless specifically noted otherwise, each economic and demographic assumption was selected in accordance with Actuarial Standards of Practice 27 and 35 and may reflect the views and advice of advisors to the Principal. In the event a method or assumption conflicts with the actuary's professional judgment, the method or assumption is identified in this report. The Actuarial Assumptions employed for this valuation are as follows:

Valuation Date	January 1, 2014
Asset Valuation Method	5-year Average Market Value (PA 096-1495)
Investment Return	7.50% net of investment expenses.
Salary Scale	5.00%
Mortality	RP 2000 Mortality Table (BCA, +1M, -4F, 2x>105), adjusted for future mortality improvement using 1-year setback after 15 years.
Withdrawal	Based on studies of the Fund and the Department of Insurance, Sample Rates below
Disability	Based on studies of the Fund and the Department of Insurance, Sample Rates below
Retirement	Uniform distribution from ages 50-62 (100% by age 62)
Marital Status	80% Married, Female spouses 3 years younger

ACTUARIAL ASSUMPTIONS (*Continued*)

<u>Sample Annual Rates Per 100 Participants</u>				
<u>Age</u>	<u>Mortality</u>	<u>Withdrawal</u>	<u>Disability</u>	<u>Retirement</u>
20	0.04	6.00	0.07	
25	0.04	6.00	0.08	
30	0.08	5.10	0.10	
35	0.12	4.10	0.14	
40	0.14	2.85	0.20	
45	0.19	1.74	0.31	
50	0.27		0.52	20.00
55	0.50		0.99	41.67
60	0.94		1.74	83.33
62	1.23			100.00

## GASB STATEMENTS NO. 25 & 27 DISCLOSURE INFORMATION

The Governmental Accounting Standards Board (GASB) issued Statements No. 25 & 27 that established generally accepted accounting principles for the annual financial statements for defined benefit pension plans. The required information is as follows:

Membership in the plan consisted of the following as of:

	<u>December 31, 2013</u>	<u>December 31, 2012</u>
Retirees and beneficiaries receiving benefits	27	27
Terminated plan members entitled to but not yet receiving benefits	6	6
Active vested plan members	20	19
Active nonvested plan members	<u>15</u>	<u>13</u>
Total	<u>68</u>	<u>65</u>
Number of participating employers	1	1

## SCHEDULE OF FUNDING PROGRESS

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) -Entry Age (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)
12/31/11	12,593,974	23,970,987	11,377,013	52.5%	2,530,466	449.6%
12/31/12	13,661,446	25,424,780	11,763,334	53.7%	2,550,031	461.3%
12/31/13	15,972,011	26,230,774	10,258,763	60.9%	2,846,306	360.4%

GASB STATEMENTS NO. 25 & 27 DISCLOSURE INFORMATION (Continued)

ANNUAL PENSION COST AND NET PENSION OBLIGATION

	<u>December 31, 2013</u>	<u>December 31, 2012</u>
Annual required contribution	819,367	787,962
Interest on net pension obligation	180,437	178,758
Adjustment to annual required contribution	<u>(113,128)</u>	<u>(112,075)</u>
Annual pension cost	886,676	854,645
Contributions made	<u>886,842</u>	<u>821,067</u>
Increase (decrease) in net pension obligation	(166)	33,578
Net pension obligation beginning of year	<u>3,608,733</u>	<u>3,575,155</u>
Net pension obligation end of year	<u>3,608,567</u>	<u>3,608,733</u>

THREE-YEAR TREND INFORMATION

<u>Fiscal</u> <u>Year</u> <u>Ending</u>	<u>Annual</u> <u>Pension</u> <u>Cost (APC)</u>	<u>Percentage</u> <u>of APC</u> <u>Contributed</u>	<u>Net</u> <u>Pension</u> <u>Obligation</u>
12/31/11	943,526	83.6%	3,575,155
12/31/12	854,645	96.1%	3,608,733
12/31/13	886,676	100.0%	3,608,567

GASB STATEMENTS NO. 25 & 27 DISCLOSURE INFORMATION (Continued)

FUNDING POLICY AND ANNUAL PENSION COST

Contribution rates:

Village	31.16%	32.20%
Plan members	9.91%	Same

Annual pension cost	886,676	854,645
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Contributions made	886,842	821,067
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Actuarial valuation date	12/31/2013	12/31/2012
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Actuarial cost method	Entry age	Same
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Amortization period	Level percentage of pay, closed	Same
---------------------	---------------------------------	------

Remaining amortization period	27 years	28 years
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Asset valuation method	Market	Same
------------------------	--------	------

Actuarial assumptions:

Investment rate of return*	7.50%	Same
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Projected salary increases*	5.00%	Same
-----------------------------	-------	------

*Includes inflation at	3.00%	Same
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Cost-of-living adjustments	Tier 1: 3.00% per year, compounded Tier 2: 2.00% per year, simple	Same
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**BENSENVILLE POLICE PENSION FUND****Actuarial Valuation Report****Showing Assets and Liabilities of the Fund in  
Accordance with Actuarial Reserve Requirements  
as of January 1, 2015****Summary**

Accrued Liability	\$29,614,996
Actuarial Value of Assets	\$15,974,231
Unfunded Accrued Liability	\$13,640,765

Funded Ratio 54%

**Liabilities****Reserves for Annuities and Benefits in Force**

	Head Count:	Present Value:	
Retirement Annuities	15	10,755,832	
Disability Annuities	8	5,490,421	
Surviving Spouse Annuities	4	828,265	
Minor Dependent Annuities	0	0	
Deferred Retirement Annuities	7	1,768,093	
Handicapped Dependent Annuities	0	0	
Dependent Parent Annuities	0	0	
Terminated Liabilities	4	19,753	
Total:	38		\$18,862,364

Accrued Liabilities for Active Members	35	\$10,752,631
Total Accrued Liabilities		\$29,614,996
Total Normal Cost for Active Members		\$774,271
Total Normal Cost as a Percentage of Payroll		26%

Total Annual Payroll \$2,960,503

**Amortization of Unfunded Liabilities:**

Total Accrued Liability	\$29,614,996
90% Funded Ratio Target	\$26,653,496
Actuarial Value of Assets	\$15,974,231
Liabilities Subject to Amortization	\$10,679,265
Amortization Period	26 years
Amortization Payment, Beginning of Year	\$529,278

This report is provided to the Board and Municipality as part of the Public Pension Division advisory services under Section 1A-106 of the Illinois Pension Code. This report should not be relied upon for purposes other than determining the current tax levy required under the Illinois Pension Code. The assumptions have been set based on expectations for all Article 3 funds in the State of Illinois. The actuarial methods are prescribed by the Illinois Pension Code and do not necessarily represent the approach recommended by either the actuary or the Department of Insurance. This report was prepared under the direct supervision of the undersigned:

Jason Franken  
Enrolled Actuary #14-06888  
Foster & Foster

Scott J. Brandt  
Statistical Services, Public Pension Division  
Illinois Department of Insurance

**BENSENVILLE POLICE PENSION FUND**  
**Actuarial Valuation Report**

**Assets**

Actuarial Value of Assets

Current Year Gain/(Loss):

Market value of assets as of December 31, 2013	\$15,972,011
Benefit payments during partial fiscal year, 1/1/2014 - 12/31/2014	(1,415,192)
Total contributions during partial fiscal year, 1/1/2014 - 12/31/2014	1,229,249
Expected return during partial fiscal year, 1/1/2014 - 12/31/2014	1,071,835
Expected market value of assets as of December 31, 2014	\$16,857,904

Actual market value of assets as of December 31, 2014	\$16,735,665
---	--------------

Investment gain/(loss) during the partial fiscal year, 1/1/2014 - 12/31/2014	\$0
--	-----

Investment gain/(loss) during the fiscal year, 1/1/2013 - 12/31/2013	(\$122,239)
--	-------------

Development of Actuarial Value of Assets (market value less unrecognized amounts):

Market value of assets as of December 31, 2014	\$16,735,665
Unrecognized gain/(loss) for period, 1/1/2014 - 12/31/2014	(97,791)
Unrecognized gain/(loss) from fiscal 2013	852,082
Unrecognized gain/(loss) from fiscal 2012	150,423
Unrecognized gain/(loss) from fiscal 2011	(143,280)
Actuarial value of assets as of December 31, 2014	\$15,974,231

**Actuarially Determined Employer Contributions**

Actuarially determined amount to provide the employer normal cost based on the annual payroll of active participants as of January 1, 2015.	\$480,885
---	-----------

Amount necessary to amortize the unfunded accrued liability as determined by the State of Illinois Department of Insurance over the remaining 26 years as prescribed by Section 3-125 of the Illinois Pension Code.	\$529,278
---	-----------

Interest to the end of the fiscal year.	\$68,186
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Total suggested amount of employer contributions to arrive at the annual requirements of the fund as prescribed by Section 3-125 of the Illinois Pension Code. *	\$1,078,349
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\*The above figure is the suggested amount which should be obtained by the fund from the municipality exclusive of any other items of income, such as interest on investments, contributions from participants, etc. These items have already been taken into consideration in arriving at this amount.

# BENSENVILLE POLICE PENSION FUND

## Actuarial Valuation Report

### Actuarial Information

The following methods have been prescribed in accordance with Section 3-125 of the Illinois Pension Code.

Funding method	Projected Unit Credit
Amortization method	Normal cost, plus an additional amount (determined as a level percentage of payroll) to bring the plan's funded ratio to 90% by the end of fiscal year 2040.
Asset valuation method	Investment gains and losses are recognized over a 5-year period.

### Actuarial Assumptions

Interest rate	6.75%
Interest rate, prior fiscal year	6.75%
Healthy mortality rates - Male	RP-2000 Combined Healthy Mortality, with Blue Collar Adjustment
Healthy mortality rates - Female	RP-2000 Combined Healthy Mortality, with Blue Collar Adjustment
Disability mortality rates - Male	RP-2000 Disabled Retiree Mortality
Disability mortality rates - Female	RP-2000 Disabled Retiree Mortality
Decrement other than mortality	Experience tables
Rate of service-related deaths	5%
Rate of service-related disabilities	70%
Salary increases	Service-related table with rates grading from 11% to 4% at 30 years of service
Payroll growth	4.50%
Tier 2 cost-of-living adjustment	1.25%
Marital assumptions	80% of members are assumed to be married; male spouses are assumed to be 3 years older than female spouses.

The actuarial assumptions used for determining the above amounts are based on experience for all Article 3 funds for the State of Illinois in aggregate. The Department of Insurance has approved the above actuarial assumptions. Contact the Department of Insurance for complete experience tables.

### Data and Fund Information

The above valuation uses personnel data as reported to the Department of Insurance in the Schedule P. Specifically, the following data items have been determined as of the date of the Actuarial Valuation Report: attained age, annual salary or pension, completed years of service of each individual participant.

The fund specific information used in the production of this document was provided to the Department of Insurance by your pension fund board of trustees through the fund's annual statement filing.



**VILLAGE OF BENSENVILLE**  
**BENSENVILLE POLICE PENSION FUND**

Actuarial Valuation Report  
For the Year  
Beginning January 1, 2015  
And Ending December 31, 2015

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*Timothy W. Sharpe, Actuary, Geneva, IL (630) 262-0600*

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## INTRODUCTION

Police-sworn personnel of the Village of Bensenville are covered by the Police Pension Plan that is a defined-benefit, single-employer pension plan. The purpose of this report is to provide to the Intended Users of this report, specifically the Intended Users are the Village Officials, the Pension Board and the Village and Pension Board auditors, the reporting requirements of the Illinois Pension Code, the GASB Statements No. 25 & 27 and 67 & 68 financial information and related actuarial information for the year stated in this report. This report is not intended for distribution or usage to or by anyone who is not an Intended User and should not be used for any other purpose.

The valuation results reported herein are based on the employee data, plan provisions and the financial data provided by the Village. The actuary has relied on this information and does not assume responsibility for the accuracy or completeness of this information. I hereby certify that to the best of my knowledge this report is complete and accurate and fairly presents the actuarial position of the Fund in accordance with generally accepted actuarial principles and procedures. In my opinion, the assumptions used are reasonably related to the experience of the Plan and to reasonable expectations. A reasonable request for supplementary information not included in this report should be directed to the undersigned actuary.

The actuary cautions the Intended Users of the possibility of uncertainty or risks in any of the results in this report.

I, Timothy W. Sharpe, am an Enrolled Actuary and a member of the American Academy of Actuaries, and I meet the Qualifications Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Respectfully submitted,



Timothy W. Sharpe, EA, MAAA  
Enrolled Actuary No. 14-4384

5/12/2015

Date

## SUMMARY OF RESULTS

There was a change with respect to Actuarial Assumptions from the prior year to reflect revised expectations with respect to mortality rates, disability rates, turnover rates and retirement rates. The mortality rates, disability rates, turnover rates and retirement rates have been changed to the new rates most recently published by the Illinois Department of Insurance (September 2012).

There were no changes with respect to Plan Provisions or Actuarial Methods from the prior year.

Based on the plan sponsor's funding policy and future expected plan contributions and funded status, the plan is to be expected to produce adequate assets to make benefit payments when they are due.

The benefit payment default risk or the financial health of the plan sponsor was not deemed to be material.

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 the actuary's assignment, the actuary did not perform an analysis of the potential range of such future measurements.

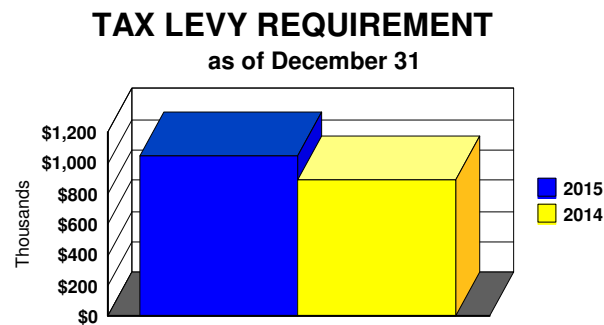
There were no unexpected changes with respect to the participants included in this actuarial valuation (2 new members, 1 termination, 1 retirement, 0 incidents of disability, annual payroll increase 4.0%, average salary increase 5.4%).

There were no unexpected changes with respect to the Fund's investments from the prior year (annual investment return 6.35%).

The Village's Tax Levy Requirement has increased from \$895,119 last year to \$1,049,682 this year (17.3%). The increase in the Tax Levy is due to the increase in salaries, the investment return was less than assumed and the changes to the assumptions. The Percent Funded has decreased from 56.9% last year to 55.4% this year.

## SUMMARY OF RESULTS (Continued)

	For Year Ending December 31	
	<u>2015</u>	<u>2014</u>
Tax Levy Requirement	\$ 1,049,682	\$ 895,119
	as of January 1	
	<u>2015</u>	<u>2014</u>
Village Normal Cost	319,954	274,187
Anticipated Employee Contributions	293,386	282,069
Accrued Liability	28,970,193	26,230,774
Actuarial Value of Assets	16,051,866	14,938,190
Unfunded Accrued Liability/(Surplus)	12,918,327	11,292,584
Amortization of Unfunded Accrued Liability/(Surplus)	656,494	558,482
Percent Funded	55.4%	56.9%
Annual Payroll	\$ 2,960,503	\$ 2,846,306





## ACTUARIAL VALUATION OF ASSETS

		as of January 1	
	<u>2015</u>		<u>2014</u>
Money Market, NOW, IL Fund	\$ 1,790,810	\$	1,809,980
Certificates of Deposit	479,550		483,850
Government Securities	2,608,087		2,055,199
Insurance Contracts	777,268		1,775,030
Mutual Funds	10,485,179		9,261,774
Contribution Receivable	585,785		582,348
Interest Receivable	12,420		3,825
Miscellaneous Receivable/(Payable)	<u>(3,688)</u>		<u>4</u>
Market Value of Assets	<u>16,735,412</u>		<u>15,972,011</u>
Actuarial Value of Assets	\$ 16,051,866	\$	14,938,190

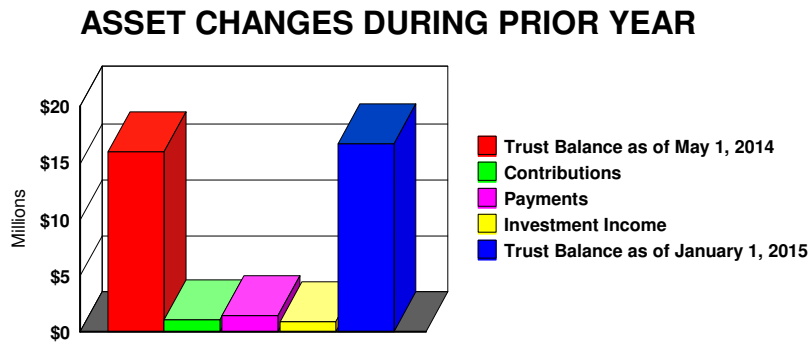
FYE 2011-2014 (Gain)/Loss: \$718,875; (\$347,067); (\$1,391,413); \$182,943

### SUMMARY OF ASSETS As Of January 1, 2015



## ASSET CHANGES DURING PRIOR YEAR

Trust Balance as of January 1, 2014		\$	15,972,011
Contributions			
Village	895,110		
Employee	<u>334,139</u>		
Total			1,229,249
Payments			
Benefit Payments	1,415,192		
Expenses	<u>56,523</u>		
Total			1,471,715
Investment Income			<u>1,005,866</u>
Trust Balance as of January 1, 2015		\$	<u>16,735,412</u>
Approximate Annual Rate of Return			6.35%

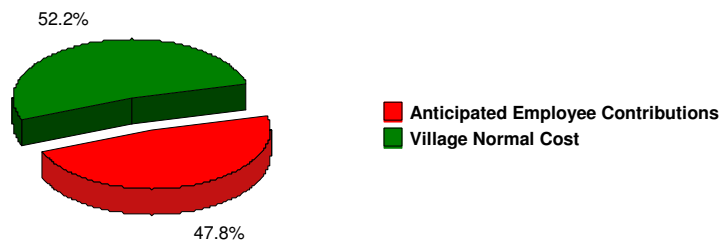


## NORMAL COST

The Normal Cost is the actuarial present value of the portion of the projected benefits that are expected to accrue during the year based upon the actuarial valuation method and actuarial assumptions employed in the valuation.

		as of January 1	
		<u>2015</u>	<u>2014</u>
Total Normal Cost	\$	613,340	\$ 556,256
Anticipated Employee Contributions		<u>293,386</u>	<u>282,069</u>
Village Normal Cost		<u>319,954</u>	<u>274,187</u>
Normal Cost Payroll	\$	2,960,503	\$ 2,846,306
Village Normal Cost Rate		10.81%	9.63%
Total Normal Cost Rate		20.72%	19.54%

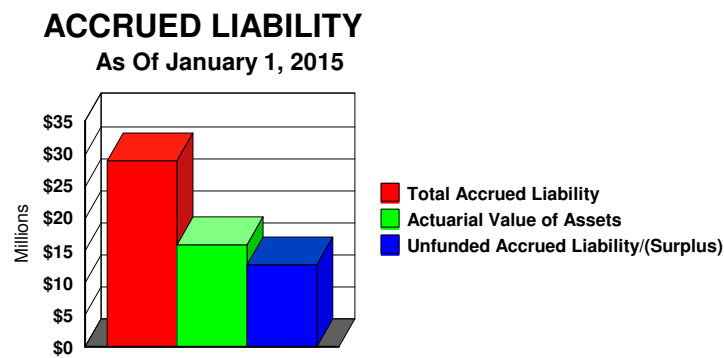
### NORMAL COST As Of January 1, 2015



## ACCRUED LIABILITY

The Accrued Liability is the actuarial present value of the portion of the projected benefits that has been accrued as of the valuation date based upon the actuarial valuation method and actuarial assumptions employed in the valuation. The Unfunded Accrued Liability is the excess of the Accrued Liability over the Actuarial Value of Assets.

	as of January 1	
Accrued Liability	<u>2015</u>	<u>2014</u>
Active Employees	\$ 11,907,876	\$ 10,461,711
Children Annuities	0	0
Disability Annuities	5,695,628	5,399,649
Retirement Annuities	9,366,142	9,040,921
Surviving Spouse Annuities	844,114	515,426
Terminated Vested Annuities	<u>1,156,433</u>	<u>813,067</u>
Total Annuities	17,062,317	15,769,063
Total Accrued Liability	28,970,193	26,230,774
Actuarial Value of Assets	<u>16,051,866</u>	<u>14,938,190</u>
Unfunded Accrued Liability/(Surplus)	\$ <u>12,918,327</u>	\$ <u>11,292,584</u>
Percent Funded	55.4%	56.9%

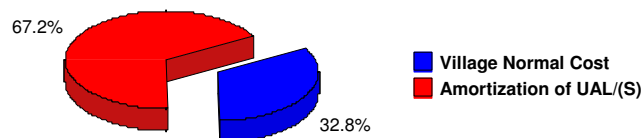


## TAX LEVY REQUIREMENT

The Tax Levy Requirement is determined as the annual contribution necessary to fund the normal cost, plus the amount to amortize the excess (if any) of ninety percent (90%) of the accrued liability over the actuarial value of assets as a level percentage of payroll over a thirty (30) year period which commenced in 2011, plus an adjustment for interest. Prior to 2011, the amortization amount was equal to the amount to amortize the unfunded accrued liability as a level percentage of payroll over a forty (40) year period which commenced in 1993. Beginning in 2011, the amortization period has been reset to 30 years.

	For Year Ending December 31	
	<u>2015</u>	<u>2014</u>
Village Normal Cost as of Beginning of Year	\$ 319,954	\$ 274,187
Amortization of Unfunded Accrued Liability/(Surplus)	656,494	558,482
Interest for One Year	<u>73,234</u>	<u>62,450</u>
Tax Levy Requirement as of End of Year	\$ <u>1,049,682</u>	\$ <u>895,119</u>
Public Act 096-1495 Tax Levy Requirement		
1) Normal Cost (PUC)	324,586	348,143
2) Accrued Liability (PUC)	28,211,765	25,151,093
3) Amortization Payment	474,582	380,699
4) Interest for One Year	59,938	54,663
5) PA 096-1495 Tax Levy Requirement (1 + 3 + 4)	\$ 859,106	783,505

### TAX LEVY REQUIREMENT For Fiscal Year Ending December 31, 2015



## SUMMARY OF PLAN PARTICIPANTS

The actuarial valuation of the Plan is based upon the employee data furnished by the Village.  
The information provided for Active participants included:

Name  
Sex  
Date of Birth  
Date of Hire  
Compensation  
Employee Contributions

The information provided for Inactive participants included:

Name  
Sex  
Date of Birth  
Date of Pension Commencement  
Monthly Pension Benefit  
Form of Payment

Membership	<u>2015</u>	<u>2015</u>	<u>2014</u>	<u>2014</u>
Current Employees				
Vested	21		20	
Nonvested	<u>14</u>		<u>15</u>	
Total	<u>35</u>		<u>35</u>	
Inactive Participants		<u>Annual Benefits</u>		<u>Annual Benefits</u>
Children	0 \$	0	0 \$	0
Disabled Employees	8	354,965	8	352,780
Retired Employees	15	729,446	16	733,247
Surviving Spouses	4	116,085	3	88,253
Terminated Vesteds	<u>7</u>	<u>163,450</u>	<u>6</u>	<u>118,684</u>
Total	<u>34</u>	<u>1,363,946</u>	<u>33</u>	<u>1,292,964</u>
Annual Payroll	\$	2,960,503	\$	2,846,306

## SUMMARY OF PLAN PARTICIPANTS (Continued)

### Age and Service Distribution

Service Age	0-4	5-9	10-14	15-19	20-24	25-29	30+	Total	Salary
20-24	1							1	60,849
25-29	6	2						8	68,553
30-34	1	3	1					5	82,563
35-39		4	5					9	90,079
40-44			4	1				5	85,947
45-49			1		1			2	91,919
50-54			1			1	1	3	114,532
55-59			1					1	85,268
60+			1					1	85,268
Total	<u>8</u>	<u>9</u>	<u>14</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>35</u>	<u>84,586</u>
Salary	65,501	83,765	89,311	88,661	98,570	110,989	134,036		

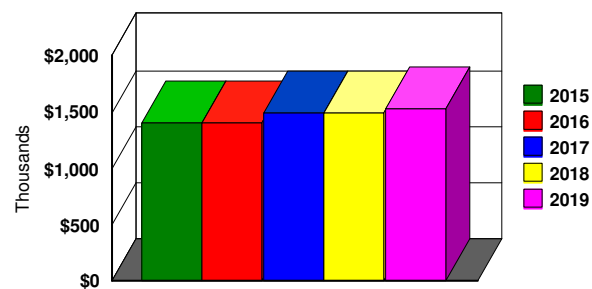
Average Age: 37.6      Average Service: 9.9

DURATION (years)    Active Members: 19.1    Retired Members: 11.2    All Members: 14.4

## PROJECTED PENSION PAYMENTS

<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
\$1,400,236	\$1,403,937	\$1,494,460	\$1,495,705	\$1,539,648

### PROJECTED PENSION PAYMENTS 2015-2019



## SUMMARY OF PLAN PROVISIONS

The Plan Provisions have not been changed from the prior year.

The Village of Bensenville Police Pension Fund was created and is administered as prescribed by "Article 3. Police Pension Fund - Municipalities 500,000 and Under" of the Illinois Pension Code (Illinois Compiled Statutes, 1992, Chapter 40). A brief summary of the plan provisions is provided below.

Employees attaining the age of (50) or more with (20) or more years of creditable service are entitled to receive an annual retirement benefit of (2.5%) of final salary for each year of service up to (30) years, to a maximum of (75%) of such salary.

Employees with at least (8) years but less than (20) years of credited service may retire at or after age (60) and receive a reduced benefit of (2.5%) of final salary for each year of service.

Surviving spouses receive (100%) of final salary for fatalities resulting from an act of duty, or otherwise the greater of (50%) of final salary or the employee's retirement benefit.

Employees disabled in the line of duty receive (65%) of final salary.

The monthly pension of a covered employee who retired with (20) or more years of service after January 1, 1977, shall be increased annually, following the first anniversary date of retirement and be paid upon reaching the age of at least (55) years, by (3%) of the originally granted pension. Beginning with increases granted on or after July 1, 1993, the second and subsequent automatic annual increases shall be calculated as (3%) of the amount of the pension payable at the time of the increase.

Employees are required to contribute (9.91%) of their base salary to the Police Pension Plan. If an employee leaves covered employment with less than (20) years of service, accumulated employee contributions may be refunded without accumulated interest.

For Employees hired after January 1, 2011, the Normal Retirement age is attainment of age 55 and completion of 10 years of service; Early Retirement age is attainment of age 50, completion of 10 years of service and the Early Retirement Factor is 6% per year; the Employee's Accrued Benefit is based on the Employee's final 8-year average salary not to exceed \$106,800 (as indexed); Cost-of-living adjustments are simple increases (not compounded) of the lesser of 3% or 50% of CPI beginning the later of the anniversary date and age 60; Surviving Spouse's Benefits are 66 2/3% of the Employee's benefit at the time of death.



## ACTUARIAL METHODS

The Actuarial Methods employed for this valuation are as follows:

### Projected Unit Credit Cost Method (for years beginning on or after 2011 for PA 096-1495)

Under the Projected Unit Credit Cost Method, the Normal Cost is the present value of the projected benefit (including projected salary increases) earned during the year.

The Accrued Liability is the present value of the projected benefit (including projected salary increases) earned as of the actuarial valuation date. The Unfunded Accrued Liability is the excess of the Accrued Liability over the plan's assets. Experience gains or losses adjust the Unfunded Accrued Liability.

### Entry Age Normal Cost Method

Under the Entry Age Normal Cost Method the Normal Cost for each participant is computed as the level percentage of pay which, if paid from the earliest age the participant is eligible to enter the plan until retirement or termination, will accumulate with interest to sufficiently fund all benefits under the plan. The Normal Cost for the plan is determined as the greater of a) the sum of the Normal Costs for all active participants, and b) 17.5% of the total payroll of all active participants.

The Accrued Liability is the theoretical amount that would have accumulated had annual contributions equal to the Normal Cost been paid. The Unfunded Accrued Liability is the excess of the Accrued Liability over the plan's assets. Experience gains or losses adjust the Unfunded Accrued Liability.

## ACTUARIAL ASSUMPTIONS

The Actuarial Assumptions used for determining the Tax Levy Requirement and GASB Statements No. 25 & 27 and 67 & 68 Disclosure Information are the same (except where noted) and have been changed from the prior year (discussion on page 4). The methods and assumptions disclosed in this report may reflect statutory requirements and may reflect the responsibility of the Principal and its advisors. Unless specifically noted otherwise, each economic and demographic assumption was selected in accordance with Actuarial Standards of Practice 27 and 35 and may reflect the views and advice of advisors to the Principal. In the event a method or assumption conflicts with the actuary's professional judgment, the method or assumption is identified in this report. The Actuarial Assumptions employed for this valuation are as follows:

Valuation Date	January 1, 2015
Asset Valuation Method	5-year Average Market Value (PA 096-1495)
Investment Return	7.50% net of investment expenses.
Salary Scale	5.00%
Mortality	RP 2000 Mortality Table (CHBCA). There is no margin for future mortality improvement beyond the valuation date.
Withdrawal	Based on studies of the Fund and the Department of Insurance, Sample Rates below
Disability	Based on studies of the Fund and the Department of Insurance, Sample Rates below
Retirement	Based on studies of the Fund and the Department of Insurance, Sample Rates below (100% by age 70)
Marital Status	80% Married, Female spouses 3 years younger

ACTUARIAL ASSUMPTIONS (*Continued*)

<u>Sample Annual Rates Per 100 Participants</u>				
<u>Age</u>	<u>Mortality</u>	<u>Withdrawal</u>	<u>Disability</u>	<u>Retirement</u>
20	0.03	10.00	0.05	
25	0.04	7.50	0.05	
30	0.07	5.00	0.22	
35	0.11	3.00	0.26	
40	0.14	2.00	0.40	
45	0.18	2.00	0.65	
50	0.24	3.50	0.95	20.00
55	0.42	3.50	1.30	25.00
60	0.83	3.50	1.65	33.00
65	1.55	3.50	2.00	50.00
70	2.68			100.00

## GASB STATEMENTS NO. 25 & 27 DISCLOSURE INFORMATION

The Governmental Accounting Standards Board (GASB) issued Statements No. 25 & 27 that established generally accepted accounting principles for the annual financial statements for defined benefit pension plans. The required information is as follows:

Membership in the plan consisted of the following as of:

	<u>December 31, 2014</u>	<u>December 31, 2013</u>
Retirees and beneficiaries receiving benefits	27	27
Terminated plan members entitled to but not yet receiving benefits	7	6
Active vested plan members	21	20
Active nonvested plan members	<u>14</u>	<u>15</u>
Total	<u>69</u>	<u>68</u>
Number of participating employers	1	1

## SCHEDULE OF FUNDING PROGRESS

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) -Entry Age (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)
12/31/12	13,661,446	25,424,780	11,763,334	53.7%	2,550,031	461.3%
12/31/13	15,972,011	26,230,774	10,258,763	60.9%	2,846,306	360.4%
12/31/14	16,735,412	28,970,193	12,234,781	57.8%	2,960,503	413.3%

GASB STATEMENTS NO. 25 & 27 DISCLOSURE INFORMATION (Continued)

ANNUAL PENSION COST AND NET PENSION OBLIGATION

	<u>December 31, 2014</u>	<u>December 31, 2013</u>
Annual required contribution	887,911	819,367
Interest on net pension obligation	180,428	180,437
Adjustment to annual required contribution	<u>(121,809)</u>	<u>(113,128)</u>
Annual pension cost	946,530	886,676
Contributions made	<u>895,110</u>	<u>886,842</u>
Increase (decrease) in net pension obligation	51,420	(166)
Net pension obligation beginning of year	<u>3,608,567</u>	<u>3,608,733</u>
Net pension obligation end of year	<u>3,659,987</u>	<u>3,608,567</u>

THREE-YEAR TREND INFORMATION

<u>Fiscal</u> <u>Year</u> <u>Ending</u>	<u>Annual</u> <u>Pension</u> <u>Cost (APC)</u>	<u>Percentage</u> <u>of APC</u> <u>Contributed</u>	<u>Net</u> <u>Pension</u> <u>Obligation</u>
12/31/12	854,645	96.1%	3,608,733
12/31/13	886,676	100.0%	3,608,567
12/31/14	946,530	94.6%	3,659,987

GASB STATEMENTS NO. 25 & 27 DISCLOSURE INFORMATION (Continued)

FUNDING POLICY AND ANNUAL PENSION COST

Contribution rates:

Village	30.24%	31.16%
Plan members	9.91%	Same

Annual pension cost	946,530	886,676
---------------------	---------	---------

Contributions made	895,110	886,842
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Actuarial valuation date	12/31/2014	12/31/2013
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Actuarial cost method	Entry age	Same
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Amortization period	Level percentage of pay, closed	Same
---------------------	---------------------------------	------

Remaining amortization period	26 years	27 years
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Asset valuation method	Market	Same
------------------------	--------	------

Actuarial assumptions:

Investment rate of return*	7.50%	Same
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Projected salary increases*	5.00%	Same
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*Includes inflation at	3.00%	Same
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Cost-of-living adjustments	Tier 1: 3.00% per year, compounded Tier 2: 2.00% per year, simple	Same
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## STATEMENTS NO. 67 & 68 DISCLOSURE INFORMATION

Plan Membership	December 31, 2014
Inactive plan members or beneficiaries currently receiving benefits	27
Inactive plan members entitled to but not yet receiving benefits	7
Active plan members	<u>35</u>
Total	<u>69</u>

Net Pension Liability of the Village	
Total pension liability	28,970,193
Plan fiduciary net position	16,735,412
Village's net pension liability	12,234,781
Plan fiduciary net position as a percentage of the total pension liability	57.77%

Actuarial Assumptions	
Inflation	3.00%
Salary increases	5.00%
Investment rate of return	7.50% net of expenses

The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and that Village contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Based on those assumptions, the discount rate was determined in accordance with paragraphs 40-45. Therefore, the discount rate was applied to all periods of projected benefit payments to determine the total pension liability.

### Sensitivity of the Net Pension Liability to Changes in the Discount Rate

	1% Decrease 6.50%	Current Discount Rate 7.50%	1% Increase 8.50%
Net Pension Liability	16,120,306	12,234,781	9,028,105

STATEMENTS NO. 67 & 68 DISCLOSURE INFORMATION (continued)

Schedule of Changes in the Village's Net Pension Liability and Related Ratios

	December 31, 2014
Total Pension Liability	
Service cost	597,975
Interest	1,914,238
Changes of benefit terms	0
Differences between expected and actual experience	(113,286)
Changes of assumptions	1,755,684
Benefit payments, including refunds of member contributions	1,415,192
Net change in total pension liability	2,739,419
Total pension liability - beginning	26,230,774
Total pension liability - ending	28,970,193
Plan Fiduciary Net Position	
Contributions - employer	895,110
Contributions - member	334,139
Net investment income	1,005,866
Benefit payments, including refunds of member contributions	1,415,192
Administrative expense	56,523
Other	0
Net change in plan fiduciary net position	763,401
Plan fiduciary net position - beginning	15,972,011
Plan fiduciary net position - ending	16,735,412
Village's net pension liability	12,234,781
Plan fiduciary net position as a percentage of the total pension liability	57.77%
Covered-employee payroll	2,960,503
Village's net pension liability as a percentage of covered-employee payroll	413.27%



STATEMENTS NO. 67 & 68 DISCLOSURE INFORMATION (continued)

Schedule of Village Contributions

	<u>December 31, 2014</u>
Actuarially determined contribution	887,911
Contributions in relation to the actuarially determined contribution	895,110
Contribution deficiency (Excess)	(7,199)
Covered-employee payroll	2,960,503
Contributions as a percentage of covered-employee payroll	30.24%

Notes to schedule

Valuation date December 31, 2014

Methods and assumptions used to determine contribution rates:

Actuarial cost method	Entry Age Normal
Amortization method	Level Percentage of Pay
Remaining amortization period	26 years
Asset valuation method	Market Value
Inflation	3.00%
Salary increases	5.00%
Investment rate of return	7.50%
Retirement age	50-70
Mortality	RP 2000 CHBCA
Other	

Mortality rates were based on the RP-2000 CHBCA Mortality Table. The actuarial assumptions used in the December 31, 2014 valuation were based on the results of an actuarial experience study conducted by the Illinois Department of Insurance dated September 26, 2012.

**BENSENVILLE POLICE PENSION FUND****Actuarial Valuation Report****Showing Assets and Liabilities of the Fund in  
Accordance with Actuarial Reserve Requirements  
as of January 1, 2016****Summary**

Accrued Liability	\$30,845,289
Actuarial Value of Assets	\$17,048,001
Unfunded Accrued Liability	\$13,797,288

Funded Ratio 55%

**Liabilities****Reserves for Annuities and Benefits in Force**

	Head Count:	Present Value:	
Retirement Annuities	16	11,262,266	
Disability Annuities	7	4,762,997	
Surviving Spouse Annuities	4	1,266,182	
Minor Dependent Annuities	0	0	
Deferred Retirement Annuities	7	1,892,550	
Handicapped Dependent Annuities	0	0	
Dependent Parent Annuities	0	0	
Terminated Liabilities	6	26,743	
Total:	40		\$19,210,737

Accrued Liabilities for Active Members	34	\$11,634,552
Total Accrued Liabilities		\$30,845,289
Total Normal Cost for Active Members		\$797,069
Total Normal Cost as a Percentage of Payroll		27%

Total Annual Payroll \$2,992,147

**Amortization of Unfunded Liabilities:**

Total Accrued Liability	\$30,845,289
90% Funded Ratio Target	\$27,760,760
Actuarial Value of Assets	\$17,048,001
Liabilities Subject to Amortization	\$10,712,759
Amortization Period	25 years
Amortization Payment, Beginning of Year	\$546,850

This report is provided to the Board and Municipality as part of the Public Pension Division advisory services under Section 1A-106 of the Illinois Pension Code. This report should not be relied upon for purposes other than determining the current tax levy required under the Illinois Pension Code. The assumptions have been set based on expectations for all Article 3 funds in the State of Illinois. The actuarial methods are prescribed by the Illinois Pension Code and do not necessarily represent the approach recommended by either the actuary or the Department of Insurance. This report was prepared under the direct supervision of the undersigned:

Jason Franken  
Enrolled Actuary #14-06888  
Foster & Foster

Deputy Director  
Public Pension Division  
Illinois Department of Insurance

**BENSENVILLE POLICE PENSION FUND**  
**Actuarial Valuation Report**

**Assets**

Actuarial Value of Assets

Current Year Gain/(Loss):

Market value of assets as of December 31, 2014	\$16,735,665
Benefit payments during fiscal year 2015	(1,218,279)
Total contributions during fiscal year 2015	1,206,110
Expected return during fiscal year 2015	1,129,247
Expected market value of assets as of December 31, 2015	\$17,852,742
Actual market value of assets as of December 31, 2015	\$16,678,654
Investment gain/(loss) during the fiscal year	(\$1,174,088)

Development of Actuarial Value of Assets (market value less unrecognized amounts):

Market value of assets as of December 31, 2015	\$16,678,654
Unrecognized gain/(loss) from fiscal 2015	(939,270)
Unrecognized gain/(loss) from fiscal 2014	(73,343)
Unrecognized gain/(loss) from fiscal 2013	568,055
Unrecognized gain/(loss) from fiscal 2012	75,212
Actuarial value of assets as of December 31, 2015	\$17,048,001

**Actuarially Determined Employer Contributions**

Actuarially determined amount to provide the employer normal cost based on the annual payroll of active participants as of January 1, 2016.	\$500,547
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Amount necessary to amortize the unfunded accrued liability as determined by the State of Illinois Department of Insurance over the remaining 25 years as prescribed by Section 3-125 of the Illinois Pension Code.	\$546,850
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Interest to the end of the fiscal year.	\$70,699
---	----------

Total suggested amount of employer contributions to arrive at the annual requirements of the fund as prescribed by Section 3-125 of the Illinois Pension Code. *	\$1,118,096
--	-------------

\*The above figure is the suggested amount which should be obtained by the fund from the municipality exclusive of any other items of income, such as interest on investments, contributions from participants, etc. These items have already been taken into consideration in arriving at this amount.

# BENSENVILLE POLICE PENSION FUND

## Actuarial Valuation Report

### Actuarial Information

The following methods have been prescribed in accordance with Section 3-125 of the Illinois Pension Code.

Funding method	Projected Unit Credit
Amortization method	Normal cost, plus an additional amount (determined as a level percentage of payroll) to bring the plan's funded ratio to 90% by the end of fiscal year 2040.
Asset valuation method	Investment gains and losses are recognized over a 5-year period.

### Actuarial Assumptions

Interest rate	6.75%
Interest rate, prior fiscal year	6.75%
Healthy mortality rates - Male	RP-2000 Combined Healthy Mortality, with Blue Collar Adjustment
Healthy mortality rates - Female	RP-2000 Combined Healthy Mortality, with Blue Collar Adjustment
Disability mortality rates - Male	RP-2000 Disabled Retiree Mortality
Disability mortality rates - Female	RP-2000 Disabled Retiree Mortality
Decrements other than mortality	Experience tables
Rate of service-related deaths	5%
Rate of service-related disabilities	70%
Salary increases	Service-related table with rates grading from 11% to 4% at 30 years of service
Payroll growth	4.50%
Tier 2 cost-of-living adjustment	1.25%
Marital assumptions	80% of members are assumed to be married; male spouses are assumed to be 3 years older than female spouses.

The actuarial assumptions used for determining the above amounts are based on experience for all Article 3 funds for the State of Illinois in aggregate. The Department of Insurance has approved the above actuarial assumptions. Contact the Department of Insurance for complete experience tables.

### Data and Fund Information

The above valuation uses personnel data as reported to the Department of Insurance in the Schedule P. Specifically, the following data items have been determined as of the date of the Actuarial Valuation Report: attained age, annual salary or pension, completed years of service of each individual participant.

The fund specific information used in the production of this document was provided to the Department of Insurance by your pension fund board of trustees through the fund's annual statement filing.

# Actuarial Valuation

*Village of Bensenville*

*Bensenville Police Pension Fund*

*As of January 1, 2017*

*For the Year Ending December 31, 2017*



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## Section 1: Summary of Principal Valuation Results

MWM Consulting Group was retained to prepare an actuarial valuation as of January 1, 2017 for the Bensenville Police Pension Fund. The purpose of the actuarial valuation was to determine the financial position and the annual actuarial requirements of the pension fund under Illinois statute 40 ILCS 5/3, Section 125, and to develop the funding policy contribution amount.

For quick reference, some of the key results of the valuation, along with selected financial and demographic information for the year ending December 31, 2017 are summarized in this overview section along with (for comparison) the results from the prior year.

<b>CONTRIBUTIONS</b>  <i>The plan sponsor must contribute at least the statutorily required minimum contribution under Illinois statutes equal to the normal cost plus the amount necessary to amortize the unfunded accrued liability such that by 2040, the liabilities will be 90% funded.</i>	Item	Current Valuation as of 1/1/2017	Prior Year Valuation as of 1/1/2016
	Actuarially Determined Funding Policy Contribution	\$1,156,668 (36.3%)	\$1,088,563 (37.6%)
	Statutory Minimum Contribution per 40 ILCS 5/3 Section 125	\$957,573 (30.0%)	\$917,063 (31.7%)
	<i>( ) amounts expressed as a percentage of payroll</i>		

<b>STATUTORY MINIMUM FUNDING COST ELEMENTS</b>  <i>Illinois statutes require employers to contribute at least the amount necessary such that assets will equal at least 90% of the accrued liability by 2040. The minimum amount is determined under the Projected Unit Credit funding method, with smoothed assets, and is equal to the normal cost plus the amortization amount.</i>	Item	Current Valuation as of 1/1/2017	Prior Year Valuation as of 1/1/2016
	Accrued Liability	\$ 30,762,353	\$ 28,873,974
	Market Value of Assets	\$ 17,889,759	\$ 16,678,654
	Actuarial (Smoothed) Value of Assets	\$ 18,495,545	\$ 17,154,959
	Normal Cost (employer)	\$ 373,365	\$ 371,246
	Amortization Amount	\$ 495,343	\$ 461,845
	Statutory Minimum Contribution	\$ 957,573	\$ 917,063



<b>FUNDING POLICY CONTRIBUTION COST ELEMENTS</b>  <i>The funding policy contribution amount is determined under the Entry Age Normal funding method, with smoothed assets, and is equal to the normal cost plus the amortization amount. The unfunded liability is amortized as a level percentage of pay over 25 years on a closed basis.</i>	Item	Current Valuation as of 1/1/2017		Prior Year Valuation as of 1/1/2016	
	Accrued Liability	\$	31,636,073	\$	29,817,446
	Market Value of Assets	\$	17,889,759	\$	16,678,654
	Actuarial (Smoothed) Value of Assets	\$	18,495,545	\$	17,154,959
	Normal Cost	\$	345,680	\$	330,448
	Amortization Amount	\$	708,233	\$	662,178
	Actuarially Determined Funding Policy Contribution	\$	1,156,668	\$	1,088,563

<b>FINANCIAL THUMBNAIL RATIOS</b>  <i>This chart summarizes traditional financial ratios as applied to the pension plan. This liquidity ratio relates the cash flow position of the Fund by comparing the investment income plus employer and employee contributions to the annual benefit payments. Maintaining a ratio well above 100% prevents the liquidation of assets to cover benefit payments. The increase in benefits paid over the years is generally a result of the maturing of the pension plan.</i>  <i>Coverage of the Accrued Liabilities by the Assets is the Coverage Ratio and is one indication of the long term funding progress of the plan.</i>	Tests	1/1/2017 Valuation		1/1/2016 Valuation	
	Liquidity Ratio (based upon year ended)		192%		96%
	Coverage Ratio (Market Value Assets)		56.55%		55.94%
	Annual Benefit Payments (expected)	\$	1,438,107	\$	1,329,341
	Annual Contributions (expected)				
	Members	\$	316,153	\$	286,534
	City	\$	1,156,668	\$	1,088,563

<b>PARTICIPANT DATA SUMMARY</b>  <i>The Actuarial Valuation takes into account demographic and benefit information for active employees, vested former employees, and retired pensioners and beneficiaries. The statistics for the past two years are compared in the chart.</i>	Item	Current Year Valuation as of 1/1/2017			Prior Year Valuation as of 1/1/2016		
		Tier 1	Tier 2	Total	Tier 1	Tier 2	Total
	Active Members						
	Vested	22	0	22	18	0	18
	Non-Vested	<u>2</u>	<u>11</u>	<u>13</u>	<u>7</u>	<u>8</u>	<u>15</u>
	Total Active	24	11	35	25	8	33
	Terminated entitled to future benefits	11	4	15	9	4	13
	Retired	16	0	16	16	0	16
	Surviving Spouse	4	0	4	4	0	4
	Disabled	<u>7</u>	<u>0</u>	<u>7</u>	<u>7</u>	<u>0</u>	<u>7</u>
	Total	62	15	77	61	12	73





## SECTION 2: VALUATION RESULTS

### Significant Events and Issues Influencing Valuation Results

Actuarial valuations are snapshot calculations which incorporate and reflect the experience and events of the past year such as changes in the demographics of the plan participants, gains and losses in the plan assets, changes in actuarial assumptions about future experience and outside influences such as legislation. Some of the more significant issues affecting the Plan's contribution level are described here.

#### *Asset Performance for yearend 12/31/2016*

The approximate 7.00% return (not time weighted) on net assets was below the actuarial assumption of 7.50%.

#### *Employer Contributions*

The employer contribution is expected to be paid according the funding policy, and exceeds the required statutory minimum amount.

#### *Change in Assumptions*

The mortality table was updated with one year expected improvement to RP2000 with Blue Collar Adjustment projected to 2016.

The retirement rates were modified to assume all members retire by age 65.



## ACTUARIAL CERTIFICATION

This is to certify that MWM Consulting Group has prepared an Actuarial Valuation of the Plan as of January 1, 2017 for the purposes of determining statutory contribution requirements for the Fund in accordance with the requirements of 40 ILCS 5/3, Section 125, of determining the funding policy contribution amount (the Actuarially Determined Contribution). The contributions determined are net of contributions made by active member police officers during the year.

The results shown in this report have been calculated under the supervisions of a qualified Actuary as defined in appropriate State statutes. All results are based upon demographic data submitted by the Fund / Village, financial data submitted by the Fund, applications of actuarial assumptions, and generally accepted actuarial methods.

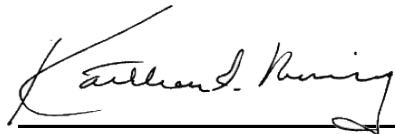
This valuation report has been prepared at the request of Village of Bensenville to assist in administering the Plan and meeting specified financial and accounting requirements. This valuation report may not otherwise be copied or reproduced in any form without the consent of the Fund sponsor and may only be provided to other parties in its entirety. The information and valuation results shown in this report are prepared with reliance upon information and data provided to us, which we believe to the best of our knowledge to be complete and accurate and include:

- Employee census data submitted by the Village of Bensenville. This data was not audited by us but appears to be consistent with prior information, and sufficient and reliable for purposes of this report.
- Financial data submitted by the Bensenville Police Pension Fund.

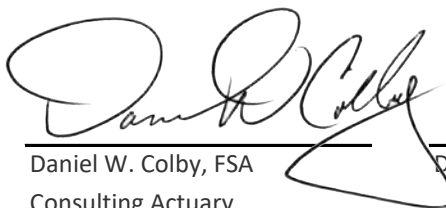
The measurements shown in this actuarial valuation may not be applicable for other purposes. Actuarial valuations involve calculations that require assumptions about future events. Certain of the assumptions or methods are mandated for specific purposes. Future actuarial measurements may differ significantly from the current measurements presented in the report due to such factors as experience that deviates from the assumptions, changes in 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 contributions based on the Plan's funded status) and changes in plan provisions or applicable law. This report does not include an analysis of the potential range of such future measurements.

We believe the assumptions and methods used are within the range of possible assumptions that are reasonable and appropriate for the purposes for which they have been used. In our opinion, all methods, assumptions and calculations are in accordance with requirements and the procedures followed and presentation of results are in conformity with generally accepted actuarial principles and practices. The undersigned actuary meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. There is no relationship between the Village of Bensenville and MWM Consulting Group that impacts our objectivity. I certify that the results presented in this report are accurate and correct to the best of my knowledge.

MWM CONSULTING GROUP



Kathleen E Manning, FSA  
Managing Principal & Consulting Actuary  
MWM Consulting Group



Daniel W. Colby, FSA  
Consulting Actuary  
MWM Consulting Group

5/4/2017

Date



## SECTION 3 - FINANCIAL AND ACTUARIAL EXHIBITS

### Exhibit 1 - Statement of Market Value of Assets

Item	Plan Year Ending	
	12/31/2016	12/31/2015
<b>1. Investments at Fair Value:</b>		
a. Cash and Cash equivalents	\$ 751,515	\$ 770,864
b. Money Market Mutual Funds	972,492	623,195
c. Municipal Bonds	2,281,778	2,324,896
d. Corporate Bonds	0	0
e. US Government and Agency Bonds	1,271,362	1,540,478
f. Common and Preferred Stocks	0	0
g. Insurance Contracts (at contract value):	394,637	390,335
h. Mutual Funds	11,470,976	10,428,089
i. Accrued Interest and receivables	746,328	599,577
j. Other	1,748	2,490
k. Subtotal Assets (a + b + c + d + e + f + g + h + i + j)	<u>\$ 17,890,836</u>	<u>\$ 16,679,924</u>
<b>2. Liabilities:</b>		
a. Expenses Payable	\$ 1,077	\$ 1,270
b. Liability for benefits due and unpaid	0	0
c. Other Liabilities	0	0
d. Total Liabilities	<u>\$ 1,077</u>	<u>\$ 1,270</u>
<b>3. Net Market Value of Assets Available for Benefits: (1k – 2d)</b>	\$ 17,889,759	\$ 16,678,654



## Exhibit 2 - Statement of Change in Net Assets

Item	Plan Year Ending	
	1/1/2017	1/1/2016
<b>Additions</b>		
Contributions		
Employer	\$ 1,050,931	\$ 897,887
Plan Member	311,402	308,223
Other	350	0
Total Contributions	\$ 1,362,683	\$ 1,206,110
Investment Income		
Realized Gain/(Loss)	\$ (9,336)	\$ (103,048)
Unrealized Gain/(Loss)	722,671	(509,151)
Interest	156,404	157,251
Dividends	320,216	452,044
Other Income	2,676	14,847
Investment Expenses	(24,169)	0
Net Investment Income	1,168,462	11,943
<b>Total additions</b>	<b>\$ 2,531,145</b>	<b>\$ 1,218,053</b>
<b>Deductions</b>		
Benefits	\$ 1,289,737	\$ 1,218,279
Refunds	0	0
Administrative and Investment Expenses	30,303	56,785
<b>Total deductions</b>	<b>\$ 1,320,040</b>	<b>\$ 1,275,064</b>
<b>Total increase (decrease)</b>	<b>\$ 1,211,105</b>	<b>\$ (57,011)</b>
<b>Net Market Value of Assets Available for Benefits:</b>		
Beginning of year	\$ 16,678,654	\$ 16,735,665
End of year	<u>\$ 17,889,759</u>	<u>\$ 16,678,654</u>



### Exhibit 3 – Actuarial Value of Assets

Under 40 ILCS 5/3, the statutory minimum required contribution is to be determined based upon **Actuarial Value of Assets**, which are asset values which have been smoothed over a five-year period, beginning with the year 2011. The **Actuarial Value of Assets** has been calculated below based upon the market value of assets at January 1, 2016 with adjustments for the preceding year's gains/losses, which are reflected at the rate of 20% per year.

1. Expected Return on Assets	
a. Market Value of Assets as of Beginning of Year	\$ 16,678,654
b. Income and Disbursements During the year	
i. Contributions Received (weighted 50%)	\$ 681,342
ii. Benefit Payments and Expenses (weighted 50%)	672,105
iii. Weighted net income (other than investment income) (i) – (ii)	9,237
c. Market Value adjusted for income and disbursements	\$ 16,687,891
<b>d. Expected Return on Assets at assumed rate of 7.50%</b>	<b>\$ 1,251,592</b>
2. Actual Return on Assets for year	
a. Market Value of Assets (Beginning of Year)	\$ 16,678,654
b. Income (less investment income)	1,362,683
c. Disbursements	1,320,040
d. Market Value of Assets (End of Year)	17,889,759
e. Actual Return on Assets (d) – (a) – (b) + (c)	1,168,462
<b>f. Investment Gain/(Loss) for year 2(e) - 1(d)</b>	<b>\$ (83,130)</b>
3. Actuarial Value of Assets	
a. Market Value of Assets as of End of Year	\$ 17,889,759
b. Deferred Investment gains/(losses)	
i. 80% of 2016 loss of \$(83,130)	66,504
ii. 60% of 2015 loss of (\$1,240,646)	744,388
iii. 40% of 2014 gain of (\$182,943)	73,177
iv. 20% of 2013 gain of \$1,391,413	<u>(278,283)</u>
v. Total	605,786
<b>c. Actuarial Value of Assets for statutory funding 3(a) + 3(b)(iv)</b>	<b>\$ 18,495,545</b>



#### Exhibit 4- Determination of the Statutory Minimum Required Contribution

Under 40 ILCS 5/3, the statutory minimum required contribution is to be determined based upon the Projected Unit Credit actuarial funding method, where the unfunded liability is amortized such that 90% of the liability will be funded as of 2040. Under the statute, 90% of the unfunded liability is to be amortized as a level percentage of payroll over the period through 2040. The mandated funding method, the Projected **Unit Credit funding method, requires** the annual cost of the plan to be developed in two parts: that attributable to benefits allocated to the current year (the normal cost); and that allocated to benefits attributable to prior service (the accrued liability).

#### Funding Elements for 40 ILCS 5/3

	Present Value of Benefits as of 1/1/2017	Projected Unit Credit (PUC) Normal Cost as of 1/1/2017	PUC Actuarial Accrued Liability as of 1/1/2017
1. Active Officers			
a) Normal & Early Retirement	\$ 15,223,735	\$ 521,959	\$ 9,461,493
b) Vested Withdrawal	1,213,211	66,927	757,148
c) Pre-Retirement Death	346,675	15,106	219,737
d) Disability	<u>1,833,980</u>	<u>85,526</u>	<u>1,092,419</u>
e) Total Active Police Officers	\$ 18,617,601	\$ 689,518	\$ 11,530,797
2. Inactive Police Officers and Survivors:			
a) Normal Retirees	\$ 11,254,827		\$ 11,254,827
b) Widows (survivors)	1,481,154		1,481,154
c) Deferred Vested	1,370,188		1,370,188
d) Disabled	<u>5,125,387</u>		<u>5,125,387</u>
e) Total - Nonactive	\$ 19,231,556		\$ 19,231,556
3. Total – All	\$ 37,849,157		\$ 30,762,353

#### Minimum Statutory Contribution under 40 ILCS 5/3

Item	Amount
1. Annual Payroll	\$ 3,190,246
2. Normal Cost (net of employee/member contributions)	373,365
3. Employee Contributions (expected)	316,153
4. Funding Actuarial Liability	30,762,353
5. 90% of Funding Actuarial Liability	27,686,118
6. Actuarial Value of Assets (Exhibit 3)	18,495,545
7. Unfunded Actuarial Balance	9,190,573
8. Amortization of Unfunded Balance over 24 years as a level percentage of payroll	495,343
9. Interest on (2), (3) and (8)	88,865
10. Minimum statutory tax levy contribution per 40 ILCS 5/3 – (2) + (8) + (9)	<b>\$957,573 (30.0%)</b>

\*( ) amount as a percent of payroll



## Exhibit 5- Determination of the Funding Policy Contribution

The Tax Levy has been based upon the funding policy actuarially determined contribution, rather than the amount determined as the minimum under 40 ILCS 5/3. The funding policy contribution is developed below, based upon the Entry Age Normal Funding Method, with the unfunded accrued liability amortized as a level percentage of payroll amount over the 25 years through 2040. The contribution is then the sum of the Normal Cost (developed under the entry age method, but where the total normal cost is not less than 17.5%) plus the amortization payment.

### Funding Elements for Funding Policy Contribution

	Present Value of Benefits as of 1/1/2017	Entry Age Normal Cost as of 1/1/2017	Entry Age Accrued Liability as of 1/1/2017
1. Active Officers			
a) Normal & Early Retirement	\$ 15,223,735	\$ 465,676	\$ 10,927,447
b) Vested Withdrawal	1,213,211	79,267	409,383
c) Pre-Retirement Death	346,675	15,895	194,530
d) Disability	<u>1,833,980</u>	<u>100,995</u>	<u>873,157</u>
e) Total Active Police Officers	\$ 18,617,601	\$ 661,833	\$ 12,404,517
2. Inactive Police Officers and Survivors:			
a) Normal Retirees	\$ 11,254,827		\$ 11,254,827
b) Widows (survivors)	1,481,154		1,481,154
c) Deferred Vested	1,370,188		1,370,188
d) Disabled	<u>5,125,387</u>		<u>5,125,387</u>
e) Total - Nonactive	\$ 19,231,556		\$ 19,231,556
3. Total – All	\$ 37,849,157		\$ 31,636,073

### Actuarially Determined Funding Policy Contribution for Tax Levy

Item	Amount
1. Normal Cost (net of employee/member contributions)	\$ 345,680
2. Employee Contributions (expected)	316,153
3. Funding Actuarial Liability	31,636,073
4. 100% of Funding Actuarial Liability	31,636,073
5. Actuarial Value of Assets (Exhibit 3)	18,495,545
6. Unfunded Actuarial Balance	13,140,528
7. Amortization of Unfunded Balance over 24 years as a level percentage of payroll	708,233
8. Interest on (1), (2) and (7)	102,755
9. Actuarially Determined Funding Policy Contribution for Tax Levy (1) + (7) + (8)	<b>\$1,156,668 (36.3%)</b>



## Exhibit 6 – Summary of Participant Data as of January 1, 2017

### Participant Data

Item	As of 1/1/2017		
	<u>Tier 1</u>	<u>Tier 2</u>	<u>Total</u>
Active Members			
Vested	22	0	22
Non-Vested	<u>2</u>	<u>11</u>	<u>13</u>
Total Actives	24	11	35
Terminated Members entitled to future benefits	11	4	15
Retired Members	16	0	16
Surviving Spouses	4	0	4
Disabled Participants	<u>7</u>	<u>0</u>	<u>7</u>
Total	62	15	77

### AGE AND SERVICE DISTRIBUTION AS OF JANUARY 1, 2017

#### Active Employee Participants

Age Group	Service									Total
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40+	
Under 20										0
20 - 24	1									1
25 - 29	8									8
30 - 34	2	4								6
35 - 39			4	1						5
40 - 44		1	2	5						8
45 - 49			1	1						2
50 - 54				1		2				3
55 - 59				1			1			2
60 - 64										0
75 & Over										0
Total	11	5	7	9	0	2	1	0	0	35

Average Age: 38.3 years

Average Length of Service: 11.4 years





## SECTION 4 - SUMMARY OF PRINCIPAL PLAN PROVISIONS

This summary provides a general description of the major eligibility and benefit provisions of the pension fund upon which this valuation has been based. It is not intended to be, nor should it be interpreted as, a complete statement of all provisions

### *Definitions*

**Tier 1 – For Police Officers first entering Article 3 prior to January 1, 2011**

**Tier 2 – For Police Officers first entering Article 3 after December 31, 2010**

Police Officer (3-106): Any person appointed to the police force and sworn and commissioned to perform police duties.

Persons excluded from Fund (3-109): Part-time officers, special police officer, night watchmen, traffic guards, clerks and civilian employees of the department. Also, police officers who fail to pay the required fund contributions or who elect the Self-Managed Plan option.

Creditable Service (3-110): Time served by a police officer, excluding furloughs in excess of 30 days, but including leaves of absences for illness or accident and periods of disability where no disability pension payments have been received and also including up to 3 years during which disability payments have been received provided contributions are made.

### *Pension (3-111)*

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#### *Normal Pension Age*

**Tier 1** - Age 50 with 20 or more years of creditable service.

**Tier 2** - Age 55 with 10 or more years of creditable service.

#### *Normal Pension Amount*

**Tier 1** - 50% of the greater of the annual salary held in the year preceding retirement or the annual salary held on the last day of service, plus 2½% of such annual salary for service from 20 to 30 year (maximum 25%).

**Tier 2** - 2½% of Final Average salary for each year of service. Final Average Salary is the highest salary based on the highest consecutive 96 months of the final 120 months of service

Early Retirement at age 50 with 10 or more years of service but with a penalty of ½% for each month prior to age 55.

Annual Salary capped at \$106,800 increased yearly by the lesser of ½ of the Consumer Price Index- Urban (CPI-U) or 3%. Salary for valuations beginning in 2013 is \$109,971.43.

Minimum Monthly Benefit: \$1,000

Maximum Benefit Percentage: 75% of salary



### ***Termination Retirement Pension Date***

Separation of service after completion of between 8 and 20 years of creditable service.

### ***Termination Pension Amount***

Commencing at age 60, 2½% of annual salary held in the year preceding termination times years of creditable service or refund of contributions, or for persons terminating on or after July 1, 1987, 2½% of annual salary held on the last day of service times years of credible service, whichever is greater.

### ***Pension Increase Non-Disabled***

**Tier 1** - 3% increase of the original pension amount after attainment of age 55 for each year elapsed since retirement, followed by an additional 3% of the original pension amount on each May 1 thereafter. Effective July 1, 1993, 3% of the amount of pension payable at the time of the increase including increases previously granted, rather than 3% of the originally granted pension amount.

**Tier 2** - The lesser of ½ of the Consumer Price Index- Urban (CPI-U) or 3% increase of the original pension amount after attainment of age 60, followed by an additional 3% of the original pension amount on each May 1 thereafter.

### ***Disabled***

3% increase of the original pension amount after attainment of age 60 for each year he or she received pension payments, followed by an additional 3% of the original pension amount in each May 1 thereafter.

### ***Pension to Survivors (3-112 )***

---

#### ***Death of Retired Member***

**Tier 1** - 100% of pension amount to surviving spouse (or dependent children).

**Tier 2** – 66 2/3% of pension amount to surviving spouse (or dependent children), subject to the following increase: the lesser of ½ of the Consumer Price Index- Urban (CPI-U) or 3% increase of the original pension amount after attainment of age 60, followed by an additional 3% of the original pension amount on each May 1 thereafter.

#### ***Death While in Service (Not in line of duty)***

With 20 years of creditable service, the pension amount earned as of the date of death.

With between 10 and 20 years of creditable service, 50% of the salary attached to the rank for the year prior to the date of death.

#### ***Death in Line of Duty***

100% of the salary attached to the rank for the last day of service year prior to date of death.

#### ***Minimum Survivor Pension***

\$1,000 per month to all surviving spouses.



### ***Disability Pension - Line of Duty (3-114.1)***

---

#### ***Eligibility***

Suspension or retirement from police service due to sickness, accident or injury while on duty.

#### ***Pension***

Greater of 65% of salary attached to rank at date of suspension or retirement and the retirement pension available. Minimum \$1,000 per month.

### ***Disability Pension - Not on Duty (3-114.2)***

---

#### ***Eligibility***

Suspension or retirement from police service for any cause other than while on duty.

#### ***Pension***

50% of salary attached to rank at date of suspension or retirement. Minimum \$1,000 per month.

### ***Other Provisions***

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#### ***Marriage after Retirement (3-120)***

No surviving spouse benefit available.

#### ***Refund (3-124)***

At death prior to completion of 10 years of service, contributions are returned without interest to widow.  
At termination with less than 20 years of service, contributions are refunded upon request.

#### ***Contributions by Police Officers (3-125.1)***

Beginning May 1, 2001, 9.91% of salary including longevity, but excluding overtime pay, holiday pay, bonus pay, merit pay or other cash benefit.



### ***Actuarial Accrued Liability***

See ***Entry Age Normal Cost Method*** and ***Projected Unit Credit Cost Method***.

### ***Actuarial Assumptions***

The economic and demographic predictions used to estimate the present value of the plan's future obligations. They include estimates of investment earnings, salary increases, mortality, withdrawal and other related items. The *Actuarial Assumptions* are used in connection with the *Actuarial Cost Method* to allocate plan costs over the working lifetimes of plan participants.

### ***Actuarial Cost Method***

The method used to allocate the projected obligations of the plan over the working lifetimes of the plan participants. Also referred to as an *Actuarial Funding Method*.

### ***Actuarial Funding Method***

See *Actuarial Cost Method*

### ***Actuarial Gain (Loss)***

The excess of the actual *Unfunded Actuarial Accrued Liability* over the expected *Unfunded Actuarial Accrued Liability* represents an *Actuarial Loss*. If the expected *Unfunded Actuarial Accrued Liability* is greater, an *Actuarial Gain* has occurred.

### ***Actuarial Present Value***

The value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of *Actuarial Assumptions*.

### ***Actuarial Value of Assets***

The asset value derived by using the plan's *Asset Valuation Method*.

### ***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.

### ***Employee Retirement Income Security Act of 1974 (ERISA)***

The primary federal legislative act establishing funding, participation, vesting, benefit accrual, reporting, and disclosure standards for pension and welfare plans.

### ***Entry Age Normal Cost Method***

One of the standard actuarial funding methods in which the *Present Value of Projected Plan Benefits* of each individual included in the *Actuarial Valuation* is allocated on a level basis over the earnings of the individual between entry age and assumed exit age(s). The portion of this *Actuarial Present Value* allocated to a valuation year is called the *Normal Cost*. The portion of this *Actuarial Present Value* not provided for at a valuation date by the *Actuarial Present Value* of future *Normal Costs* is called the *Actuarial Accrued Liability*.



**Normal Cost**

The portion of the *Present Value of Projected Plan Benefits* that is allocated to a particular plan year by the *Actuarial Cost Method*. See *Entry Age Normal Cost Method* for a description of the Normal Cost under the *Entry Age Normal Cost Method*. See *Projected Unit Credit Cost Method* for a description of the Normal Cost under the *Projected Unit Credit Cost Method*.

**Present Value of Future Normal Costs**

The present value of future normal costs determined based on the *Actuarial Cost Method* for the plan. Under the *Entry Age Normal Cost Method*, this amount is equal to the excess of the *Present Value of Projected Plan Benefits* over the sum of the *Actuarial Value of Assets* and *Unfunded Actuarial Accrued Liability*.

**Present Value of Projected Plan Benefits**

The present value of future plan benefits reflecting projected credited service and salaries. The present value is determined based on the plan's actuarial assumptions.

**Projected Unit Credit Cost Method**

One of the standard actuarial funding methods in which the *Present Value of Projected Plan Benefits* of each individual included in the *Actuarial Valuation* is allocated by a consistent formula to valuation years. The *Actuarial Present Value* allocated to a valuation year is called the *Normal Cost*. The *Actuarial Present Value* of benefits allocated to all periods prior to a valuation year is called the *Actuarial Accrued Liability*.

**Unfunded Actuarial Accrued Liability**

The excess of the *Actuarial Accrued Liability* over the *Actuarial Value of Assets*.



## SECTION 5 - SUMMARY OF ACTUARIAL ASSUMPTIONS AND COST METHODS

### 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, some of which are mandated assumptions. Certain provisions may be approximated or deemed immaterial and therefore are not valued. Assumptions may be made about participant data or other factors. 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 and should not imply precisions, which is not inherent in actuarial calculations.

Actuarial Assumption Item	Annual Actuarial Valuation Statutory Minimum	Annual Actuarial Valuation Funding Policy Amount for Tax Levy
Interest	7.50% per annum	7.50% per annum
Mortality	RP2000 Mortality Table projected to 2016 with Blue Collar Adjustments (but not beyond)	RP2000 Mortality Table projected to 2016 with Blue Collar Adjustments (but not beyond)
Retirement	Rates of retirement for all ages are:	Rates of retirement for all ages are:
	<div><div>Age</div><div>50</div><div>14.00%</div><div>61</div><div>25.00%</div></div>	<div><div>Age</div><div>50</div><div>14.00%</div><div>61</div><div>25.00%</div></div>
	<div><div>51</div><div>14.00%</div><div>62</div><div>25.00%</div></div>	<div><div>51</div><div>14.00%</div><div>62</div><div>25.00%</div></div>
	<div><div>52</div><div>14.00%</div><div>63</div><div>33.00%</div></div>	<div><div>52</div><div>14.00%</div><div>63</div><div>33.00%</div></div>
	<div><div>53</div><div>14.00%</div><div>64</div><div>50.00%</div></div>	<div><div>53</div><div>14.00%</div><div>64</div><div>50.00%</div></div>
	<div><div>54</div><div>20.00%</div><div>65</div><div>100.00%</div></div>	<div><div>54</div><div>20.00%</div><div>65</div><div>100.00%</div></div>
	<div><div>55</div><div>20.00%</div><div>66</div><div>100.00%</div></div>	<div><div>55</div><div>20.00%</div><div>66</div><div>100.00%</div></div>
	<div><div>56</div><div>20.00%</div><div>67</div><div>100.00%</div></div>	<div><div>56</div><div>20.00%</div><div>67</div><div>100.00%</div></div>
	<div><div>57</div><div>20.00%</div><div>68</div><div>100.00%</div></div>	<div><div>57</div><div>20.00%</div><div>68</div><div>100.00%</div></div>
	<div><div>58</div><div>20.00%</div><div>69</div><div>100.00%</div></div>	<div><div>58</div><div>20.00%</div><div>69</div><div>100.00%</div></div>
	<div><div>59</div><div>20.00%</div><div>70</div><div>100.00%</div></div>	<div><div>59</div><div>20.00%</div><div>70</div><div>100.00%</div></div>
	<div><div>60</div><div>25.00%</div></div>	<div><div>60</div><div>25.00%</div></div>
Withdrawal	Rates of termination are based upon age only. Sample rates for selected ages are:	Rates of termination are based upon age only. Sample rates for selected ages are:
	<div><div>Age</div><div>25</div><div>7.50%</div><div>40</div><div>2.00%</div><div>50</div><div>3.50%</div><div>55</div><div>3.50%</div></div>	<div><div>Age</div><div>25</div><div>7.50%</div><div>40</div><div>2.00%</div><div>50</div><div>3.50%</div><div>55</div><div>3.50%</div></div>
Disability	Rates of disability are based upon age only. Sample rates for selected ages are:	Rates of disability are based upon age only. Sample rates for selected ages are:
	<div><div>Age</div><div>25</div><div>0.05%</div><div>40</div><div>0.40%</div><div>50</div><div>0.95%</div><div>55</div><div>0.13%</div></div>	<div><div>Age</div><div>25</div><div>0.05%</div><div>40</div><div>0.40%</div><div>50</div><div>0.95%</div><div>55</div><div>0.13%</div></div>
Salary Increase	5.00% per annum	5.00% per annum



Actuarial Assumption Item	Annual Actuarial Valuation Statutory Minimum	Annual Actuarial Valuation Funding Policy Amount for Tax Levy
Percentage Married	85% are married, females are assumed to be 3 years younger	85% are married, females are assumed to be 3 years younger
Asset Valuation Method	Assets are valued at fair market value and smoothed over three years, reflecting gains and losses at 33% per year.	Assets are valued at fair market value and smoothed over three years, reflecting gains and losses at 33% per year.
Actuarial Cost Methods	<p>Projected Unit Credit Cost Method</p> <p>This is the mandated actuarial method to be used in determining the statutory contribution requirements and under PA 096-1495. This method determines the present value of projected benefits and prorates the projected benefit by service to date to determine the accrued liability. Amounts attributable to past service are amortized as a level percentage of pay with the goal of reaching 90% of the accrued liability by 2040.</p>	<p>Entry Age Normal Cost Method</p> <p>This method projects benefits from entry age to retirement age and attributes costs over total service, as a level percentage of pay. Amounts attributable to past service have been amortized over 24 years on a closed basis as a level percentage of pay.</p>



# Actuarial Valuation

*Village of Bensenville*

*Bensenville Police Pension Fund*

*As of January 1, 2018*

*For the Year Ending December 31, 2018*





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## Section 1: Summary of Principal Valuation Results

MWM Consulting Group was retained to prepare an actuarial valuation as of January 1, 2018 for the Bensenville Police Pension Fund. The purpose of the actuarial valuation was to determine the financial position and the annual actuarial requirements of the pension fund under Illinois statute 40 ILCS 5/3, Section 125, and to develop the funding policy contribution amount.

For quick reference, some of the key results of the valuation, along with selected financial and demographic information for the year ending December 31, 2018 are summarized in this overview section along with (for comparison) the results from the prior year.

<b>CONTRIBUTIONS</b>  <i>The plan sponsor must contribute at least the statutorily required minimum contribution under Illinois statutes equal to the normal cost plus the amount necessary to amortize the unfunded accrued liability such that by 2040, the liabilities will be 90% funded.</i>  <i>Other contribution amounts are shown including Funding Policy Contribution and the contribution required to prevent negative funding.</i>	Item	Current Valuation as of 1/1/2018	Prior Year Valuation as of 1/1/2017
	Contribution Required To Prevent Negative Funding	\$1,599,617 (48.9%)	N/A
	Actuarially Determined Funding Policy Contribution	\$1,394,682 (42.6%)	\$3,878,094 (36.2%)
	Statutory Minimum Contribution per 40 ILCS 5/3 Section 125	\$1,180,702 (36.1%)	\$957,573 (30.0%)
	<i>() amounts expressed as a percentage of payroll</i>		

<b>STATUTORY MINIMUM FUNDING COST ELEMENTS</b>  <i>Illinois statutes require employers to contribute at least the amount necessary such that assets will equal at least 90% of the accrued liability by 2040. The minimum amount is determined under the Projected Unit Credit funding method, with smoothed assets, and is equal to the normal cost plus the amortization amount.</i>	Item	Current Valuation as of 1/1/2018	Prior Year Valuation as of 1/1/2017
	Accrued Liability	\$ 34,240,476	\$ 30,762,353
	Market Value of Assets	\$ 20,009,659	\$ 17,889,759
	Actuarial (Smoothed) Value of Assets	\$ 19,552,809	\$ 18,495,545
	Normal Cost (employer)	\$ 484,247	\$ 373,365
	Amortization Amount	\$ 597,989	\$ 495,343
	Statutory Minimum Contribution	\$ 1,180,702	\$ 957,573



<b>FUNDING POLICY CONTRIBUTION COST ELEMENTS</b>  <i>The funding policy contribution amount is determined under the Entry Age Normal funding method, with smoothed assets, and is equal to the normal cost plus the amortization amount. The unfunded liability is amortized as a level percentage of pay over 23 years on a closed basis.</i>	Item	Current Valuation as of 1/1/2018		Prior Year Valuation as of 1/1/2017	
	Accrued Liability	\$	35,085,973	\$	31,636,073
	Market Value of Assets	\$	20,009,659	\$	17,889,759
	Actuarial (Smoothed) Value of Assets	\$	19,552,809	\$	18,495,545
	Normal Cost	\$	457,557	\$	345,680
	Amortization Amount	\$	824,660	\$	708,233
	Actuarially Determined Funding Policy Contribution	\$	1,394,682	\$	1,156,668

<b>FINANCIAL THUMBNAIL RATIOS</b>  <i>This chart summarizes traditional financial ratios as applied to the pension plan. This liquidity ratio relates the cash flow position of the Fund by comparing the investment income plus employer and employee contributions to the annual benefit payments. Maintaining a ratio well above 100% prevents the liquidation of assets to cover benefit payments. The increase in benefits paid over the years is generally a result of the maturing of the pension plan.</i>  <i>Coverage of the Accrued Liabilities by the Assets is the Coverage Ratio and is one indication of the long term funding progress of the plan.</i>	Tests	1/1/2018 Valuation		1/1/2017 Valuation	
	Liquidity Ratio (based upon year ended)		211%		192%
	Coverage Ratio (Market Value Assets)		57.03%		56.55%
	Annual Benefit Payments (expected)	\$	1,416,299	\$	1,438,107
	Annual Contributions (expected)				
	Members	\$	324,428	\$	316,153
	City	\$	1,394,682	\$	1,156,668

<b>PARTICIPANT DATA SUMMARY</b>  <i>The Actuarial Valuation takes into account demographic and benefit information for active employees, vested former employees, and retired pensioners and beneficiaries. The statistics for the past two years are compared in the chart.</i>	Item	Current Year Valuation as of 1/1/2018			Prior Year Valuation as of 1/1/2017		
		Tier 1	Tier 2	Total	Tier 1	Tier 2	Total
	Active Members						
	Vested	23	0	23	22	0	22
	Non-Vested	<u>1</u>	<u>11</u>	<u>12</u>	<u>2</u>	<u>11</u>	<u>13</u>
	Total Active	24	11	35	24	11	35
	Terminated entitled to future benefits	8	2	10	11	4	15
	Retired	16	0	16	16	0	16
	Surviving Spouse	4	0	4	4	0	4
	Disabled	<u>7</u>	<u>0</u>	<u>7</u>	<u>7</u>	<u>0</u>	<u>7</u>
	Total	59	13	72	62	15	77



## SECTION 2: VALUATION RESULTS

### Significant Events and Issues Influencing Valuation Results

Actuarial valuations are snapshot calculations which incorporate and reflect the experience and events of the past year such as changes in the demographics of the plan participants, gains and losses in the plan assets, changes in actuarial assumptions about future experience and outside influences such as legislation. Some of the more significant issues affecting the Plan's contribution level are described here.

#### *Asset Performance for yearend 12/31/2017*

The approximate 14.87% return (not time weighted) on net assets was well above the actuarial assumption of 7.50%.

#### *Employer Contributions*

The employer contribution is expected to be paid according the funding policy, and exceeds the required statutory minimum amount. An alternative contribution above the current funding policy shows the amount required to avoid negative funding. Negative funding occurs when the unfunded liability increases because the contribution amortization payment towards the unfunded is less than the interest accruing on the liability.

#### *Change in Assumptions*

The mortality table was updated with one year expected improvement to RP2000 with Blue Collar Adjustment projected to 2017. In addition, the interest rate was changed to 7.0% from 7.5%. The effect on the funding policy actuarial determined contribution was an increase of \$233,726, and reduction in the funded status from 61.0% to 55.7%.



## ACTUARIAL CERTIFICATION

This is to certify that MWM Consulting Group has prepared an Actuarial Valuation of the Plan as of January 1, 2018 for the purposes of determining statutory contribution requirements for the Fund in accordance with the requirements of 40 ILCS 5/3, Section 125, of determining the funding policy contribution amount (the Actuarially Determined Contribution). The contributions determined are net of contributions made by active member police officers during the year.

The results shown in this report have been calculated under the supervisions of a qualified Actuary as defined in appropriate State statutes. All results are based upon demographic data submitted by the Fund / Village, financial data submitted by the Fund, applications of actuarial assumptions, and generally accepted actuarial methods.

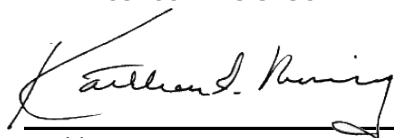
This valuation report has been prepared at the request of Village of Bensenville to assist in administering the Plan and meeting specified financial and accounting requirements. This valuation report may not otherwise be copied or reproduced in any form without the consent of the Fund sponsor and may only be provided to other parties in its entirety. The information and valuation results shown in this report are prepared with reliance upon information and data provided to us, which we believe to the best of our knowledge to be complete and accurate and include:

- Employee census data submitted by the Village of Bensenville. This data was not audited by us but appears to be consistent with prior information, and sufficient and reliable for purposes of this report.
- Financial data submitted by the Bensenville Police Pension Fund.

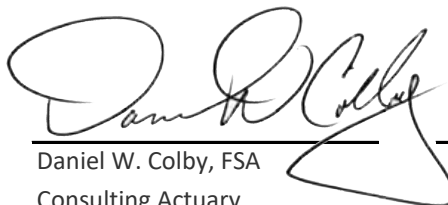
The measurements shown in this actuarial valuation may not be applicable for other purposes. Actuarial valuations involve calculations that require assumptions about future events. Certain of the assumptions or methods are mandated for specific purposes. Future actuarial measurements may differ significantly from the current measurements presented in the report due to such factors as experience that deviates from the assumptions, changes in 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 contributions based on the Plan's funded status) and changes in plan provisions or applicable law. This report does not include an analysis of the potential range of such future measurements.

We believe the assumptions and methods used are within the range of possible assumptions that are reasonable and appropriate for the purposes for which they have been used. In our opinion, all methods, assumptions and calculations are in accordance with requirements and the procedures followed and presentation of results are in conformity with generally accepted actuarial principles and practices. The undersigned actuary meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. There is no relationship between the Village of Bensenville and MWM Consulting Group that impacts our objectivity. I certify that the results presented in this report are accurate and correct to the best of my knowledge.

MWM CONSULTING GROUP



Kathleen E Manning, FSA  
Managing Principal & Consulting Actuary  
MWM Consulting Group



Daniel W. Colby, FSA  
Consulting Actuary  
MWM Consulting Group

5/2/2018

Date



## SECTION 3 - FINANCIAL AND ACTUARIAL EXHIBITS

### Exhibit 1 - Statement of Market Value of Assets

Item	Plan Year Ending	
	12/31/2017	12/31/2016
<b>1. Investments at Fair Value:</b>		
a. Cash and Cash equivalents	\$ 0	\$ 751,515
b. Money Market Mutual Funds	1,638,701	972,492
c. Municipal Bonds	3,243,540	2,281,778
d. Corporate Bonds	0	0
e. US Government and Agency Bonds	1,086,303	1,271,362
f. Certificates of Deposit	726,157	0
g. Insurance Contracts (at contract value):	0	394,637
h. Mutual Funds	12,521,284	11,470,976
i. Accrued Interest and receivables	793,532	746,328
j. Other	2,560	1,748
k. Subtotal Assets (a + b + c + d + e + f + g + h + i + j)	<u>\$ 20,012,077</u>	<u>\$ 17,890,836</u>
<b>2. Liabilities:</b>		
a. Expenses Payable	\$ 2,418	\$ 1,077
b. Liability for benefits due and unpaid	0	0
c. Other Liabilities	0	0
d. Total Liabilities	<u>\$ 2,418</u>	<u>\$ 1,077</u>
<b>3. Net Market Value of Assets Available for Benefits: (1k – 2d)</b>	\$ 20,009,659	\$ 17,889,759



## Exhibit 2 - Statement of Change in Net Assets

Item	Plan Year Ending	
	1/1/2018	1/1/2017
<b>Additions</b>		
Contributions		
Employer	\$ 1,086,963	\$ 1,050,931
Plan Member	328,752	311,402
Other	0	350
Total Contributions	\$ 1,415,715	\$ 1,362,683
Investment Income		
Realized Gain/(Loss)	\$ (3,601)	\$ (9,336)
Unrealized Gain/(Loss)	1,917,429	722,671
Interest	171,509	156,404
Dividends	553,122	320,216
Other Income	9,761	2,676
Investment Expenses	(26,831)	(24,169)
Net Investment Income	2,621,389	1,168,462
<b>Total additions</b>	<b>\$ 4,037,104</b>	<b>\$ 2,531,145</b>
<b>Deductions</b>		
Benefits	\$ 1,761,314	\$ 1,289,737
Refunds	121,815	0
Administrative and Investment Expenses	34,075	30,303
<b>Total deductions</b>	<b>\$ 1,917,204</b>	<b>\$ 1,320,040</b>
<b>Total increase (decrease)</b>	<b>\$ 2,119,900</b>	<b>\$ 1,211,105</b>
<b>Net Market Value of Assets Available for Benefits:</b>		
Beginning of year	\$ 17,889,759	\$ 16,678,654
End of year	<u>\$ 20,009,659</u>	<u>\$ 17,889,759</u>



### Exhibit 3 – Actuarial Value of Assets

Under 40 ILCS 5/3, the statutory minimum required contribution is to be determined based upon **Actuarial Value of Assets**, which are asset values which have been smoothed over a five-year period, beginning with the year 2011. The **Actuarial Value of Assets** has been calculated below based upon the market value of assets at January 1, 2018 with adjustments for the preceding year's gains/losses, which are reflected at the rate of 20% per year.

1. Expected Return on Assets	
a. Market Value of Assets as of Beginning of Year	\$ 17,889,759
b. Income and Disbursements During the year	
i. Contributions Received (weighted 50%)	\$ 707,858
ii. Benefit Payments and Expenses (weighted 50%)	972,018
iii. Weighted net income (other than investment income) (i) – (ii)	(264,160)
c. Market Value adjusted for income and disbursements	\$ 17,625,599
<b>d. Expected Return on Assets at assumed rate of 7.50%</b>	<b>\$ 1,321,920</b>
2. Actual Return on Assets for year	
a. Market Value of Assets (Beginning of Year)	\$ 17,889,759
b. Income (less investment income)	1,415,715
c. Disbursements	1,917,204
d. Market Value of Assets (End of Year)	20,009,659
e. Actual Return on Assets (d) – (a) – (b) + (c)	2,621,389
<b>f. Investment Gain/(Loss) for year 2(e) - 1(d)</b>	<b>\$ 1,299,469</b>
3. Actuarial Value of Assets	
a. Market Value of Assets as of End of Year	\$ 20,009,659
b. Deferred Investment gains/(losses)	
i. 80% of 2017 gain of \$1,299,469	(1,039,575)
ii. 60% of 2016 loss of \$(83,130)	49,878
iii. 40% of 2015 loss of \$(1,240,646)	496,258
iv. 20% of 2014 loss of \$(182,943)	<u>36,589</u>
v. Total	(456,850)
<b>c. Actuarial Value of Assets for statutory funding 3(a) + 3(b)(iv)</b>	<b>\$ 19,552,809</b>





#### Exhibit 4- Determination of the Statutory Minimum Required Contribution

Under 40 ILCS 5/3, the statutory minimum required contribution is to be determined based upon the Projected Unit Credit actuarial funding method, where the unfunded liability is amortized such that 90% of the liability will be funded as of 2040. Under the statute, 90% of the unfunded liability is to be amortized as a level percentage of payroll over the period through 2040. The mandated funding method, the Projected **Unit Credit funding method, requires** the annual cost of the plan to be developed in two parts: that attributable to benefits allocated to the current year (the normal cost); and that allocated to benefits attributable to prior service (the accrued liability).

#### Funding Elements for 40 ILCS 5/3

	Present Value of Benefits as of 1/1/2018	Projected Unit Credit (PUC) Normal Cost as of 1/1/2018	PUC Actuarial Accrued Liability as of 1/1/2018
1. Active Officers			
a) Normal & Early Retirement	\$ 18,362,691	\$ 620,004	\$ 11,614,112
b) Vested Withdrawal	1,420,577	75,536	914,370
c) Pre-Retirement Death	396,128	16,893	256,596
d) Disability	<u>2,126,806</u>	<u>96,242</u>	<u>1,293,604</u>
e) Total Active Police Officers	\$ 22,306,202	\$ 808,675	\$ 14,078,682
2. Inactive Police Officers and Survivors:			
a) Normal Retirees	\$ 11,915,554		\$ 11,915,554
b) Widows (survivors)	1,488,280		1,488,280
c) Deferred Vested	1,357,524		1,357,524
d) Disabled	<u>5,400,436</u>		<u>5,400,436</u>
e) Total - Nonactive	\$ 20,161,794		\$ 20,161,794
3. Total – All	\$ 42,467,996		\$ 34,240,476

#### Minimum Statutory Contribution under 40 ILCS 5/3

Item	Amount
1. Annual Payroll	\$ 3,273,745
2. Normal Cost (net of employee/member contributions)	484,247
3. Employee Contributions (expected)	324,428
4. Funding Actuarial Liability	34,240,476
5. 90% of Funding Actuarial Liability	30,816,428
6. Actuarial Value of Assets (Exhibit 3)	19,552,809
7. Unfunded Actuarial Balance	11,263,619
8. Amortization of Unfunded Balance over 23 years as a level percentage of payroll	597,989
9. Interest on (2), (3) and (8)	98,466
10. Minimum statutory tax levy contribution per 40 ILCS 5/3 – (2) + (8) + (9)	<b>\$1,180,702 (36.1%)</b>

\*( ) amount as a percent of payroll



### Exhibit 5- Determination of the Funding Policy Contribution

The Tax Levy has been based upon the funding policy actuarially determined contribution, rather than the amount determined as the minimum under 40 ILCS 5/3. The funding policy contribution is developed below, based upon the Entry Age Normal Funding Method, with the unfunded accrued liability amortized as a level percentage of payroll amount over the 23 years through 2040. The contribution is then the sum of the Normal Cost (developed under the entry age method, but where the total normal cost is not less than 17.5%) plus the amortization payment.

#### Funding Elements for Funding Policy Contribution

	Present Value of Benefits as of 1/1/2018	Entry Age Normal Cost as of 1/1/2018	Entry Age Accrued Liability as of 1/1/2018
1. Active Officers			
a) Normal & Early Retirement	\$ 18,362,691	\$ 554,446	\$ 13,220,117
b) Vested Withdrawal	1,420,577	93,501	467,746
c) Pre-Retirement Death	396,128	18,104	222,147
d) Disability	<u>2,126,806</u>	<u>115,934</u>	<u>1,014,169</u>
e) Total Active Police Officers	\$ 22,306,202	\$ 781,985	\$ 14,924,179
2. Inactive Police Officers and Survivors:			
a) Normal Retirees	\$ 11,915,554		\$ 11,915,554
b) Widows (survivors)	1,488,280		1,488,280
c) Deferred Vested	1,357,524		1,357,524
d) Disabled	<u>5,400,436</u>		<u>5,400,436</u>
e) Total - Nonactive	\$ 20,161,794		\$ 20,161,794
3. Total – All	\$ 42,467,996		\$ 35,085,973

#### Actuarially Determined Funding Policy Contribution for Tax Levy

Item	Amount
1. Normal Cost (net of employee/member contributions)	\$ 457,557
2. Employee Contributions (expected)	324,428
3. Funding Actuarial Liability	35,085,973
4. 100% of Funding Actuarial Liability	35,085,973
5. Actuarial Value of Assets (Exhibit 3)	19,552,809
6. Unfunded Actuarial Balance	15,533,164
7. Amortization of Unfunded Balance over 23 years as a level percentage of payroll	824,660
8. Interest on (1), (2) and (7)	112,465
9. Actuarially Determined Funding Policy Contribution for Tax Levy (1) + (7) + (8)	<b>\$1,394,682 (42.6%)</b>

#### Exhibit 6- Contribution Necessary to Prevent Negative Funding

Item	Amount
1. Normal Cost (net of employee/member contributions)	\$ 457,557
2. Employee Contributions (expected)	324,428
3. 100% of Funding Actuarial Liability	35,085,973
4. Actuarial Value of Assets (Exhibit 3)	19,552,809
5. Unfunded Actuarial Balance	15,533,164
6. Interest on Unfunded Liability	1,087,321
7. Interest on (1), (2)	54,739
8. Contribution Necessary to Prevent Negative Funding (1) + (6) + (7)	<b>\$1,599,617 (48.9%)</b>



## Exhibit 6 – Summary of Participant Data as of January 1, 2018

### Participant Data

Item	As of 1/1/2018		
	<u>Tier 1</u>	<u>Tier 2</u>	<u>Total</u>
Active Members			
Vested	23	0	23
Non-Vested	<u>1</u>	<u>11</u>	<u>12</u>
Total Actives	24	11	35
Terminated Members entitled to future benefits	8	2	10
Retired Members	16	0	16
Surviving Spouses	4	0	4
Disabled Participants	<u>7</u>	<u>0</u>	<u>7</u>
Total	59	13	72

### AGE AND SERVICE DISTRIBUTION AS OF JANUARY 1, 2018

#### Active Employee Participants

Age Group	Service									Total
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40+	
Under 20										0
20 - 24										0
25 - 29	5	2								7
30 - 34	4	4								8
35 - 39			2	2						4
40 - 44		1		5						6
45 - 49				4						4
50 - 54				1		2				3
55 - 59				2			1			3
60 - 64										0
75 & Over										0
Total	9	7	2	14	0	2	1	0	0	35

Average Age: 39.3 years

Average Length of Service: 12.3 years



## SECTION 4 - SUMMARY OF PRINCIPAL PLAN PROVISIONS

This summary provides a general description of the major eligibility and benefit provisions of the pension fund upon which this valuation has been based. It is not intended to be, nor should it be interpreted as, a complete statement of all provisions

### *Definitions*

**Tier 1 – For Police Officers first entering Article 3 prior to January 1, 2011**

**Tier 2 – For Police Officers first entering Article 3 after December 31, 2010**

Police Officer (3-106): Any person appointed to the police force and sworn and commissioned to perform police duties.

Persons excluded from Fund (3-109): Part-time officers, special police officer, night watchmen, traffic guards, clerks and civilian employees of the department. Also, police officers who fail to pay the required fund contributions or who elect the Self-Managed Plan option.

Creditable Service (3-110): Time served by a police officer, excluding furloughs in excess of 30 days, but including leaves of absences for illness or accident and periods of disability where no disability pension payments have been received and also including up to 3 years during which disability payments have been received provided contributions are made.

### *Pension (3-111)*

---

#### *Normal Pension Age*

**Tier 1** - Age 50 with 20 or more years of creditable service.

**Tier 2** - Age 55 with 10 or more years of creditable service.

#### *Normal Pension Amount*

**Tier 1** - 50% of the greater of the annual salary held in the year preceding retirement or the annual salary held on the last day of service, plus 2½% of such annual salary for service from 20 to 30 year (maximum 25%).

**Tier 2** - 2½% of Final Average salary for each year of service. Final Average Salary is the highest salary based on the highest consecutive 96 months of the final 120 months of service

Early Retirement at age 50 with 10 or more years of service but with a penalty of ½% for each month prior to age 55.

Annual Salary capped at \$106,800 increased yearly by the lesser of ½ of the Consumer Price Index- Urban (CPI-U) or 3%. Salary for valuations beginning in 2013 is \$109,971.43.

Minimum Monthly Benefit: \$1,000

Maximum Benefit Percentage: 75% of salary



### ***Termination Retirement Pension Date***

Separation of service after completion of between 8 and 20 years of creditable service.

### ***Termination Pension Amount***

Commencing at age 60, 2½% of annual salary held in the year preceding termination times years of creditable service or refund of contributions, or for persons terminating on or after July 1, 1987, 2½% of annual salary held on the last day of service times years of credible service, whichever is greater.

### ***Pension Increase Non-Disabled***

**Tier 1** - 3% increase of the original pension amount after attainment of age 55 for each year elapsed since retirement, followed by an additional 3% of the original pension amount on each May 1 thereafter. Effective July 1, 1993, 3% of the amount of pension payable at the time of the increase including increases previously granted, rather than 3% of the originally granted pension amount.

**Tier 2** - The lesser of ½ of the Consumer Price Index- Urban (CPI-U) or 3% increase of the original pension amount after attainment of age 60, followed by an additional 3% of the original pension amount on each May 1 thereafter.

### ***Disabled***

3% increase of the original pension amount after attainment of age 60 for each year he or she received pension payments, followed by an additional 3% of the original pension amount in each May 1 thereafter.

### ***Pension to Survivors (3-112 )***

---

#### ***Death of Retired Member***

**Tier 1** - 100% of pension amount to surviving spouse (or dependent children).

**Tier 2** – 66 2/3% of pension amount to surviving spouse (or dependent children), subject to the following increase: the lesser of ½ of the Consumer Price Index- Urban (CPI-U) or 3% increase of the original pension amount after attainment of age 60, followed by an additional 3% of the original pension amount on each May 1 thereafter.

#### ***Death While in Service (Not in line of duty)***

With 20 years of creditable service, the pension amount earned as of the date of death.

With between 10 and 20 years of creditable service, 50% of the salary attached to the rank for the year prior to the date of death.

#### ***Death in Line of Duty***

100% of the salary attached to the rank for the last day of service year prior to date of death.

#### ***Minimum Survivor Pension***

\$1,000 per month to all surviving spouses.



### ***Disability Pension - Line of Duty (3-114.1)***

---

#### ***Eligibility***

Suspension or retirement from police service due to sickness, accident or injury while on duty.

#### ***Pension***

Greater of 65% of salary attached to rank at date of suspension or retirement and the retirement pension available. Minimum \$1,000 per month.

### ***Disability Pension - Not on Duty (3-114.2)***

---

#### ***Eligibility***

Suspension or retirement from police service for any cause other than while on duty.

#### ***Pension***

50% of salary attached to rank at date of suspension or retirement. Minimum \$1,000 per month.

### ***Other Provisions***

---

#### ***Marriage after Retirement (3-120)***

No surviving spouse benefit available.

#### ***Refund (3-124)***

At death prior to completion of 10 years of service, contributions are returned without interest to widow. At termination with less than 20 years of service, contributions are refunded upon request.

#### ***Contributions by Police Officers (3-125.1)***

Beginning May 1, 2001, 9.91% of salary including longevity, but excluding overtime pay, holiday pay, bonus pay, merit pay or other cash benefit.



### ***Actuarial Accrued Liability***

See ***Entry Age Normal Cost Method*** and ***Projected Unit Credit Cost Method***.

### ***Actuarial Assumptions***

The economic and demographic predictions used to estimate the present value of the plan's future obligations. They include estimates of investment earnings, salary increases, mortality, withdrawal and other related items. The *Actuarial Assumptions* are used in connection with the *Actuarial Cost Method* to allocate plan costs over the working lifetimes of plan participants.

### ***Actuarial Cost Method***

The method used to allocate the projected obligations of the plan over the working lifetimes of the plan participants. Also referred to as an *Actuarial Funding Method*.

### ***Actuarial Funding Method***

See *Actuarial Cost Method*

### ***Actuarial Gain (Loss)***

The excess of the actual *Unfunded Actuarial Accrued Liability* over the expected *Unfunded Actuarial Accrued Liability* represents an *Actuarial Loss*. If the expected *Unfunded Actuarial Accrued Liability* is greater, an *Actuarial Gain* has occurred.

### ***Actuarial Present Value***

The value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of *Actuarial Assumptions*.

### ***Actuarial Value of Assets***

The asset value derived by using the plan's *Asset Valuation Method*.

### ***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.

### ***Employee Retirement Income Security Act of 1974 (ERISA)***

The primary federal legislative act establishing funding, participation, vesting, benefit accrual, reporting, and disclosure standards for pension and welfare plans.

### ***Entry Age Normal Cost Method***

One of the standard actuarial funding methods in which the *Present Value of Projected Plan Benefits* of each individual included in the *Actuarial Valuation* is allocated on a level basis over the earnings of the individual between entry age and assumed exit age(s). The portion of this *Actuarial Present Value* allocated to a valuation year is called the *Normal Cost*. The portion of this *Actuarial Present Value* not provided for at a valuation date by the *Actuarial Present Value* of future *Normal Costs* is called the *Actuarial Accrued Liability*.



**Normal Cost**

The portion of the *Present Value of Projected Plan Benefits* that is allocated to a particular plan year by the *Actuarial Cost Method*. See *Entry Age Normal Cost Method* for a description of the Normal Cost under the *Entry Age Normal Cost Method*. See *Projected Unit Credit Cost Method* for a description of the Normal Cost under the *Projected Unit Credit Cost Method*.

**Present Value of Future Normal Costs**

The present value of future normal costs determined based on the *Actuarial Cost Method* for the plan. Under the *Entry Age Normal Cost Method*, this amount is equal to the excess of the *Present Value of Projected Plan Benefits* over the sum of the *Actuarial Value of Assets* and *Unfunded Actuarial Accrued Liability*.

**Present Value of Projected Plan Benefits**

The present value of future plan benefits reflecting projected credited service and salaries. The present value is determined based on the plan's actuarial assumptions.

**Projected Unit Credit Cost Method**

One of the standard actuarial funding methods in which the *Present Value of Projected Plan Benefits* of each individual included in the *Actuarial Valuation* is allocated by a consistent formula to valuation years. The *Actuarial Present Value* allocated to a valuation year is called the *Normal Cost*. The *Actuarial Present Value* of benefits allocated to all periods prior to a valuation year is called the *Actuarial Accrued Liability*.

**Unfunded Actuarial Accrued Liability**

The excess of the *Actuarial Accrued Liability* over the *Actuarial Value of Assets*.





## SECTION 5 - SUMMARY OF ACTUARIAL ASSUMPTIONS AND COST METHODS

### 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, some of which are mandated assumptions. Certain provisions may be approximated or deemed immaterial and therefore are not valued. Assumptions may be made about participant data or other factors. 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 and should not imply precisions, which is not inherent in actuarial calculations.

Actuarial Assumption Item	Annual Actuarial Valuation Statutory Minimum	Annual Actuarial Valuation Funding Policy Amount for Tax Levy
Interest	7.00% per annum	7.00% per annum
Mortality	RP2000 Mortality Table projected to 2017 with Blue Collar Adjustments (but not beyond)	RP2000 Mortality Table projected to 2017 with Blue Collar Adjustments (but not beyond)
Retirement	Rates of retirement for all ages are:	Rates of retirement for all ages are:
	<div><div>Age</div><div>5014.00%6125.00%</div></div>	<div><div>Age</div><div>5014.00%6125.00%</div></div>
	<div><div>5114.00%6225.00%</div></div>	<div><div>5114.00%6225.00%</div></div>
	<div><div>5214.00%6333.00%</div></div>	<div><div>5214.00%6333.00%</div></div>
	<div><div>5314.00%6450.00%</div></div>	<div><div>5314.00%6450.00%</div></div>
	<div><div>5420.00%65100.00%</div></div>	<div><div>5420.00%65100.00%</div></div>
	<div><div>5520.00%66100.00%</div></div>	<div><div>5520.00%66100.00%</div></div>
	<div><div>5620.00%67100.00%</div></div>	<div><div>5620.00%67100.00%</div></div>
	<div><div>5720.00%68100.00%</div></div>	<div><div>5720.00%68100.00%</div></div>
	<div><div>5820.00%69100.00%</div></div>	<div><div>5820.00%69100.00%</div></div>
	<div><div>5920.00%70100.00%</div></div>	<div><div>5920.00%70100.00%</div></div>
	<div><div>6025.00%</div></div>	<div><div>6025.00%</div></div>
Withdrawal	Rates of termination are based upon age only. Sample rates for selected ages are:	Rates of termination are based upon age only. Sample rates for selected ages are:
	<div><div>Age</div><div>257.50%402.00%503.50%553.50%</div></div>	<div><div>Age</div><div>257.50%402.00%503.50%553.50%</div></div>
Disability	Rates of disability are based upon age only. Sample rates for selected ages are:	Rates of disability are based upon age only. Sample rates for selected ages are:
	<div><div>Age</div><div>250.05%400.40%500.95%550.13%</div></div>	<div><div>Age</div><div>250.05%400.40%500.95%550.13%</div></div>
Salary Increase	5.00% per annum	5.00% per annum



Actuarial Assumption Item	Annual Actuarial Valuation Statutory Minimum	Annual Actuarial Valuation Funding Policy Amount for Tax Levy
Percentage Married	85% are married, females are assumed to be 3 years younger	85% are married, females are assumed to be 3 years younger
Asset Valuation Method	Assets are valued at fair market value and smoothed over three years, reflecting gains and losses at 33% per year.	Assets are valued at fair market value and smoothed over three years, reflecting gains and losses at 33% per year.
Actuarial Cost Methods	<p>Projected Unit Credit Cost Method</p> <p>This is the mandated actuarial method to be used in determining the statutory contribution requirements and under PA 096-1495. This method determines the present value of projected benefits and prorates the projected benefit by service to date to determine the accrued liability. Amounts attributable to past service are amortized as a level percentage of pay with the goal of reaching 90% of the accrued liability by 2040.</p>	<p>Entry Age Normal Cost Method</p> <p>This method projects benefits from entry age to retirement age and attributes costs over total service, as a level percentage of pay. Amounts attributable to past service have been amortized over 23 years on a closed basis as a level percentage of pay.</p>



# **Village of Bensenville**

*Bensenville Police Pension Fund*

## **Actuarial Valuation Report**

**For Financial Reporting Under 67/68**

**For Fiscal Year Ended December 31, 2016**





April 18, 2017

Mr. Amit Thakkar  
Director of Finance  
Village of Bensenville  
12 S. Center St.  
Bensenville, IL 60106

Dear Mr. Thakkar:

We are pleased to provide our Actuarial Valuation Report as of December 31, 2016. This report provides accounting and financial disclosure information for fiscal period ending December 31, 2016 that is intended to comply with Government Accounting Standards Board ("GASB") Statement Nos. 67 and 68 for the Bensenville Police Pension Fund.

A separate valuation report is provided for the purpose of determining the Actuarial Determined Contribution and Tax Levy amounts.

To the best of our knowledge, this actuarial statement is complete and accurate, and has been prepared in accordance with generally accepted actuarial principles and practice. The undersigned are members of the American Academy of Actuaries and meet the Qualification Standards of the Academy of Actuaries to render the actuarial opinion herein.

We will be pleased to review this report with you at your convenience.

Sincerely,

A handwritten signature in black ink, reading "Kathleen E. Manning".

Kathleen E. Manning, FSA, EA, MAAA  
Managing Principal and Consulting Actuary

A handwritten signature in black ink, reading "Daniel Colby".

Daniel Colby, FSA, EA, MAAA  
Consulting Actuary

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### Executive Summary Highlights of Results

#### Executive Summary

This valuation has been prepared to meet the requirements of GASB 67/68 for the fiscal period ending December 31, 2016.

The actuarial valuation was based on census, asset, and plan information provided by the Village of Bensenville. MWM reviewed the census data for reasonableness but did not perform an independent audit. The accuracy of the valuation is dependent upon the completeness of the data as provided by the plan sponsor.

#### As Reported Under GASB 67 at December 31, 2016

Item	12/31/2016
Total Pension Liability	\$ 31,636,074
Plan Fiduciary Net Position	\$ 17,889,759
Net Pension Liability	\$ 13,746,315
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	56.55%

#### Pension Expense

#### As Reported Under GASB 68 at December 31, 2016

Item	12/31/2016
Service Cost (Total)	\$ 663,256
Administrative Expense	\$ 30,303
Interest on the Total Pension Liability	\$ 2,183,913
Current-Period Benefit Changes	\$ 0
Employee Contributions	\$ 311,402
Projected Earnings on Plan Investments	\$ 1,251,579
Other Changes in Plan Fiduciary Net Position	\$ 350
Recognition of Outflow (Inflow) of Resources due to Liabilities	\$ (71,452)
Recognition of Outflow (Inflow) of Resources due to Assets	\$ 265,124
Total Pension Expense	\$ 1,507,813



## Executive Summary Highlights of Results

### Executive Summary as of December 31, 2016

Item	Total
Actuarial Valuation Date	December 31, 2016
Measurement Date of the Net Pension Liability	December 31, 2016
Employers' Fiscal Year Ending Date (Reporting Date)	December 31, 2016
<b>Membership</b>	
Active Employees	35
Retirees and Beneficiaries	27
Inactive, Non-retired Members	<u>15</u>
Total	77
Covered Payroll	\$ 3,190,246
<b>Net Pension Liability and Related Ratios</b>	
Total Pension Liability	\$ 31,636,074
Plan Fiduciary Net Position	<u>17,889,759</u>
Net Pension Liability	\$ 13,746,315
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	56.55%
Net Pension Liability as a Percentage of Covered Payroll	430.89%
<b>Development of the Single Discount Rate</b>	
Single Discount Rate Beginning of Year	7.50%
Single Discount Rate End of Year	7.50%
Long-Term Expected Rate of Investment Return Beginning of Year	7.50%
Long-Term Expected Rate of Investment Return Beginning of Year	7.50%
Long-Term Municipal Bond Rate Beginning of Year* (if applicable)	3.57%
Long-Term Municipal Bond Rate End of Year* (if applicable)	3.78%

\* Bond Buyer 20 year muni rate index



### Discussion

#### Accounting Standard

For pension plans that are administered through trusts or equivalent arrangements, Governmental Accounting Standards Board (“GASB”) Statement No. 67 establishes standards of financial reporting for separately issued financial reports and specifies the required approach for measuring the pension liability. Similarly, GASB statement No. 68 established standards for state and local government employers to account for and disclose the net pension liability, pension expense, and other information associated with providing retirement benefit to their employees (and former employees) on their basic financial statements. Statement No. 67/68 applies to the Fund for the 2016 yearend.

#### Financial Statements

GASB Statement No. 68 requires state or local governments to recognize the net pension liability and the pension expense on their financial statements. The net pension liability is the difference between the total pension liability and the plan’s fiduciary net position. In traditional actuarial terms, this is analogous to the accrued liability less the market value of assets (not the smoothed actuarial value of assets that is often encountered in actuarial valuation performed to determine the employer’s contribution requirements).

The pension expense recognized each fiscal year is equal to the change in the net pension liability from the beginning of the year to the end of the year, adjusted for deferred recognition of the liability and investment experience.

Pension plans that prepare their own stand-alone financial statements are required to present two financial statements – a *statement of fiduciary net position* and a *statement of changes in fiduciary net position* in accordance with GASB Statement NO. 67. The statement of fiduciary net position presents the asset and liabilities of the pension plan at the end of the pension plan’s reporting period. The statement of changes in fiduciary net position presents the additions, such as contributions and investment income, and deductions, such as benefit payments and expense and net increase or decrease in the fiduciary net position.

#### Notes to Financial Statements

GASB Statement No. 68 requires the notes of the employer’s financial statements to disclose the total pension expense, the pension plan’s liabilities and assets and deferred outflows and inflows of resources related to pensions.





### Discussion

GASB Statement Nos. 67 and 68 require the notes of the financial statements for the employers and pension plans, to include certain additional information. The list of disclosure items should include:

- A description of benefits provided by the plan
- The type of employees and number of members covered by the pension plan
- A description of the plan's funding policy, which includes member and employer contribution requirements
- The pension plan's investment policies
- The pension plan's fiduciary net position, net pension liability and the pension plan's fiduciary net position as a percentage of the total pension liability
- Significant assumptions and methods used to calculate the total pension liability
- Inputs to the discount rates
- Certain information about mortality assumptions and the date of experience studies

Retirement systems that issue stand-alone financial statements are required to disclose additional information in accordance with GASB Statement No. 67:

- The compositions of the pension plan's board and the authority under which benefit terms may be amended
- A description of how fair value is determined
- Information regarding certain reserves and investment, which include concentrations of investments greater than or equal to 5%, receivables, and insurance contracts excluded from plan assets.

### Required Supplementary Information

GASB Statement No. 67 requires a 10-year fiscal history\* of:

- Sources of changes in the net pension liability
- Information about the components of the net pension liability and related ratios, including the pension plan's fiduciary net position as a percentage of the total pension liability and the net pension liability as a percent of covered employee payroll
- Comparison of the actual employer contributions to the actuarially determined contributions based on the plan's funding policy.

\*These tables may be built prospectively as information becomes available.



### Calculation of the Single Discount Rate

GASB Statement NO. 67 includes a specific requirement for the discount rate that is used for the purpose of the measurement of the Total Pension Liability. This rate considers the ability of the fund to meet benefit obligations in the future. To make this determination, employer contributions, employee contributions, benefit payments, expenses and investment returns are projected into the future. The Plan Net Position (assets) in future years can then be determined and compared to its obligation to make benefit payments in those years. As long as assets are projected to be on hand in a future year, the assumed valuation discount rate is used. In years where assets are not projected to be sufficient to meet benefit payments, the use of a “risk free” rate is required, such as a tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating.

For the purpose of this valuation under GASB 67, the expected rate of return on pension plan investments is 7.50% per year, and the municipal bond rate, if applicable, is 3.57% at 12/31/2015 and 3.78% at 12/31/2016. The cash flow projection under the 7.50% discount rate was sufficient to provide benefits for all future years.

### Contribution Policy

The single discount rate is determined based upon the projection of assets, investment return, benefit payments and contributions. The contribution policy assumed for this valuation is that the employer will contribute an amount equal to the employee normal cost under the Projected Unit Credit method plus the amount to amortize 100% of the unfunded liability over closed 30 year period (remaining period 24 years) as a level percent of payroll.

### Measurement of the Net Pension Liability

The net pension liability is to be measured as the total pension liability, less the amount of the pension plan’s fiduciary net positions. Using more familiar actuarial terms, this will be the accrued liability less the market value of assets.

### Timing of the Valuation

An actuarial valuation to determine the total pension liability is required to be performed at least once every two years. The net pension liability and pension expense should be measured as of the pension plan’s fiscal year end (measurement date) on a date that is within the employer’s prior fiscal year. If the actuarial valuation used to determine the total pension liability is required to be rolled forward from the actuarial valuation date to the measurement date.

The total pension liability shown in this report is based on an actuarial valuation performed as of December 31, 2016, and a measurement date of December 31, 2016.



## SECTION 1: FINANCIAL STATEMENTS

### Statements of Fiduciary Net Position Fiscal Periods Ended December 31, 2016 and December 31, 2015

Item	Plan Year Ending	
	12/31/2016	12/31/2015
<b>1. Investments at Fair Value:</b>		
a. Cash and Cash equivalents	\$ 751,515	\$ 770,864
b. Money Market Mutual Funds	972,492	623,195
c. Municipal Bonds	2,281,778	2,324,896
d. Corporate Bonds	0	0
e. US Government and Agency Bonds	1,271,362	1,540,478
f. Common and Preferred Stocks	0	0
g. Insurance Contracts (at contract value):	394,637	390,335
h. Mutual Funds	11,470,976	10,428,089
i. Accrued Interest and receivables	746,328	599,577
j. Other	1,748	2,490
Total Assets (a + b + c + d + e + f + g + h + i + j)	<u>\$ 17,890,836</u>	<u>\$ 16,679,924</u>
<b>2. Liabilities:</b>		
a. Expenses Payable	\$ 1,077	\$ 1,270
b. Liability for benefits due and unpaid	0	0
c. Other Liabilities	0	0
d. Total Liabilities	<u>\$ 1,077</u>	<u>\$ 1,270</u>
<b>3. Net Market Value of Assets Available for Benefits: (1j – 2c)</b>	\$ 17,889,759	\$ 16,678,654



## SECTION 1: FINANCIAL STATEMENTS

### Statements of Changes in Fiduciary Net Position Fiscal Periods Ended December 31, 2016 and December 31, 2015

Item	Plan Year Ending	
	12/31/2016	12/31/2015
<b>Additions</b>		
Contributions		
Employer	\$ 1,050,931	\$ 897,887
Plan Member	311,402	308,223
Other - Beginning of year Adjustment	350	0
Total Contributions	\$ 1,362,683	\$ 1,206,110
Investment Income		
Realized Gain/(Loss)	\$ (9,336)	\$ (103,048)
Unrealized Gain/(Loss)	722,671	(509,151)
Interest	156,404	157,251
Dividends	320,216	452,044
Other Income	2,676	14,847
Investment Expenses	(24,169)	0
Net Investment Income	1,168,462	11,943
<b>Total additions</b>	<b>\$ 2,531,145</b>	<b>\$ 1,218,053</b>
<b>Deductions</b>		
Benefits	\$ 1,289,737	\$ 1,218,279
Refunds	0	0
Administrative and Investment Expenses	30,303	56,785
<b>Total deductions</b>	<b>\$ 1,320,040</b>	<b>\$ 1,275,064</b>
<b>Total increase (decrease)</b>	<b>\$ 1,211,105</b>	<b>\$ (57,011)</b>
<b>Net Fiduciary Position</b>		
Beginning of period	\$ 16,678,654	\$ 16,735,665
End of period	\$ 17,889,759	\$ 16,678,654



### Schedules of required Supplementary Information

#### Additional Notes to Schedule of Changes in Net Pension Liability and Related Ratios Multiyear

Beginning of year total pension liability for fiscal year 2016 uses a Single Discount Rate of 7.50% and the benefit provisions in effect as of the January 1, 2016 funding valuation. The Single Discount Rate of 7.50% was based on a long-term expected rate of return on pension plan investments of 7.50% used in the December 31, 2015 funding valuation and if applicable, a long-term municipal bond rate as of December 31, 2015 of 3.57%.

End of year total pension liability for fiscal year 2016 uses a Single Discount Rate of 7.50% and the benefit provisions in effect as of the December 31, 2016 funding valuation. The Single Discount Rate of 7.50% was based on a long-term expected rate of return on pension plan investments of 7.50% used in the December 31, 2016 funding valuation and if applicable, a long-term municipal bond rate as of December 31, 2016 of 3.78%.



## SECTION 2: GASB STATEMENT NO. 67 - FYE 2016 DISCLOSURE

### Financial Reporting Under GASB 67/68

#### Schedules of Required Supplementary Information Schedule of Changes in the Net Pension Liability and Related Ratios Multiyear

Fiscal Year Ending December 31,	12/31/2016	12/31/2015
<b>Total Pension Liability</b>		
Service Cost	\$ 663,256	\$ 659,341
Interest on the Total Pension Liability	2,183,913	2,123,272
Benefit Changes	0	0
Differences Between Expected and Actual Experience	173,431	(717,083)
Assumption Changes	87,767	0
Benefit Payments	(1,289,737)	(1,218,279)
Refunds	-	-
<b>Net Change in Total Pension Liability</b>	\$ 1,818,630	\$ 847,251
<b>Total Pension Liability - Beginning</b>	\$ 29,817,444	\$ 28,970,193
<b>Total Pension Liability - Ending</b>	\$ 31,636,074	\$ 29,817,444
<b>Plan Fiduciary Net Position</b>		
Employer Contributions	\$ 1,050,931	\$ 897,887
Employee Contributions	311,402	308,223
Pension Plan Net Investment Income	1,168,462	11,943
Adjustment to Beginning Balance	350	252
Benefit Payments	(1,289,737)	(1,218,279)
Other	0	0
Pension Plan Administrative Expense	(30,303)	(56,784)
<b>Net Change in Plan Fiduciary Net Position</b>	\$ 1,211,105	\$ (56,758)
<b>Plan Fiduciary Net Position - Beginning</b>	\$ 16,678,654	\$ 16,735,412
<b>Plan Fiduciary Net Position - Ending</b>	\$ 17,889,759	\$ 16,678,654
<b>Net Pension Liability - Ending</b>	\$ 13,746,315	\$ 13,138,790
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	56.55%	55.94%
Covered-employee payroll	\$ 3,190,246	\$ 2,891,359
Net Pension Liability as a Percentage of Covered-Employee Payroll	430.89%	454.42%
Notes to Schedule	10 fiscal years to be built prospectively	



## SECTION 2: GASB STATEMENT NO. 67 - FYE 2016 DISCLOSURE

### Financial Reporting Under GASB 67/68

#### Schedules of Required Supplementary Information Schedule of the Net Pension Liability Multiyear

Fiscal Period Ending	Total Pension Liability	Plan Net Position	Net Pension Liability	Plan Net Position as a % of Total Pension Liability	Covered Payroll	Net Pension Liability as a % of Covered Payroll
12/31/2016	\$ 31,636,074	\$ 17,889,759	\$ 13,746,315	56.55%	\$ 3,190,246	430.89%
12/31/2015	\$ 29,817,444	\$ 16,678,654	\$ 13,138,790	55.94%	\$ 2,891,359	454.42%
12/31/2014	\$ 28,970,193	\$ 16,735,412	\$ 12,234,781	57.77%	\$ 2,960,503	413.27%



## SECTION 2: GASB STATEMENT NO. 67 - FYE 2016 DISCLOSURE

### Financial Reporting Under GASB 67/68

#### Schedules of Contributions Multiyear Last 10 Fiscal Years

Fiscal Period Ending	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered Payroll	Actual Contribution as a % of Covered Payroll	Statutory Contribution	Statutory Contribution Deficiency/ (Excess)
12/31/2016	\$ 1,049,682	\$ 1,050,931	\$ (1,249)	\$ 3,190,246	32.94%	\$ 917,063	\$ (133,868)
12/31/2015	\$ 895,119	\$ 897,887	\$ (2,768)	\$ 2,891,359	31.05%	\$ 859,106	\$ (38,781)
12/31/2014	\$ 887,911	\$ 895,110	\$ (7,199)	\$ 2,960,503	30.24%	\$ 783,505	\$ (111,605)
4/30/2014							
4/30/2013							
4/30/2012							
4/30/2011							
4/30/2010							
4/30/2009							
4/30/2008							

#### Notes:

<sup>(1)</sup> 10 fiscal years will be built prospectively

<sup>(2)</sup> The Village's funding policy is to contribute the tax levy amount (actuarially determined contribution) determined based upon the prior year's actuarial valuation. The Actuarially Determined Contribution reflects prior year valuation result.





## SECTION 2: GASB STATEMENT NO. 67 - FYE 2016 DISCLOSURE

### Notes to Schedule of Contributions

#### Summary of Actuarial Assumptions and Methods Used For Accounting GASB 67 Purposes as of The Valuation Date

Item	Assumption
Actuarial Valuation Date	December 31, 2016
Actuarial Cost Method	Entry Age Normal
Asset Valuation Method	Market Value
Actuarial Assumptions:	
Investment Rate of Return	7.50%
Projected Salary Increases	5.00%
Cost-of-Living Increases	3.00%
Retirement Age	Graded by age (14% at 50 to 100% at age 65)
Mortality	RP2000 projected to the valuation date with Blue Collar Adjustment

#### Summary of Actuarial Assumptions and Methods Used For Actuarially Determined Contribution

Item	Assumption
Actuarial Valuation Date	January 1, 2016 <sup>(1)</sup>
Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Percentage of Pay, closed 30 years (24 years remaining)
Asset Valuation Method	Smoothed (5 Years)
Actuarial Assumptions:	Same as above

<sup>(1)</sup> The Actuarially Determined Contribution is determined based upon the January 1 valuation date, but the amount is not contributed until the following fiscal year based upon the tax levy.



## SECTION 3: NOTES TO FINANCIAL STATEMENTS

### Calculation of the Single Discount Rate

A Single Discount rate of 7.50% was used to measure the total pension liability. This Single Discount Rate was based upon an expected rate of return on pension plan investment of 7.50% and a municipal bond rate of 3.78%. The projection of cash flows used to determine this Single Discount Rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the actuarially determined contribution policy. Based upon these assumptions, the pension plan's fiduciary net position and future contributions were sufficient to finance the benefit payments through the year 2107.

### Sensitivity of Net Pension Liability to Changes in the Discount Rate

- a discount rate that is 1 percentage point higher than the discount rate used for the actuarial valuation and
- a discount rate that is 1 percentage point lower than the discount rate used for the valuation.

The sensitivity of the net pension liability to changes in the Single Discount rate is presented in the below table. The table presents the plan's net pension liability, calculated using a Single Discount Rate of 7.50%, as well as what the plan's net pension liability would be if it were calculated using a Single Discount Rate that is 1-percentage-point lower or 1-percentage point higher:

**Changes in Net Pension Liability**

Item	1 % Decrease	Current Discount Rate	1% Increase
Police Retirement Plan Net Pension Liability	\$18,311,938	\$13,746,315	\$10,007,811

GASB Statement NO. 67 includes a specific requirement for the discount rate that is used for the purpose of the measurement of the Total Pension Liability. This rate considers the ability of the fund to meet benefit obligations in the future. To make this determination, employer contributions, employee contributions, benefit payments, expenses and investment returns are projected into the future. The Plan Net Position (assets) in future years can then be determined and compared to its obligation to make benefit payments in those years. As long as assets are projected to be on hand in a future year, the assumed valuation discount rate is used. In years where assets are not projected to be sufficient to meet benefit payments, the use of a "risk free" rate is required, such as a tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating.

For the purpose of this valuation under GASB 67, the expected rate of return on pension plan investments is 7.50% per year, and the municipal bond rate is 3.78% at yearend.



## SECTION 3: NOTES TO FINANCIAL STATEMENTS

### Participant Data

Item	As of 1/1/2017		
	Tier 1	Tier 2	Total
Active Members			
Vested	22	0	22
Non-Vested	<u>2</u>	<u>11</u>	<u>13</u>
Total Actives	24	11	35
Terminated Members entitled to future benefits	11	4	15
Retired Members	16	0	16
Surviving Spouses	4	0	4
Minor Dependent	0	0	0
Disabled Participants	<u>7</u>	<u>0</u>	<u>7</u>
Total	62	15	77

### AGE AND SERVICE DISTRIBUTION AS OF JANUARY 1, 2017

#### Active Employee Participants

Age Group	Service									Total
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40+	
Under 20										0
20 - 24	1									1
25 - 29	8									8
30 - 34	2	4								6
35 - 39			4	1						5
40 - 44		1	2	5						8
45 - 49			1	1						2
50 - 54				1		2				3
55 - 59				1			1			2
60 - 64										0
75 & Over										0
Total	11	5	7	9	0	2	1	0	0	35

Average Age: 38.3 years

Average Length of Service: 11.4 years



## SECTION 4: GASB STATEMENT NO. 68 - FYE 2016 PENSION EXPENSE

### Pension Expense Fiscal Year Ending December 31, 2016

Pension Expense	
<b>Expense</b>	
1. Service Cost	\$ 663,256
2. Administrative Expense	30,303
3. Interest on the Total Pension Liability	2,183,913
4. Current-Period Benefit Changes	0
5. Employee Contributions	311,402
6. Projected Earnings on Plan Investments	1,251,579
7. Other Changes in Plan Fiduciary Net Position	350
8. Recognition of Outflow (Inflow) of Resources due to Liabilities	(71,452)
9. Recognition of Outflow (Inflow) of Resources due to Assets	265,124
<b>Total Pension Expense (1) + (2) + (3) + (4) - (5) - (6) - (7) + (8) + (9)</b>	<b>\$ 1,507,813</b>
<b>Reconciliation of Net Pension Liability</b>	
1. Net Pension Liability Beginning of Year	\$ 13,138,790
2. Pension Expense	1,507,813
3. Employer Contributions	1,050,931
4. Deferred Investment Experience (inflows)/outflows	(182,007)
5. Deferred Liability Experience (inflows)/outflows	260,974
6. Deferred Assumption Changes (inflows)/outflows	71,676
<b>Net Pension Liability End of Year (1) + (2) - (3) + (4) + (5) + (6)</b>	<b>\$ 13,746,315</b>



## SECTION 4: GASB STATEMENT NO. 68 - FYE 2016 PENSION EXPENSE

### Schedule of Outflows and Inflows of Resources

A. Change in Outflows and (Inflows) of Resources during Current Plan Year				
Experience (Gain) / Loss	Balance at Beginning of Year	Amortization Factor	Amortization	Balance at End of Year
1. Difference between expected and actual non-investment experience	\$ 173,431	5.4545	\$ 31,796	\$ 141,635
2. Assumption Changes	87,767	5.4545	16,091	71,676
3. Difference between expected and actual investment earnings	83,117	5.0000	16,623	66,494
<b>4. Total</b>	<b>\$ 344,315</b>		<b>\$ 64,510</b>	<b>\$ 279,805</b>

B. Outflows and Inflows of Resources by Source to be recognized in Current Pension Expense			
	Outflows of Resources	Inflows of Resources	Net Outflows (Inflows) of Resources
1. Difference between expected and actual non-investment experience	\$ 31,796	\$ (119,339)	\$ (87,543)
2. Assumption Changes	16,091	0	16,091
3. Difference between expected and actual investment earnings	265,124	0	265,124
<b>4. Total</b>	<b>\$ 313,011</b>	<b>\$ (119,339)</b>	<b>\$ 193,672</b>

C. Deferred Outflows and Deferred Inflows of Resources by Source to be recognized in Future Pension Expenses			
	Deferred Outflows of Resources	Deferred Inflows of Resources	Net Deferred Outflows (Inflows) of Resources
1. Difference between expected and actual non-investment experience	\$ 141,635	\$ (478,405)	\$ (336,770)
2. Assumption Changes	71,676	0	71,676
3. Difference between expected and actual investment earnings	811,997	0	811,997
<b>4. Total</b>	<b>\$ 1,025,308</b>	<b>\$ (478,405)</b>	<b>\$ 546,903</b>

D. Deferred Outflows and Inflows of Resource by Year to be recognized in Future Pension Expenses			
Year Ending December 31	Net Deferred Outflows of Resources	Net Deferred Inflows of Resources	
2017	\$ 313,011	\$ (119,339)	
2018	313,011	(119,339)	
2019	313,011	(119,339)	
2020	64,510	(119,339)	
2021	21,765	(1,049)	
Thereafter	-	-	
<b>Total</b>	<b>\$ 1,025,308</b>	<b>\$ (478,405)</b>	



## SECTION 5: CALCULATION OF SINGLE DISCOUNT RATE

### Development of Single Discount Rate

Year	Accrued Liability	Benefit Payments	Contribution	Market Value of Assets
2017	31,636,074	1,438,107	1,161,992	18,403,644
2018	33,211,185	1,455,928	1,182,716	19,826,959
2019	34,868,788	1,548,670	1,205,571	21,352,921
2020	36,536,172	1,660,941	1,232,215	22,912,084
2021	38,196,546	1,768,493	1,261,944	24,491,543
2022	39,857,301	1,852,822	1,294,145	26,101,718
2023	41,542,991	2,014,522	1,328,530	27,773,255
2024	43,174,875	2,123,972	1,356,330	29,430,665
2025	44,795,001	2,243,080	1,391,809	31,118,930
2026	46,393,816	2,370,161	1,431,573	32,839,644
2027	47,964,080	2,503,227	1,465,350	34,591,171
2028	49,488,181	2,713,941	1,502,759	36,358,994
2029	50,880,176	2,847,254	1,545,050	38,064,713
2030	52,215,928	3,003,407	1,589,039	39,792,304
2031	53,461,002	3,149,294	1,630,915	41,519,764
2032	54,616,986	3,294,409	1,678,717	43,252,752
2033	55,678,887	3,464,852	1,730,264	44,999,719
2034	56,616,624	3,604,105	1,787,008	46,740,013
2035	57,460,453	3,751,115	1,842,566	48,513,118
2036	58,179,427	3,928,422	1,902,816	50,307,525
2037	58,735,676	4,046,240	1,961,968	52,099,155
2038	59,195,418	4,183,293	2,025,084	53,949,359
2039	59,515,963	4,330,026	2,084,397	55,845,991
2040	59,683,628	4,511,293	2,125,793	57,776,283
2041	59,633,024	4,613,415	5,403	59,686,304
2042	59,457,261	4,692,075	185,782	59,333,692
2043	59,164,766	4,797,793	170,938	59,046,681
2044	58,711,131	4,900,422	162,069	58,593,594
2045	58,093,461	4,983,776	158,518	57,971,384
2046	57,319,544	5,021,196	155,565	57,195,450
2047	56,440,824	5,088,615	162,642	56,306,077
2048	55,407,905	5,104,522	156,233	55,275,090
2049	54,274,454	5,146,557	160,322	54,134,381
2050	52,995,287	5,154,003	152,249	52,860,360
2051	51,609,026	5,135,346	156,714	51,468,083
2052	50,135,307	5,113,823	158,317	49,991,220
2053	48,567,086	5,063,698	155,528	48,424,568
2054	46,933,250	5,006,213	157,386	46,787,964
2055	45,232,401	4,938,537	153,685	45,089,906
2056	43,472,596	4,862,152	152,078	43,331,294
2057	41,659,774	4,778,501	150,585	41,519,766
2058	39,797,577	4,687,000	148,112	39,659,833
2059	37,891,219	4,588,008	145,860	37,755,552
2060	35,944,804	4,480,500	142,586	35,812,173
2061	33,964,419	4,363,365	139,195	33,834,938
2062	31,957,251	4,235,604	135,058	31,831,617
2063	29,932,475	4,096,115	130,676	29,810,916
2064	27,901,038	3,944,221	125,936	27,783,888
2065	25,875,577	3,779,724	120,996	25,763,023
2066	23,869,633	3,603,240	115,580	23,762,117
2067	21,897,161	3,416,165	109,779	21,795,041
2068	19,971,671	3,219,693	103,595	19,875,304
2069	18,106,870	3,015,715	97,528	18,016,146
2070	16,314,845	2,807,146	90,879	16,230,306



## SECTION 5: CALCULATION OF SINGLE DISCOUNT RATE

Year	Accrued Liability	Benefit Payments	Contribution	Market Value of Assets
2071	14,606,025	2,596,281	84,315	14,527,592
2072	12,989,005	2,384,960	77,623	12,916,798
2073	11,471,408	2,175,645	71,205	11,405,171
2074	10,058,458	1,971,177	64,685	9,998,286
2075	8,752,942	1,772,989	58,333	8,698,679
2076	7,556,433	1,582,137	52,254	7,507,825
2077	6,469,609	1,400,152	46,570	6,426,288
2078	5,491,348	1,228,833	41,053	5,453,159
2079	4,618,639	1,068,793	35,859	4,585,282
2080	3,847,707	920,254	31,103	3,818,774
2081	3,174,211	784,050	26,731	3,149,345
2082	2,592,525	660,913	22,679	2,571,428
2083	2,095,869	551,008	19,011	2,078,184
2084	1,676,811	454,107	15,760	1,662,151
2085	1,327,629	369,825	12,943	1,315,589
2086	1,040,371	297,680	10,493	1,030,610
2087	806,986	236,917	8,391	799,180
2088	619,648	186,460	6,660	613,453
2089	471,033	145,127	5,220	466,177
2090	354,509	111,759	4,052	350,740
2091	264,151	85,179	3,108	261,260
2092	194,825	64,268	2,362	192,628
2093	142,179	48,011	1,777	140,526
2094	102,595	35,494	1,323	101,364
2095	73,138	25,952	974	72,232
2096	51,455	18,740	706	50,798
2097	35,694	13,349	508	35,221
2098	24,392	9,371	358	24,059
2099	16,406	6,466	249	16,174
2100	10,861	4,387	169	10,704
2101	7,078	2,931	114	6,972
2102	4,536	1,924	74	4,467
2103	2,859	1,239	49	2,813
2104	1,774	782	31	1,745
2105	1,086	491	18	1,069
2106	653	303	13	641
2107	384	182	8	377



# **Village of Bensenville**

*Bensenville Police Pension Fund*

## **Actuarial Valuation Report**

**For Financial Reporting Under 67/68**

**For Fiscal Year Ended December 31, 2017**







May 1, 2018

Mr. Amit Thakkar  
Director of Finance  
Village of Bensenville  
12 S. Center St.  
Bensenville, IL 60106

Dear Mr. Thakkar:

We are pleased to provide our Actuarial Valuation Report as of December 31, 2017. This report provides accounting and financial disclosure information for fiscal period ending December 31, 2017 that is intended to comply with Government Accounting Standards Board ("GASB") Statement Nos. 67 and 68 for the Bensenville Police Pension Fund.

A separate valuation report is provided for the purpose of determining the Actuarial Determined Contribution and Tax Levy amounts.

To the best of our knowledge, this actuarial statement is complete and accurate, and has been prepared in accordance with generally accepted actuarial principles and practice. The undersigned are members of the American Academy of Actuaries and meet the Qualification Standards of the Academy of Actuaries to render the actuarial opinion herein.

We will be pleased to review this report with you at your convenience.

Sincerely,

Handwritten signature of Kathleen E. Manning in black ink.

Kathleen E. Manning, FSA, EA, MAAA  
Managing Principal and Consulting Actuary

Handwritten signature of Daniel Colby in black ink.

Daniel Colby, FSA, EA, MAAA  
Consulting Actuary

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### Executive Summary Highlights of Results

#### Executive Summary

This valuation has been prepared to meet the requirements of GASB 67/68 for the fiscal period ending December 31, 2017.

The actuarial valuation was based on census, asset, and plan information provided by the Village of Bensenville. MWM reviewed the census data for reasonableness but did not perform an independent audit. The accuracy of the valuation is dependent upon the completeness of the data as provided by the plan sponsor.

#### As Reported Under GASB 67 at December 31, 2017

Item	12/31/2017
Total Pension Liability	\$ 35,085,974
Plan Fiduciary Net Position	\$ 20,009,659
Net Pension Liability	\$ 15,076,315
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	57.03%

#### Pension Expense

#### As Reported Under GASB 68 at December 31, 2017

Item	12/31/2017
Service Cost (Total)	\$ 711,470
Administrative Expense	\$ 34,075
Interest on the Total Pension Liability	\$ 2,301,152
Current-Period Benefit Changes	\$ 0
Employee Contributions	\$ 328,752
Projected Earnings on Plan Investments	\$ 1,321,920
Other Changes in Plan Fiduciary Net Position	\$ 0
Recognition of Outflow (Inflow) of Resources due to Liabilities	\$ 338,988
Recognition of Outflow (Inflow) of Resources due to Assets	\$ 5,230
Total Pension Expense	\$ 1,740,243



## Executive Summary Highlights of Results

### Executive Summary as of December 31, 2017

Item	Total
Actuarial Valuation Date	December 31, 2017
Measurement Date of the Net Pension Liability	December 31, 2017
Employers' Fiscal Year Ending Date (Reporting Date)	December 31, 2017
<b>Membership</b>	
Active Employees	35
Retirees and Beneficiaries	27
Inactive, Non-retired Members	<u>10</u>
Total	72
Covered Payroll	\$ 3,273,745
<b>Net Pension Liability and Related Ratios</b>	
Total Pension Liability	\$ 35,085,974
Plan Fiduciary Net Position	<u>20,009,659</u>
Net Pension Liability	\$ 15,076,315
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	57.03%
Net Pension Liability as a Percentage of Covered Payroll	460.52%
<b>Development of the Single Discount Rate</b>	
Single Discount Rate Beginning of Year	7.50%
Single Discount Rate End of Year	7.00%
Long-Term Expected Rate of Investment Return Beginning of Year	7.50%
Long-Term Expected Rate of Investment Return Beginning of Year	7.00%
Long-Term Municipal Bond Rate Beginning of Year* (if applicable)	3.78%
Long-Term Municipal Bond Rate End of Year* (if applicable)	3.44%

\* Bond Buyer 20 year muni rate index



### Discussion

#### Accounting Standard

For pension plans that are administered through trusts or equivalent arrangements, Governmental Accounting Standards Board (“GASB”) Statement No. 67 establishes standards of financial reporting for separately issued financial reports and specifies the required approach for measuring the pension liability. Similarly, GASB statement No. 68 established standards for state and local government employers to account for and disclose the net pension liability, pension expense, and other information associated with providing retirement benefit to their employees (and former employees) on their basic financial statements. Statement No. 67/68 applies to the Fund for the 2017 yearend.

#### Financial Statements

GASB Statement No. 68 requires state or local governments to recognize the net pension liability and the pension expense on their financial statements. The net pension liability is the difference between the total pension liability and the plan’s fiduciary net position. In traditional actuarial terms, this is analogous to the accrued liability less the market value of assets (not the smoothed actuarial value of assets that is often encountered in actuarial valuation performed to determine the employer’s contribution requirements).

The pension expense recognized each fiscal year is equal to the change in the net pension liability from the beginning of the year to the end of the year, adjusted for deferred recognition of the liability and investment experience.

Pension plans that prepare their own stand-alone financial statements are required to present two financial statements – a *statement of fiduciary net position* and a *statement of changes in fiduciary net position* in accordance with GASB Statement NO. 67. The statement of fiduciary net position presents the asset and liabilities of the pension plan at the end of the pension plan’s reporting period. The statement of changes in fiduciary net position presents the additions, such as contributions and investment income, and deductions, such as benefit payments and expense and net increase or decrease in the fiduciary net position.

#### Notes to Financial Statements

GASB Statement No. 68 requires the notes of the employer’s financial statements to disclose the total pension expense, the pension plan’s liabilities and assets and deferred outflows and inflows of resources related to pensions.



### Discussion

GASB Statement Nos. 67 and 68 require the notes of the financial statements for the employers and pension plans, to include certain additional information. The list of disclosure items should include:

- A description of benefits provided by the plan
- The type of employees and number of members covered by the pension plan
- A description of the plan's funding policy, which includes member and employer contribution requirements
- The pension plan's investment policies
- The pension plan's fiduciary net position, net pension liability and the pension plan's fiduciary net position as a percentage of the total pension liability
- Significant assumptions and methods used to calculate the total pension liability
- Inputs to the discount rates
- Certain information about mortality assumptions and the date of experience studies

Retirement systems that issue stand-alone financial statements are required to disclose additional information in accordance with GASB Statement No. 67:

- The compositions of the pension plan's board and the authority under which benefit terms may be amended
- A description of how fair value is determined
- Information regarding certain reserves and investment, which include concentrations of investments greater than or equal to 5%, receivables, and insurance contracts excluded from plan assets.

### Required Supplementary Information

GASB Statement No. 67 requires a 10-year fiscal history\* of:

- Sources of changes in the net pension liability
- Information about the components of the net pension liability and related ratios, including the pension plan's fiduciary net position as a percentage of the total pension liability and the net pension liability as a percent of covered employee payroll
- Comparison of the actual employer contributions to the actuarially determined contributions based on the plan's funding policy.

\*These tables may be built prospectively as information becomes available.



### Calculation of the Single Discount Rate

GASB Statement NO. 67 includes a specific requirement for the discount rate that is used for the purpose of the measurement of the Total Pension Liability. This rate considers the ability of the fund to meet benefit obligations in the future. To make this determination, employer contributions, employee contributions, benefit payments, expenses and investment returns are projected into the future. The Plan Net Position (assets) in future years can then be determined and compared to its obligation to make benefit payments in those years. As long as assets are projected to be on hand in a future year, the assumed valuation discount rate is used. In years where assets are not projected to be sufficient to meet benefit payments, the use of a “risk free” rate is required, such as a tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating.

For the purpose of this valuation under GASB 67, the expected rate of return on pension plan investments is 7.00% per year, and the municipal bond rate, if applicable, is 3.78% at 12/31/2016 and 3.44% at 12/31/2017. The cash flow projection under the 7.00% discount rate was sufficient to provide benefits for all future years.

### Contribution Policy

The single discount rate is determined based upon the projection of assets, investment return, benefit payments and contributions. The contribution policy assumed for this valuation is that the employer will contribute an amount equal to the employee normal cost under the Projected Unit Credit method plus the amount to amortize 100% of the unfunded liability over closed 30 year period (remaining period 24 years) as a level percent of payroll.

### Measurement of the Net Pension Liability

The net pension liability is to be measured as the total pension liability, less the amount of the pension plan’s fiduciary net positions. Using more familiar actuarial terms, this will be the accrued liability less the market value of assets.

### Timing of the Valuation

An actuarial valuation to determine the total pension liability is required to be performed at least once every two years. The net pension liability and pension expense should be measured as of the pension plan’s fiscal year end (measurement date) on a date that is within the employer’s prior fiscal year. If the actuarial valuation used to determine the total pension liability is required to be rolled forward from the actuarial valuation date to the measurement date.

The total pension liability shown in this report is based on an actuarial valuation performed as of December 31, 2017, and a measurement date of December 31, 2017.



## SECTION 1: FINANCIAL STATEMENTS

### Statements of Fiduciary Net Position Fiscal Periods Ended December 31, 2017 and December 31, 2016

Item	Plan Year Ending	
	12/31/2017	12/31/2016
<b>1. Investments at Fair Value:</b>		
a. Cash and Cash equivalents	\$ 0	\$ 751,515
b. Money Market Mutual Funds	1,638,701	972,492
c. Municipal Bonds	3,243,540	2,281,778
d. Corporate Bonds	0	0
e. US Government and Agency Bonds	1,086,303	1,271,362
f. Common and Preferred Stocks	726,157	0
g. Insurance Contracts (at contract value):	0	394,637
h. Mutual Funds	12,521,284	11,470,976
i. Accrued Interest and receivables	793,532	746,328
j. Other	2,560	1,748
Total Assets (a + b + c + d + e + f + g + h + i + j)	<u>\$ 20,012,077</u>	<u>\$ 17,890,836</u>
<b>2. Liabilities:</b>		
a. Expenses Payable	\$ 2,418	\$ 1,077
b. Liability for benefits due and unpaid	0	0
c. Other Liabilities	0	0
d. Total Liabilities	<u>\$ 2,418</u>	<u>\$ 1,077</u>
<b>3. Net Market Value of Assets Available for Benefits: (1j – 2c)</b>	\$ 20,009,659	\$ 17,889,759





## SECTION 1: FINANCIAL STATEMENTS

### Statements of Changes in Fiduciary Net Position Fiscal Periods Ended December 31, 2017 and December 31, 2016

Item	Plan Year Ending	
	12/31/2017	12/31/2016
<b>Additions</b>		
Contributions		
Employer	\$ 1,086,963	\$ 1,050,931
Plan Member	\$ 328,752	311,402
Other - Beginning of year Adjustment	\$ 0	350
Total Contributions	\$ 1,415,715	\$ 1,362,683
Investment Income		
Realized Gain/(Loss)	\$ (3,601)	\$ (9,336)
Unrealized Gain/(Loss)	\$ 1,917,429	722,671
Interest	\$ 171,509	156,404
Dividends	\$ 553,122	320,216
Other Income	\$ 9,761	2,676
Investment Expenses	\$ (26,831)	(24,169)
Net Investment Income	\$ 2,621,389	1,168,462
<b>Total additions</b>	<b>\$ 4,037,104</b>	<b>\$ 2,531,145</b>
<b>Deductions</b>		
Benefits	\$ 1,761,314	\$ 1,289,737
Refunds	\$ 121,815	0
Administrative and Investment Expenses	\$ 34,075	30,303
<b>Total deductions</b>	<b>\$ 1,917,204</b>	<b>\$ 1,320,040</b>
<b>Total increase (decrease)</b>	<b>\$ 2,119,900</b>	<b>\$ 1,211,105</b>
<b>Net Fiduciary Position</b>		
Beginning of period	\$ 17,889,759	\$ 16,678,654
End of period	\$ 20,009,659	\$ 17,889,759



### Schedules of required Supplementary Information

#### Additional Notes to Schedule of Changes in Net Pension Liability and Related Ratios Multiyear

Beginning of year total pension liability for fiscal year 2016 uses a Single Discount Rate of 7.50% and the benefit provisions in effect as of the January 1, 2017 funding valuation. The Single Discount Rate of 7.50% was based on a long-term expected rate of return on pension plan investments of 7.50% used in the December 31, 2016 funding valuation and if applicable, a long-term municipal bond rate as of December 31, 2016 of 3.78%.

End of year total pension liability for fiscal year 2017 uses a Single Discount Rate of 7.00% and the benefit provisions in effect as of the December 31, 2017 funding valuation. The Single Discount Rate of 7.00% was based on a long-term expected rate of return on pension plan investments of 7.00% used in the December 31, 2017 funding valuation and if applicable, a long-term municipal bond rate as of December 31, 2017 of 3.44%.



## SECTION 2: GASB STATEMENT NO. 67 - FYE 2016 DISCLOSURE

### Financial Reporting Under GASB 67/68

#### Schedules of Required Supplementary Information Schedule of Changes in the Net Pension Liability and Related Ratios Multiyear

Fiscal Year Ending December 31,	12/31/2017	12/31/2016
<b>Total Pension Liability</b>		
Service Cost	\$ 711,470	\$ 663,256
Interest on the Total Pension Liability	2,301,152	2,183,913
Benefit Changes	0	0
Differences Between Expected and Actual Experience	35,248	173,431
Assumption Changes	2,285,159	87,767
Benefit Payments	(1,761,314)	(1,289,737)
Refunds	(121,815)	-
<b>Net Change in Total Pension Liability</b>	\$ 3,449,900	\$ 1,818,630
<b>Total Pension Liability - Beginning</b>	\$ 31,636,074	\$ 29,817,444
<b>Total Pension Liability - Ending</b>	\$ 35,085,974	\$ 31,636,074
<b>Plan Fiduciary Net Position</b>		
Employer Contributions	\$ 1,086,963	\$ 1,050,931
Employee Contributions	328,752	311,402
Pension Plan Net Investment Income	2,621,389	1,168,462
Adjustment to Beginning Balance	0	350
Benefit Payments & Refunds	(1,883,129)	(1,289,737)
Other	0	0
Pension Plan Administrative Expense	(34,075)	(30,303)
<b>Net Change in Plan Fiduciary Net Position</b>	\$ 2,119,900	\$ 1,211,105
<b>Plan Fiduciary Net Position - Beginning</b>	\$ 17,889,759	\$ 16,678,654
<b>Plan Fiduciary Net Position - Ending</b>	\$ 20,009,659	\$ 17,889,759
<b>Net Pension Liability - Ending</b>	\$ 15,076,315	\$ 13,746,315
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	57.03%	56.55%
Covered-employee payroll	\$ 3,273,745	\$ 3,190,246
Net Pension Liability as a Percentage of Covered-Employee Payroll	460.52%	430.89%
Notes to Schedule	10 fiscal years to be built prospectively	



## SECTION 2: GASB STATEMENT NO. 67 - FYE 2016 DISCLOSURE

### Financial Reporting Under GASB 67/68

#### Schedules of Required Supplementary Information Schedule of the Net Pension Liability Multiyear

Fiscal Period Ending	Total Pension Liability	Plan Net Position	Net Pension Liability	Plan Net Position as a % of Total Pension Liability	Covered Payroll	Net Pension Liability as a % of Covered Payroll
12/31/2017	\$ 35,085,974	\$ 20,009,659	\$ 15,076,315	57.03%	\$ 3,273,745	460.52%
12/31/2016	\$ 31,636,074	\$ 17,889,759	\$ 13,746,315	56.55%	\$ 3,190,246	430.89%
12/31/2015	\$ 29,817,444	\$ 16,678,654	\$ 13,138,790	55.94%	\$ 2,891,359	454.42%
12/31/2014	\$ 28,970,193	\$ 16,735,412	\$ 12,234,781	57.77%	\$ 2,960,503	413.27%



## SECTION 2: GASB STATEMENT NO. 67 - FYE 2016 DISCLOSURE

### Financial Reporting Under GASB 67/68

#### Schedules of Contributions Multiyear Last 10 Fiscal Years

Fiscal Period Ending	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered Payroll	Actual Contribution as a % of Covered Payroll	Statutory Contribution	Statutory Contribution Deficiency/ (Excess)
12/31/2017	\$ 1,156,668	\$ 1,086,963	\$ 69,705	\$ 3,273,745	33.20%	\$ 957,573	\$ (129,390)
12/31/2016	\$ 1,049,682	\$ 1,050,931	\$ (1,249)	\$ 3,190,246	32.94%	\$ 917,063	\$ (133,868)
12/31/2015	\$ 895,119	\$ 897,887	\$ (2,768)	\$ 2,891,359	31.05%	\$ 859,106	\$ (38,781)
12/31/2014	\$ 887,911	\$ 895,110	\$ (7,199)	\$ 2,960,503	30.24%	\$ 783,505	\$ (111,605)

#### Notes:

<sup>(1)</sup> 10 fiscal years will be built prospectively

<sup>(2)</sup> The Village's funding policy is to contribute the tax levy amount (actuarially determined contribution) determined based upon the prior year's actuarial valuation. The Actuarially Determined Contribution reflects prior year valuation result.



## SECTION 2: GASB STATEMENT NO. 67 - FYE 2016 DISCLOSURE

### Notes to Schedule of Contributions

#### Summary of Actuarial Assumptions and Methods Used For Accounting GASB 67 Purposes as of The Valuation Date

Item	Assumption
Actuarial Valuation Date	December 31, 2017
Actuarial Cost Method	Entry Age Normal
Asset Valuation Method	Market Value
Actuarial Assumptions:	
Investment Rate of Return	7.00%
Projected Salary Increases	5.00%
Cost-of-Living Increases	3.00%
Retirement Age	Graded by age (14% at 50 to 100% at age 65)
Mortality	RP2000 projected to the valuation date with Blue Collar Adjustment

#### Summary of Actuarial Assumptions and Methods Used For Actuarially Determined Contribution

Item	Assumption
Actuarial Valuation Date	January 1, 2016 <sup>(1)</sup>
Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Percentage of Pay, closed 30 years (23 years remaining)
Asset Valuation Method	Smoothed (5 Years)
Actuarial Assumptions:	Same as above

<sup>(1)</sup> The Actuarially Determined Contribution is determined based upon the January 1 valuation date, but the amount is not contributed until the following fiscal year based upon the tax levy.



## SECTION 3: NOTES TO FINANCIAL STATEMENTS

### Calculation of the Single Discount Rate

A Single Discount rate of 7.00% was used to measure the total pension liability. This Single Discount Rate was based upon an expected rate of return on pension plan investment of 7.00% and a municipal bond rate of 3.44%. The projection of cash flows used to determine this Single Discount Rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the actuarially determined contribution policy. Based upon these assumptions, the pension plan's fiduciary net position and future contributions were sufficient to finance the benefit payments through the year 2107.

### Sensitivity of Net Pension Liability to Changes in the Discount Rate

- a discount rate that is 1 percentage point higher than the discount rate used for the actuarial valuation and
- a discount rate that is 1 percentage point lower than the discount rate used for the valuation.

The sensitivity of the net pension liability to changes in the Single Discount rate is presented in the below table. The table presents the plan's net pension liability, calculated using a Single Discount Rate of 7.00%, as well as what the plan's net pension liability would be if it were calculated using a Single Discount Rate that is 1-percentage-point lower or 1-percentage point higher:

**Changes in Net Pension Liability**

Item	1 % Decrease	Current Discount Rate	1% Increase
Police Retirement Plan Net Pension Liability	\$20,295,356	\$15,076,315	\$10,814,079

GASB Statement NO. 67 includes a specific requirement for the discount rate that is used for the purpose of the measurement of the Total Pension Liability. This rate considers the ability of the fund to meet benefit obligations in the future. To make this determination, employer contributions, employee contributions, benefit payments, expenses and investment returns are projected into the future. The Plan Net Position (assets) in future years can then be determined and compared to its obligation to make benefit payments in those years. As long as assets are projected to be on hand in a future year, the assumed valuation discount rate is used. In years where assets are not projected to be sufficient to meet benefit payments, the use of a "risk free" rate is required, such as a tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating.

For the purpose of this valuation under GASB 67, the expected rate of return on pension plan investments is 7.00% per year, and the municipal bond rate is 3.44% at yearend.



## SECTION 3: NOTES TO FINANCIAL STATEMENTS

### Participant Data

Item	As of 1/1/2018		
	Tier 1	Tier 2	Total
Active Members			
Vested	23	0	23
Non-Vested	<u>1</u>	<u>11</u>	<u>12</u>
Total Actives	24	11	35
Terminated Members entitled to future benefits	8	2	10
Retired Members	16	0	16
Surviving Spouses	4	0	4
Minor Dependent	0	0	0
Disabled Participants	<u>7</u>	<u>0</u>	<u>7</u>
Total	59	13	72

### AGE AND SERVICE DISTRIBUTION AS OF JANUARY 1, 2018

#### Active Employee Participants

Age Group	Service									Total
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40+	
Under 20										0
20 - 24										0
25 - 29	5	2								7
30 - 34	4	4								8
35 - 39			2	2						4
40 - 44		1		5						6
45 - 49				4						4
50 - 54				1		2				3
55 - 59				2			1			3
60 - 64										0
75 & Over										0
Total	9	7	2	14	0	2	1	0	0	35

Average Age: 39.3 years

Average Length of Service: 12.3 years





## SECTION 4: GASB STATEMENT NO. 68 - FYE 2017 PENSION EXPENSE

### Pension Expense Fiscal Year Ending December 31, 2017

Pension Expense	
<b>Expense</b>	
1. Service Cost	\$ 711,470
2. Administrative Expense	34,075
3. Interest on the Total Pension Liability	2,301,152
4. Current-Period Benefit Changes	0
5. Employee Contributions	328,752
6. Projected Earnings on Plan Investments	1,321,920
7. Other Changes in Plan Fiduciary Net Position	0
8. Recognition of Outflow (Inflow) of Resources due to Liabilities	338,988
9. Recognition of Outflow (Inflow) of Resources due to Assets	5,230
<b>Total Pension Expense (1) + (2) + (3) + (4) - (5) - (6) - (7) + (8) + (9)</b>	<b>\$ 1,740,243</b>
<b>Reconciliation of Net Pension Liability</b>	
1. Net Pension Liability Beginning of Year	\$ 13,746,315
2. Pension Expense	1,740,243
3. Employer Contributions	1,086,963
4. Deferred Investment Experience (inflows)/outflows	(1,304,699)
5. Deferred Liability Experience (inflows)/outflows	116,556
6. Deferred Assumption Changes (inflows)/outflows	1,864,863
<b>Net Pension Liability End of Year (1) + (2) - (3) + (4) + (5) + (6)</b>	<b>\$ 15,076,315</b>



## SECTION 4: GASB STATEMENT NO. 68 - FYE 2017 PENSION EXPENSE

### Schedule of Outflows and Inflows of Resources

A. Change in Outflows and (Inflows) of Resources during Current Plan Year				
Experience (Gain) / Loss	Balance at Beginning of Year	Amortization Factor	Amortization	Balance at End of Year
1. Difference between expected and actual non-investment experience	\$ 35,248	5.6535	\$ 6,235	\$ 29,013
2. Assumption Changes	2,285,159	5.6535	404,205	1,880,954
3. Difference between expected and actual investment earnings	<u>(1,299,469)</u>	5.0000	<u>(259,894)</u>	<u>(1,039,575)</u>
<b>4. Total</b>	<b>\$ 1,020,938</b>		<b>\$ 150,546</b>	<b>\$ 870,392</b>

B. Outflows and Inflows of Resources by Source to be recognized in Current Pension Expense			
	Outflows of Resources	Inflows of Resources	Net Outflows (Inflows) of Resources
1. Difference between expected and actual non-investment experience	\$ 38,031	\$ (119,339)	\$ (81,308)
2. Assumption Changes	420,296	0	420,296
3. Difference between expected and actual investment earnings	<u>265,124</u>	<u>(259,894)</u>	<u>5,230</u>
<b>4. Total</b>	<b>\$ 723,451</b>	<b>\$ (379,233)</b>	<b>\$ 344,218</b>

C. Deferred Outflows and Deferred Inflows of Resources by Source to be recognized in Future Pension Expenses			
	Deferred Outflows of Resources	Deferred Inflows of Resources	Net Deferred Outflows (Inflows) of Resources
1. Difference between expected and actual non-investment experience	\$ 138,852	\$ (359,066)	\$ (220,214)
2. Assumption Changes	1,936,539	0	1,936,539
3. Difference between expected and actual investment earnings	<u>546,873</u>	<u>(1,039,575)</u>	<u>(492,702)</u>
<b>4. Total</b>	<b>\$ 2,622,264</b>	<b>\$ (1,398,641)</b>	<b>\$ 1,223,623</b>

D. Deferred Outflows and Inflows of Resource by Year to be recognized in Future Pension Expenses			
Year Ending	Net Deferred Outflows of Resources	Net Deferred Inflows of Resources	
June 30			
2018	\$ 723,451	\$ (379,233)	
2019	723,451	(379,233)	
2020	474,950	(379,233)	
2021	432,205	(260,942)	
2022	268,207	-	
Thereafter	-	-	
<b>Total</b>	<b>\$ 2,622,264</b>	<b>\$ (1,398,641)</b>	



## SECTION 5: CALCULATION OF SINGLE DISCOUNT RATE

### Development of Single Discount Rate

Year	Accrued Liability	Benefit Payments	Contribution	Market Value of Assets
2017	35,085,974	1,416,299	1,394,682	19,552,809
2018	36,910,848	1,500,079	1,416,033	21,245,514
2019	38,751,001	1,623,017	1,441,904	22,981,831
2020	40,570,844	1,739,644	1,471,698	24,729,500
2021	42,378,085	1,831,771	1,504,926	26,500,985
2022	44,199,540	1,988,872	1,541,032	28,328,800
2023	45,970,197	2,105,245	1,568,719	30,151,326
2024	47,713,569	2,228,331	1,605,703	31,999,496
2025	49,429,611	2,358,589	1,649,471	33,878,917
2026	51,115,659	2,495,394	1,685,415	35,792,270
2027	52,746,928	2,698,724	1,725,792	37,723,497
2028	54,252,414	2,834,718	1,772,492	39,606,893
2029	55,697,470	2,993,904	1,820,877	41,518,542
2030	57,051,108	3,144,581	1,866,249	43,436,901
2031	58,305,973	3,292,526	1,918,540	45,364,977
2032	59,463,153	3,463,068	1,975,684	47,314,466
2033	60,494,862	3,608,505	2,039,231	49,269,551
2034	61,422,470	3,759,087	2,099,969	51,265,096
2035	62,222,945	3,937,743	2,167,972	53,291,113
2036	62,864,979	4,062,965	2,237,306	55,329,236
2037	63,389,591	4,206,610	2,308,109	57,437,647
2038	63,769,936	4,360,709	2,378,599	59,602,658
2039	63,986,522	4,541,813	2,433,559	61,815,015
2040	63,997,550	4,650,061	55,382	64,032,586
2041	63,863,446	4,739,013	223,824	63,728,510
2042	63,599,382	4,851,669	203,369	63,471,399
2043	63,171,838	4,962,744	197,020	63,038,634
2044	62,572,086	5,053,912	189,747	62,434,267
2045	61,808,902	5,103,856	185,590	61,667,891
2046	60,922,206	5,182,546	182,731	60,777,573
2047	59,875,130	5,210,806	179,446	59,727,351
2048	58,709,687	5,251,411	174,879	58,560,831
2049	57,406,915	5,268,768	172,682	57,256,433
2050	55,985,029	5,259,430	171,110	55,833,135
2051	54,465,293	5,263,462	168,447	54,313,234
2052	52,827,641	5,221,959	166,811	52,675,472
2053	51,113,523	5,172,571	164,700	50,961,941
2054	49,326,185	5,114,324	161,617	49,176,294
2055	47,470,848	5,046,979	159,409	47,322,401
2056	45,553,718	4,972,068	157,169	45,406,872
2057	43,578,318	4,887,750	154,341	43,434,074
2058	41,552,068	4,795,648	152,321	41,409,712
2059	39,479,485	4,694,693	149,215	39,340,032
2060	37,366,484	4,583,590	145,853	37,230,173
2061	35,220,766	4,461,243	142,159	35,087,907
2062	33,051,684	4,326,336	138,076	32,922,641
2063	30,870,630	4,177,993	133,581	30,745,788
2064	28,690,702	4,015,790	128,646	28,570,472
2065	26,526,374	3,840,190	123,278	26,411,161
2066	24,392,662	3,652,513	117,503	24,282,846
2067	22,304,283	3,453,877	111,385	22,200,185
2068	20,275,791	3,246,074	104,923	20,177,732
2069	18,320,964	3,032,230	98,250	18,229,142
2070	16,451,267	2,814,680	91,425	16,365,823



## SECTION 5: CALCULATION OF SINGLE DISCOUNT RATE

Year	Accrued Liability	Benefit Payments	Contribution	Market Value of Assets
2071	14,676,550	2,595,334	84,532	14,597,548
2072	13,005,345	2,376,748	77,604	12,932,818
2073	11,444,184	2,162,087	70,784	11,378,031
2074	9,996,721	1,952,930	64,117	9,936,799
2075	8,665,222	1,750,447	57,648	8,611,345
2076	7,450,890	1,556,354	51,409	7,402,844
2077	6,353,260	1,372,774	45,484	6,310,752
2078	5,369,606	1,200,424	39,913	5,332,304
2079	4,496,244	1,039,509	34,695	4,463,819
2080	3,729,029	890,997	29,847	3,701,135
2081	3,062,537	755,840	25,416	3,038,784
2082	2,489,957	634,305	21,413	2,469,945
2083	2,003,720	526,310	17,840	1,987,047
2084	1,595,805	431,608	14,689	1,582,077
2085	1,257,890	349,891	11,953	1,246,719
2086	981,383	280,445	9,616	972,396
2087	757,826	222,215	7,649	750,677
2088	579,260	174,085	6,014	573,639
2089	438,329	134,926	4,677	433,958
2090	328,332	103,468	3,598	324,969
2091	243,416	78,499	2,739	240,856
2092	178,581	58,942	2,063	176,653
2093	129,595	43,807	1,538	128,158
2094	92,962	32,219	1,135	91,901
2095	65,849	23,420	829	65,074
2096	46,015	16,803	597	45,457
2097	31,696	11,890	425	31,299
2098	21,499	8,279	296	21,222
2099	14,356	5,672	203	14,166
2100	9,436	3,825	139	9,306
2101	6,100	2,535	93	6,013
2102	3,877	1,648	60	3,821
2103	2,425	1,051	39	2,389
2104	1,496	664	25	1,473
2105	906	413	15	892
2106	538	250	10	529
2107	313	149	4	309





**VILLAGE OF BENSENVILLE**  
**BENSENVILLE POLICE PENSION FUND**

Actuarial Valuation Report  
For the Year  
Beginning January 1, 2012  
And Ending December 31, 2012

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*Timothy W. Sharpe, Actuary, Geneva, IL (630) 262-0600*

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## INTRODUCTION

Police-sworn personnel of the Village of Bensenville are covered by the Police Pension Plan that is a defined-benefit, single-employer pension plan. The purpose of this report is to disclose the Tax Levy Requirement and GASB Statements No. 25 & 27 financial information and related actuarial information for the year beginning January 1, 2012, and ending December 31, 2012.

The valuation results reported herein are based on plan provisions in effect as of January 1, 2012, the employee data furnished by the Village, the financial data provided by the Fund's trustee and the actuarial methods and assumptions described later in this report. I hereby certify that this report is complete and accurate and fairly presents the actuarial position of the Fund as of December 31, 2011, in accordance with generally accepted actuarial principles and procedures. In my opinion, the assumptions used are reasonably related to the experience of the Plan and to reasonable expectations.

Respectfully submitted,



Timothy W. Sharpe, EA, MAAA  
Enrolled Actuary No. 11-4384

11/12/2012

Date

## SUMMARY OF RESULTS

There were no changes with respect to Plan Provisions, Actuarial Methods or Actuarial Assumptions from the prior year.

There were no unexpected changes with respect to the participants included in this actuarial valuation (2 new members, 0 terminations, 1 retirement, 0 incidents of disability, annual payroll increase 3.5%, average salary increase 2.2%).

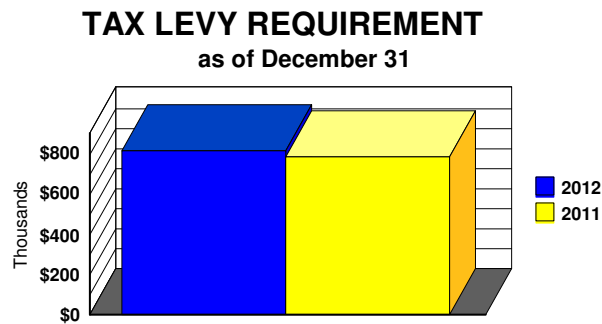
There were no unexpected changes with respect to the Fund's investments from the prior year (annual investment return 1.73%).

The Village's Tax Levy Requirement has increased from \$787,962 last year to \$819,367 this year (4.0%). The increase in the Tax Levy is due to the increase in salaries and the investment return was less than assumed, and was offset due to using 5-year market averaging. The Percent Funded has increased slightly from 54.8% last year to 54.9% this year.



## SUMMARY OF RESULTS (Continued)

	For Year Ending December 31	
	<u>2012</u>	<u>2011</u>
Tax Levy Requirement	\$ 819,367	\$ 787,962
	as of January 1	
	<u>2012</u>	<u>2011</u>
Village Normal Cost	254,291	258,622
Anticipated Employee Contributions	250,769	242,278
Accrued Liability	23,970,987	22,868,030
Actuarial Value of Assets	13,169,074	12,539,774
Unfunded Accrued Liability/(Surplus)	10,801,913	10,328,256
Amortization of Unfunded Accrued Liability/(Surplus)	507,911	474,366
Percent Funded	54.9%	54.8%
Annual Payroll	\$ 2,530,466	\$ 2,444,783

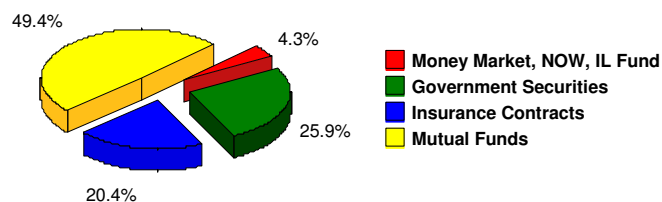


## ACTUARIAL VALUATION OF ASSETS

		as of January 1	
	<u>2012</u>		<u>2011</u>
Money Market, NOW, IL Fund	\$ 517,782	\$	1,553,211
Government Securities	3,136,461		2,730,068
Insurance Contracts	2,472,975		2,634,447
Mutual Funds	5,970,721		5,632,398
Contribution Receivable	489,857		0
Interest Receivable	17,553		0
Miscellaneous Receivable/(Payable)	<u>(11,375)</u>		<u>(10,351)</u>
Market Value of Assets	<u>12,593,974</u>		<u>12,539,774</u>
Actuarial Value of Assets	\$ 13,169,074	\$	

FYE 2012 (Gain)/Loss: \$718,875

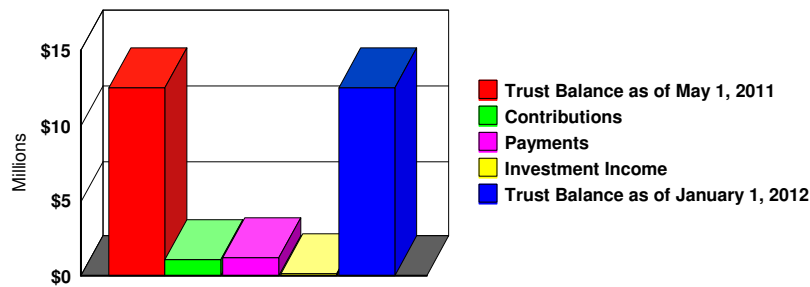
### SUMMARY OF ASSETS As Of January 1, 2012



## ASSET CHANGES DURING PRIOR YEAR

Trust Balance as of January 1, 2011		\$	12,539,774
Contributions			
Village	789,231		
Employee	<u>285,713</u>		
Total			1,074,944
Payments			
Benefit Payments	1,178,501		
Expenses	<u>57,800</u>		
Total			1,236,301
Investment Income			<u>215,557</u>
Trust Balance as of January 1, 2012		\$	<u>12,593,974</u>
Approximate Annual Rate of Return			1.73%

## ASSET CHANGES DURING PRIOR YEAR

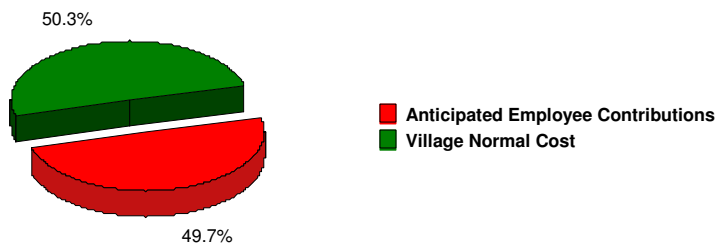


## NORMAL COST

The Normal Cost is the actuarial present value of the portion of the projected benefits that are expected to accrue during the year based upon the actuarial valuation method and actuarial assumptions employed in the valuation.

	as of January 1	
	<u>2012</u>	<u>2011</u>
Total Normal Cost	\$ 505,060	\$ 500,900
Anticipated Employee Contributions	<u>250,769</u>	<u>242,278</u>
Village Normal Cost	<u>254,291</u>	<u>258,622</u>
Normal Cost Payroll	\$ 2,530,466	\$ 2,444,783
Village Normal Cost Rate	10.05%	10.58%
Total Normal Cost Rate	19.96%	20.49%

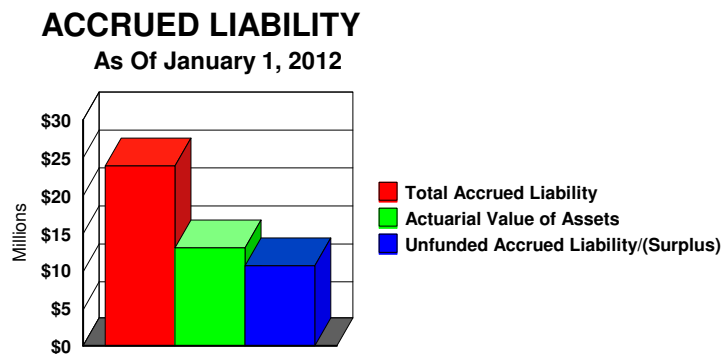
### NORMAL COST As Of January 1, 2012



## ACCRUED LIABILITY

The Accrued Liability is the actuarial present value of the portion of the projected benefits that has been accrued as of the valuation date based upon the actuarial valuation method and actuarial assumptions employed in the valuation. The Unfunded Accrued Liability is the excess of the Accrued Liability over the Actuarial Value of Assets.

	as of January 1	
Accrued Liability	<u>2012</u>	<u>2011</u>
Active Employees	\$ 8,831,381	\$ 8,665,458
Children Annuities	0	0
Disability Annuities	5,253,425	5,212,886
Retirement Annuities	8,325,137	7,478,516
Surviving Spouse Annuities	558,989	579,026
Terminated Vested Annuities	<u>1,002,055</u>	<u>932,144</u>
Total Annuities	15,139,606	14,202,572
Total Accrued Liability	23,970,987	22,868,030
Actuarial Value of Assets	<u>13,169,074</u>	<u>12,539,774</u>
Unfunded Accrued Liability/(Surplus)	\$ <u>10,801,913</u>	\$ <u>10,328,256</u>
Percent Funded	54.9%	54.8%

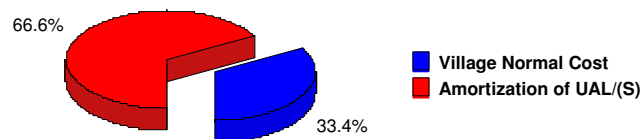


## TAX LEVY REQUIREMENT

The Tax Levy Requirement is determined as the annual contribution necessary to fund the normal cost, plus the amount to amortize the excess (if any) of ninety percent (90%) of the accrued liability over the actuarial value of assets as a level percentage of payroll over a thirty (30) year period which commenced in 2011, plus an adjustment for interest. Prior to 2011, the amortization amount was equal to the amount to amortize the unfunded accrued liability as a level percentage of payroll over a forty (40) year period which commenced in 1993. Beginning in 2011, the amortization period has been reset to 30 years.

	For Year Ending December 31	
	<u>2012</u>	<u>2011</u>
Village Normal Cost as of Beginning of Year	\$ 254,291	\$ 258,622
Amortization of Unfunded Accrued Liability/(Surplus)	507,911	474,366
Interest for One Year	<u>57,165</u>	<u>54,974</u>
Tax Levy Requirement as of End of Year	\$ <u>819,367</u>	\$ <u>787,962</u>
Public Act 096-1495 Tax Levy Requirement		
1) Normal Cost (PUC)	297,617	265,683
2) Accrued Liability (PUC)	23,157,524	22,163,156
3) Amortization Payment	360,774	340,199
4) Interest for One Year	49,379	45,441
5) PA 096-1495 Tax Levy Requirement (1 + 3 + 4)	\$ 707,770	651,323

### TAX LEVY REQUIREMENT For Fiscal Year Ending December 31, 2012



## SUMMARY OF PLAN PARTICIPANTS

The actuarial valuation of the Plan is based upon the employee data furnished by the Village.  
The information provided for Active participants included:

Name  
Sex  
Date of Birth  
Date of Hire  
Compensation  
Employee Contributions

The information provided for Inactive participants included:

Name  
Sex  
Date of Birth  
Date of Pension Commencement  
Monthly Pension Benefit  
Form of Payment

Membership	<u>2012</u>	<u>2012</u>	<u>2011</u>	<u>2011</u>
Current Employees				
Vested	20		21	
Nonvested	<u>13</u>		<u>11</u>	
Total	<u>33</u>		<u>32</u>	
Inactive Participants		<u>Annual Benefits</u>		<u>Annual Benefits</u>
Children	0 \$	0	0 \$	0
Disabled Employees	8	337,307	8	336,303
Retired Employees	16	685,019	15	608,997
Surviving Spouses	3	88,253	3	88,253
Terminated Vesteds	<u>6</u>	<u>168,146</u>	<u>6</u>	<u>168,146</u>
Total	<u>33</u>	<u>1,278,725</u>	<u>32</u>	<u>1,201,699</u>
Annual Payroll	\$	2,530,466	\$	2,444,783

## SUMMARY OF PLAN PARTICIPANTS (Continued)

### Age and Service Distribution

Service Age	0-4	5-9	10-14	15-19	20-24	25-29	30+	Total	Salary
20-24									
25-29	4							4	62,150
30-34	4	6	1					11	72,155
35-39	1	2	5					8	77,724
40-44		1	1	1				3	78,042
45-49			1		2			3	93,655
50-54			1			2		3	91,076
55-59								0	
60+			1					1	78,042
Total	<u>9</u>	<u>9</u>	<u>10</u>	<u>1</u>	<u>2</u>	<u>2</u>	<u>0</u>	<u>33</u>	<u>76,681</u>
Salary	60,831	79,364	80,471	78,042	95,389	97,594			

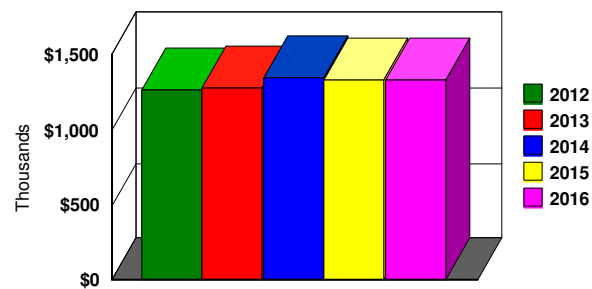
Average Age: 37.7      Average Service: 9.5

DURATION (years)    Active Members: 20.3    Retired Members: 10.6    All Members: 14.0

## PROJECTED PENSION PAYMENTS

<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
\$1,261,840	\$1,277,664	\$1,341,569	\$1,337,113	\$1,330,739

### PROJECTED PENSION PAYMENTS 2012-2016





## SUMMARY OF PLAN PROVISIONS

The Plan Provisions have been changed from the prior year (discussion at page 4).

The Village of Bensenville Police Pension Fund was created and is administered as prescribed by "Article 3. Police Pension Fund - Municipalities 500,000 and Under" of the Illinois Pension Code (Illinois Compiled Statutes, 1992, Chapter 40). A brief summary of the plan provisions is provided below.

Employees attaining the age of (50) or more with (20) or more years of creditable service are entitled to receive an annual retirement benefit of (2.5%) of final salary for each year of service up to (30) years, to a maximum of (75%) of such salary.

Employees with at least (8) years but less than (20) years of credited service may retire at or after age (60) and receive a reduced benefit of (2.5%) of final salary for each year of service.

Surviving spouses receive (100%) of final salary for fatalities resulting from an act of duty, or otherwise the greater of (50%) of final salary or the employee's retirement benefit.

Employees disabled in the line of duty receive (65%) of final salary.

The monthly pension of a covered employee who retired with (20) or more years of service after January 1, 1977, shall be increased annually, following the first anniversary date of retirement and be paid upon reaching the age of at least (55) years, by (3%) of the originally granted pension. Beginning with increases granted on or after July 1, 1993, the second and subsequent automatic annual increases shall be calculated as (3%) of the amount of the pension payable at the time of the increase.

Employees are required to contribute (9.91%) of their base salary to the Police Pension Plan. If an employee leaves covered employment with less than (20) years of service, accumulated employee contributions may be refunded without accumulated interest.

For Employees hired after January 1, 2011, the Normal Retirement age is attainment of age 55 and completion of 10 years of service; Early Retirement age is attainment of age 50, completion of 10 years of service and the Early Retirement Factor is 6% per year; the Employee's Accrued Benefit is based on the Employee's final 8-year average salary not to exceed \$106,800 (as indexed); Cost-of-living adjustments are simple increases (not compounded) of the lesser of 3% or 50% of CPI beginning the later of the anniversary date and age 60; Surviving Spouse's Benefits are 66 2/3% of the Employee's benefit at the time of death.

## ACTUARIAL METHODS

The Actuarial Methods employed for this valuation are as follows:

### Projected Unit Credit Cost Method (for years beginning on or after 2011 for PA 096-1495)

Under the Projected Unit Credit Cost Method, the Normal Cost is the present value of the projected benefit (including projected salary increases) earned during the year.

The Accrued Liability is the present value of the projected benefit (including projected salary increases) earned as of the actuarial valuation date. The Unfunded Accrued Liability is the excess of the Accrued Liability over the plan's assets. Experience gains or losses adjust the Unfunded Accrued Liability.

### Entry Age Normal Cost Method

Under the Entry Age Normal Cost Method the Normal Cost for each participant is computed as the level percentage of pay which, if paid from the earliest age the participant is eligible to enter the plan until retirement or termination, will accumulate with interest to sufficiently fund all benefits under the plan. The Normal Cost for the plan is determined as the greater of a) the sum of the Normal Costs for all active participants, and b) 17.5% of the total payroll of all active participants.

The Accrued Liability is the theoretical amount that would have accumulated had annual contributions equal to the Normal Cost been paid. The Unfunded Accrued Liability is the excess of the Accrued Liability over the plan's assets. Experience gains or losses adjust the Unfunded Accrued Liability.

## ACTUARIAL ASSUMPTIONS

The Actuarial Assumptions used for determining the Tax Levy Requirement and GASB Statements No. 25 & 27 Disclosure Information are the same (except where noted) and have not been changed from the prior year. The Actuarial Assumptions employed for this valuation are as follows:

Valuation Date	January 1, 2012
Asset Valuation Method	5-year Average Market Value
Investment Return	7.50%
Salary Scale	5.00%
Mortality	1971 Group Annuity Mortality Table
Withdrawal	State of Illinois DOI Experience Rates
Disability	State of Illinois DOI Experience Rates
Retirement	State of Illinois DOI Experience Rates (100% by Age 62)
Marital Status	80% Married, Female spouses 3 years younger
Plan Expenses	None

<u>Sample Annual Rates Per 100 Participants</u>				
<u>Age</u>	<u>Mortality</u>	<u>Withdrawal</u>	<u>Disability</u>	<u>Retirement</u>
20	0.05	6.00	0.07	
30	0.81	5.10	0.10	
40	0.16	2.85	0.20	
50	0.53		0.52	20.00
60	1.31		0.60	83.33
62	1.59			100.00

## GASB STATEMENTS NO. 25 & 27 DISCLOSURE INFORMATION

The Governmental Accounting Standards Board (GASB) issued Statements No. 25 & 27 that established generally accepted accounting principles for the annual financial statements for defined benefit pension plans. The required information is as follows:

Membership in the plan consisted of the following as of:

	<u>December 31, 2011</u>	<u>December 31, 2010</u>
Retirees and beneficiaries receiving benefits	27	26
Terminated plan members entitled to but not yet receiving benefits	6	6
Active vested plan members	20	21
Active nonvested plan members	<u>13</u>	<u>11</u>
Total	<u>66</u>	<u>64</u>
Number of participating employers	1	1

## SCHEDULE OF FUNDING PROGRESS

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) -Entry Age (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)
04/30/10	11,550,751	21,604,610	10,053,859	53.5%	2,406,640	417.8%
12/31/10	12,539,774	22,868,030	10,328,256	54.8%	2,444,783	422.5%
12/31/11	12,593,974	23,970,987	11,377,013	52.5%	2,530,466	449.6%

GASB STATEMENTS NO. 25 & 27 DISCLOSURE INFORMATION (Continued)

ANNUAL PENSION COST AND NET PENSION OBLIGATION

	<u>December 31, 2011</u>	<u>December 31, 2010</u>
Annual required contribution	879,721	586,481
Interest on net pension obligation	171,043	182,811
Adjustment to annual required contribution	<u>(107,238)</u>	<u>(138,844)</u>
Annual pension cost	943,526	630,448
Contributions made	<u>789,231</u>	<u>865,812</u>
Increase (decrease) in net pension obligation	154,295	(235,364)
Net pension obligation beginning of year	<u>3,420,860</u>	<u>3,656,224</u>
Net pension obligation end of year	<u><u>3,575,155</u></u>	<u><u>3,420,860</u></u>

THREE-YEAR TREND INFORMATION

<u>Fiscal</u> <u>Year</u> <u>Ending</u>	<u>Annual</u> <u>Pension</u> <u>Cost (APC)</u>	<u>Percentage</u> <u>of APC</u> <u>Contributed</u>	<u>Net</u> <u>Pension</u> <u>Obligation</u>
04/30/10	950,738	23.2%	3,656,224
12/31/10	630,448	137.3%	3,420,860
12/31/11	943,526	83.6%	3,575,155

GASB STATEMENTS NO. 25 & 27 DISCLOSURE INFORMATION (Continued)

FUNDING POLICY AND ANNUAL PENSION COST

Contribution rates:

Village	31.19%	35.41%
Plan members	9.91%	Same

Annual pension cost	943,526	630,448
---------------------	---------	---------

Contributions made	789,231	865,812
--------------------	---------	---------

Actuarial valuation date	12/31/2011	12/31/2010
--------------------------	------------	------------

Actuarial cost method	Entry age	Same
-----------------------	-----------	------

Amortization period	Level percentage of pay, closed	Same
---------------------	---------------------------------	------

Remaining amortization period	29 years	30 years
-------------------------------	----------	----------

Asset valuation method	Market	Same
------------------------	--------	------

Actuarial assumptions:

Investment rate of return*	7.50%	Same
----------------------------	-------	------

Projected salary increases*	5.00%	Same
-----------------------------	-------	------

*Includes inflation at	3.00%	Same
------------------------	-------	------

Cost-of-living adjustments	3.00% per year	Same
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**VILLAGE OF BENSENVILLE**  
**BENSENVILLE POLICE PENSION FUND**

Actuarial Valuation Report

For the Year

Beginning May 1, 2008

And Ending April 30, 2009

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*Timothy W. Sharpe, Actuary, Geneva, IL (630) 262-0600*

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## INTRODUCTION

Police-sworn personnel of the Village of Bensenville are covered by the Police Pension Plan that is a defined-benefit, single-employer pension plan. The purpose of this report is to disclose the Tax Levy Requirement and GASB Statements No. 25 & 27 financial information and related actuarial information for the year beginning May 1, 2008, and ending April 30, 2009.

The valuation results reported herein are based on plan provisions in effect as of May 1, 2008, the employee data furnished by the Village, the financial data provided by the Fund's trustee and the actuarial methods and assumptions described later in this report. I hereby certify that this report is complete and accurate and fairly presents the actuarial position of the Fund as of April 30, 2008, in accordance with generally accepted actuarial principles and procedures. In my opinion, the assumptions used are reasonably related to the experience of the Plan and to reasonable expectations.

Respectfully submitted,

Timothy W. Sharpe, EA, MAAA  
Enrolled Actuary No. 08-4384

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Date

## SUMMARY OF RESULTS

There were no changes with respect to Plan Provisions, Actuarial Methods or Actuarial Assumptions from the prior year. The last actuarial valuation was completed two years ago (2006).

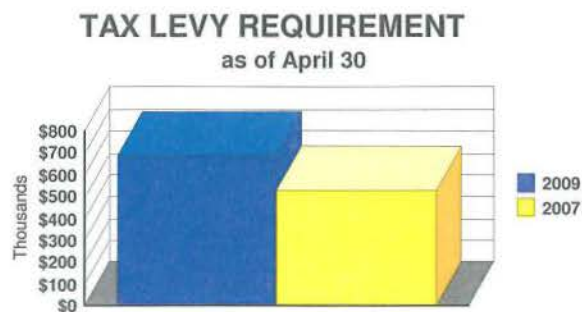
There were no unexpected changes with respect to the participants included in this actuarial valuation (3 new members, 5 terminations, 2 retirements, 1 incident of disability, 2-year annual payroll increase 3.6%, 2-year average salary increase 24.9%).

There were no unexpected changes with respect to the Fund's investments from the prior year (annual investment return 2.48%).

The Village's Tax Levy Requirement has increased from \$528,565 (2006) to \$690,236 this year (30.6%). The increase in the Tax Levy is due to the increase in salaries and the Village contributions were less than the Tax Levy Requirements. The Percent Funded has decreased from 71.9% (2006) to 63.3% this year.

# SUMMARY OF RESULTS (Continued)

	For Year Ending April 30	
	<u>2009</u>	<u>2007</u>
Tax Levy Requirement	\$ 690,236	\$ 528,565
	as of May 1	
	<u>2008</u>	<u>2006</u>
Village Normal Cost	245,757	248,383
Anticipated Employee Contributions	214,699	207,235
Accrued Liability	20,643,852	17,538,690
Actuarial Value of Assets	13,065,169	12,619,030
Unfunded Accrued Liability/(Surplus)	7,578,683	4,919,660
Amortization of Unfunded Accrued Liability/(Surplus)	396,323	243,305
Percent Funded	63.3%	71.9%
Annual Payroll	\$ 2,166,492	\$ 2,091,172

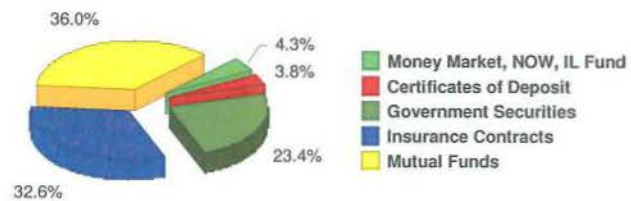


## ACTUARIAL VALUATION OF ASSETS

		as of May 1	
	<u>2008</u>		<u>2006</u>
Money Market, NOW, IL Fund	\$ 555,989	\$	918,034
Certificates of Deposit	500,000		0
Government Securities	3,048,126		2,065,189
Insurance Contracts	4,250,036		5,176,244
Mutual Funds	4,693,387		4,452,666
Interest Receivable	2,540		0
Miscellaneous Receivable/(Payable)	<u>15,092</u>		<u>6,898</u>
Actuarial Value of Assets	\$ <u>13,065,169</u>	\$	<u>12,619,030</u>

## SUMMARY OF ASSETS

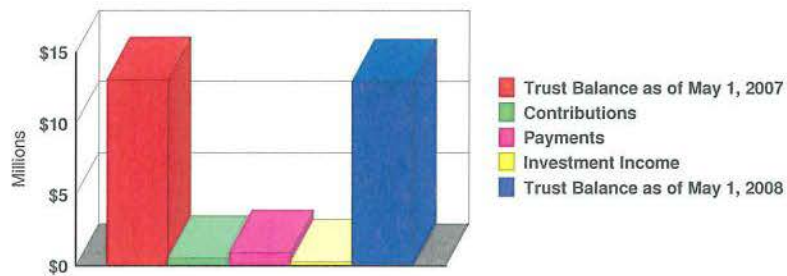
As Of May 1, 2008



## ASSET CHANGES DURING PRIOR YEAR

Trust Balance as of May 1, 2007		\$	13,160,332
Contributions			
Village	109,367		
Employee	<u>463,875</u>		
Total			573,241
Payments			
Benefit Payments	948,890		
Expenses	<u>40,836</u>		
Total			989,726
Investment Income			<u>321,322</u>
Trust Balance as of May 1, 2008		\$	<u>13,065,169</u>
Approximate Annual Rate of Return			2.48%

## ASSET CHANGES DURING PRIOR YEAR



## NORMAL COST

The Normal Cost is the actuarial present value of the portion of the projected benefits that are expected to accrue during the year based upon the actuarial valuation method and actuarial assumptions employed in the valuation.

		as of May 1	
		<u>2008</u>	<u>2006</u>
Total Normal Cost	\$	460,456	\$ 455,618
Anticipated Employee Contributions		<u>214,699</u>	<u>207,235</u>
Village Normal Cost		<u>245,757</u>	<u>248,383</u>
Normal Cost Payroll	\$	2,166,492	\$ 2,091,172
Village Normal Cost Rate		11.34%	11.88%
Total Normal Cost Rate		21.25%	21.79%

### NORMAL COST

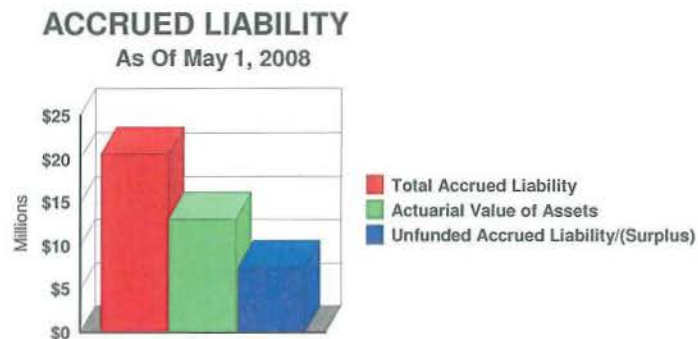
As Of May 1, 2008



## ACCRUED LIABILITY

The Accrued Liability is the actuarial present value of the portion of the projected benefits that has been accrued as of the valuation date based upon the actuarial valuation method and actuarial assumptions employed in the valuation. The Unfunded Accrued Liability is the excess of the Accrued Liability over the Actuarial Value of Assets.

	as of May 1	
Accrued Liability	<u>2008</u>	<u>2006</u>
Active Employees	\$ 7,744,714	\$ 6,729,425
Children Annuities	0	0
Disability Annuities	3,802,813	2,914,864
Retirement Annuities	7,928,966	6,284,835
Surviving Spouse Annuities	496,690	528,084
Terminated Vested Annuities	<u>670,669</u>	<u>1,081,482</u>
Total Annuities	12,899,138	10,809,265
 Total Accrued Liability	 20,643,852	 17,538,690
 Actuarial Value of Assets	 <u>13,065,169</u>	 <u>12,619,030</u>
 Unfunded Accrued Liability/(Surplus)	 \$ <u>7,578,683</u>	 \$ <u>4,919,660</u>
 Percent Funded	 63.3%	 71.9%



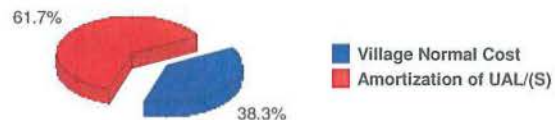
## TAX LEVY REQUIREMENT

The Tax Levy Requirement is determined as the annual contribution necessary to fund the normal cost, plus the amount to amortize the unfunded accrued liability as a level percentage of payroll over a forty (40) year period which commenced in 1993, plus an adjustment for interest.

	For Year Ending April 30	
	<u>2009</u>	<u>2007</u>
Village Normal Cost as of Beginning of Year	\$ 245,757	\$ 248,383
Amortization of Unfunded Accrued Liability/(Surplus)	396,323	243,305
Interest for One Year	<u>48,156</u>	<u>36,877</u>
Tax Levy Requirement as of End of Year	\$ <u>690,236</u>	\$ <u>528,565</u>

## TAX LEVY REQUIREMENT

For Fiscal Year Ending April 30, 2009





## SUMMARY OF PLAN PARTICIPANTS

The actuarial valuation of the Plan is based upon the employee data furnished by the Village.  
The information provided for Active participants included:

Name  
Sex  
Date of Birth  
Date of Hire  
Compensation  
Employee Contributions

The information provided for Inactive participants included:

Name  
Sex  
Date of Birth  
Date of Pension Commencement  
Monthly Pension Benefit  
Form of Payment

Membership	<u>2008</u>	<u>2008</u>	<u>2006</u>	<u>2006</u>
Current Employees				
Vested	15		10	
Nonvested	<u>14</u>		<u>24</u>	
Total	<u>29</u>		<u>34</u>	
Inactive Participants		<u>Annual Benefits</u>		<u>Annual Benefits</u>
Children	0 \$	0	0 \$	0
Disabled Employees	6	247,701	5	185,132
Retired Employees	17	617,933	14	474,740
Surviving Spouses	3	69,642	3	69,642
Terminated Vesteds	<u>5</u>	<u>141,322</u>	<u>6</u>	<u>171,933</u>
Total	<u>31</u>	<u>1,076,598</u>	<u>28</u>	<u>901,447</u>
Annual Payroll	\$	2,166,492	\$	2,091,172

## SUMMARY OF PLAN PARTICIPANTS (Continued)

### Age and Service Distribution

Service Age	0-4	5-9	10-14	15-19	20-24	25-29	30+	Total	Salary
20-24									
25-29	4	2						6	64,158
30-34		5						5	77,734
35-39		5						5	74,095
40-44		1	2	2	1			6	76,567
45-49		2			3			5	80,778
50-54						1		1	81,788
55-59		1						1	77,319
60+									
Total	<u>4</u>	<u>16</u>	<u>2</u>	<u>2</u>	<u>4</u>	<u>1</u>	<u>0</u>	<u>29</u>	<u>74,707</u>
Salary	60,035	76,638	61,625	82,423	82,565	81,788			

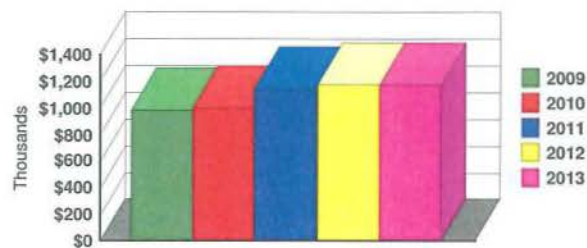
Average Age: 38.2      Average Service: 10.1

DURATION (years)    Active Members: 18.2    Retired Members: 10.9    All Members: 13.7

### PROJECTED PENSION PAYMENTS

<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>
\$992,527	\$995,990	\$1,140,820	\$1,181,879	\$1,181,573

### PROJECTED PENSION PAYMENTS 2009-2013



## SUMMARY OF PLAN PROVISIONS

The Plan Provisions have not been changed from the prior year.

The Village of Bensenville Police Pension Fund was created and is administered as prescribed by "Article 3. Police Pension Fund - Municipalities 500,000 and Under" of the Illinois Pension Code (Illinois Compiled Statutes, 1992, Chapter 40). A brief summary of the plan provisions is provided below.

Employees attaining the age of (50) or more with (20) or more years of creditable service are entitled to receive an annual retirement benefit of (2.5%) of final salary for each year of service up to (30) years, to a maximum of (75%) of such salary.

Employees with at least (8) years but less than (20) years of credited service may retire at or after age (60) and receive a reduced benefit of (2.5%) of final salary for each year of service.

Surviving spouses receive (100%) of final salary for fatalities resulting from an act of duty, or otherwise the greater of (50%) of final salary or the employee's retirement benefit.

Employees disabled in the line of duty receive (65%) of final salary.

The monthly pension of a covered employee who retired with (20) or more years of service after January 1, 1977, shall be increased annually, following the first anniversary date of retirement and be paid upon reaching the age of at least (55) years, by (3%) of the originally granted pension. Beginning with increases granted on or after July 1, 1993, the second and subsequent automatic annual increases shall be calculated as (3%) of the amount of the pension payable at the time of the increase.

Employees are required to contribute (9.91%) of their base salary to the Police Pension Plan. If an employee leaves covered employment with less than (20) years of service, accumulated employee contributions may be refunded without accumulated interest.

## ACTUARIAL METHODS

The Actuarial Methods used for determining the Tax Levy and GASB Statements No. 25 & 27 financial disclosure have not been changed from the prior year. The Actuarial Method employed for this valuation is as follows:

### Entry Age Normal Cost Method

Under the Entry Age Normal Cost Method the Normal Cost for each participant is computed as the level percentage of pay which, if paid from the earliest age the participant is eligible to enter the plan until retirement or termination, will accumulate with interest to sufficiently fund all benefits under the plan. The Normal Cost for the plan is determined as the sum of the Normal Costs for all active participants.

The Accrued Liability is the theoretical amount that would have accumulated had annual contributions equal to the Normal Cost been paid. The Unfunded Accrued Liability is the excess of the Accrued Liability over the plan's assets. Experience gains or losses adjust the Unfunded Accrued Liability.

## ACTUARIAL ASSUMPTIONS

The Actuarial Assumptions used for determining the Tax Levy Requirement and GASB Statements No. 25 & 27 Disclosure Information are the same and have not been changed from the prior year. The Actuarial Assumptions employed for this valuation are as follows:

Valuation Date	May 1, 2008
Asset Valuation Method	Market Value
Investment Return	7.50%
Salary Scale	5.00%
Mortality	1971 Group Annuity Mortality Table
Withdrawal	State of Illinois DOI Experience Rates
Disability	State of Illinois DOI Experience Rates
Retirement	State of Illinois DOI Experience Rates (100% by Age 62)
Marital Status	80% Married, Spouse Same Age
Plan Expenses	None

### Sample Annual Rates Per 100 Participants

<u>Age</u>	<u>Mortality</u>	<u>Withdrawal</u>	<u>Disability</u>	<u>Retirement</u>
20	0.05	6.00	0.07	
30	0.81	5.10	0.10	
40	0.16	2.85	0.20	
50	0.53		0.52	20.00
60	1.31		0.60	83.33
62	1.59			100.00

## GASB STATEMENTS NO. 25 & 27 DISCLOSURE INFORMATION

The Governmental Accounting Standards Board (GASB) issued Statements No. 25 & 27 that established generally accepted accounting principles for the annual financial statements for defined benefit pension plans. The required information is as follows:

Membership in the plan consisted of the following as of:

	<u>April 30, 2008</u>	<u>April 30, 2006</u>
Retirees and beneficiaries receiving benefits	26	22
Terminated plan members entitled to but not yet receiving benefits	5	6
Active vested plan members	15	10
Active nonvested plan members	<u>14</u>	<u>24</u>
Total	<u>60</u>	<u>62</u>
Number of participating employers	1	1

## SCHEDULE OF FUNDING PROGRESS

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) -Entry Age (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)
04/30/04	11,617,747	15,067,945	3,450,198	77.1%	2,164,096	159.4%
04/30/06	12,619,030	17,538,690	4,919,660	71.9%	2,091,172	235.3%
04/30/08	13,065,169	20,643,852	7,578,683	63.3%	2,166,492	349.8%

GASB STATEMENTS NO. 25 & 27 DISCLOSURE INFORMATION (Continued)

ANNUAL PENSION COST AND NET PENSION OBLIGATION

	<u>April 30, 2008</u>	<u>April 30, 2006</u>
Annual required contribution	528,565	226,485
Interest on net pension obligation	138,154	124,648
Adjustment to annual required contribution	<u>(95,840)</u>	<u>(82,002)</u>
Annual pension cost	570,879	269,131
Contributions made	<u>109,367</u>	<u>89,041</u>
Increase (decrease) in net pension obligation	461,512	180,090
Net pension obligation beginning of year	<u>1,842,058</u>	<u>1,661,968</u>
Net pension obligation end of year	<u>2,303,570</u>	<u>1,842,058</u>

THREE-YEAR TREND INFORMATION

<u>Fiscal Year Ending</u>	<u>Annual Pension Cost (APC)</u>	<u>Percentage of APC Contributed</u>	<u>Net Pension Obligation</u>
04/30/04	103,891	82.7%	1,661,968
04/30/06	269,131	33.1%	1,842,058
04/30/08	570,879	19.2%	2,303,570

GASB STATEMENTS NO. 25 & 27 DISCLOSURE INFORMATION (Continued)

FUNDING POLICY AND ANNUAL PENSION COST

Contribution rates:

Village	5.05%	4.26%
Plan members	9.91%	Same

Annual pension cost	570,879	269,131
---------------------	---------	---------

Contributions made	109,367	89,041
--------------------	---------	--------

Actuarial valuation date	04/30/2008	04/30/2006
--------------------------	------------	------------

Actuarial cost method	Entry age	Same
-----------------------	-----------	------

Amortization period	Level percentage of pay, closed	Same
---------------------	---------------------------------	------

Remaining amortization period	25 years	26 years
-------------------------------	----------	----------

Asset valuation method	Market	Same
------------------------	--------	------

Actuarial assumptions:

Investment rate of return*	7.50%	Same
Projected salary increases*	5.00%	Same

*Includes inflation at	3.00%	Same
------------------------	-------	------

Cost-of-living adjustments	3.00% per year	Same
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**VILLAGE OF BENSENVILLE**

**ACCOUNTING FOR POST-EMPLOYMENT  
BENEFIT PLANS UNDER GASB #45  
FOR  
FISCAL YEAR ENDING DECEMBER 31, 2016**

**APRIL 2017**



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## SECTION ONE: BACKGROUND

### RETIREE MEDICAL PLAN

The Village of Bensenville sponsors health benefit plans for employees and retired former employees. The provisions of the programs are summarized in the appendices of this study, but in general, the Village subsidizes a portion of the cost for hospital and medical coverage for eligible retired employees and their dependents. The subsidy is an implied age related cost differential based upon the expected higher cost of coverage for retired employees versus the average cost for the entire group.

In 2004, the Government Accounting Standards Board released two new statements (GASB #43 and #45) detailing rules as to how governmental employers must account for postretirement benefit plans other than pension plans (pension plans are already accounted for under the rules of a prior statement). The acronym *OPEB* refers to Other Post-Employment Benefits and an OPEB plan refers to retirement plans other than pensions.

### FUNDING VERSUS ACCOUNTING

Accounting standards affect the definition, measurement and allocation of liabilities and expenses that are published by employers in their annual financial statements. The accounting statements require employers to accrue costs on their books, but do not require employers to make contributions.

Nonetheless, accounting liabilities under GASB standards are impacted by the level of employer funding. In general, pre-funded programs earn investment income on accumulated assets which pay as you go programs do not. The investment income from pre-funded plans lowers the amount of contributions required from the employer and is reflected and anticipated in the accounting liabilities via the assumed rate of return (discount rate).

### FUNDING PATTERNS

An employee hired at age 20 will not begin to receive retiree health benefits for decades, although the employee earns these benefits during his working years, before retirement. An employer with young employees and no retirees has no cash disbursements for retiree health benefits for many years, although the obligation for these benefits begins to accumulate with the first employee. Putting more money aside than will be paid out currently in anticipation of payouts in the future is called *pre-funding* an obligation. Whereas making payments only as each benefit amount comes due is called *pay-as-you-go* or *terminal* funding.

Systematic prefunding patterns for retirement benefits are developed according to various actuarial methodologies, which can call for increasing, decreasing or level patterns of annual contributions depending upon the demographics of the group and the financial considerations of an employer.



#### ACTUARIAL FUNDING METHOD AND ASSUMPTIONS

The Annual Required Contribution (ARC) can be determined under any of six acceptable actuarial methods defined under the GASB standards. For this report, liabilities and annual costs were developed under the most common actuarial methodology – *the entry age normal method*. This method is currently used for many governmental pension plans and is a fairly stable method that is consistent with level percentage of payroll funding.

The actuarial assumptions were selected to be consistent with assumptions disclosed in the pension plan valuations of similarly situated governmental employers. Two of the most significant assumptions affecting the measurement of retiree medical obligations are economic assumptions: the interest rate (also called discount rate), and the trend rate (the annual rate of increases in future health care costs). Two other very important assumptions are non-economic and both of which greatly affect the magnitude of retiree liabilities - the assumption regarding the ages at which employees will retire and commence benefits under the program, and the assumed level of participation (percentage of retirees electing to take coverage) in the plan. A description of each of the assumptions used is provided in Section Four of this report.

#### SUBSTANTIVE PLAN (BENEFIT PLAN PROVISIONS)

Under GASB, the benefit program to be valued is referred to as the *Substantive Plan*, which may or may not be set forth in a written document, but which includes the benefits which are understood by the employer, employees and other participants to be provided for under the program.

The Village's retiree medical plan provides continuation of employer subsidized health coverage (for the retiree and their dependents, if any) upon the retirement from the Village after meeting the age and service requirements for retirement.

#### DATA

The calculations in this report are based upon data submitted by the Village of Bensenville for active and retired employees and their dependents.

#### CLAIMS COSTS

The costs of the benefit programs measured were based upon the premium rates and costs in effect at December 31, 2016.

#### GASB STATEMENT VALUATION COMPONENTS

The Statement requires several measurements. An **Actuarial Accrued Liability (AAL)** must be calculated and an **Annual Required Contribution (ARC)** must be developed. The Actuarial Accrued Liability is the portion of the total actuarial present value of plan benefits which is allocated (based upon the Actuarial Cost Method) to prior periods and not to be provided for by future **Normal Costs**. The Normal Cost represents the portion of benefit costs assigned to the current year.



### THE ANNUAL REQUIRED CONTRIBUTION

The Normal Cost represents the value of benefits under the Actuarial Cost Method being allocated to the valuation year. In addition to the Normal Cost, the current value of benefits attributable to accruals in prior years, the Unfunded Liability (UAL), must also be reflected. The Unfunded Actuarial Liability is the Actuarial Accrued Liability less any assets accumulated under a dedicated trust or fund for payment of the retiree health plan benefit liabilities. Under the GASB rules, the Unfunded Actuarial Liability costs may be amortized (spread) over a period of years not to exceed 30 years.

The Annual Required Contribution (ARC) is the sum of the Normal Cost for the valuation year, plus the Amortization Payment Cost of the Unfunded Accrued Liability.

### ACCOUNTING VALUATION

An accounting valuation is determined for the sole purpose of meeting Plan and employer financial accounting requirements as prescribed under GASB Statements and may not be appropriate for the determination of the contribution level or the Plans' funding requirements for other purposes.



## ACTUARIAL CERTIFICATION

This is to certify that MWM Consulting Group has prepared an Actuarial Valuation of the Plan as of December 31, 2016 for the primary purpose of providing financial accounting information required for compliance with GASB Statement No. 45. The results of this valuation have been prepared in conformance with our understanding of the relevant provisions of the GASB Statements Nos. 43 and 45.

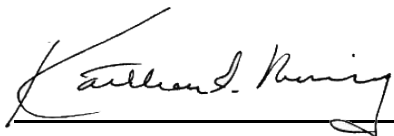
The information and valuation results shown in this report are prepared with reliance upon information and data provided to us, which we believe to the best of our knowledge to be complete and accurate and include:

- Employee census data submitted by the Village. This data was not audited by us but appears to be consistent with prior information, and sufficient and reliable for purposes of this report.
- Financial and Insurance data submitted by the Village
- Illinois statutory code provisions and Plan summaries as supplied by the Village

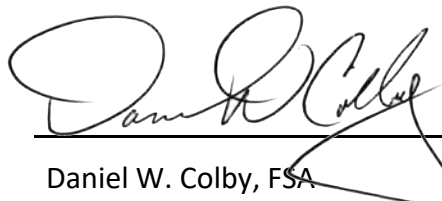
Actuarial valuations involve calculations that require assumptions about future events. We believe the assumptions and methods used are within the range of possible assumptions that are reasonable and appropriate for the purposes for which they have been used. Results shown in this report could be materially different from the actual outcome if actual plan experience differs from the assumptions used.

In our opinion, all methods, assumptions and calculations are in accordance with requirements of GASB Statements Nos. 43 and 45 and the procedures followed and presentation of results are in conformity with generally accepted actuarial principles and practices. The undersigned actuary meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. There is no relationship between the Village of Bensenville and MWM Consulting Group that impacts our objectivity.

### MWM CONSULTING GROUP



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(312) 987-9097

5/4/2017

Date



## SECTION TWO: RESULTS AND ANALYSIS

Liabilities are summarized by participant status (active-fully eligible, active not yet eligible, retired) and departmental categories.

### CLOSED GROUP VALUATION

This valuation has been prepared on a closed group valuation basis, meaning only the existing population has been considered.

### SUBSTANTIVE PLAN

The current plan of benefits valued was a continuation of coverage of the employee group health care plan. Retirees contribute the premium or monthly claims cost amounts applicable for active employees. The value of the subsidy for each participant is based upon the difference between the actuarially adjusted age related costs and the retiree contribution.

### ACTUARIAL COST METHOD

The Annual Required Contribution (ARC) and actuarial accrued liabilities were developed under the Entry Age Normal method.

### ANNUAL REQUIRED CONTRIBUTIONS

The ARC for the 2016 fiscal year is \$293,270 (3.5% of payroll). The ARC can be compared with the related actual cash outlay on a pay as you go basis. The related cash outlay for the plan also represents the minimum employer contribution if the plan remains unfunded. For the 2016 fiscal year, the annual pay-as-you-go cost is approximately \$94,850 (1.1% of payroll) versus the ARC amount of 3.5% of payroll.

### CHANGE IN ASSUMPTIONS

The discount rate was changed to 4.5% from 5.0%.

The healthcare trend rate assumption was changed to 8.5% grading down to 4.5% over eight years from 9% grading down to 5% over five years.

### EXHIBITS

Exhibits 1, 2 and 3 display liability amounts and selected valuation results including the Annual Required Contribution amounts.

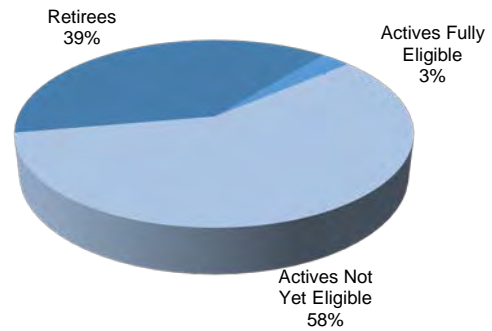


## Exhibit 1

### Present Value of Future Benefits as of December 31, 2016 for Fiscal Year Ending December 31, 2016

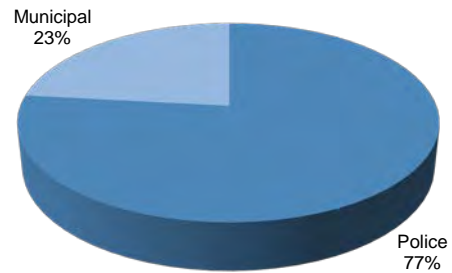
#### By Employee Status

Retirees	\$	1,704,474
Actives Fully Eligible		127,937
Actives Not Yet Eligible		2,578,093
<b>Total</b>	<b>\$</b>	<b>4,410,504</b>



#### By Category

Police	\$	3,384,833
Municipal		1,025,671
<b>Total</b>	<b>\$</b>	<b>4,410,504</b>



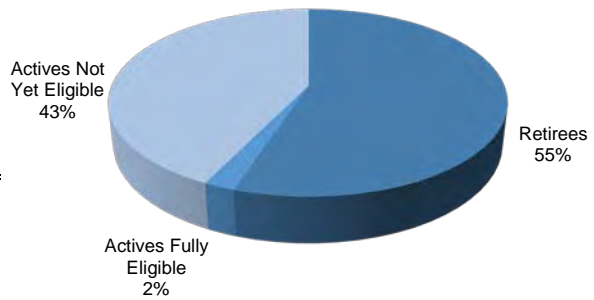


## Exhibit 2

### Actuarial Accrued Liability (AAL) as of December 31, 2016 for Fiscal Year Ending December 31, 2016

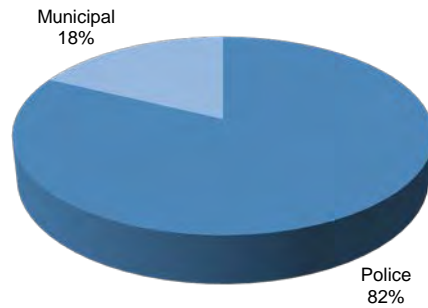
#### By Employee Status

Retirees	\$	1,704,474
Actives Fully Eligible		65,696
Actives Not Yet Eligible		1,323,855
<b>Total</b>	<b>\$</b>	<b>3,094,025</b>



#### By Category

Police	\$	2,544,186
Municipal		549,839
<b>Total</b>	<b>\$</b>	<b>3,094,025</b>



**EXHIBIT 3**

**ANNUAL REQUIRED CONTRIBUTION  
SUMMARY OF FISCAL YEAR ENDING  
DECEMBER 31, 2016**

**DISCOUNT RATE:** 4.50%

**HEALTH CARE TREND RATES** 8.5% in 2017 to 4.5% in 2024 and later

Item	Police	Municipal	Total
1. Accrued Liability	\$ 2,544,186	\$ 549,839	\$ 3,094,025
2. Actuarial Value of Assets	\$ 0	\$ 0	\$ 0
3. Unfunded Liability (1) – (2)	\$ 2,544,186	\$ 549,839	\$ 3,094,025
4. Normal Cost	\$ 65,903	\$ 45,599	\$ 111,502
5. Amortization Payment (30 Years)	\$ 149,466	\$ 32,302	\$ 181,768
6. Interest on (4) and (5)	\$ 0	\$ 0	\$ 0
7. Annual Required Contribution (4) + (5) + (6)	\$ 215,369	\$ 77,901	\$ 293,270
8. Valuation Payroll	\$ 3,046,334	\$ 5,269,102	\$ 8,315,436
AL % of Payroll	83.5%	10.4%	37.2%
ARC % of Payroll	7.1%	1.5%	3.5%
Pay as you go % of Payroll	2.3%	0.5%	1.1%



## SECTION THREE: ANNUAL REPORTING UNDER GASB 45

### ANNUAL OPEB COST

The GASB 45 Annual OPEB Cost has these three components:

- 1) **The Annual Required Contribution Amount** is the sum of a, b, and c.
  - a) **Normal Cost** is the portion of the Actuarial Present Value of benefits allocated to the valuation year according to the actuarial cost method.
  - b) **Amortization of the Unfunded Actuarial Accrued Liability** is the amount to be amortized over thirty years, of the excess of the Actuarial Accrued Liability over the fair value of assets, both measured at the valuation date.
  - c) **Amortization of Gains or Losses** in subsequent years, of the unfunded actuarial accrued liability which may be amortized separately or as part of the annual amortization of the unfunded actuarial accrued liability.
- 2) **The ARC Adjustment Amount**, an amount which is added / subtracted from the ARC to adjust the annual cost for amounts already accrued and reflected in the beginning of year Net OPEB Obligation.
- 3) **Interest** for the year at the valuation discount rate on the beginning of year Net OPEB Obligation.

### NET OPEB OBLIGATION

The Net OPEB Obligation is accrued on the financial statement as the amount of accumulated OPEB costs which remain unfunded as of the reporting date. For the first reporting period, the OPEB Cost is the ARC, and the yearend Net OPEB liability is the OPEB Cost less employer contributions. Exhibits on the following pages illustrate:

<b>EXHIBIT 4</b>	Components of Net Annual Obligation and Expense
<b>Exhibit 5</b>	Schedule of Contributions, OPEB Costs and Obligations
<b>EXHIBIT 6</b>	Schedule of Funded Status and Funding Progress
<b>EXHIBIT 7</b>	Required Supplementary Information



## PLAN DESCRIPTION

The Village of Bensenville provides the continuation of health care benefits to employees, who retire from the Village. Employees who terminate after reaching retirement eligibility in the plan are eligible to elect to continue their health care coverage by paying the monthly premium rate. Because the actuarial cost of health benefits for retirees exceeds the average amount paid by retirees, the additional cost is paid by the Village and is the basis for the OPEB obligation accounted for under GASB 45.

## ANNUAL OPEB COST AND NET OPEB OBLIGATION

The Village's annual other post-employment benefit (OPEB) cost is calculated based on the annual required contribution. The ARC (Annual Required Contribution) represents the normal cost each year and an amount to amortize the unfunded actuarial liability on a level basis over thirty years.

### EXHIBIT 4 COMPONENTS OF NET OPEB OBLIGATION AND EXPENSE

The following table shows the annual OPEB costs for the year, the amount contributed to the plan and changes in the net OPEB obligation. The *Net OPEB Obligation* is the amount entered as of yearend as the net liability for other post-employment benefits.

Item	Amount as of 12/31/2016		
	Police	Municipal	Total
a. Annual Required Contribution:	\$ 215,369	\$ 77,901	\$ 293,270
b. Interest on net OPEB obligation:	55,958	20,241	76,199
c. Adjustment to annual required contribution	<u>(69,336)</u>	<u>(25,080)</u>	<u>(94,416)</u>
d. Annual OPEB cost (expense) (a + b - c)	\$ 201,991	\$ 73,062	\$ 275,053
e. Contributions made	(68,723)	(26,127)	(94,850)
f. Increase in net OPEB obligation	133,268	46,935	180,203
g. Net OPEB obligation – beginning of year	1,119,161	404,811	1,523,972
<b>h. Net OPEB obligation – end of year (f + g)</b>	<b>\$ 1,252,429</b>	<b>\$ 451,746</b>	<b>\$ 1,704,175</b>

### EXHIBIT 5 SCHEDULE OF CONTRIBUTIONS, OPEB COSTS AND NET OBLIGATIONS

Fiscal Year Ended	Annual OPEB Cost	Percentage of Annual OPEB Cost Contributed	Net OPEB Obligation
12/31/16	\$275,053	34.48%	\$1,704,175
12/31/15	\$323,001	25.27%	\$1,523,972
12/31/14	\$184,185	42.21%	\$1,282,600
12/31/13	\$296,561	26.2%	\$1,176,157
12/31/12	\$230,835	17.3%	\$847,578
12/31/11	\$233,181	15.8%	\$656,621
12/31/10	\$175,898	14.4%	\$460,364
4/30/10	\$202,702	25.1%	\$309,873
4/30/09	\$204,590	22.8%	\$157,978



### FUNDED STATUS AND FUNDING PROGRESS

As of December 31, 2016, the actuarial accrued liability for benefits was \$3,094,025. The covered payroll was approximately \$8,315,436, and the ratio of the unfunded actuarial accrued liability to the covered payroll was 37.2%.

### ACTUARIAL METHOD AND ASSUMPTIONS

Projections of benefits for financial reporting purposes are based on the substantive plan (the plan understood by the employer and plan members) and include the benefits provided at the time of each valuation and the historical pattern of sharing of benefit costs between the employer and plan members.

In the actuarial valuation for the fiscal year ended December 31, 2016, the entry age normal cost method was used. A discount rate of 4.5% and a rate of salary increase of 3.5% was used. Also, included in the actuarial assumptions is an annual healthcare cost trend rate of 8.5% initially, reduced to an ultimate rate of 4.5% after eight years. Rates include a 2.5% general inflation assumption. The Unfunded Accrued Actuarial Liability is being amortized as a level dollar amount over 30 years.

### EXHIBIT 6 SCHEDULE OF FUNDED STATUS AND FUNDING PROGRESS

The funded status of the plan as of December 31, 2016:

	Police	Municipal	Total
1. Actuarial Accrued Liability (AAL)	\$ 2,544,186	\$ 549,839	\$ 3,094,025
2. Actuarial Value of Assets	0	0	0
3. Unfunded Actuarial Accrued Liability (UAAL)	\$ 2,544,186	\$ 549,839	\$ 3,094,025
4. Funded Ratio (2) / (1)	0%	0%	0%
5. Covered Payroll (Active Plan Members)	\$ 3,046,334	\$ 5,269,102	\$ 8,315,436
6. UAAL as a Percentage of Covered Payroll (3) / (5)	83.5%	10.4%	37.2%

### EXHIBIT 7 REQUIRED SUPPLEMENTARY INFORMATION

Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	Unfunded Actuarial Accrued Liability (UAAL)	Funded Ratio	Covered Payroll
12/31/16	\$0	\$3,094,025	\$3,094,025	0%	\$8,315,436
12/31/15	N/A	N/A	N/A	N/A	N/A
12/31/14	N/A	N/A	N/A	N/A	N/A
12/31/13	\$0	\$3,181,237	\$3,181,237	0%	\$7,824,749
12/31/12	\$0	\$2,217,824	\$2,217,824	0%	\$6,648,900
12/31/11	\$0	\$2,022,991	\$2,022,991	0%	\$6,424,058
12/31/10	\$0	\$1,799,457	\$1,799,457	0%	\$6,206,819
4/30/10	\$0	\$1,583,408	\$1,583,408	0%	\$6,419,918
4/30/09	\$0	\$1,441,086	\$1,441,086	0%	\$6,206,819



**SECTION FOUR:**  
**SUMMARY OF ACTUARIAL ASSUMPTIONS AND COST METHOD**

Item	12/31/2016 Valuation																		
ACTUARIAL COST METHOD	<p>The Actuarial Cost Method used in this valuation is the Entry Age Normal Actuarial Cost Method. Under this Method, a Normal Cost is developed by spreading the actuarial value of benefits expected to be received by each active participant over the total working lifetime of that participant, from hire to termination, as a level percentage of pay.</p> <p>To the extent that current assets and future Normal Costs do not support participants’ expected future benefits, an Unfunded Actuarial Accrued Liability (“UAAL”) develops. The UAAL is generally amortized over a defined period of time.</p>																		
DISCOUNT (INTEREST) RATE	A discount rate of 4.5% was used.																		
SALARY PROGRESSION	3.5% per year.																		
HEALTH PLAN PREMIUM COSTS(BLENDED RATE BASIS)	<table><tr><th>Coverage</th><th>BCBS PPO Monthly Cost*</th><th>BCBS HMO Monthly Cost*</th></tr><tr><td>Employee Only</td><td>\$ 736.68</td><td>\$ 654.32</td></tr><tr><td>Employee + Spouse</td><td>\$ 2,017.80</td><td>\$ 1,232.27</td></tr><tr><td>Employee + Children</td><td>\$ 1,779.01</td><td>\$ 1,307.17</td></tr><tr><td>Family</td><td>\$ 2,187.32</td><td>\$ 1,885.24</td></tr><tr><td>Medicare</td><td>\$ 589.81</td><td>\$ 495.34</td></tr></table> <p><i>* For valuation calculations, blended rates are adjusted to reflect the individual participant age through actuarial rate factors.</i></p>	Coverage	BCBS PPO Monthly Cost*	BCBS HMO Monthly Cost*	Employee Only	\$ 736.68	\$ 654.32	Employee + Spouse	\$ 2,017.80	\$ 1,232.27	Employee + Children	\$ 1,779.01	\$ 1,307.17	Family	\$ 2,187.32	\$ 1,885.24	Medicare	\$ 589.81	\$ 495.34
Coverage	BCBS PPO Monthly Cost*	BCBS HMO Monthly Cost*																	
Employee Only	\$ 736.68	\$ 654.32																	
Employee + Spouse	\$ 2,017.80	\$ 1,232.27																	
Employee + Children	\$ 1,779.01	\$ 1,307.17																	
Family	\$ 2,187.32	\$ 1,885.24																	
Medicare	\$ 589.81	\$ 495.34																	
MORTALITY	Probabilities of death for participants were according to the RP-2000 Combined Table for Males and Females with mortality improvements projected to 2016 but not beyond.																		



Actuarial Assumption Item	12/31/2016 Valuation																																																																		
RETIREMENT	<p>Representative retirement rates by age are:</p> <table><tr><th>Age</th><th>Police</th><th>Municipal</th><th>Age</th><th>Police</th><th>Municipal</th></tr><tr><td>50</td><td>0.36</td><td>N/A</td><td>60</td><td>0.22</td><td>0.10</td></tr><tr><td>51</td><td>0.22</td><td>N/A</td><td>61</td><td>0.30</td><td>0.10</td></tr><tr><td>52</td><td>0.18</td><td>N/A</td><td>62</td><td>0.39</td><td>0.40</td></tr><tr><td>53</td><td>0.19</td><td>N/A</td><td>63</td><td>0.48</td><td>0.20</td></tr><tr><td>54</td><td>0.19</td><td>N/A</td><td>64</td><td>0.57</td><td>0.20</td></tr><tr><td>55</td><td>0.20</td><td>0.05</td><td>65</td><td>0.65</td><td>1.00</td></tr><tr><td>56</td><td>0.20</td><td>0.05</td><td>66</td><td>0.74</td><td>1.00</td></tr><tr><td>57</td><td>0.20</td><td>0.05</td><td>67</td><td>0.83</td><td>1.00</td></tr><tr><td>58</td><td>0.21</td><td>0.05</td><td>68</td><td>0.91</td><td>1.00</td></tr><tr><td>59</td><td>0.21</td><td>0.05</td><td>69</td><td>1.00</td><td>1.00</td></tr></table>	Age	Police	Municipal	Age	Police	Municipal	50	0.36	N/A	60	0.22	0.10	51	0.22	N/A	61	0.30	0.10	52	0.18	N/A	62	0.39	0.40	53	0.19	N/A	63	0.48	0.20	54	0.19	N/A	64	0.57	0.20	55	0.20	0.05	65	0.65	1.00	56	0.20	0.05	66	0.74	1.00	57	0.20	0.05	67	0.83	1.00	58	0.21	0.05	68	0.91	1.00	59	0.21	0.05	69	1.00	1.00
Age	Police	Municipal	Age	Police	Municipal																																																														
50	0.36	N/A	60	0.22	0.10																																																														
51	0.22	N/A	61	0.30	0.10																																																														
52	0.18	N/A	62	0.39	0.40																																																														
53	0.19	N/A	63	0.48	0.20																																																														
54	0.19	N/A	64	0.57	0.20																																																														
55	0.20	0.05	65	0.65	1.00																																																														
56	0.20	0.05	66	0.74	1.00																																																														
57	0.20	0.05	67	0.83	1.00																																																														
58	0.21	0.05	68	0.91	1.00																																																														
59	0.21	0.05	69	1.00	1.00																																																														
WITHDRAWAL	<p>Representative withdrawal rates by age are:</p> <table><tr><th>Age</th><th>Police</th><th>Municipal</th></tr><tr><td>20</td><td>0.0500</td><td>0.3000</td></tr><tr><td>30</td><td>0.0416</td><td>0.0500</td></tr><tr><td>40</td><td>0.0119</td><td>0.0300</td></tr><tr><td>50</td><td>0.0000</td><td>0.0100</td></tr><tr><td>60</td><td>0.0000</td><td>0.0001</td></tr></table>	Age	Police	Municipal	20	0.0500	0.3000	30	0.0416	0.0500	40	0.0119	0.0300	50	0.0000	0.0100	60	0.0000	0.0001																																																
Age	Police	Municipal																																																																	
20	0.0500	0.3000																																																																	
30	0.0416	0.0500																																																																	
40	0.0119	0.0300																																																																	
50	0.0000	0.0100																																																																	
60	0.0000	0.0001																																																																	



Item	12/31/2016 Valuation																				
DISABILITY	<p>Sample rates by age are:</p> <table><tr><th>Age</th><th>Police</th><th>Municipal</th></tr><tr><td>25</td><td>0.0013</td><td>0.001</td></tr><tr><td>35</td><td>0.0044</td><td>0.002</td></tr><tr><td>45</td><td>0.0108</td><td>0.002</td></tr><tr><td>55</td><td>0.0159</td><td>0.002</td></tr><tr><td>65</td><td>0.0159</td><td>0.002</td></tr></table>	Age	Police	Municipal	25	0.0013	0.001	35	0.0044	0.002	45	0.0108	0.002	55	0.0159	0.002	65	0.0159	0.002		
Age	Police	Municipal																			
25	0.0013	0.001																			
35	0.0044	0.002																			
45	0.0108	0.002																			
55	0.0159	0.002																			
65	0.0159	0.002																			
PARTICIPATION	100% of employees currently enrolled in medical plans were assumed to participate in the plan.																				
SPOUSE INFORMATION	50% of employees were assumed to have participating spouses. Females were assumed to be 3 years younger than males.																				
HEALTH CARE COST INFLATION RATES	<table><tr><th>Period</th><th>Rates</th></tr><tr><td>2016</td><td>8.5%</td></tr><tr><td>2017</td><td>8.0%</td></tr><tr><td>2018</td><td>7.5%</td></tr><tr><td>2019</td><td>7.0%</td></tr><tr><td>2020</td><td>6.5%</td></tr><tr><td>2021</td><td>6.0%</td></tr><tr><td>2022</td><td>5.5%</td></tr><tr><td>2023</td><td>5.0%</td></tr><tr><td>2024 and after</td><td>4.5%</td></tr></table>	Period	Rates	2016	8.5%	2017	8.0%	2018	7.5%	2019	7.0%	2020	6.5%	2021	6.0%	2022	5.5%	2023	5.0%	2024 and after	4.5%
Period	Rates																				
2016	8.5%																				
2017	8.0%																				
2018	7.5%																				
2019	7.0%																				
2020	6.5%																				
2021	6.0%																				
2022	5.5%																				
2023	5.0%																				
2024 and after	4.5%																				





**SECTION FIVE:  
PARTICIPANT DATA**

**SUMMARY AS OF DECEMBER 31, 2016**

	Police	Municipal	Total
Active Participants	34	80	114
PSEBA Disabled Participants	4	0	4
Retired Participants	1	2	3
Total	<b>39</b>	<b>82</b>	<b>121</b>



# AGE AND SERVICE DISTRIBUTION AS OF DECEMBER 31, 2016

## POLICE

### ACTIVE EMPLOYEE PARTICIPANTS

Age Group	Service									Total
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40+	
Under 20										0
20 - 24	1									1
25 - 29	7	1								8
30 - 34	1	5								6
35 - 39			3	1						4
40 - 44		1	2	5						8
45 - 49			1	1						2
50 - 54				1		2				3
55 - 59				1			1			2
60 - 64										0
65 & Over										0
<b>Total</b>	<b>9</b>	<b>7</b>	<b>6</b>	<b>9</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>34</b>

Average Age: 38.4 years  
Average Length of Service: 11.5 years

## MUNICIPAL

### ACTIVE EMPLOYEE PARTICIPANTS

Age Group	Service									Total
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40+	
Under 20	1									1
20 - 24	2									2
25 - 29	2	4								6
30 - 34	8	2								10
35 - 39	1	2	2							5
40 - 44	5	3	1							9
45 - 49	2	4	3							9
50 - 54	3	3	1	2		1				10
55 - 59	1	2	2	2		1	1	4		13
60 - 64	3	4	2	1	1			2		13
65 & Over		1							1	2
<b>Total</b>	<b>28</b>	<b>25</b>	<b>11</b>	<b>5</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>6</b>	<b>1</b>	<b>80</b>

Average Age: 47.0 years  
Average Length of Service: 10.7 years



## SECTION SIX: SUMMARY OF PRINCIPAL PLAN PROVISIONS

Item	Provision
<b>ELIGIBILITY</b>	<p>Employees are eligible to retire from the Village of Bensenville and continue their health coverage after meeting the age and service requirements for retirement.</p> <p><u>Police</u> Age 50 and 20 years of service.</p> <p><u>Municipal</u> Age 55 and 25 years of service; or age 60 and 8 years of service; or combined age and service of 85.</p>
<b>BENEFIT AMOUNT</b>	<p>Retirees and their dependents may continue coverage under The Village of Bensenville's group health program by contributing a monthly premium. They may participate in any of the plans available to active employees.</p> <p><u>Municipal</u> Retirees prior to age 65 contribute the blended average employee group cost. After age 65, retirees pay the full Medicare eligible cost of coverage.</p> <p>The Village pays the difference between the actuarial cost of the health coverage for retirees and the blended average employee group cost.</p> <p><u>Police</u> Retirees prior to age 65 contribute the blended average employee group cost. After age 65, retirees pay the full Medicare eligible cost of coverage.</p> <p>The Village pays the difference between the actuarial cost of the health coverage for retirees and the blended average employee group cost.</p> <p>Disabled officers and their spouses continue coverage at no cost, fully paid for by the Village.</p>

