



**VILLAGE OF CARPENTERSVILLE
CARPENTERSVILLE POLICE PENSION FUND**

Actuarial Valuation Report

For the Year

Beginning May 1, 2011

And Ending April 30, 2012

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

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INTRODUCTION

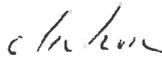
Police-sworn personnel of the Village of Carpentersville are covered by the Police Pension Plan that is a defined-benefit, single-employer pension plan. The purpose of this report is to disclose the Tax Levy Requirement and GASB Statements No. 25 & 27 financial information and related actuarial information for the year beginning May 1, 2011, and ending April 30, 2012.

The valuation results reported herein are based on plan provisions in effect as of May 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 April 30, 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



Date

SUMMARY OF RESULTS

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, 4 retirement, 1 incident of disability, annual payroll increase -5.5%, average salary increase 2.4%).

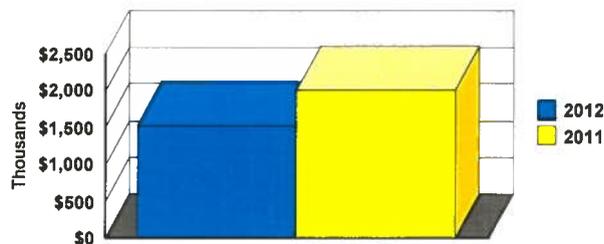
There were no unexpected changes with respect to the Fund's investments from the prior year (annual investment return 12.57%).

The Village's Tax Levy Requirement has decreased from \$2,029,901 last year to \$1,533,426 this year (24.5%). The decrease in the Tax Levy is due to the changes referenced above, the investment return was greater than assumed and salaries increased less than assumed. The Percent Funded has increased from 49.7% last year to 57.0% this year.

SUMMARY OF RESULTS (Continued)

	For Year Ending April 30	
	<u>2012</u>	<u>2011</u>
Tax Levy Requirement	\$ 1,533,426	\$ 2,029,901
		as of May 1
	<u>2011</u>	<u>2010</u>
Village Normal Cost	837,304	762,862
Anticipated Employee Contributions	495,616	524,316
Accrued Liability	44,435,270	44,558,123
Actuarial Value of Assets	25,317,418	22,124,891
Unfunded Accrued Liability/(Surplus)	19,117,852	22,433,232
Amortization of Unfunded Accrued Liability/(Surplus)	595,804	1,134,242
Percent Funded	57.0%	49.7%
Annual Payroll	\$ 5,001,167	\$ 5,290,773

TAX LEVY REQUIREMENT
as of April 30

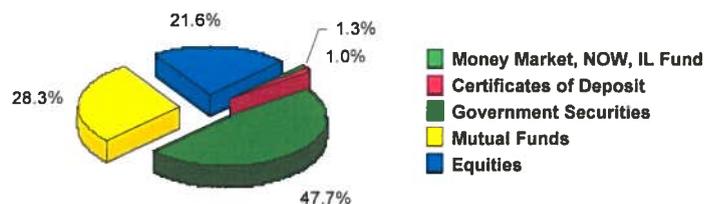


ACTUARIAL VALUATION OF ASSETS

		as of May 1	
		<u>2011</u>	<u>2010</u>
Money Market, NOW, IL Fund	\$	338,346	\$ 418,622
Certificates of Deposit		250,000	0
Government Securities		12,029,125	11,236,939
Mutual Funds		7,128,290	4,805,336
Common Stock		5,452,463	5,557,149
Interest Receivable		101,438	88,929
Miscellaneous Receivable/(Payable)		<u>17,757</u>	<u>17,916</u>
Actuarial Value of Assets	\$	<u>25,317,418</u>	\$ <u>22,124,891</u>

SUMMARY OF ASSETS

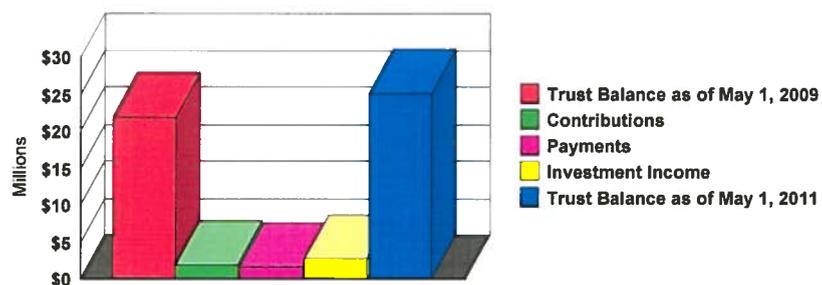
As Of May 1, 2011



ASSET CHANGES DURING PRIOR YEAR

Trust Balance as of May 1, 2010		\$	22,124,891
Contributions			
Village	1,667,375		
Employee	<u>488,834</u>		
Total			2,156,209
Payments			
Benefit Payments	1,599,753		
Expenses	<u>169,798</u>		
Total			1,769,551
Investment Income			<u>2,805,869</u>
Trust Balance as of May 1, 2011		\$	<u>25,317,418</u>
Approximate Annual Rate of Return			12.57%

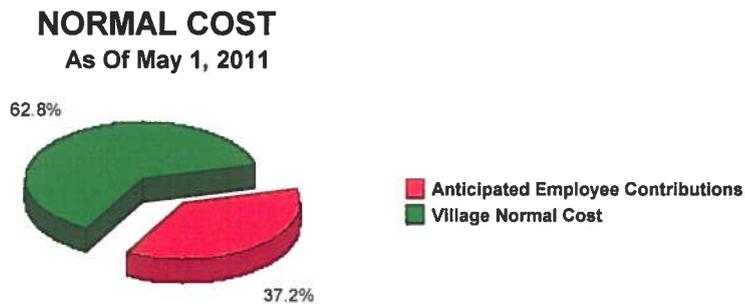
ASSET CHANGES DURING PRIOR YEAR



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.

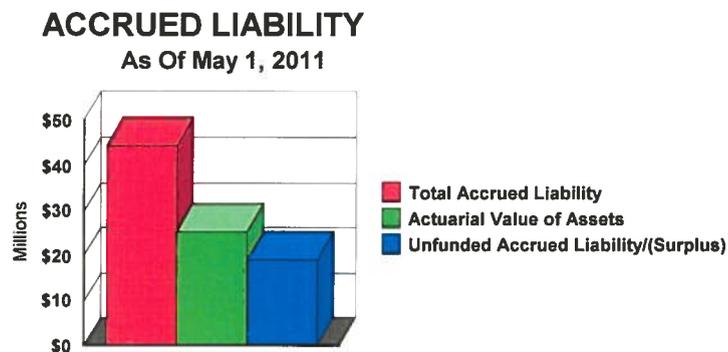
		as of May 1	
		<u>2011</u>	<u>2010</u>
Total Normal Cost	\$	1,332,920	\$ 1,287,178
Anticipated Employee Contributions		<u>495,616</u>	<u>524,316</u>
Village Normal Cost		<u>837,304</u>	<u>762,862</u>
Normal Cost Payroll	\$	5,001,167	\$ 5,290,773
Village Normal Cost Rate		16.74%	14.42%
Total Normal Cost Rate		26.65%	24.33%



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>2011</u>	<u>2010</u>
Active Employees	\$ 22,062,584	\$ 24,805,946
Children Annuities	0	0
Disability Annuities	5,707,594	5,092,815
Retirement Annuities	15,244,668	12,756,145
Surviving Spouse Annuities	362,793	377,126
Terminated Vested Annuities	<u>1,057,631</u>	<u>1,526,091</u>
Total Annuities	22,372,686	19,752,177
Total Accrued Liability	44,435,270	44,558,123
Actuarial Value of Assets	<u>25,317,418</u>	<u>22,124,891</u>
Unfunded Accrued Liability/(Surplus)	\$ <u>19,117,852</u>	\$ <u>22,433,232</u>
Percent Funded	57.0%	49.7%

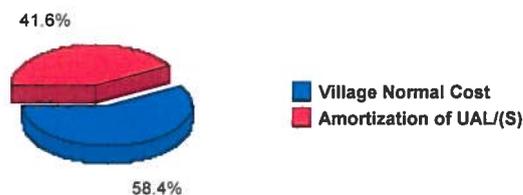


TAX LEVY REQUIREMENT

The Public Act 096-1495 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.

	For Year Ending April 30	
	<u>2012</u>	<u>2011</u>
Village Normal Cost as of Beginning of Year	\$ 837,304	\$ 762,862
Amortization of Unfunded Accrued Liability/(Surplus)	595,804	1,134,242
Interest for One Year	<u>100,318</u>	<u>132,797</u>
Tax Levy Requirement as of End of Year	\$ <u>1,533,426</u>	\$ <u>2,029,901</u>
Public Act 096-1495 Tax Levy Requirement		
1) Normal Cost (PUC)	837,304	
2) Accrued Liability (PUC)	44,435,270	
3) Amortization Payment	595,804	
4) Interest for One Year	100,318	
5) PA 096-1495 Tax Levy Requirement (1 + 3 + 4)	\$ 1,533,426	

TAX LEVY REQUIREMENT For Fiscal Year Ending April 30, 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>2011</u>	<u>2011</u>	<u>2010</u>	<u>2010</u>
Current Employees				
Vested	41		43	
Nonvested	<u>20</u>		<u>23</u>	
Total	<u>61</u>		<u>66</u>	
Inactive Participants		<u>Annual Benefits</u>		<u>Annual Benefits</u>
Children	0 \$	0	0 \$	0
Disabled Employees	9	381,959	8	326,628
Retired Employees	24	1,236,884	21	1,032,472
Surviving Spouses	3	68,194	3	68,194
Terminated Vesteds	<u>4</u>	<u>107,589</u>	<u>3</u>	<u>98,595</u>
Total	<u>40</u>	<u>1,794,626</u>	<u>37</u>	<u>1,525,889</u>
Annual Payroll	\$	5,001,167	\$	5,290,773

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	3	3						6	73,657
30-34	5	6						11	73,494
35-39	2	7	6					15	80,003
40-44		2	4	6	3			15	84,131
45-49			4	1	2	1		8	87,326
50-54				1	1	2	1	5	98,084
55-59						1		1	99,739
60+									
Total	<u>10</u>	<u>18</u>	<u>14</u>	<u>8</u>	<u>6</u>	<u>4</u>	<u>1</u>	<u>61</u>	<u>81,986</u>
Salary	69,818	79,256	81,935	82,943	93,162	98,601	112,375		

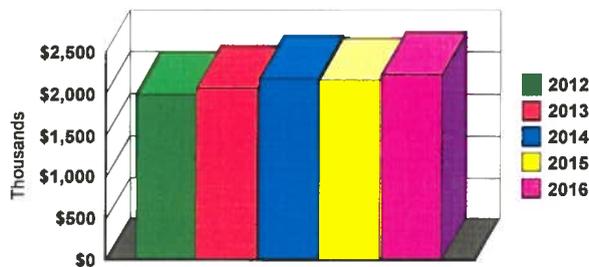
Average Age: 39.3 Average Service: 11.9

DURATION (years) Active Members: 18.3 Retired Members: 9.3 All Members: 13.8

PROJECTED PENSION PAYMENTS

<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
\$2,018,537	\$2,067,917	\$2,189,750	\$2,187,418	\$2,253,663

**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 Carpentersville 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 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 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, 2011
Asset Valuation Method	Market Value
Investment Return	7.00%
Salary Scale	5.50%
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	0.08	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, 2011</u>	<u>April 30, 2010</u>
Retirees and beneficiaries receiving benefits	36	34
Terminated plan members entitled to but not yet receiving benefits	4	3
Active vested plan members	41	43
Active nonvested plan members	<u>20</u>	<u>23</u>
Total	<u>101</u>	<u>103</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	19,786,786	38,418,744	18,631,958	51.5%	5,122,002	363.8%
	04/30/10	22,124,891	44,558,123	22,433,232	49.7%	5,290,773	424.0%
	04/30/11	25,317,418	44,435,270	19,117,852	57.0%	5,001,167	382.3%

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

ANNUAL PENSION COST AND NET PENSION OBLIGATION

	<u>April 30, 2011</u>	<u>April 30, 2010</u>
Annual required contribution	1,668,121	1,668,121
Interest on net pension obligation	114,181	112,123
Adjustment to annual required contribution	<u>(83,646)</u>	<u>(79,242)</u>
Annual pension cost	1,698,656	1,701,002
Contributions made	<u>1,667,375</u>	<u>1,671,599</u>
Increase (decrease) in net pension obligation	31,281	29,403
Net pension obligation beginning of year	<u>1,631,164</u>	<u>1,601,761</u>
Net pension obligation end of year	<u>1,662,445</u>	<u>1,631,164</u>

THREE-YEAR TREND INFORMATION

Fiscal Year <u>Ending</u>	Annual Pension Cost (APC) <u>Cost (APC)</u>	Percentage of APC Contributed <u>Contributed</u>	Net Pension Obligation <u>Obligation</u>
04/30/08	1,472,264	81.8%	1,601,761
04/30/10	1,701,002	98.3%	1,631,164
04/30/11	1,698,656	98.2%	1,662,445

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

FUNDING POLICY AND ANNUAL PENSION COST

Contribution rates:

Village	33.34%	31.59%
Plan members	9.91%	Same
Annual pension cost	1,698,656	1,701,002
Contributions made	1,667,375	1,671,599
Actuarial valuation date	04/30/2011	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*	7.00%	same
Projected salary increases*	5.50%	same
*Includes inflation at	3.00%	same
Cost-of-living adjustments	3.00% per year	same